COMNAVAIRFORINST 4790.2E

28 Oct 2024

THE NAVAL AVIATION MAINTENANCE PROGRAM (NAMP)

Record of Changes

Chapter 1	Overview of the Naval Aviation Maintenance Program (NAMP) and Guide to the NAMP Instruction
Chapter 2	Chief of Naval Operation and Commandant of the Marine Corps, System Commands, Aircraft Controlling, Navy Type Wings and Marine Air Wing, and Operational Commanders
Chapter 3	Maintenance Concepts, Maintenance Activity Standard Organization; Aviation Maintenance Officer Qualifications; Command, Department, Division, Branch and Work Center Management Responsibilities
Chapter 4	Marine Aviation Logistics Squadron (MALS) Maintenance, Ordnance, Supply Activity Organization, and Information Management Support
Chapter 5	O-level Maintenance Control; I-level Production; Aircraft, Engine, and Equipment Inspection; Aircraft Acceptance, Transfer, and Ferry
Chapter 6	Material Management and Control
Chapter 7	Quality Assurance (QA)
Chapter 8	Aircraft and Aeronautical Equipment Logbooks and Records
Chapter 9	Aircraft Inventory Management and Material Condition Reporting
Chapter 10	Naval Aviation Maintenance Program Standard Operating Procedures (NAMPSOPs)
Chapter 11	Contract Maintenance, Commercial Derivative Aircraft Maintenance Programs, and Common Support Policies
Chapter 12	COMNAVAIRSYSCOM Aviation Depot Level Industrial Program, Depot Special Process Certification, and Naval Air Technical Data and Engineering Service Center (NATEC) Engineering Technical Services (ETS)
Chapter 13	Naval Aviation Logistics Command Management Information System (NALCOMIS)
Chapter 14	Maintenance Data System (MDS), Maintenance Data Reports (MDR), and Data Analysis
Chapter 15	Organizational Level (O-Level) Maintenance Documentation Procedures
Chapter 16	Intermediate Level (I-Level) Maintenance Documentation Procedures
Appendix A	Acronyms, Abbreviations, and Definitions
Appendix B	Forms and Reports
Appendix C	Directives
Appendix D	Local Command Procedures
Appendix E	Maintenance Documentation Codes
Appendix F	Data Entry Procedures

OIX GATEWAY NORFOLK VA SUCCESSFUL PROCESSING REPORT: COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-06/
GOES MSG_ID: 120001574081

RAAUZYUW RUCOSSA0001 3271501-UUUU--RHMCSUU.
ZNR UUUUU
R 221501Z NOV 24 ZYB MID120001574081U
FM COMNAVAIRPAC SAN DIEGO CA
TO AIG 428
INFO COMNAVAIRFOR SAN DIEGO CA
COMNAVAIRLANT NORFOLK VA
COMNAVAIRSYSCOM PATUXENT RIVER MD
BT
UNCLAS
PASS TO OFFICE CODES: COMNAVAIRFOR SAN DIEGO CA/N40/N41/N42/N422//
COMNAVAIRLANT NORFOLK VA/N40/N41/N421/N423//
MSGID/GENADMIN/COMNAVAIRFOR SAN DIEGO CA//
SUBJ/COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-06/
ACTIVE AMA LIST//
REF/A/MSGID:DOC/COMNAVAIRFORINST 4790.2E/28OCT2024//
AMPN/REF A IS THE NAVAL AVIATION MAINTENANCE PROGRAM.//
POC/K. PAULSON/CIV/CNAP N422B5/SAN DIEGO CA/
TEL:619-545-1455/TEL:DSN 735-1455/
EMAIL:KELLY.J.PAULSON.CIV@US.NAVY.MIL//
GENTEXT/REMARKS/1. The following is a list of active Aviation Maintenance Advisories (AMAs) applicable to REF A. All other AMAs are canceled and must be removed from required reading. This advisory is applicable to O-/I-/D-level aviation activities.
2. Applicable active AMAs (Read in three columns):

AMA Number	Subject	Level of Maintenance
AMA 2024-04	CMT_SERIALIZATION_CAD	O-/I-/D-Level
AMA 2024-05	2M SITE CERTIFICATION	I-/D-Level

3. The published NAMP now references active AMAs. Activities are highly encouraged to redownload the NAMP once new AMAs are issued to ensure the activity has use of the hyperlinked AMAs.
4. The NAMP Mobile App is now available and may be downloaded at
Apple App Store:
https://apps.apple.com/us/app/navair-namp/id6450549843
Google Play Store:
https://play.google.com/store/apps/details?id=com.navair.namp
The App allows instant access to NAMP and current AMAs while ensuring the most up-to-date information is always provided.
5. CNAF N422C has developed Discussion Boards, NAMPSOP Lesson Guides, and offers additional products within Microsoft Teams. For members with @us.navy.mil addresses, requests may be made on behalf of users by individuals with current access to the CNAF N422C Team by right-clicking on CNAF N422C and selecting (Add member). You may enter the individual name or email address;

they will then be placed in a queue for approval. All non-@us.navy.mil email users must submit requests via email to CNAF_AMMT@us.navy.mil
6. Open-facing (non-CAC required) access to the NAMP is available at NAVAIR URL: https://www.navair.navy.mil/Naval-Aviation-Maintenance-Program.//
BT
#0001
NNNN
<DmdsSecurity>UNCLASSIFIED//</DmdsSecurity>
<DmdsReleaser>HICKMAN.VANCE.ANDREW W.1572173840</DmdsReleaser>

OIX GATEWAY NORFOLK VA SUCCESSFUL PROCESSING REPORT: COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-05/
GOES MSG_ID: 120001574080

RAAUZYUW RUCOSSA0001 3270901-UUUU--RHMCSUU.
ZNR UUUUU
R 220901Z NOV 24 ZYB MID120001574080U
FM COMNAVAIRPAC SAN DIEGO CA
TO AIG 428
INFO COMNAVAIRFOR SAN DIEGO CA
COMNAVAIRLANT NORFOLK VA
COMNAVAIRSYSCOM PATUXENT RIVER MD
BT
UNCLAS
PASS TO OFFICE CODES: COMNAVAIRFOR SAN DIEGO CA/N40/N41/N42/N422//
COMNAVAIRLANT NORFOLK VA/N40/N41/N421/N423//
MSGID/GENADMIN/COMNAVAIRFOR SAN DIEGO CA//
SUBJ/COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-05/
2M SITE CERTIFICATION PROCESS//
REF/A/DOC/COMNAVAIRFORINST 4790.2E/28OCT2024 //
REF/B/DOC/NAVAIR SE-004-PQS-000 REVISION 7/30JUN2023//
REF/C/DOC/NAVAIR 01-1A-23/30JUN2023//
NARR/ REF A IS THE NAVAL AVIATION MAINTENANCE PROGRAM. REF B IS THE CERTIFICATION MANUAL FOR MINIATURE/MICROMINIATURE ELECTRONICS MODULE TEST AND REPAIR/FIBER OPTIC TEST AND REPAIR (2M/MTR/FOTR) PROGRAM ORGANIZATIONAL/INTERMEDIATE/DEPOT LEVEL. REF C IS THE STANDARD MAINTENANCE PRACTICES MINIATURE/MICROMINIATURE (2M) ELECTRONICS ASSEMBLY REPAIR.//
POC/K.PAULSON/CIV/COMNAVAIRPAC N422B5/SAN DIEGO CA/
TEL: 619-545-1455/TEL:DSN 735-1455/
EMAIL: KELLY.J.PAULSON.CIV@US.NAVY.MIL//
GENTEXT/REMARKS/1. The purpose of this AMA is to provide guidance, and to update REF A requirements in NAMPSOP 10.22 Miniature/Microminiature (2M) Program to align with the NAVAIR SE-004-PQS-000 REVISION 7. This Advisory is applicable to all Navy and Marine Corps Intermediate and Depot Level activities, and is required reading.
2. REF B removes Navy and Marine Corps I-Level and D-Level 2M/MTR site certification responsibilities from COMNAVAIRFOR and NAVAIR Aviation Maintenance Management Teams (AMMT), and gives site certification authority directly to the individual activities.
I-Level and D-Level activities will now qualify and designate a 2M Program Manager as the NAVAIR 2M/MTR Inspector Program Manager per REF B, WP 002 00 and Appendix G-1, page G1-1 for JQR (available in Advanced Skills Management (ASM)), who will perform their initial site's certification per REF B, and perform recertification every 18 months. REF B requirements for E-7 and above, or General Schedule (GS) 12 and above, do not apply to I-Level and D-Level

aviation activities. The Maintenance Officer (called out as the Aviation Maintenance Officer in REF B) is required to review and sign 2M/MTR Inspector JQR, designation, and site certification/ recertification letters per REF B under Initial Certification Reporting Requirements and Recertification Reporting Requirements.
3. Activities with current 2M Site Certification Letters (certified by a COMNAVAIRFOR or NAVAIR AMMT 2M Evaluator) stating, "This certification will expire upon the next scheduled Aviation Maintenance Inspection or in the event that 2M stations are relocated to a new workspace" will remain valid. AMMTs will continue to certify 2M sites until 6 months after the release of this message.
4. Delete the following paragraphs from REF A, Chapter 10.22:
4a. 10.22.4.1.a. through d.
4b. 10.22.4.2.a. through c.
4c. 10.22.4.3.a. through d.
4d. 10.22.4.4
5. The following additions apply to REF A, Chapter 10.22 paragraphs:
5a. 10.22.4.1 COMNAVAIRFOR and NAVAIR Aviation Maintenance Management Teams (AMMT).
Validate 2M repair sites are in compliance with NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000 2M program requirements during the site's Aviation Maintenance Inspection (AMI).
5b. 10.22.4.2 Maintenance Officer (MO).
5c. 10.22.4.2.a. Designate in writing a senior technician (usually the 2M Work Center Supervisor) possessing Navy NEC 772B or Marine MOS 6423, as the Program Manager and NAVAIR 2M/MTR Inspector in accordance with NAVAIR SE-004-PQS-000 Appendix G-1 page G1-1 through G1-4 per 10.1.2.9.
5d. 10.22.4.2.b. Review and sign 2M/MTR repair site certification letter per NAVAIR SE-004-PQS-000.
5e. 10.22.4.2.c. Provide 2M/MTR repair site certification results to Commanding Officer.
5f. 10.22.4.2.d. Designate in writing all 2M Technician Recertifiers per 10.1.2.9.
5g. 10.22.4.2.e. Publish a Local Command Procedure (LCP) per Appendix D, if required, to direct geographic or command-directed actions for 2M/MTR not addressed in this NAMPSOP.
5h. 10.22.4.3 Program Manager.
5i. 10.22.4.3.a. Meet all requirements and be designated per NAVAIR SE-004-PQS-000 as the NAVAIR 2M/MTR Inspector.
5j. 10.22.4.3.b. Upload designation from ASM to the 2M/MTR/FOTR website at https://intelshare.intelink.gov/sites/2m-mtr-database/_layouts/15/start.aspx as the NAVAIR 2M/MTR Inspector.
NOTE: Uploading of the ASM designation is required for elevated access in the 2M/MTR/FOTR database.
5k. 10.22.4.3.c. Perform a program audit within 60 days of assignment as Program Manager and annually thereafter, per paragraph

10.7.4.8.
5l. 10.22.4.3.d. Coordinate corrective action of program audit discrepancies.
5m. 10.22.4.3.e. Provide NAMP indoctrination on Miniature/ Microminiature (2M) Program per 10.1.4.7. Verify personnel receive 2M familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.
5n. 10.22.4.3.f. Certify 2M repair sites every 18 months in compliance with NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000 2M program requirements. Route completed site certification letters to Maintenance Officer via Program Monitor, reviewed by Quality Assurance Officer and briefed to Commanding Officer.
NOTE: Per NAVAIR SE-004-PQS-000, site recertification is required if a 2M workstation is relocated to a different room, building, or Mobile Facility (MF). The Industrial Hygiene Survey must be conducted on the new facility prior to moving the equipment to verify the new site meets the requirements of NAVAIR 01-1A-23.
5o. 10.22.4.3.g. Maintain a program file to include:
(1) List of 2M certified technicians, including name, rate, work center, certification level, date of last certification/recertification, next recertification due date, and projected rotation date.
(2) Copies of 2M Certification Identification Cards for all qualified technicians.
(3) List of 2M workstations per NAVAIR SE-004-PQS-000, Appendix F, including equipment location and serial numbers.
(4) POCs
(5) Program related correspondence and message traffic
(6) References or cross-reference locator sheets
(7) Current Computerized Self Evaluation Checklist (CSEC) audit
(8) Completed and signed NAVAIR 2M/MTR Inspector JQR and designation
(9) Current 2M/MTR Site Certification.
5p. 10.22.4.4 Quality Assurance Officer.
5q. 10.22.4.4.a. The QAO will designate an avionics QAR as the 2M Program Monitor per 10.1.2.9.
5r. 10.22.4.4.b. Review and route NAVAIR 2M/MTR Inspector JQR and designation per NAVAIR SE-004-PQS-000.
5s. 10.22.4.4.c. Review and route 2M/MTR repair site certification or recertification per NAVAIR SE-004-PQS-000 and 01-1A-23.
5t. 10.22.4.5 QA 2M Program Monitor.
5u. 10.22.4.5.d. Sign initial qualification for NAVAIR 2M/MTR Inspector per NAVAIR SE-004-PQS-000, Appendix G-1, page G1-1 through G1-4.
5v. 10.22.4.5.e. Perform observation and instruction during certification of the 2M/MTR Inspector per NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000, WP 002 00.
6. Corrections, changes, and deviations may be submitted

to namp_policy@us.navy.mil.
7. The NAMP Mobile App is now available and may be downloaded at
Apple App Store:
https://apps.apple.com/us/app/navair-namp/id6450549843
Google Play Store:
https://play.google.com/store/apps/details?id=com.navair.namp
The App allows instant access to NAMP and current AMAs while
ensuring the most up-to-date information is always provided.
8. CNAF N422C has developed Discussion Boards, NAMPSOP Lesson
Guides, and offers additional products within Microsoft Teams.
For members with @us.navy.mil addresses, requests may be made
on behalf of users by individuals with current access to
the CNAF N422C Team by right-clicking on CNAF N422C and selecting
(Add member). You may enter the individual name or email address;
they will then be placed in a queue for approval. All
non-@us.navy.mil email users must submit requests via email to
CNAF_AMMT@us.navy.mil.//
BT
#0001
NNNN
<DmdsSecurity>UNCLASSIFIED//</DmdsSecurity>
<DmdsReleaser>HICKMAN.VANCE.ANDREW W.1572173840</DmdsReleaser>

OIX GATEWAY NORFOLK VA SUCCESSFUL PROCESSING REPORT: COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-04/
GOES MSG_ID: 120001464706

RTTUZYUW RHOIAAA0001 2892031-UUUU--RHSSSUU.
ZNR UUUUU
R 150815Z OCT 24 ZYB MID120001464706U
FM COMNAVAIRPAC SAN DIEGO CA
TO AIG 428
INFO COMNAVAIRFOR SAN DIEGO CA
COMNAVAIRLANT NORFOLK VA
COMNAVAIRSYSCOM PATUXENT RIVER MD
BT
UNCLAS
PASS TO OFFICE CODES: COMNAVAIRFOR SAN DIEGO CA/N40/N41/N42/N422//
COMNAVAIRLANT NORFOLK VA/N40/N41/N421/N423//
MSGID/GENADMIN/COMNAVAIRFOR SAN DIEGO CA//
SUBJ/COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-04/
COMPONENT MANAGEMENT TOOL VERIFICATION, SERIALIZATION, IMA
DOCUMENTATION//
REF/A/DOC/COMNAVAIRFORINST 4790.2D CHG-1/15FEB2022//
AMPN/ REF A IS THE NAVAL AVIATION MAINTENANCE PROGRAM.//
POC/K.PAULSON/CIV/COMNAVAIRPAC N422B5/
SAN DIEGO, CA/TEL: 619-545-1455/TEL: DSN 735-1455/
EMAIL: KELLY.J.PAULSON.CIV@US.NAVY.MIL//
GENTEXT/REMARKS/1. The purpose of this advisory is to provide direction to establish a Component Management Tool (CMT) account within DECKPLATE, and guidance to reference A, Chapter 8 serialization, and duplicate Automated Logset (ALS) Record verifications. Additionally, this advisory updates and corrects documentation of Cartridges (CARTs), Cartridge Actuated Devices (CADs), and Propellant Actuated Devices (PADs) removal and replacement at the IMA discussed in ref. A, Chapter 16, and updates Transaction Code 31 in Appendix E.
This advisory is applicable to all Navy and Marine Corps Organizational, Intermediate, and Contractor Maintenance activities subject to the NAMP. All content of this AMA is required reading.
2. CMT is intended to be utilized by fleet users to aid in querying, identifying, and mitigating data questions and inaccuracies within the replicated information coming from various Management Information Systems. All Configuration Management Automated Logset (CM ALS) Administrators are required to establish CMT accounts via https://deckplate.navair.navy.mil/deckals. The URL will be updated at a future date, but this original URL will automatically redirect after the transition. Once account is established, the user will request the additional "Review Request" role/permission, to enable notifications any time new requests are generated against records within the user's activity/organization.

3. The following updates are applicable to ref. A Chapter 8, adding paragraphs 8.1.2.3 and notes on serialization, 8.3.3.2(c)(4) for screening CM Report Serial Numbers, and 8.3.3.3(d) for quarterly duplicate ALS verification. Updates are as follows:

3a. 8.1.2.3

When items are identified without a serial number, the activity will assign one to the component using the guidance of the governing T/M/S Periodic Maintenance Information Card (PMIC), or the activity will create one utilizing their three-digit ORG code and a three-digit numerical number (for example, P9A319). A serialization log will be used to ensure unique serial numbers are created.

Note 1: The created serial number will remain for the life cycle of the item.

Note 2: Items received by the calibration lab without a serial number will follow the guidance of 10.18.3.

3b. 8.3.3.2(c)(4)

Screen all serial number columns of the CM Reports for 'XXX' serial numbers. If present, assign a serial number to the component in accordance with T/M/S PMIC guidance or serialize per paragraph 8.1.2.3 of this advisory.

3c. 8.3.3.3(d)

(O-Level) Perform a quarterly clean-up for duplicate auto-logsets (ALS) using the OOMA Logset Management Tools. The 'duplicate_part_installed_report' will identify a list of actual inventories, by WUC, that have more parts installed than the allowable configuration. The OOMA Logset Management Tools zip file is located on the SAILOR website. Within this zip file, place the 'duplicate_part_installed_report' and 'high_time_report' files in J:\H\NTCSS_APPSRV\DATA\LOGS and look for the file titled 'high_time' or 'duplicate_part_installed'.

4. The following updates are applicable to ref. A, Chapter 16. Update/revise the following paragraphs as follows:

4a. 16.2.3.14 Cartridges (CARTs), Cartridge Actuated Devices (CADs), and Propellant Actuated Devices (PADs) Documentation.

CARTs, CADs and PADs documentation will be used when an end item is turned in to the IMA, requiring only replacement of an installed explosive device. The removal action will be documented in the REMOVED/OLD ITEM section, and the replacement action will be documented in the corrective action of the MAF utilizing Transaction Code 31 or 32 (as appropriate) due to limitations of the OIMA Interface. The WORK UNIT CODE block (A22) must reflect the WUC that is obtained from the WUC manual for the removed repairable component being inspected or repaired. The PART NUMBER block (E23) must reflect the lot number of the device being removed. TIME/CYCLES block (E42) must have an entry using Time/Cycle Prefix Code H and the container open date for CARTs or CADs, and the propellant manufacture date for PADs. An example is in paragraph 16.2.5.133.

NOTE: If the end item is turned in for any other type maintenance,

for example, a special inspection, the explosive device will be documented on the FAILED/INDEX record. Additionally, the lot number, part number, serial number, container open date, and expiration date will be documented in the in-process on the MAF/WO for the original discrepancy.
4b. 16.2.5.133 Removal and Replacement of Cartridges (CART), Cartridge Activated Devices (CAD), and Propellant Actuated Devices (PAD) (I-Level Maintenance).
Figure 16-148 is no longer applicable, a figure will be made available in the CNAF N422C Team on Microsoft Teams or SharePoint website (access required, see notes below).
FAILED/REQUIRED MATERIAL - Record supply requisitions if required for replacement of consumable items.
TRANS - Must be 31 or 32. (Appendix E)
A/T - Must be C. (Appendix E)
MAL CODE - Must be 804. (Appendix E)
INSTALLED/NEW ITEM - This will be left blank due to limitations of the OIMA Interface.
CORRECTIVE ACTION - Enter the narrative description of the corrective action. New items installed will be listed in the corrective action to include part number, serial number, lot number, expiration date, and container open date.
5. The following update is applicable to ref A, Appendix E Maintenance Documentation Codes. Replace Transaction Code 31 with the following: Work performed on a removed repairable component with no failed parts or awaiting parts documented in the Failed/Required Material sections. This action is normally performed at the IMA, to include CARTs, CADs, or PADs replacement. (See TRANS Code 11 for supporting engine document.)
6. NAMP corrections, Changes, and Deviations may be submitted to namp_policy@us.navy.mil per paragraphs 1.2.4, 1.2.5, and 1.2.6.
7. The NAMP Mobile App is now available and may be downloaded at Apple App Store: https://apps.apple.com/us/app/navair-namp/id6450549843
Google Play Store: https://play.google.com/store/apps/details?id=com.navair.namp
The App allows instant access to NAMP and current AMAs while ensuring the most up to date information is always being provided.
8. CNAF N422C has developed Discussion Boards, NAMPSOP Lesson Guides, and offers additional products within Microsoft Teams. For members with @us.navy.mil addresses, requests may be made on behalf of users by individual with current access to the CNAF N422C Team by right-clicking on CNAF N422C and selecting (Add member). You may enter the individual's name or email address; they will then be placed in a queue for approval. All non@us.navy.mil email users must submit requests via email to CNAF_AMMT@us.navy.mil.//
BT
#0001

OIX GATEWAY NORFOLK VA SUCCESSFUL PROCESSING REPORT: COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-07/
GOES MSG_ID: 120001602396

RTTUZYUW RHOIAAA0001 3411510-UUUU--RHSSSUU.
ZNR UUUUU
R 060815Z DEC 24 ZYB MID120001602396U
FM COMNAVAIRPAC SAN DIEGO CA
TO AIG 428
INFO COMNAVAIRLANT NORFOLK VA
COMNAVAIRPAC SAN DIEGO CA
BT
UNCLAS
//
MSGID/GENADMIN/COMNAVAIRFOR SAN DIEGO CA//
SUBJ/COMNAVAIRFOR AVIATION MAINTENANCE ADVISORY (AMA) 2024-07/
SIGNATURE OF PILOT IN COMMAND//
REF/A/MSGID:DOC/COMNAVAIRFORINST 4790.2E/28OCT2024//
AMPN/ REF A IS THE NAVAL AVIATION MAINTENANCE PROGRAM//
POC/K. PAULSON/CIV/UNIT: COMNAVAIRPAC N422B5/
SAN DIEGO CA/TEL:COMM 619-545-1455/TEL:DSN 735-1455/
EMAIL: KELLY.J.PAULSON.CIV@US.NAVY.MIL//
GENTEXT/REMARKS/1. The purpose of this AMA is to provide guidance and direction for the acceptance of the aircraft by the aircrew.
Due to Optimized Organizational Maintenance Activity (OOMA) and the Navy and Marine Corps Intranet (NMCI) connectivity latency issues the Commanding Officer may authorize a hard copy of the Automated Aircraft Discrepancy Book (AADB) prior to the signature of the Aircraft Inspection and Acceptance Record. The signature of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) certifies review of the last 10 flights. All other elements of the Safe for Flight process remain in effect. This Maintenance Advisory is applicable to all Navy and Marine Corps organizational activities operating aircraft and is required reading for maintenance control personnel.
2. Clarification and emphasis on Chapter 5
2.a. Delete 5.1.5.3.a note and add the following notes: Note 1: Hard copy ADBs will contain those items required to determine Safe for Flight or for which the AADB has no functionality and the item is considered essential information. For example, oil consumption, power checks, Weight and Balance forms, and T/M/S peculiar requirements.
Note 2: A hard copy of the AADB may be made available with the "A" Sheet.
2.b. Add a note to 5.1.5.3.c.(5): Note: T/M/S with Maintenance Information System (MIS) database checks are a required element of the ADB, for example, FAME Desktop Checklist.
2.c. Add note to 5.1.6.3 Aircraft Inspection and Acceptance Record

(OPNAV 4790/141). Note 3: Pilot-in-command will annotate the time of acceptance of the aircraft in block 13 on printed Aircraft Inspection and Acceptance Records (OPNAV 4790/141).
3. The NAMP Mobile App is now available and may be downloaded at Apple App Store:
https://apps.apple.com/us/app/navair-namp/id6450549843
Google Play Store:
https://play.google.com/store/apps/details?id=com.navair.namp
The App allows instant access to NAMP and current AMAs while ensuring the most up-to-date information is always provided.
4. CNAF N422C has developed Discussion Boards, NAMPSOP Lesson Guides, and offers additional products within Microsoft Teams. For members with @us.navy.mil addresses, requests may be made on behalf of users by individuals with current access to the CNAF N422C Team by right-clicking on CNAF N422C and selecting (Add member). You may enter the individual name or email address; they will then be placed in a queue for approval. All non-@us.navy.mil email users must submit requests via email to CNAF_AMMT@us.navy.mil
5. Open-facing (non-CAC required) access to the NAMP is available at NAVAIR URL:
https://www.navair.navy.mil/Naval-Aviation-Maintenance-Program.//
BT
#0001
NNNN
<DmdsSecurity>UNCLASSIFIED//</DmdsSecurity>
<DmdsReleaser>TIFT.MADISON.GWEN.1548348591</DmdsReleaser

RECORD OF CHANGES			
CHANGE NO.	DATE OF CHANGE	DATE CHANGE ENTERED	ENTERED BY

CHAPTER 1

Overview of the Naval Aviation Maintenance Program (NAMP) and Guide to the NAMP Instruction

Table of Contents

1.1 Overview of the Naval Aviation Maintenance Program (NAMP)..... 1

1.1.1 Purpose 1

1.1.2 Sponsorship and Administration.....1

1.1.3 Objective.....1

1.1.4 Core Principles.....1

1.2 Guide to the NAMP Instruction 1

1.2.1 Format.....2

1.2.1.1 Pages 2

1.2.1.2 Figures.....2

1.2.1.3 Directives 2

1.2.2 Definitions 2

1.2.3 Terms 2

1.2.4 Corrections.....4

1.2.5 Changes.....4

1.2.6 Deviations 4

Figure 1-1 Change Recommendation Letter..... 6

Figure 1-2 Change Proposal 7

Figure 1-3 NAMP Deviation Request Letter..... 8

CHAPTER 1

Overview of the Naval Aviation Maintenance Program (NAMP) and Guide to the NAMP Instruction

1.1 Overview of the Naval Aviation Maintenance Program (NAMP)

1.1.1 Purpose

The NAMP directs maintenance policies, procedures, and responsibilities at all levels of maintenance throughout naval aviation.

1.1.2 Sponsorship and Administration

The NAMP is sponsored and directed by the Chief of Naval Operations (CNO) through OPNAVINST 4790.2 and is administered and managed by Commander Naval Air Forces (CNAF) via COMNAVAIRFORINST 4790.2. Release of revisions to COMNAVAIRFORINST 4790.2, for example COMNAVAIRFORINST 4790.2D TO 4790.2E, is a responsibility delegated to CNAF N00. Authority to approve change recommendations, change proposals, deviations, administrative corrections, and release for changes to COMNAVAIRFORINST 4790.2, for example COMNAVAIRFORINST 4790.2D CH-1 to CH-2 and Interim Changes, is delegated "By Direction" via this instruction to CNAF N422 and cannot be delegated.

1.1.3 Objective

The objective of the NAMP is to achieve the aviation material readiness and safety standards established by the CNO and CNAF in coordination with the Commandant of the Marine Corps (CMC).

1.1.4 Core Principles

The core principles of the NAMP are:

a. Strict adherence to quality and safety procedures.

b. Repair of aeronautical equipment and material at the level of maintenance that most efficiently uses resources in achieving operational objectives.

c. Application of systematic planned maintenance to minimize material degradation of aircraft, engines, and equipment.

d. Collection and analysis of data to support changes to improve the efficiency, effectiveness, quality, and safety of naval aviation maintenance.

1.2 Guide to the NAMP Instruction

1.2.1 Format

1.2.1.1 Pages

Pages are numbered in sequence for each chapter and appendix, starting with the chapter number or appendix letter. Examples: The third page in Chapter 1 is numbered 1-3, and the third page in Appendix A is numbered A-3.

1.2.1.2 Figures

Figures are provided to illustrate text. Figures are numbered in sequence and preceded by the chapter number, for example, the first figure in Chapter 1 is Figure 1-1. Figures of forms with multiple pages are either numbered or labeled, for example, a form with a front and back would be labeled Figure 1-1 (front) and Figure 1-1 (back), and a figure with multiple separately numbered pages would be labeled as Figure 1-1 (page 1) and Figure 1-1 (page 2).

NOTE: Figures specifically referenced for use in this instruction or a NAMPSOP may not be modified. Figures without a form number or that are not NAMPSOP required use forms, may be modified to meet specific aircraft or equipment requirements, provided minimum NAMP data elements are met.

1.2.1.3 Directives

Appendix C provides the referenced directives in use at time of publication of the NAMP. Directives cited in this instruction are identified by the basic number, for example, OPNAVINST 3750.6S is identified as OPNAVINST 3750.6. Activities will verify the current status of any directive being used.

1.2.2 Definitions

Appendix A provides definitions of commonly used acronyms and abbreviations used in the NAMP.

1.2.3 Terms

Common terms used in the NAMP:

a. “WARNING” refers to a procedure or practice that, if not correctly followed, could result in injury, long term health hazards, or death.

b. “CAUTION” refers to a procedure or practice that, if not correctly followed, could result in damage to or destruction of equipment.

c. “NOTE” refers to a procedure or condition that requires emphasis.

d. “Must” and “will” indicate the procedure is mandatory.

NOTE: Per OPNAV M-5215, the term "Shall" is no longer used in this instruction. When used in other instructions, "shall" indicates a mandatory procedure.

e. "Should" indicates the procedure is recommended.

f. "May" and "need not" indicate the procedure is optional.

g. "Wing", unless specifically stated otherwise, refers to both Navy Type Wings and Marine Aircraft Wings (MAW).

h. "Maintenance Officer (MO)" is equivalent to Aircraft Maintenance Officer for the Marine Corps, and also refers to personnel performing MO duties for D-level activities.

i. "Assistant Maintenance Officer (AMO)" is equivalent to Assistant Aircraft Maintenance Officer for the Marine Corps and also refers to personnel performing AMO duties for D-level activities.

j. "Maintenance Material Control Officer (MMCO)" is equivalent to Production Control Officer for the Marine Corps and also refers to personnel performing MMCO duties for D-level activities.

k. "Program Manager" for Organizational level and Intermediate level activities refers to one individual. For Depot Fleet Readiness Centers (FRC) and Intermediate FRCs where civilian employees are employed, Program Manager may refer to multiple personnel involved in managing a process, including at a minimum, a civilian subject matter expert (SME) and various administrative personnel as required. Depot and Intermediate FRCs may have resources such as Training Management Offices, Fleet Support Teams (FST), material laboratories, engineering and logistics capabilities, and civilian SMEs better suited to perform functions such as testing, training, qualifications, and publication management. To leverage these resources, rather than assign one individual as the Program Manager, Depot FRC Commanding Officers and Intermediate FRC Maintenance Officers may assign program management responsibilities per OPNAVINST 5215.17 as deemed necessary to effectively accomplish the requirement.

l. The term "Program Monitor" at O and I-level activities refers to one individual within Quality Assurance. For D-level Fleet Readiness Centers (FRC), Program Monitor may refer to multiple personnel involved in monitoring a program, including, at a minimum, a subject matter expert (SME) and various administrative personnel as required.

NOTE: Due to the unique organizational structure of Depot FRCs and some Intermediate FRCs where civilian employees are employed, the duties of the positions specified above may differ and may be assigned to other qualified military or civilian personnel. In these circumstances, the person(s) actually performing these duties must be designated in writing by the Depot FRC CO or Intermediate FRC MO in ASM, SME Listing, or Monthly Maintenance Plan, as applicable.

1.2.4 Corrections

Recommendations to correct administrative discrepancies (incorrect spelling, punctuation, paragraph numbering, code, title, etc.) will be submitted by e-mail directly to COMNAVAIRFOR (CNAF) N422B at namp_policy@us.navy.mil. CNAF N422B will reply via e-mail to the originator acknowledging receipt of the correction recommendation and provide disposition.

1.2.5 Changes

NOTE: Activities will contact their Immediate Superior in Command (ISIC) for policy interpretation prior to submitting a NAMP change proposal.

1.2.5.1 Recommendations to change NAMP policies or procedures will be submitted as follows:

a. Change recommendations must be submitted by naval letter to Commander Naval Air Forces N422, PO Box 357051, San Diego, CA 92135-7051, via the originating activity's ISIC for endorsement. In lieu of mailing, signed letters with endorsements may be scanned and e-mailed to namp_policy@us.navy.mil. Figure 1-1 is a sample change recommendation letter.

b. Changes to NAMP policy or procedures believed to adversely affect safety of flight or personnel will be immediately reported by priority naval message to COMNAVAIRFOR SAN DIEGO CA and the ISIC. Upon release of the message, a copy will be e-mailed to CNAF N422B at namp_policy@us.navy.mil and the cognizant Wing.

1.2.5.2 NAMP change proposals Figure 1-2 will be processed by the NAMP Committee per OPNAVINST 4790.2. Approved changes will be incorporated in the next publishing of COMNAVAIRFORINST 4790.2. Changes with NALCOMIS software impact will be coordinated with Naval Information Warfare Center (NIWC) Norfolk and NAVAIR Enterprise Services Division, and held in abeyance for publishing until software update. Changes to correct procedures that adversely affect material readiness, quality of maintenance, or safety, and changes that significantly improve efficiency or cost will be published by naval message in advance of the next publishing of the NAMP.

1.2.6 Deviations

NOTE: Activities will contact their ISIC for policy interpretation prior to submitting a request for deviation from the NAMP.

1.2.6.1 Requests to deviate from NAMP policies, procedures, or responsibilities must be submitted by the requesting activity's CO by naval letter to CNAF N422, PO Box 357051, San Diego, CA 92135-7051 via the requesting activity's ISIC. Activities will contact their ISIC for policy interpretation prior to submitting a deviation request from the NAMP. In lieu of mailing, signed letters with endorsements may be scanned and e-mailed to namp_policy@us.navy.mil. Figure 1-3 is a sample deviation request letter.

1.2.6.2 Request submitted by NAVAIR activities for NAVAIR ACCO approval to deviate from NAMP policies, procedures, or responsibilities will be submitted by letter to NAVAIR ACCO,

22187 Arnold Circle, Bldg 401, Suite 200 Patuxent River, MD 20670-1541. In lieu of mailing, signed letters with endorsements may be scanned and e-mailed to NAVAIR_ACCO_NAMP@us.navy.mil. NAVAIR ACCO will send copies of all approved and disapproved deviation request to CNAF N422.

1.2.6.3 Deviations related to NALCOMIS will include NIWC Norfolk and COMNAVAIRSYSCOM Enterprise Services Division as "copy to" on the request letter.

1.2.6.4 Deviation requests based on manpower constraints must include a detailed summary of the number of billets authorized, onboard manpower, and projected manpower related to the deviation.

1.2.6.5 Deviations related to maintenance requirements specified in a technical manual or directive will be submitted to the Aircraft Controlling Custodian (ACC) Class Desk responsible for the aircraft or equipment.

NOTES: 1. COMNAVAIRSYSCOM Aircraft Controlling Custodian Program Office (NAVAIR ACCO) is delegated approval authority by CNAF to approve NAMP deviations for all aircraft and activities assigned under NAVAIR ACCO cognizance.

2. NAVAIR ACCO is authorized deviation final approving authority for Fleet Readiness Center depot specific special processes, for example, Hole Quality, Plating, Heat Treat Peening, etc. I-Level Fleet Readiness Centers and all core NAMP procedure deviation requests will be submitted to COMNAVAIRFOR N422 per paragraph 1.2.6.1.

3. Requests to deviate from NAMP procedures applicable to I-Level Fleet Readiness Centers must continue to be submitted to COMNAVAIRFOR N422, per paragraph 1.2.6.1.

DEPARTMENT OF THE NAVY
FLEET READINESS CENTER MID-ATLANTIC
766 B AVENUE SUITE 210
VIRGINIA BEACH VA 23460-2225

4790
Ser 00/020
19 Mar 22

From: Commanding Officer, Fleet Readiness Center Mid-Atlantic
To: COMNAVAIRFOR N422C NAMP Policy
Via: **("Via" endorsements must be obtained before submitting to COMNAVAIRFOR.)**

Subj: NAMP CHANGE PROPOSAL: CHAPTER 10, COMPONENT REPAIR REVIEW AND ICRL VALIDATION PROCEDURES NAMPSOP

Ref: (a) COMNAVAIRFORINST 4790.2D CH-1
(b) **(List any other references applicable to the change)**

Encl: (1) Proposed Change **(The proposed change will be a copy of the affected sections of the NAMP with ~~strikeout~~ to indicate deleted words, and underline to indicate added words.)**

1. Enclosure (1) change proposal to reference (a) is forwarded for review. This proposal was coordinated with and endorsed by **(list any other commands, offices, or codes that were involved in producing the change and endorse their responsibilities as written in the change)**.

2. Summary. This change updates and expands policy in the Component Repair Review and ICRL Validation Procedures NAMPSOP. Significant changes:

a. Requires IMAs to provide a Point of Contact for the Combined ICRL.
Justification: Facilitates contacting other IMAs for repair information.

b. Changes the requirement for submitting an ICRL extract from every 6 months to every 3 months.
Justification: Improves the currency of the Combined ICRL in order to assist activities in researching opportunities for improving productivity.

3. POC: **(Name, rank, title, phone number and email address of the submitting activity POC)**

I. M. COMMANDING OFFICER

Figure 1-1 Change Recommendation Letter

SUBMITTED: 29 September 2022 (Coordinator use only)

NAMP CHANGE #: 22-005 (Coordinator use only)

TITLE: Chapter 10 NAMPSOP 10.26 Electrical Wiring Interconnect System (EWIS) Maintenance

ORIGINATOR: Fleet Submitter (Title)
Any Submitter (Name)
any.submitter@navy.mil (email)
(619) 545-1455

COORDINATOR: COMNAVAIRFOR NAMP Manager
Kelly Paulson
kelly.j.paulson.civ@us.navy.mil
(619) 545-1455

JUSTIFICATION: This change aligns training requirements to the appropriate levels of the technician's scope and responsibility.

HIGHLIGHTS:

a. This change is a reorganization of training requirements for all maintenance personnel. :
b. Provides training requirements for technicians not directly involved in EWIS.

CHANGE RECOMMENDATION:
(NOTE: Additions are indicated by underline and deletions are indicated by ~~strikethrough~~.

10.26 Electrical Wiring Interconnect System EWIS Maintenance (NAMPSOP)

10.26.1References

a. NAVAIR 01-1A-505-1, General Series Wiring Maintenance

b. NAVAIR 01-1A-505-4, Aircraft Fiber Optic Cabling

c. MIL-HDBK-522, Guidelines for Inspection of Aircraft Electrical Wiring Interconnect Systems (EWIS)

~~d~~e. MIL-HDBK-535, Guidelines for Troubleshooting of Aircraft Electrical Wiring and Interconnect Systems (EWIS)

~~e~~f. NAVAIR 01-1A-509-3 Avionics Corrosion Control and Prevention

~~f~~g. MIL-HDBK-525, Electrical Wiring Interconnect System (EWIS) Integrity 2

Figure 1-2 Change Proposal

UNITED STATES MARINE CORPS
MARINE AERIAL REFUELER TRANSPORT SQUADRON 123
MARINE AIRCRAFT GROUP 14
POSTAL SERVICE CENTER BOX 8056
CHERRY POINT, NC 28533-0056

4790
Ser CO/123
19 Mar 22

From: Commanding Officer, Marine Aerial Refueler Transport Squadron 123
To: Commander Naval Air Forces (N422)
Via: Commanding Officer, Marine Aircraft Group 14
Commanding General, 2d Marine Aircraft Wing

Subj: NAMP DEVIATION REQUEST FOR REQUIREMENT TO COMPLETE OOMA NALCOMIS COURSE D/E-555-0053

Ref: (a) COMNAVAIRFORINST 4790.2D CH-1

1. Request approval to deviate from reference (a), Chapter 5, requirement for Maintenance Control personnel to complete Naval Aviation Maintenance Control Management Course (Course C-555-0053) prior to being authorized to approve Work Orders. VMGR-123 is on deployment and has experienced the unplanned loss of two Maintenance Control personnel. SSgt John Smith, DoD ID#, is the best qualified VMGR-123 Marine for assignment to Maintenance Control. He has completed the Legacy NALCOMIS (Course D/E-555-0040) and the Naval Aviation OMA Work Center Supervisor's Course (Course C-555-0045) but will be unable to attend Course D/E-555-0053 until return from deployment. SSgt Smith has a quota for Course D/E-555-0053 to be held at MCAS Cherry Point, 30 May 2023.

2. VMGR-123 POC is MGySgt John Zmith, john.zmith@usmc.mil, DSN 123-4567.

I. M. COMMANDING OFFICER

Figure 1-3 NAMP Deviation Request Letter

CHAPTER 2

Chief of Naval Operations and Commandant of the Marine Corps, System Commands, Aircraft Controlling Custodians, Navy Type Wings and Marine Air Wings, and Operational Commanders

Table of Contents

2.1 Chief of Naval Operations (CNO) and Commandant of the Marine Corps (CMC) 1
2.1.1 CNO 1
2.1.2 CMC 1
2.1.3 Program Objective Memorandum (POM) 1
2.1.4 Manpower Planning 1
2.2 Systems Commands 2
2.2.1 Commander Navy Supply Systems Command 2
2.2.2 Commander Naval Air Systems Command 3
2.2.2.1 Technical Management of Aviation Maintenance 5
2.2.2.2 NAVAIR Authority 5
2.2.2.3 NAVAIR Reporting Relationships 6
2.3 Aircraft Controlling Custodians (ACCs) 6
2.3.1 Introduction 6
2.3.2 Responsibilities 6
2.3.2.1 Funding 6
2.3.2.2 Manpower 6
2.3.2.3 Training 7
2.3.2.4 Material and Equipment 7
2.3.2.5 Aircraft Assignment 8
2.3.2.6 Inspection 8
2.4 Navy Type Wings and Marine Air Wings (MAW) 9
2.4.1 Manpower 9
2.4.2 Training 10
2.4.3 Material Readiness 10
2.4.4 Inspection 12

2.5 Operational Commanders..... 12

Figure 2-1: Director, Air Warfare Division (N98) Organization Chart..... 15

CHAPTER 2

Chief of Naval Operations and Commandant of the Marine Corps, System Commands, Aircraft Controlling Custodians, Navy Type Wings and Marine Air Wings, and Operational Commanders

2.1 Chief of Naval Operations (CNO) and Commandant of the Marine Corps (CMC)

2.1.1 CNO

The CNO commands the operating forces of the Navy, OPNAV, and the Chief of Naval Personnel. In addition, the CNO commands such shore activities as assigned by the Secretary of the Navy (SECNAV). Figure 2-1 shows CNO Director, Air Warfare Division (N98) organization for supporting naval aviation.

2.1.2 CMC

The CMC coordinates with OPNAV, NAVAIR, NAVSEA, NIWC, and other support activities in planning for and acquiring equipment, weapons, weapon systems, material, supplies, facilities, maintenance, and support services for Marine Corps aviation. CMC also coordinates with the CNO to ensure the development and modification of equipment, material and systems to meet Marine Corps aviation operational requirements.

2.1.3 Program Objective Memorandum (POM)

The CNO and CMC annually allocate materials and services to support the NAMP. Allocations are determined during the development of the Program Objective Memorandum (POM). The POM contains force and resource recommendations in response to, and in accordance with, the Guidance for Development of the Force and the Defense Planning Guidance. The POM shows program needs for five years and conforms to the fiscal guidance issued by the Secretary of Defense (SECDEF).

2.1.4 Manpower Planning

CNO and CMC direct and coordinate manpower planning to accomplish the NAMP. CNO exercises policy control and direction of the Navy manpower requirements system, with support from NAVMAC. CMC exercises policy, control, and direction of Marine Corps manpower as executed by the Deputy Chief of Staff for Manpower (Code M) in coordination with the Deputy Chief of Staff for Aviation (Code A). Manpower planning includes:

a. Providing annual guidance to manpower claimants on the submission of manpower requests for the POM. Manpower claimants are responsible for screening, assigning priorities, and justifying requests for additional manpower to support aviation maintenance.

b. Determining minimum military and civilian manpower requirements to achieve operational and mission demands.

c. Providing staffing standards for functions performed ashore and afloat, based on recognized management and industrial engineering techniques, and determinations of workload.

d. Providing justification for Navy and Marine Corps manpower requirements during all stages of the planning, programming, and budgeting system.

e. Relating manpower requirements of the shore establishment to the changing demands of the operating forces.

f. Providing accurate planning information to manpower inventory managers.

g. Specifying manpower requirements for maintenance and operation of new weapon systems and equipment sufficiently in advance of fleet introduction to facilitate manpower planning in the programming cycle.

2.2 Systems Commands

2.2.1 Commander Navy Supply Systems Command

COMNAVSUPSYSCOM (commonly referred to as NAVSUP) is responsible for material support of the NAMP. NAVSUP Weapons Systems Support (NAVSUP WSS) manages spare parts for aircraft, engines, systems, components and accessories, safety equipment, support equipment (SE), and aeronautical photographic and meteorological equipment. NAVSUP WSS:

a. Computes range and depth of aviation material requirements, including conducting and coordinating provisioning conferences and identification and transfer of items to be managed by other Inventory Control Points (ICP)

b. Budgets for and funds assigned aviation material requirements

c. Procures material directly from industry or other government agencies

d. Allocates NAVAIR procured material to stock points, distributes material to fill replenishment stock requirements, and refers requisitions to stock points to meet requirements

e. Disposes of material in excess of system requirements, including SE, when authorized by NAVAIR

f. Maintains aeronautical spares and spare parts catalogs, including obtaining National Stock Numbers (NSN) from the Defense Logistics Service Center

g. Determines system asset rework requirements of repairable components processed by naval, inter-service, or commercial rework facilities

h. Develops, issues, and updates the Allowance Requirements Registers (ARR) and allowance and load lists applicable to the NAMP

i. Provides primary material support for air launched weapons

2.2.2 Commander Naval Air Systems Command

COMNAVAIRSYSCOM (commonly referred to as NAVAIR) provides life-cycle support of naval aviation aircraft, weapons and systems. NAVAIR supports the NAMP through research, design, development and systems engineering; acquisition; test and evaluation; training facilities and equipment; repair and modification; and in-service engineering and logistics support. NAVAIR is a Mission Aligned Organization that integrates technical and programmatic authorities in support of program execution. In collaboration with NAWCs and the FRCs, NAVAIR HQ supports and enables its customers (the PEOs and external organizations) in executing their missions. NAVAIR HQ is divided into six sub groups: Command Operations Group, Procurement Group, Sustainment Group, Engineering and Cyber Warfare Group, Comptroller Group and the Office of General Counsel Group.

a. Provides guidance on procedures, technical direction, and management review at each level of maintenance.

(1) Establishes policy, roles, and responsibilities for aircraft and weapons system maintenance plans in support of the Naval Aviation Enterprise (NAE).

(2) Establishes policy, roles, responsibilities, processes and procedures for manufacturing and additive manufacturing (AM) in support of the Naval Aviation Enterprise (NAE).

b. Provides technical manuals in sufficient scope and depth to clearly define maintenance and test procedures.

c. Implements and maintains the Metrology and Calibration (METCAL) Program in support of the NAMP.

d. Assists CNO and others in developing training programs for officer and enlisted aviation maintenance personnel, including providing technical and logistic support in drafting Navy Training System Plans (NTSP) and the determination of manpower requirements for aviation systems.

e. Provides aviation maintenance material allowance lists, and lists of aviation facilities required for sea-based and shore-based activities.

f. Makes recommendations concerning design of the Maintenance Data System (MDS) and Naval Aviation Logistics Command Management Information System (NALCOMIS) to reduce redundant, inefficient, and unnecessary reporting; and ensures the MDS and NALCOMIS are compatible throughout all levels of maintenance.

g. Serves as Functional Manager for Aviation Logistics Information Systems, to include maintaining current NALCOMIS maintenance systems requirement documents, providing justification for improved business procedures, and tracking changes to verify benefits were achieved.

h. Provides support for Commander Naval Air Forces (COMNAVAIRFOR) in publishing the NAMP.

i. Provides Aircraft Controlling Custodian (ACC) functional support to NAVAIR field activities.

j. Provides fleet aviation performance improvement support.

k. Provides NAVAIR Field Service Representative support.

l. Develops and maintains Management Information Systems (MIS) for maintenance and logistics support of NAMP processes.

m. Plans, designs, develops, implements, and supports information decision support systems for managing the total life cycle of aeronautical equipment.

n. Provides technical support related to naval aviation resource analysis, maintenance engineering, logistics engineering, and logistics support program implementation.

o. Provides support of all aviation maintenance trainers and weapons system training programs and D-level aircraft training courses.

p. Provides technical direction concerning configuration management (CM) of naval aircraft, missile targets, and associated material, except as directed by CNO.

q. Maintains CM data systems, to include the Technical Directive Status Accounting (TDSA), T/M/S CM baseline, Scheduled Removal Components Repository Program, and the CM portion NTCSS Optimized OMA NALCOMIS for aircraft, engines, Aviation Life Support Systems (ALSS), Cartridge Activated Devices (CAD), support equipment (SE), Mission Mounted Equipment (MME), and component configuration. CM data system capabilities include:

(1) Accurate listing of all tracked components installed or uninstalled on the aircraft

(2) Tracking usage indicators for life limited components, for example, Life Usage Index (LUI), Fatigue Life Expended (FLE), Time Since New (TSN), and Time Since Overhaul (TSO)

(3) Accurate configuration history records

(4) Tracking scheduled maintenance.

r. COMFRC Fleet Maintenance Support Training provides maintenance and material support necessary for fleet training and readiness. COMFRC Fleet Maintenance Support Training:

(1) Executes assigned aviation depot level (D-level) maintenance programs.

(2) Executes contracts in support of D-level maintenance.

(3) Establishes and implements the procedures and controls necessary for executing budgets.

(4) Provides D-level resource management support.

(5) Coordinates Depot Fleet Readiness Center operations, to include:

(a) Maintaining and operating industrial facilities.

(b) Performing a complete range of D-level rework operations on designated weapon systems, accessories, and equipment.

(c) Engage in manufacturing and AM of parts and assemblies at the intermediate and depot level maintenance activities for the production of parts and end use items, as required.

(d) Providing engineering services in the development of changes in hardware design.

(e) Furnishing technical and other professional services on aircraft maintenance and logistics problems.

(f) Performing other levels of aircraft maintenance for eligible activities, upon specific request or assignment.

(g) Performing other functions as directed by COMNAVAIRFOR in coordination with NAVAIR.

2.2.2.1 Technical Management of Aviation Maintenance

As the technical manager for aviation maintenance, NAVAIR:

a. COMNAVAIRSYSCOM (commonly referred to as NAVAIR) is the NAEs acquisition and airworthiness authority, and is authorized to exercise CNAF TYCOM technical authority and NAMP deviation final approving authority for all aircraft and activities under their cognizance. This authority will be exercised by the NAVAIR ACCO per paragraph 1.2.6 deviations.

b. Provides technical data in sufficient scope and depth to clearly define maintenance and test procedures, technical direction, and management review of weapons systems at each level of maintenance.

2.2.2.2 NAVAIR Authority

The NAVAIR Commander is required to act for and exercise the authority of the Naval Acquisition Executive (Assistant Secretary of the Navy (Research, Development and Acquisition)(ASN(RD&A))), as per Secretary of the Navy (SECNAV) Instruction 5400.15, Department of the Navy Research and Development, Acquisition, Associated Life-Cycle Management, and Logistics Responsibilities and Accountability. NAVAIR is authorized to supervise management of assigned programs, maintain oversight of cost. Schedule, technical authority and performance and report to the ASN (RD&A) for all matters pertaining to research, development and acquisition. The NAVAIR Commander is responsible for in-service support and support services to PEOs and serves as the technical authority, operational safety and assurance certification authority for assigned areas of responsibility.

2.2.2.3 NAVAIR Reporting Relationships

NAVAIRSYSCOM reporting relationships and authorities are primarily codified in SECNAV Instruction 5400.15 and Office of the Chief of Naval Operations Instruction (OPNAVINST) 5450.350, Missions, Functions, and Tasks of the Commander, Naval Air Systems Command. Together, the instructions identify responsibilities and accountabilities concerning research, development, acquisition and logistics, as well as NAVAIR's missions, functions and tasks. The NAVAIR Commander reports to the CNO and the Commandant of the Marine Corps, as appropriate, for the execution of their logistics sustainment and operating forces support responsibilities. NAVAIRSYSCOM Aircraft Controlling Custodian Program Office (NAVAIR ACCO) reports directly to the Commander and is the NAVAIR office responsible for exercising NAMP authority for NAVAIR and its subordinate commands.

2.3 Aircraft Controlling Custodians (ACCs)

2.3.1 Introduction

The ACCs are Commander, Naval Air Forces (COMNAVAIRFOR), Commander, Naval Air Force Reserve (COMNAVAIRFORES), Chief of Naval Air Training (CNATRA), and Commander, Naval Air Systems Command (COMNAVAIRSYSCOM). As the DoN Acquisition authority, NAVAIR ACC is the ACC responsible for contractor owned pre-accepted aircraft under DCMA contract administration. When aircraft ownership transfers to the Navy, and the aircraft are accepted into DoN Inventory, they are initially under NAVAIR Fleet Support (FS) reporting custody prior to transfer to the Fleet.

2.3.2 Responsibilities

The ACCs are responsible for providing their activities with sufficient funding, manpower, training, material and equipment, and aircraft to meet their operational responsibilities. ACCs are also responsible for inspecting and assisting activities in compliance with the NAMP. Basic responsibilities are outlined in this section.

2.3.2.1 Funding

ACCs will:

a. Direct fiscal and budgetary actions to support NAMP requirements, including allocation of budget operating target (OPTAR) allotments to commands.

b. Justify resources required to execute the NAMP during budget reviews.

c. Apportion, distribute, and manage material and financial resources to operate and maintain aircraft and equipment efficiently.

d. Monitor aviation maintenance costs and take action to improve cost efficiency.

2.3.2.2 Manpower

ACCs will:

a. Exercise overall management authority of assigned military, civilian, and contractor manpower.

b. Coordinate with the Manpower Budget Submitting Office (BSO) and Subordinate Manpower Codes (SMC) to resolve manning deficiencies. Marine Corps manning issues will be coordinated with the Fleet Marine Force (FMF) Commanders.

c. Review requested changes for officer, enlisted, government service, and contractor manpower.

d. Review authorized billets, at least annually, to ensure manpower requirements are adequate and effectively distributed.

e. Submit manpower change recommendations to the BSO. Prior to requesting an increase in manpower, review manpower requirements and total distribution for ability to reassign existing authorized billets.

2.3.2.3 Training

ACCs will:

a. Direct and coordinate the completion of aviation technical training for commands.

b. Coordinate aviation maintenance training conducted by the Center for Naval Aviation Technical Training Unit (CNATTU) and factory training sponsored by COMNAVAIRSYSCOM.

c. Review new and revised training curriculum.

d. Coordinate formal training of enlisted maintenance personnel conducted by D-level activities.

e. Monitor and coordinate the completion of operational training required to achieve Maintenance Department readiness goals.

2.3.2.4 Material and Equipment

ACCs will:

a. Monitor maintenance and supply activities for compliance with Chief of Naval Operations (CNO) policies for the following:

(1) Requisitioning material

(2) Controlling material

(3) Responsiveness to material demands

(4) Proper use of material resources

b. Equip activities to accomplish maintenance operations.

c. Coordinate with COMNAVAIRSYSCOM and Naval Supply Systems Command (NAVSUP) to adjust support equipment (SE) and material requirements as aircraft and equipment configurations change.

d. Monitor and verify the accuracy of aircraft operational status reporting.

e. Monitor performance data and take action to improve the efficiency and quality of maintenance. ACC metrics must include:

(1) Aircraft readiness vs. requirement

(2) Budgeted vs. actual cost for maintenance

(3) Cost per hour for repairable parts and consumables

(4) Top cost drivers for Aviation Fleet Maintenance (AFM) and Aviation Depot Level Repairable (AVDLR) funds

(5) Foreign Object Damage (FOD) rate

(6) Cannibalization rate

(7) Maintenance Man-Hours per Flight Hour

(8) Intermediate Maintenance Activity (IMA) repair effectiveness

(9) D-level support cost and effectiveness

(10) Aircraft Utilization Rate

(11) Aircraft in Not Mission Capable (NMC) status for over 30 days, and causal factors

(12) Top 25 parts or systems causing NMC and Partial Mission Capable (PMC) status

2.3.2.5 Aircraft Assignment

ACCs will:

a. Exercise administrative control and assignment of aircraft to reporting custodians.

b. Direct and coordinate scheduling aircraft into depot rework, repair, and inspection. Publish aircraft movement instructions to meet rework schedules. Fund and approve workload changes.

c. Direct and coordinate submission of aircraft records and reports required by CNO, COMNAVAIRSYSCOM, and COMNAVAIRFOR.

2.3.2.6 Inspection

ACCs will inspect activities for compliance with the NAMP and for properly maintaining the material condition of assigned aircraft and equipment. Aviation Maintenance Inspections (AMI),

Maintenance Program Assessments (MPA), and Material Condition Inspections (MCI) are the minimum formal evaluations required, per paragraph 10.24.

NOTES: 1. COMNAVAIRFOR inspects organizational and intermediate level activities assigned to COMNAVAIRFOR, COMNAVAIRFORES and CNATRA. COMNAVAIRSYSCOM inspects their organizational and intermediate level activities, Depot Fleet Readiness Centers, and contractor activities providing depot level support.

2. Newly established squadrons and squadrons transitioning from one type/model/series (T/M/S) aircraft to another assigned to COMNAVAIRSYSCOM Research, Development, Test, and Evaluation (RDT&E) must comply with the Safe for Flight Operations Certification requirements of NAVAIRINST 3700.4.

3. Newly established squadrons and squadrons transitioning from one T/M/S aircraft to another within COMNAVAIRFOR must comply with the Safe for Flight Operations Certification requirements of COMNAVAIRPAC/COMNAVAIRLANTINST 5400.1.

2.4 Navy Type Wings and Marine Air Wings (MAW)

Wing Commanders are responsible for manpower, training, material readiness, and inspection of their activities.

NOTES: 1. MAWs may delegate certain T/M/S specific responsibilities to the Marine Aircraft Group (MAG), but must monitor and verify accomplishment of delegated responsibilities.

2. WINGs/MAWs will develop local command procedures to ensure WING/MAW leadership direct ORM principles are adhered to, WING/MAW leadership serve as the responsible approving authority for all Memorandums of Agreement (MOA), and/or Memorandums of Understanding (MOU) in place for maintenance support provided between their subordinate activities or during joint operations with other service branches.

3. WINGs/MAWs will develop local command procedures to ensure established Memorandums of Understanding (MOU) and/or Acquisition and Cross Servicing Agreement (ACSA) Implementing Arrangements (IA) are in place for maintenance support provided between their subordinate activities during joint operations with approved Foreign Militaries.

2.4.1 Manpower

Wings will monitor the manpower status of each activity and coordinate with manpower authorities to obtain and assign adequate numbers of maintenance personnel to achieve readiness requirements.

2.4.2 Training

Wings will:

a. Coordinate and monitor accomplishment of formal training, to include prioritization of training quota assignments for CNATTU classes.

b. Verify activities are submitting Advanced Skills Management (ASM) change requests to the Maintenance Training Syllabus Sponsor (MTSS) to standardize the syllabi, materials, lesson guides, certification requirements, and documentation for T/M/S specific in service maintenance training, per NAVMC 4790.2.

c. Monitor the effectiveness of training received through CNATTU courses by selectively interviewing students and surveying squadrons to determine the adequacy of knowledge and skills obtained.

d. Manage and monitor qualifications or certifications and test question data banks.

e. Manage in-service maintenance training per paragraph 10.1.

2.4.3 Material Readiness

Wings will:

a. Monitor and assist activities in achieving aircraft and equipment readiness goals.

b. Manage and coordinate aircraft and equipment assignment to supported activities to provide sufficient numbers of properly configured aircraft, ancillary equipment, engines, and avionics to meet operational requirements.

c. Coordinate logistics support and prioritize distribution of repairable and consumable parts in order to optimize overall material readiness.

d. Manage aircraft and equipment to reduce the length of time aircraft have not flown.

e. Coordinate with air station commanders for the facilities needed to support aircraft maintenance. Manage the distribution of facilities and verify adequacy to support aircraft and equipment maintenance. Monitor activities for compliance with policies and regulations concerning facilities, installed equipment maintenance, security, safety, and storage. When a tenant activity relocates, assist the activity with arrangements for returning facilities and installation equipment to the air station.

f. Coordinate support provided by IMAs, depots, Fleet Support Team (FSTs), Naval Air Technical Data and Engineering Services Center (NATEC), contractors, and COMNAVAIRSYSCOM.

g. Publish and execute plans to support current and future maintenance operations.

h. Present support issues at Integrated Logistic Support (ILS) and other maintenance or supply related meetings.

i. Monitor Individual Material Readiness List (IMRL) inventories and reports to validate activities are accurately reporting equipment status. Distribute IMRL assets within the Type Wing or MAW to optimize utilization.

j. Coordinate with the Type Commander (TYCOM) Comptroller to budget and allocate maintenance and equipment funds.

k. Verify the following reports are accurate and submitted within prescribed timelines:

(1) Aircraft Inventory and Readiness Reporting System (AIRRS) XRAY Reports

(2) Aircraft Material Condition Reports (AMCR)

(3) Budget OPTAR Reports (BOR)

(4) FOD Reports

(5) Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) Reports

(6) Mishap Reports

l. Prioritize the distribution of general purpose and maintenance specific Management Information Systems (MIS) and provide technical expertise in MIS operation.

m. Monitor and validate the accuracy of information entered in the Maintenance Data System (MDS) by assigned activities. Provide feedback to COMNAVAIRSYSCOM MDS Managers on system adequacy, data entry and management process.

n. Periodically inspect activities to validate compliance with Hazardous Material (HAZMAT) Programs, environmental regulations, and other requirements specified in paragraph 10.19.

o. Coordinate Configuration Management (CM) baseline reviews with subordinate activities and report discrepancies to NAVAIR via Baseline Trouble Report (BTR).

p. Use Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) and Organizational Maintenance Activity (OMA) or Optimized Organizational Maintenance Activity (OOMA) data to prepare graphs, spreadsheets, and narrative reports that track performance trends by total T/M/S aircraft population and by individual squadron. Reports must include the following information:

(1) A799 Rate by Work Unit Code (WUC)

(2) Cannibalization (total actions, total man-hours, rate per 100 sorties)

(3) Direct Maintenance Man-Hours per Flight Hour

(4) Aircraft Utilization Rate and Day Last Flown by Bureau Number (BUNO)

(5) Number of Hours Out of Reporting (OOR) Material Condition Reporting Status (MCRS) by BUNO and reasons for OOR

(6) Corrosion Prevention Man-Hours (total and average per aircraft)

(7) Corrosion Treatment Man-Hours (total and average per aircraft)

(8) Top Five Man-Hour Consuming Repair Actions by WUC and Part Number

(9) Top Five NMC Component Failures by National Stock Number (NSN)

(10) Top Five PMC Component Failures by NSN

(11) MCI Discrepancy Trends, to include trends in D-level corrosion discrepancies

(12) Actual Cost per Hour vs. Budgeted Cost per Hour for Aircraft Operations Maintenance (AOM) costs, by type fund (AFM and AVDLR)

q. Publish LCPs and advisories with information on issues related to conduct of the NAMP or other maintenance operations applicable to the Wing. Wing LCPs, advisories and other directives will be reviewed at least annually, and/or when CNAFINST 4790.2 is updated to ensure issues related to the NAMP are updated and maintained accordingly.

r. (MAWs) Facilitate the implementation of AIRSpeed Continuous Process Improvement (CPI) methods, concepts, and best practices to accomplish material readiness more efficiently and effectively. The MAW will:

(1) Designate a Wing AIRSpeed representative to coordinate and execute CPI initiatives. The representative must be knowledgeable of AIRSpeed CPI methodologies.

(2) Baseline key performance indicators to identify improvement opportunities.

(3) Publish a strategic plan to identify, align, prioritize, and implement improvements.

(4) Maintain a CPI project portfolio aligned with the strategic plan.

(5) Designate a team of trained and experienced personnel to execute CPI projects throughout the MAW.

(6) Perform regular assessments of progress in achieving CPI goals.

2.4.4 Inspection

Wings will inspect maintenance activities for compliance with the NAMP and the material condition of aircraft equipment per paragraph 10.24.

2.5 Operational Commanders

Operational commanders, such as Navy Carrier Air Wing (CVW) and Marine Corps Aviation Combat Element (ACE) commanders are responsible for the operational readiness of squadrons during training events and while deployed. Operational commanders will:

a. Coordinate pre-deployment planning for personnel, facilities, SE, materials, support services, and other logistics elements required to perform maintenance.

b. Consolidate squadron material and facilities requirements to reduce unnecessary duplication.

c. Review allowance lists of supporting or hosting activities for adequacy to support deployed aircraft and equipment and serve as the responsible approving authority to direct ORM principles are adhered to, and ensure Memorandums of Agreement (MOA) and/or Memorandums of Understanding (MOU) are established for maintenance support to be provided between deployed squadrons or other service branches.

d. Review allowance lists of supporting or hosting activities for adequacy to support deployed aircraft and equipment and ensure Memorandums of Understanding (MOU) and/or Acquisition and Cross Servicing Agreement (ACSA) Implementing Arrangements (IA) are established for maintenance support to be provided between deployed squadrons during joint operations with approved Foreign Militaries.

e. Coordinate support from the ship's Supply Department, Aircraft Intermediate Maintenance Department, and Air Department prior to and during deployment.

f. Report CM baseline discrepancies to the applicable Type Wing or MAW for action.

g. Report aircraft material readiness per COMNAVAIRPAC/COMNAVAIRLANTINST 5442.1.

h. Monitor timely submission and accuracy of the following aircraft, maintenance, and material reporting requirements:

(1) AIRRS XRAY Reports

(2) AMCRs

(3) BORs

(4) FOD Reports

(5) NAMDRP Reports

(6) Mishap Reports

i. Monitor squadrons and units for the following metrics, and take action when trends indicate unsatisfactory performance:

(1) A799 Rate by WUC

(2) Cannibalization (total actions, total man-hours, rate per 100 flight hours, rate per 100 sorties)

(3) Corrosion Prevention Man-Hours (total and average per aircraft)

(4) Corrosion Treatment Man-Hours (total and average per aircraft)

(5) Top Five Man-Hour Consuming Repair Actions by WUC and Part Number

(6) Top Five NMC Component Failures by NSN

(7) Top Five PMC Component Failures by NSN

(8) Sortie Completion Rate

j. Coordinate deployed support from intermediate-level maintenance activities (IMA), depot field teams, and Naval Air Technical Data and Engineering Service Center (NATEC).

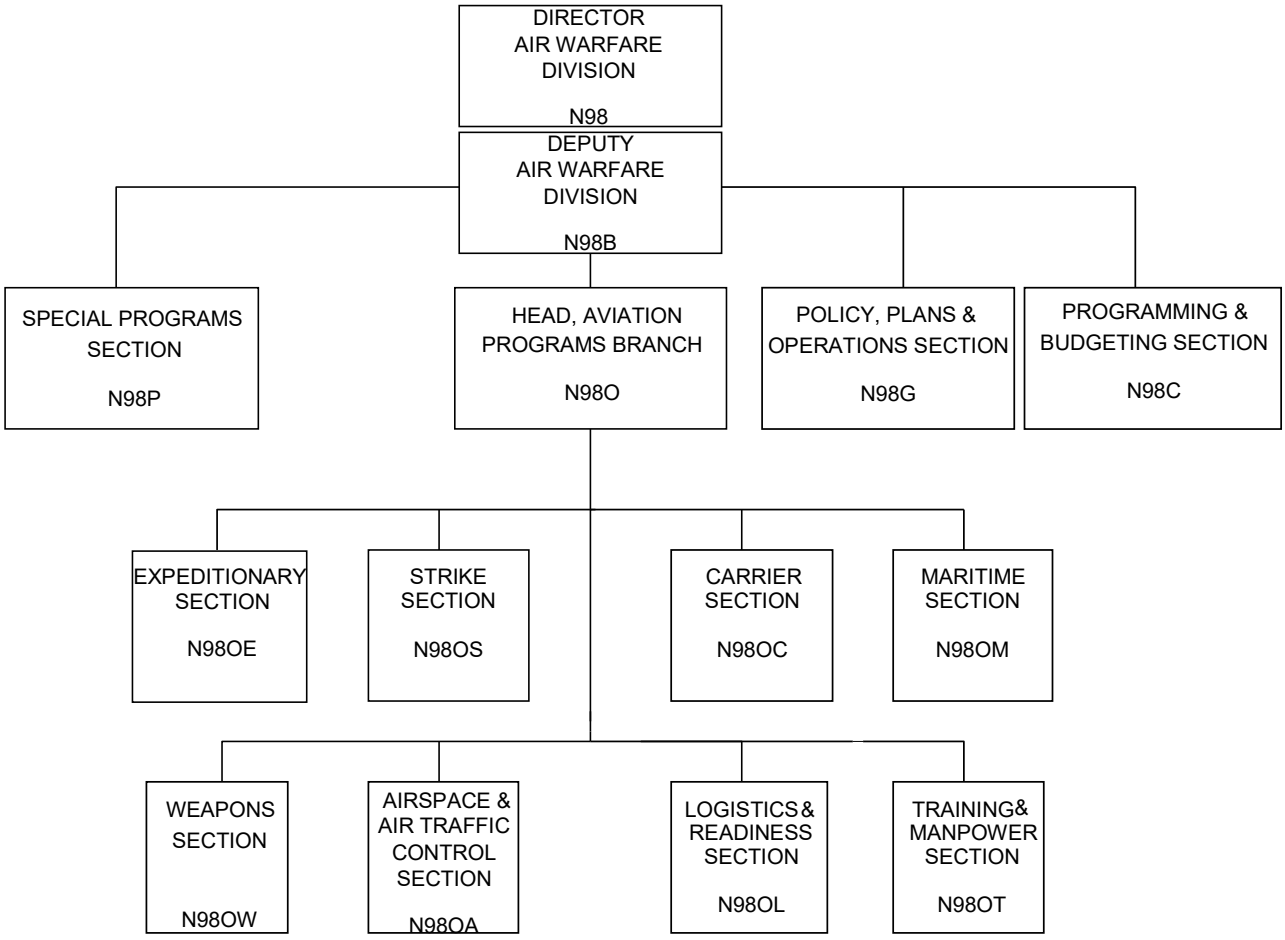


Figure 2-1: Director, Air Warfare Division (N98) Organization Chart

CHAPTER 3

Maintenance Concepts; Maintenance Activity Standard Organization; Aviation Maintenance Officer Qualifications; Command, Department, Division, Branch and Work Center Management Responsibilities

Table of Contents

3.1 Maintenance Concepts 1
3.1.1 Maintenance Levels 1
3.1.1.1 O-Level Maintenance 1
3.1.1.2 I-Level Maintenance 1
3.1.1.3 D-Level Maintenance and Rework 2
3.1.2 Maintenance Functions 2
3.1.2.1 General Policy 2
3.1.2.2 Unmanned Aircraft Systems (UAS) 3
3.1.2.3 Aircraft Systems and Components 4
3.1.2.4 Power Plant Systems and Propeller /Rotary Wing Dynamic Drive Systems 4
3.1.2.5 Aviation Life Support Systems (ALSS), and Cartridges, Cartridge Actuating Devices (CAD), and Propellant Actuating Devices (PAD) 4
3.1.2.6 Support Equipment (SE) 5
3.1.2.7 Airborne Mine Countermeasures (AMCM) Systems 5
3.1.2.8 Airborne Weapon Systems 5
3.1.2.9 Jet Engine Test Facilities 5
3.1.3 Assignment of Maintenance Responsibilities 6
3.1.3.1 Shore Air Field Activities 6
3.1.3.2 CVN, LHA, and LHD Aviation Ships 7
3.1.3.3 Navy Squadrons 7
3.1.3.4 Marine Squadrons 7
3.1.3.5 Naval Air Training and Marine Air Reserve Squadrons and Units 7
3.1.3.6 Specialized Activities 7
3.1.3.7 Weapons Departments and Divisions 8
3.2 Maintenance Activity Standard Organization 8
3.2.1 Terms 8
3.2.2 O-Level Maintenance Activity Standard Organization 8

3.2.2.1 Navy O-Level Maintenance Department 8
3.2.2.2 Marine Corps O-Level Maintenance Department....8
3.2.2.3 Autonomous Maintenance Unit (AMU) 9
3.2.2.4 Operations Maintenance Division (OMD) and Detachments Operating Four or Less Aircraft 9
3.2.2.5 Airborne Mine Countermeasures (AMCM) Systems Maintenance Department. 9
3.2.2.6 Marine Air Traffic Control Detachments (MATCD)....9
3.2.2.7 Expeditionary Air Field Maintenance Departments and MCAS Recovery Units Standard Organization....9
3.2.3 O-Level Division Functions 9
3.2.3.1 Maintenance Control....9
3.2.3.2 Material Control....9
3.2.3.3 Quality Assurance....9
3.2.3.4 Aircraft Division 9
3.2.3.5 Avionics/Armament Division 10
3.2.3.6 Ordnance Division (Marine Corps)....10
3.2.3.7 Line Division....10
3.2.3.8 Unmanned Aircraft Systems (UAS) Division....11
3.2.4 I-Level Maintenance Activity Standard Organization....11
3.2.4.1 Shore Based Aircraft Intermediate Maintenance Departments (AIMD) and I-Level Fleet Readiness Centers (FRC)....11
3.2.4.2 CVN and L-Class Ship Aircraft Intermediate Maintenance Department 11
3.2.4.3 Marine Aviation Logistics Squadron (MALS) 11
3.2.5 I-level Division Functions 11
3.2.5.1 Production Control....11
3.2.5.2 Material Control....11
3.2.5.3 Quality Assurance....11
3.2.5.4 Power Plants Division....11
3.2.5.5 Airframes Division....12
3.2.5.6 Avionics Division 12
3.2.5.7 Armament Division....12

3.2.5.8 Aviation Life Support Systems (ALSS) Division....12
3.2.5.9 Support Equipment (SE) Division....12
3.2.5.10 Ship Evolution Support Services....12
3.2.6 O-Level and I-Level Maintenance Administration Division....12
3.2.7 Airborne Mine Countermeasures (AMCM) Systems Maintenance Department....13
3.3 Aviation Maintenance Officers....14
3.3.1 Basic Qualifications for Designated Career Aviation Maintenance Officers....14
3.3.2 Maintenance Billet Training....16
3.3.3 Assignment....17
3.4 Command, Department, Division, Branch and Work Center Management Responsibilities....17
3.4.1 Commanding Officer....18
3.4.2 Maintenance Officer (MO)....19
3.4.3 Assistant Maintenance Officer (AMO)....20
3.4.4 Maintenance Material Control Officer (MMCO)....21
3.4.5 Quality Assurance Officer (QAO)....21
3.4.6 Material Control Officer....22
3.4.7 Division Officers....22
3.4.8 Branch Officers....23
3.4.9 Manpower and Training (MP&T) Coordinator....23
3.4.10 Maintenance Master Chief Petty Officer (MMCPO) (Navy)....23
3.4.10.1 General Responsibilities....23
3.4.10.2 (O-Level) MMCPOs....24
3.4.10.3 (I-Level) MMCPOs....24
3.4.11 Aircraft Maintenance Chief (Marine Corps)....25
3.4.12 Division Chief....25
3.4.13 Work Center Supervisor....26
Figure 3-1 (page 1): Aircraft Systems/Components Maintenance Function Applicability....27
Figure 3-1 (page 3): Aircraft Systems/Components Maintenance Function Applicability....29
Figure 3-2: Power Plant Systems and Propeller/Rotary Wing Dynamic Drive Systems/ Components Maintenance Function Applicability....30
Figure 3-3: ALSS and Cartridges, Cartridge Actuated Devices (CAD), and Propellant Actuated Devices (PAD) Maintenance Function Applicability....31

Figure 3-4: Support Equipment Maintenance Function Applicability 32

Figure 3-5: Airborne Mine Countermeasures (AMCM) Systems Maintenance Function Applicability 33

Figure 3-6: Types of Maintenance Activities at Shore Air Fields, Navy 34

Figure 3-7: Types of Maintenance Activities at Shore Air Fields, Marine Corps 35

Figure 3-8: Assigned Levels of Maintenance, Aviation Ships 36

Figure 3-9: Assigned Levels of Maintenance, Navy Squadrons.....37

Figure 3-10: Assigned Levels of Maintenance, Marine Corps Squadrons 38

Figure 3-11: Assigned Levels of Maintenance, Naval Air Training Activities and Marine Air Reserve Squadrons and Units 39

Figure 3-12: Assigned Levels of Maintenance, Specialized Activities and Units.....40

Figure 3-13: Navy O-Level Maintenance Department Standard Organization 41

Figure 3-14: Marine Corps O-Level Maintenance Department Standard Organization.....42

Figure 3-15: O-Level Autonomous Maintenance Unit Concept O-level Maintenance Department Standard Organization 43

Figure 3-16: Operations Maintenance Division (OMD) and Detachments Operating Four or Less Aircraft Standard Organization 44

Figure 3-17: O-Level Airborne Mine Countermeasures Systems Maintenance Department.....45

Figure 3-18: Shore Based Aircraft Intermediate Maintenance Department and I-Level Fleet Readiness Center Standard Organization 46

Figure 3-19: CVN and L-Class Ship Aircraft Intermediate Maintenance Department Standard Organization 47

Figure 3-20: Marine Aviation Logistics Squadron (MALS) I-Level Maintenance Department Organization (Marine Corps) 48

CHAPTER 3

Maintenance Concepts; Maintenance Activity Standard Organization; Aviation Maintenance Officer Qualifications; Command, Department, Division, Branch and Work Center Management Responsibilities

3.1 Maintenance Concepts

3.1.1 Maintenance Levels

The NAMP classifies maintenance in three levels based on technical complexity, depth, scope, and range of work performed. The three levels are Organizational (O-level), Intermediate (I-Level), and Depot (D-Level).

3.1.1.1 O-Level Maintenance

O-Level maintenance is basic maintenance performed by an activity on its assigned aircraft and equipment. O-Level maintenance is organized to achieve quick turnaround of aircraft and equipment in order to optimize operational availability. O-Level maintenance is the upkeep of aircraft and related equipment by the operating unit. O-Level maintenance includes inspection, servicing, lubrication, adjustment, incorporation of O-Level technical directives, and replacement of parts, minor assemblies and subassemblies. O-level maintenance activities across the Naval Aviation Enterprise (NAE) Navy Sustainment System (NSS) will standardize maintenance management practices and procedures across all fleet O-level maintenance departments per COMNAVAIRPAC/COMNAVAIRLANTINST 4790.43 located at: https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/.

3.1.1.2 I-Level Maintenance

I-level maintenance is performed by designated Intermediate Maintenance Activities (IMA) responsible for supporting units operating aircraft and aeronautical equipment. The primary focus of I-level maintenance is to produce ready-for-issue (RFI) parts and ready-for-use (RFU) support equipment in sufficient quantities to support aircraft operations. I-level maintenance primarily consists of:

a. Inspection, testing and repair of aeronautical components and support equipment (SE)

b. I-Level calibration

c. Technical assistance to supported units

d. Incorporation of I-level Technical Directives (TD)

e. Manufacture of selected aeronautical components, liquids, parts, end use items and gases. IMAs are authorized to employ various manufacturing methods to include AM equipment assigned as tier 1 or tier 2 polymer printers per NAVAIRINST 4790.41 in direct support of organic AM parts manufacturing.

f. Performance of I-level maintenance on aircraft, such as Non-Destructive Inspection (NDI) of airframe and dynamic components (when required).

3.1.1.3 D-Level Maintenance and Rework

D-level maintenance and rework is performed by designated depot activities on aircraft, equipment and material requiring overhaul, upgrading, or rebuilding of parts, assemblies, subassemblies, and end items, including manufacture, modification, testing, and reclamation of parts. Rework requires extensive diagnostic equipment and industrial-level manufacturing capabilities beyond the capability and resources of O-level and I-level maintenance activities. Rework typically occurs in depot facilities managed by Commander, Naval Air Systems Command (COMNAVAIRSYSCOM) or at original equipment manufacturer (OEM) sites. Selected depot rework and maintenance functions are performed at aircraft operational sites in order to minimize cost and turnaround time. D-level maintenance and rework includes:

a. Aircraft standard and special rework

b. Rework and repair of engines, components, and SE

c. Calibration by Navy calibration laboratories and Navy Primary Standards Labs (NPSL)

d. Incorporation of D-level technical directives (TD)

e. Modification of aircraft, engines, and support equipment (SE)

f. Manufacture and modification of parts and kits. Depots are authorized to employ various manufacturing methods to include AM equipment. AM Depot machines are considered plant equipment and operate under the standard operating procedures developed and approved by the Depot and COMFRC per NAVAIRINST 4790.41 in direct support of organic AM parts and manufacturing.

g. Depot Field Team assistance

h. Technical and engineering assistance

i. Age exploration (AE) of aircraft and equipment under Reliability Centered Maintenance (RCM)

3.1.2 Maintenance Functions

Maintenance functions describe specific types of maintenance performed at each maintenance level.

3.1.2.1 General Policy

a. Aeronautical material will be repaired at the level of maintenance that most efficiently uses manpower, material, and equipment resources in achieving naval aviation material readiness and operational objectives. SM&R codes specify if a component is intended to be repaired at the O-level, I-level, or D-level of maintenance. COMNAVAIRSYSCOM is responsible for determining maintenance functions during the development, expansion, execution, and support of maintenance plans for aircraft and component repair. Maintenance activities will advise the responsible COMNAVAIRSYSCOM program office of administrative or logistic obstacles that impede component repair at the most effective and efficient level.

b. Regardless of the maintenance level assigned to a function, activities must refer to technical manuals and references to determine the extent to which a repair can be undertaken on a particular system, component, or equipment. Chapter 10, paragraph 10.33.2, provides

procedures for submitting Fleet Engineering Disposition (FED) requests for one-time authorization to perform repairs damaged beyond allowable repair limits.

c. Although equipment and material allowance lists may reflect an assigned maintenance level, all activities of the assigned maintenance level may not be outfitted with tools and SE to perform a particular maintenance function. For example, some tools and equipment required for O-level maintenance functions may be furnished on a sub-custody basis by the supporting IMA, ship, or station. The activity's Individual Material Readiness List (IMRL) is the authoritative allowance list for the issue of specific equipment.

d. All maintenance activities are authorized to repair consumable materials if a replacement item is not available in stock locally, and the item is required to offset a NMCS, PMCS, or work stoppage, and the repair is within their capability.

e. I-level activities are authorized to manufacture aeronautical material, if they have the capability, regardless of the manufacturing level assigned. Organizations producing AM parts for aircraft, ALRE, SE and weapons systems must comply with NAVAIR configuration management policies and procedures as outlined in NAVAIRINST 5400.162 and NAVAIRINST 4130.1 prior to installation of any manufactured material.

f. All maintenance activities are authorized to repair manufactured M series material if it is economical and within their capability. M series material may be forwarded to the next higher maintenance level for repair on a customer service basis.

g. Miniature/Microminiature (2M) avionics repairs will be done only by activities designated 2M repair capable by their ACC or TYCOM. Refer to the 2M NAMPSOP, paragraph 10.22 for additional guidance.

h. The use of Additive Manufacturing is restricted to I-Level and D-Level maintenance as per NAVAIRINST 4790.41 Policies and Procedures for the Implementation and Execution of Additive Manufacturing for the Naval Aviation Enterprise. For additional guidance, refer to the Naval Air Systems Additive Manufacturing Program (NASAMP) NAMSOP, paragraph 10.45.

NOTE: Manufacture of components is restricted to IMA. O-Level may request and install components manufactured in IMA's Work Center 550. Deviations from manufacturing organizations outside of Work Centers 550 must be authorized per NAVAIRINST 4790.41 Policies and Procedures for the Implementation and Execution of Additive Manufacturing for the Naval Aviation Enterprise.

3.1.2.2 Unmanned Aircraft Systems (UAS)

a. UAS range in size from small tactical individually operated air vehicles to large multi-mission air vehicles, which include ground control stations and launch and recovery equipment. To facilitate discussion and development of UAS related policies and processes, the Joint Staff's Joint Concept of Operations for Unmanned Aircraft Systems identifies the following UAS groups based on weight, normal operating altitude, and airspeed. A UA possessing any of the next higher group is categorized in the higher group:

	Maximum Gross Take-off Weight (pounds)	Normal Operating Altitude (feet)	Airspeed (knots)
Group 1	0-20	<1200	<100Kts
Group 2	21-55	<3500	<250Kts
Group 3	<1320	<18000	<250kts
Group 4	>1320	<18000	Any Speed
Group 5	>1320	>18000	Any Speed

b. The following table identifies general NAMP compliance requirements for UAS:

Group 1	No NAMP compliance – Maintenance Guidance IAW CNAFINST M-3710.9
Group 2	No NAMP compliance – Maintenance Guidance IAW CNAFINST M-3710.9
Group 3	No NAMP compliance – See Notes 1 through 3
Group 4	Fully NAMP compliant for applicable maintenance processes and systems
Group 5	Fully NAMP compliant for applicable maintenance processes and systems

Notes: 1. All UAS will have an approved maintenance plan that addresses the maintenance related airworthiness requirements for the UAS to support the issuance of a NAVAIR flight clearance.

2. Cognizant NAVAIR Program Office or NAWCAD AIRWorks will evaluate the potential for recommending a given Group 3 UAS be required to comply with appropriately tailored NAMP requirements. If a Group 3 UAS is recommended for NAMP compliance, the NAVAIR Program Office or NAWCAD AIRWorks will route the recommendation to CNAF N42/422 for adjudication. CNAF N42/N422 will review the recommendation and notify the cognizant organization of the determination via naval letter.

3. Group 3 UAS reporting custodians may request from CNAF N45 waivers for procedures contained in CNAF M-3710.7 and may consider requesting approval to operate in accordance with the CNAFINST M-3710.9 series.

3.1.2.3 Aircraft Systems and Components

Figure 3-1 lists maintenance functions for aircraft systems and components.

3.1.2.4 Power Plant Systems and Propeller /Rotary Wing Dynamic Drive Systems

Figure 3-2 lists maintenance functions for Power Plant Systems and Propeller /Rotary Wing Dynamic Drive Systems and Components.

3.1.2.5 Aviation Life Support Systems (ALSS), and Cartridges, Cartridge Actuating Devices (CAD), and Propellant Actuating Devices (PAD)

Figure 3-3 lists maintenance functions for ALSS, CAD, and PAD.

3.1.2.6 Support Equipment (SE)

Figure 3-4 lists maintenance functions for Support Equipment. For the purpose of classifying maintenance functions, SE is defined as all equipment required on the ground to make an aeronautical system, support system, subsystem, or end item of equipment (SE for SE), operational in its intended environment. Equipment such as drill presses, grinders, lathes, sewing machines, and welders normally used in aeronautical work centers in support of aircraft, component, or SE maintenance are included in this classification. SE is primarily the equipment covered by the Aircraft Maintenance Material Readiness List (AMMRL) Program. General policy:

a. Maintenance of non-AMMRL Program equipment that is required to support flight operations or aircraft maintenance will be performed by the supporting I-level activity, as directed by the ACC. Examples of non-AMMRL equipment are crash and firefighting equipment, runway sweepers, and forklift trucks.

b. SE installed within a work center, such as hydraulic test stands (A/F 27T-10), electrical test units (VARIDRIVES), and oxygen and nitrogen generating plants (LOX-30/PLN-430) is normally maintained by the work center having physical custody.

c. Activities are responsible for O-level maintenance functions on SE assigned on sub-custody from the supporting IMA, station or ship. When an activity is deploying to an operating location without an IMA to provide SE support, the pre-deployment planning must include determination of how scheduled SE maintenance will be accomplished. If in theater I-level support (ashore or afloat) cannot be provided due to logistical constraints, the deploying unit will request its supporting IMA provide I-level SE maintenance training for those items of SE that will have to be maintained during the deployment. This authority excludes maintenance of aircraft lifting devices that require a functional load test, proof loading that uses a portable or stationary jack tester, when NDI requirements exist, and in any situation where the special tools or SE, consumable maintenance materials, or replacement parts are unavailable. Maintenance documentation will be accomplished per the O-level WO procedures of Chapter 15.

NOTE: Maintenance functions for armament weapons support equipment (AWSE) are listed in OPNAV M-8000.16.

3.1.2.7 Airborne Mine Countermeasures (AMCM) Systems

Figure 3-5 lists maintenance functions for AMCM systems.

3.1.2.8 Airborne Weapon Systems

Maintenance policy for Airborne Weapon Systems (Air/Surface/Sub-Surface Missiles, Ordnance, Ammunition, Aerial Targets/Drones, Mines/Mine Neutralization Systems, Torpedoes, Unmanned Air Vehicles (UAV), Remotely Piloted Vehicles (RPV), Aircraft Armament Systems (AAS), Ship Guns, and Armament Weapons Support Equipment (AWSE)) are listed in OPNAV M-8000.16. Additionally, amplifying AAS maintenance policy is listed in CNAFINST 8380.2.

3.1.2.9 Jet Engine Test Facilities

The structure and basic systems, such as fuel, water, air, and CO2 fire extinguishing systems, of installed jet engine test facilities (Class C test cells) will be maintained by the station Public

Works Department (ashore) and Engineering Department (afloat). The control console, engine connector panel, and thrust bed of installed jet engine test facilities will be maintained by the work center having physical custody.

3.1.3 Assignment of Maintenance Responsibilities

The Chief of Naval Operations (CNO) and Commandant Marine Corps (CMC) assign maintenance responsibilities to naval operating and training forces, Fleet Marine Forces (FMF), and non-fleet Marine forces. COMNAVAIRSYSCOM assigns maintenance responsibilities to NAVAIRSYSCOM activities. Navy and Marine Corps air reserve activities and air stations perform the same standard maintenance functions and are assigned the same responsibilities as active forces. General policy:

a. Designated activities will perform limited D-level maintenance functions for an entire logistic area based on ACC recommendations approved by COMNAVAIRSYSCOM.

b. O-level activities may be assigned responsibility for specific I-level maintenance functions unique to the assigned mission of the activity or in partial support of their own operations, if recommended by their ACC and authorized by the cognizant COMNAVAIRSYSCOM program office. O-level activities assigned I-level responsibilities will perform only the specific functions authorized and only on their assigned aircraft and equipment.

c. IMAs are authorized to perform any maintenance for which they have capability and authorization. IMAs may be assigned specific D-level maintenance functions, if recommended by the ACC and authorized by the cognizant COMNAVAIRSYSCOM Fleet Support Team (FST). Chapter 10, paragraph 10.33.2 provides procedures for submitting Fleet Engineering Disposition (FED) requests for one-time authorization to repair an individual component damaged beyond allowable I-level repair limits. I-level activities are authorized to manufacture aeronautical material, if they have the capability, regardless of the manufacturing level assigned.

d. All UAS activities are designated as O-level with limited I-level capability because of the unique characteristics inherent in UAS design and operation. The maintenance functions of Figure 3-1 are applicable to UAS.

e. Miniature/Microminiature (2M) avionics repairs will be done only by activities designated 2M repair capable by their ACC. Refer to the 2M NAMPSOP, paragraph 10.22 for additional guidance.

3.1.3.1 Shore Air Field Activities

a. Shore air stations with reporting custody of aircraft must, unless specific deviations are authorized by the ACC, establish an Operations Maintenance Division (OMD) within the Operations Department to perform O-level maintenance.

b. Air stations, airfields, and air bases are responsible for providing maintenance facilities and limited plant property for tenant activities and flight line services for transient aircraft. Maintenance on transient aircraft may be performed within the station's capability.

c. Figure 3-6 lists the types of maintenance activities located at Navy shore air stations, fields and bases.

d. Figure 3-7 lists the types of maintenance activities located at Marine Corps Air Stations (MCAS) and air facilities. MCAS and air facilities are responsible for performing the levels of maintenance designated by the Marine Corps Tables of Organization and for providing flight line services for transient aircraft. MCAS and air facilities will provide maintenance facilities and limited non-deployable SE or plant property support for tenant activities.

3.1.3.2 CVN, LHA, and LHD Aviation Ships

Figure 3-8 lists the assigned levels of aviation maintenance performed by CVN, LHA, and LHD class ships. In addition to providing I-level support for aircraft assigned to their strike group, CVN, LHA, and LHD Aircraft Intermediate Maintenance Departments (AIMD):

a. Coordinate preparation of maintenance facilities to support embarked aviation squadrons and detachments.

b. Update shipboard maintenance facility plans to accommodate new deck loads.

c. Review outstanding ship alterations and submit recommendations concerning AIMD spaces and installed equipment.

d. Coordinate I-level support personnel requirements with the air wing.

e. Coordinate assignment of O-level maintenance spaces with the air wing.

f. Assume responsibility for upkeep and security of O-level maintenance spaces while the air wing is debarked.

g. Provide I-level maintenance support to the Weapons Department for maintenance beyond the capability of the Weapons Department.

h. Receive, manage, and return spare ALSS assemblies to support the deployed air wing per paragraph 10.40.

NOTE: Non-aviation ships (cruisers, destroyers, frigates, etc.) do not provide I-level aviation maintenance support for embarked aircraft; they only provide O-level maintenance facilities with fixed-in-place equipment that cannot be embarked with deployed aviation units, and space for stowing maintenance materials.

3.1.3.3 Navy Squadrons

Figure 3-9 lists the assigned levels of maintenance performed by Navy squadrons.

3.1.3.4 Marine Squadrons

Figure 3-10 lists the assigned levels of maintenance performed by FMF squadrons.

3.1.3.5 Naval Air Training and Marine Air Reserve Squadrons and Units

Figure 3-11 lists the assigned levels of maintenance performed by Naval Air Training and Marine Air Reserve squadrons.

3.1.3.6 Specialized Activities

Figure 3-12 lists the assigned levels of maintenance performed by specialized activities, for example, Defense Contract Management Agencies (DCMA), Naval Weapons Evaluation

Facilities and Tactical Support Centers (TSC) assigned aircraft or equipment originally designed for use in aircraft.

3.1.3.7 Weapons Departments and Divisions

Weapons Departments and Divisions that perform on-equipment maintenance are authorized to perform I-level maintenance to the limit of their capabilities. For maintenance beyond those limits, the supporting IMA will provide I-level support (within assigned capabilities) to the Weapons Department.

3.2 Maintenance Activity Standard Organization

Standard organization defines specific areas of responsibility and management authority for the numerous processes involved in producing aircraft, engines and equipment. Codes for O-level and I-level Divisions and Work Centers are listed in the Table of Work Center Codes, Appendix E.

3.2.1 Terms

a. "Department" applies to all maintenance activities having a department head. In activities where maintenance is assigned as a division to another department, the term "division" will be used in place of department.

b. "Division" is a subsection of a department devoted to performing a specific category of maintenance, and in which distinct sub-functions of the division are divided into branches. For example, an O-level Aircraft Division (Work Center Code 100) is often comprised of separate branches for Power Plants (110), Airframes (120), and Aviation Life Support Systems (130).

c. "Branch" applies to a subsection of a division in which a functional area is divided into separate shops. For example, the Airframes Branch (Work Center Code 120) may be comprised of Structures Shop (12A), Hydraulics Shop (12B), and Corrosion Control Shop (12C).

d. "Work Centers" (often called "shops") are designated functional areas to which personnel are permanently assigned, for example the Structures Shop (12A), Power Plants Module Repair Shop (414) and Aviation Tool Issue/Tool Control Center (05D). The number and designation of work centers will be based upon assessment of required maintenance or support functions, numbers of personnel, span of control, workload schedules, and work locations.

3.2.2 O-Level Maintenance Activity Standard Organization

NOTE: Any division or branch may be deleted if the activity has no responsibilities relative to that function or if responsibilities are not extensive and can be accomplished within another division or branch.

3.2.2.1 Navy O-Level Maintenance Department

Figure 3-13 is the standard organization of a Navy O-level Maintenance Department.

3.2.2.2 Marine Corps O-Level Maintenance Department

Figure 3-14 is the standard organization of a Marine Corps O-level Maintenance Department.

3.2.2.3 Autonomous Maintenance Unit (AMU)

Figure 3-15 is an example of an optional AMU O-level Maintenance Department organization for large training squadrons that maintain several different T/M/S aircraft. The AMU structure may be modified to suit the unit's manning and operational scenario. The AMU structure may also be used by Navy Carrier Air Wings (CVW) and Marine Aviation Combat Elements (ACE) during shore-based detachments operating several different T/M/S aircraft.

3.2.2.4 Operations Maintenance Division (OMD) and Detachments Operating Four or Less Aircraft

Figure 3-16 is the standard organization of an OMD and detachments operating four or less aircraft.

3.2.2.5 Airborne Mine Countermeasures (AMCM) Systems Maintenance Department.

Figure 3-17 is the standard organization of AMCM Maintenance Department.

3.2.2.6 Marine Air Traffic Control Detachments (MATCD)

MATCD operate under Marine Air Control Squadrons (MACS). MATCD are responsible for performing O-level and I-level maintenance on Marine Air Traffic Control and Landing Systems (MATCALS). COMNAVAIRSYSCOM PMA-213 is the MATCALS program office. Standard organization and functions of MATCD Maintenance Departments are prescribed in 10.30.

3.2.2.7 Expeditionary Air Field Maintenance Departments and MCAS Recovery Units Standard Organization

Functions of Expeditionary Air Field (EAF) Maintenance Departments and a MCAS Recovery Units are prescribed in 10.31.

3.2.3 O-Level Division Functions

3.2.3.1 Maintenance Control

Maintenance Control functions are specified in Chapter 5.

3.2.3.2 Material Control

Material Control functions are specified in Chapter 6.

3.2.3.3 Quality Assurance

Quality Assurance functions are specified in Chapter 7.

3.2.3.4 Aircraft Division

The Aircraft Division performs O-level maintenance functions relative to Airframes, Power Plants, and Aviation Life Support Systems (ALSS).

a. Power Plants Branch. The Power Plants Branch performs O-level maintenance on aircraft engines and auxiliary power units, fuel systems, propellers, and dynamic components and drive systems. In Marine squadrons, Power Plants maintenance is a function of the Power Line Division.

b. Airframes Branch. The Airframes Branch performs O-level maintenance on aircraft structures, landing gear, and hydraulic systems.

c. Aviation Life Support Systems (ALSS) Branch. The ALSS Branch performs O-level maintenance functions relative to equipment and items needed to allow aircrew members and aircraft passengers function within all parameters of the flight environment, including safe egress from disabled aircraft and descent to the ground or ascent to the surface, survival on land or water, and interface with rescue forces. ALSS includes escape systems, environmental systems, fire extinguishing systems, aircrew clothing, survival kits, personnel parachutes and the associated hardware, life rafts and preservers, anti-exposure suits, survival radios and other emergency signaling equipment, flight helmets, oxygen equipment, anti-G suits and associated hardware, and other miscellaneous survival and life support items. 10.40 prescribes ALSS maintenance standard operating procedures.

d. Periodic Maintenance Branch. The Periodic Maintenance Branch is an optional and usually temporary work center formed to manage the completion of complex Preventive Maintenance (PM) events, such as phase inspections involving numerous personnel from various work centers. If commands elect to form a Periodic Maintenance Branch, they must select the manning arrangement that best fits the content of the periodic maintenance performed. A permanent crew may be warranted if the number of inspections performed and the man-hours involved cause a consistent periodic maintenance workload. If the periodic maintenance workload does not justify establishing a permanent crew, the command may use a temporary crew concept, in which an inspection supervisor and a work crew from the necessary ratings is assembled and assigned to the Periodic Maintenance Branch only for the duration of the inspection. Upon completion of the inspection, the personnel return to their permanently assigned work center.

3.2.3.5 Avionics/Armament Division

The Avionics/Armament Division performs O-level maintenance on aircraft electronic, electrical, instrument, flight control, fire control and bombing equipment, armament systems, armament equipment, including the loading of aircraft ordnance.

NOTE: Marine Corps squadrons operate separate Avionics Divisions and Ordnance Divisions. Refer to Chapter 4 for details and Figure 3-14 for Marine Corps O-Level Maintenance Department Standard Organization.

3.2.3.6 Ordnance Division (Marine Corps)

The Ordnance Division performs O-level maintenance on Aircraft Armament Systems (AAS), weapons and fire control systems, and related components. This includes electrical and mechanical troubleshooting and weapons systems release and control checks. The Ordnance Division is also responsible for the proper issue, turn-in, loading, downloading, storage, and physical security of aircraft weapons.

3.2.3.7 Line Division

The Line Division performs O-level maintenance functions to prepare aircraft for flight, and launches and recovers aircraft. In Navy squadrons, the Line Division includes Plane Captain and Troubleshooter Work Centers, and when established, an SE Work Center. In Marine squadrons, the Power Line Division is responsible for power plants maintenance in addition to Line Division functions. Personnel from other divisions may be assigned permanently to the Line Division as

Troubleshooters, or may be temporarily assigned as needed to perform Troubleshooter functions for aircraft launch and recovery.

3.2.3.8 Unmanned Aircraft Systems (UAS) Division

The UAS Division, when established within a squadron that also operates manned aircraft, supervises, coordinates, and completes periodic maintenance, inspections, decontamination, and rehabilitation of UAS Groups 3 through 5. Crew leaders and other personnel designated by the MO are permanently assigned to the UAS Division. Additional personnel are made available as required from other divisions.

3.2.4 I-Level Maintenance Activity Standard Organization

3.2.4.1 Shore Based Aircraft Intermediate Maintenance Departments (AIMD) and I-Level Fleet Readiness Centers (FRC)

Figure 3-18 is the standard organization for Navy shore based AIMDs and I-level FRCs.

3.2.4.2 CVN and L-Class Ship Aircraft Intermediate Maintenance Department

Figure 3-19 is the standard organization of a CVN and L-Class Ship Aircraft Intermediate Maintenance Department.

3.2.4.3 Marine Aviation Logistics Squadron (MALS)

Figure 3-20 is the standard organization of a MALS Maintenance Department. Chapter 4 provides detail on MALS responsibilities and organization.

NOTES: 1. Any division or branch may be deleted if responsibilities relative to that function do not exist or if responsibilities are not extensive and can be accomplished within another division/branch.

2. Weapons Department I-level maintenance organization and responsibilities are in OPNAV M-8000.16.

3.2.5 I-level Division Functions

3.2.5.1 Production Control

Production Control functions are specified in Chapter 5.

3.2.5.2 Material Control

Material Control functions are specified in Chapter 6.

3.2.5.3 Quality Assurance

Quality Assurance functions are specified in Chapter 7.

3.2.5.4 Power Plants Division

The Power Plants Division performs I-level repair and testing for aircraft engines, auxiliary power units, propellers, rotor dynamic components, auxiliary fuel tanks, and oil analysis for engines and components. Power Plants Division procedures and responsibilities related to Gas Turbine Engine Maintenance (GTEM) and Gas Turbine Engine Test Systems (GTETS) and are outlined in 10.23.

3.2.5.5 Airframes Division

The Airframes Division performs I-Level repair and testing for aircraft structures, hydraulic and pneumatic systems, Non-destructive Inspection (NDI), and Additive Manufacturing services.

3.2.5.6 Avionics Division

The Avionics Division performs I-level repair and testing for aircraft communication and navigation components, electrical system components, instruments, radar, electronic counter measures, weapons control systems, acoustic systems, and infrared radar. Avionics Division also provides Field Calibration Activity services.

3.2.5.7 Armament Division

The Armament Division performs I-level maintenance on Aircraft Armament Systems (AAS) and weapons in accordance with CNAFINST 8380.2 and OPNAVINST 8000.16.

NOTE: MALS Weapons Department functions are detailed in Chapter 4.

3.2.5.8 Aviation Life Support Systems (ALSS) Division

The ALSS Division performs I-level maintenance and testing of ALSS. ALSS Division procedures and responsibilities are outlined in 10.40.

3.2.5.9 Support Equipment (SE) Division

The SE Division performs I-level maintenance on SE, and maintains a pool of SE for sub-custody and temporary issue to O-level activities.

3.2.5.10 Ship Evolution Support Services

The Ship Evolution Support Services Division performs surface maintenance material management (surface 3-M) on CVN, LHA, and LHD AIMD spaces and installed damage control equipment, and performs other directed ship support services.

3.2.6 O-Level and I-Level Maintenance Administration Division

The Maintenance Administration Division provides administrative services for the Maintenance Department. General responsibilities:

a. Provide clerical and administrative services for the department, including preparation of maintenance related correspondence.

b. Maintain distribute, retain, and dispose of correspondence, administrative records, and reports per SECNAV instructions.

c. Establish and control a central maintenance reporting and record keeping system for all administrative reports and correspondence, if not already centrally located in the command's Administration Department, including a tickler file to assure timely submission of recurring reports.

d. Prepare, distribute, file, retain, and dispose of maintenance department correspondence, administrative records, and reports per SECNAV directives.

e. Coordinate with command administrative department on access, distribution, and control of naval messages.

f. Coordinate department administrative and security responsibilities with other departments and divisions (as required).

g. Distribute nontechnical information and publications not managed within the QA Division Central Technical Publications Library.

h. Maintain a master file of nontechnical instructions.

NOTE: Internal control and distribution of the NAMP is the responsibility of the QA Division Technical Data Manager.

i. Maintain a current organizational roster in electronic or hardcopy form. The roster will include, as a minimum, name, rate, and billet assignment. This function may be performed by the Manpower, Personnel and Training (MP&T) Coordinator (where assigned).

j. In addition, I-level maintenance administration divisions will:

(1) Coordinate with the command's Administrative Department.

(2) Safeguard and distribute personal mail to department personnel.

(3) Distribute locally issued reports and correspondence.

(4) Control department classified material.

(5) (IMAs without an MP&T Coordinator). Establish and coordinate department training requirements and obtain school quotas.

(6) Coordinate transportation and communication requirements.

(7) Assign spaces to the divisions and establish responsibilities for security and cleanliness.

(8) Assume responsibility for vacant or unassigned maintenance spaces.

(9) Arrange department participation in joint inspections of facilities assigned to tenant activities, including arrival or departure of a tenant activity.

3.2.7 Airborne Mine Countermeasures (AMCM) Systems Maintenance Department

AMCM Maintenance Departments perform O-level and limited I-level maintenance on AMCM systems operated by Navy Helicopter Mine Countermeasures (HM) squadrons. AMCM systems include devices, device towing equipment, aircraft-to-device interface equipment, and related AMCM tactical support equipment (small craft and Civil Engineering Support Equipment (CESE)). The AMCM Systems Maintenance Department provides AMCM equipment to the Aircraft Maintenance Department for aircraft installation by the Configuration Branch (Work Center 360). Figure 3-17 is the standard AMCM Systems Maintenance Department. The AMCM Systems Maintenance Department Material Control (Work Center 05M) is a branch of the Aircraft Maintenance Department Material Control Work Center and is normally collocated with the AMCM Systems Maintenance Control. The AMCM Avionics and Weapons Division perform O-level and selected I-level maintenance functions on AMCM equipment. The AMCM Device Division performs O-level and, when deployed, selected I-level maintenance functions. The Tactical Support Division is responsible for the maintenance and operation of tactical support equipment, including CESE and Rigid Hulled Inflatable Boats (RHIB). AMCM

Maintenance Department detachments are organized and equipped as needed to maintain AMCM equipment aboard ship and at remote land sites.

3.3 Aviation Maintenance Officers

3.3.1 Basic Qualifications for Designated Career Aviation Maintenance Officers

Navy officers designated 152X, 63XX, or 73XX and Marine Corps Officers designated MOS 6002 or 6004 in route to their first maintenance assignment will complete either the Naval Aviation Maintenance Program Indoctrination Course (CIN C-4D-2012) or the Naval Aviation Maintenance Program Management Course (CIN C-4D-2013). The Naval Aviation Maintenance Program Management Course is designed for personnel possessing at least 2 years of aviation maintenance or aviation maintenance support experience. Naval Personnel Command (NPC) may waive the requirement for completion of either of these courses on an individual, case-by-case basis. As they progress in their career, Aviation Maintenance Officers may require advanced training in specialized areas, such as logistics, industrial management, aeronautical engineering, and MIS design. Fundamental knowledge for career Aviation Maintenance Officers includes:

a. Management principles (planning, organizing, staffing, directing, controlling, and communication)

b. Department of the Navy organization with emphasis on roles and responsibilities of OPNAV, NAVAIR, and NAVSUP

c. Basic operational theory of aeronautics and aircraft systems (airframes, power plants, avionics and electrical, ALSS, armament)

d. Basic maintenance and servicing procedures and related safety precautions regarding:

(1) Servicing, maintenance and operation of aircraft, engines and equipment.

(2) Procedures for corrosion inspection, prevention, and treatment.

(3) Proper positioning, security, and operation of SE.

(4) Ordnance handling.

(5) Aircraft and equipment tie-down requirements for all weather conditions.

e. Aviation supply, including:

(1) Supply references and research procedures.

(2) Material Control (050) functions.

(3) Supply Department organization.

(4) Material Control and Supply Department coordination.

(5) Requisition procedures and documentation.

(6) Supply reports.

(7) Classification and identification of aeronautical material.

(8) Functions and responsibilities of NAVSUP WSS, Inventory Control Points, ship and shore based Supply Departments, and other supply inventory and distribution activities.

(9) Material requisition documents and flow.

(10) Open purchase procedures and regulations.

(11) Material survey procedures.

(12) Aviation Consolidated Allowance List (AVCAL) and Shore consolidated Allowance List (SHORCAL) development, and procedures for allowance adjustment.

(13) Repairables pipeline, including Local Repair Cycle Assets (LRCA) management.

(14) Material receipt, control, and inventory.

(15) Shipboard Uniform Automated Data Processing System (SUADPS) procedures.

(16) Management of Local Repair Cycle Assets (LRCA) and Pre-expended Bins (PEB).

(17) Supply performance metrics.

(18) Requisition prioritization and NMCS/PMCS expediting.

(19) Hazardous Material Control and Management (HMC&M).

(20) Shipping and storage of classified components.

f. Aviation budgeting, funding and financial management with emphasis on use and control of flight operational funds, Aviation Fleet Maintenance (AFM) funds, Aviation Consolidated Allowance List (AVCAL) funds, aviation Depot Level Repairables (DLR), and flying hour cost reporting.

g. The Naval Aviation Safety Program with emphasis on safety procedures (ashore and afloat), command responsibilities and relationships, procedures for handling mishaps, submission of mishap reports, and composition and function of aircraft mishap boards.

h. Management Information Systems (MIS) and processes:

(1) NALCOMIS, including the foundation tier, mid-tier, and top tier applications.

(2) Aviation 3M Reports and ad hoc reports.

(3) Data analysis.

i. Maintenance Control and Production Control procedures, including:

(1) Planning, scheduling and coordinating maintenance.

(2) Prioritizing workload.

(3) Releasing aircraft and equipment ready for flight/use.

j. Manpower administration and management:

(1) Responsibilities of NAVPERS/Marine Corps Manpower Plans and Policy, NAVMAC, and ACCs in providing aviation maintenance manpower.

(2) NEC or MOS assignment policy and procedures.

(3) Enlisted evaluation and advancement requirements.

(4) Activity Manpower Document (AMD), Personnel Manning Report (PERSMAR), Enlisted Manning Inquiry Report (EMIR), Career Management System (CMS)-Interactive Detailing (ID)/Billet Based Distribution (BBD), and Marine Corps equivalents.

(5) Naval Officer Billet and subspecialty codes, and additional qualification designators (AQD) (Not applicable to Marine Corps).

(6) Officer fitness reports, preference cards, officer assignment policy, and career rotation patterns.

k. Maintenance training and scheduling.

l. Maintenance administration:

(1) Aircraft logbooks, Aeronautical Equipment Service Record (AESR), Module Service Record (MSR), Assembly Service Record (ASR), Equipment History Record (EHR), Scheduled Component Repair (SRC), Configuration Management Auto Log Set (CM ALS), Weight & Balance (W&B) logbooks, and Aircraft Readiness Reporting System (AIRRS).

(2) Navy directive system.

(3) Naval correspondence format and procedures related to aviation maintenance

(4) Classified correspondence.

(5) Standard reports, format and submission requirements.

m. SE allowancing and accounting procedures:

(1) Aviation Maintenance Material Readiness List Program.

(2) IMRL management.

(3) Support Equipment Controlling Authority (SECA) functions.

(4) Support Equipment Standardization System (SESS).

n. An understanding of AIRSpeed CPI methods, concepts, and analysis tools, including completion of the Logistics Chain Management Initial Training Course (NAVAIR-LCM-0001.3) (https://my.navy.mil) and Champion/Project Sponsor training.

o. Aviation maintenance publications, directives, manuals, and related instructions, and notices.

p. Aircraft and equipment configuration management.

q. Navy Aviation Maintenance Officers with designator 1520 must complete the Navy Aviation Maintenance Officer PQS (NAVEDTRA 43438).

r. The Joint Aviation Supply and Maintenance Material Management (JASMMM) Course (A-8B-0020) is optional for career Aviation Maintenance Officers.

3.3.2 Maintenance Billet Training

a. All officers assigned to a squadron Maintenance Department that are not career aviation maintenance officers (Navy designators 152X, 63XX, and 73XX and Marine Corps MOS 6002

and 6004) must complete the CENNAVAVNTECHTRA Aviation Officer Maintenance Fundamentals Course (C-555-0034) prior to or within 60 days after assuming duties. Officers who have completed the Naval Aviation Maintenance Program Indoctrination Course (C-4D-2012) or the Naval Aviation Maintenance Program Management Course (C-4D-2013) are exempt from this requirement.

b. All O-Level personnel E-6 through O-5 assigned to the maintenance department must complete the Corrosion for Managers (CFM) Course (N-701-0039). Within six months of reporting to an O-Level activity or within six months of promotion to E-6, if not previously completed. Personnel are required to retake the CFM following a subsequent break in O-Level assignment, for example, a tour in an I-Level activity or non-aviation maintenance billet (recruiter, instructor duty, ETC.)

c. Officers assigned as QA Officer must complete the NALCOMIS (Optimized) OMA Naval Aviation Quality Assurance Administration Course (Course C-555-0046) prior to or within 60 days after assuming duties.

d. Officers assigned as O-level MMCO must complete the Naval Aviation Maintenance Control Management for Optimized Organizational Maintenance Activity Course (C-555-0053) prior to or within 60 days after assuming duties. I-level MMCOs must complete the Intermediate Maintenance Activity (IMA) Production Control Procedures Course (C-555-0043).

e. Officers assigned as the MMCO or Material Control Officer must complete the Naval Aviation Material Control Management Course (C-555-0051) and the Financial Management for Naval Aviation Operating Target Accounting (OPTAR) Course (C-555-0018) prior to or within 60 days after assuming duties.

3.3.3 Assignment

a. Officers will be assigned to maintenance billets based on their experience in consideration of the position's workload, span of control, and specific needs of the activity.

b. All maintenance management and division billets specified in the NAMP will be filled before assigning assistants or branch heads.

c. An aviation ground officer must be assigned as MO, AMO, or MMCO for O-level activities. If the MO is an aviation ground officer, then the AMO (if assigned), MMCO, or QA Officer must be a pilot or NFO assigned to duty in a flying status. Officers assigned to the MO and the MMCO billets will remain in these billets for a minimum of 1 year. For deploying squadrons, the period of assignment will include the full work up and deployment cycle.

d. Navy Supply Corps Officers assigned to duty in ship-deployable squadrons will be assigned as Material Control Officers. During ship-based work-ups and deployment, they will be assigned TAD to the carrier Supply Department.

NOTE: Aviation ground officer assignments do not apply to OMDs or detachments where manning authorizations do not include aviation ground officer billets.

3.4 Command, Department, Division, Branch and Work Center Management Responsibilities

3.4.1 Commanding Officer

The CO is responsible for command compliance with the NAMP, including:

a. Promote and enforce procedures that ensure quality maintenance of aircraft, equipment, and material, and the readiness, training and safety of maintenance personnel under their cognizance

b. Compliance with the NAVOSH requirements contained in OPNAVINST 5100.19 and OPNAVINST 5100.23, as applicable to command operations

c. Review active NAMP deviations upon assuming command

d. Assignment of officers to maintenance billets per paragraph 3.3.3

e. Compliance with HMC&M directives, and coordination with federal, state, interstate, and local pollution control agencies in adhering to standards for the control and abatement of environmental pollution. For detailed information on HMC&M requirements, refer to the HMC&M NAMPSOP (paragraph 10.19), OPNAVINST 5090.1, OPNAVINST 5100.19, OPNAVINST 5100.23, and the Judge Advocate General Manual.

f. Signing directives, designations and licenses specified for CO-level signature. Designations and licenses will be certified by signing the OPNAV form or ASM equivalent for those designations and licenses with an applicable OPNAV form. All other designations and licenses will be made by naval letter or via ASM. CO signature requirements include:

(1) Direction on controls for custody and issue of flight packets

(2) Direction on controls for Aircraft Into-Plane Reimbursement (AIR) card per paragraph 6.7.2.10

(3) Issuing Aircraft taxi, engine and APU turn-up licenses per paragraph 10.42

(4) Designating personnel authorized to certify aircraft Safe for Flight per Chapter 5

(5) Designating QARs, CDQARs, and CDIs per Chapter 7

(6) Designating the Hazardous Material Control and Management Officer per paragraph 10.19

(7) Designating the Weight and Balance Officer per paragraph 10.32

(8) Designating ordnance certification board members per OPNAV M-8000.16

(9) Designating aviation confined space Entry Authorities (EA) and technicians per NAVAIR 01-1A-35

(10) Designating Plane Captains per 10.14

(11) Designate Unmanned Aircraft Systems Ground Maintenance Vehicle Operator Instructors and sign license of GMVO per 10.43.

NOTES: 1. Officers in Charge (OIC) of permanently established units are authorized to sign all maintenance qualifications, designations, and correspondence required per this instruction.

2. In commands that deploy detachments, the CO will delegate signature authority to detachment OICs for those areas the CO determines OIC signature authority is appropriate. Delegation will be in writing, by name, and will expire upon return from deployment.

3. In squadrons with contractor manning in the Maintenance Department, the Contractor Site Manager is responsible for certification and designation of contractor personnel. The Contractor Site Manager authority may not be delegated.

3.4.2 Maintenance Officer (MO)

The MO is responsible for the effective and efficient management of the maintenance department. MO responsibilities relative to specific programs and processes are listed throughout the NAMP. General MO duties include:

a. Assign maintenance department personnel to most effectively accomplish the department's responsibilities.

b. Publish plans of actions and milestones (POA&M) for significant events, such as transition to a new T/M/S aircraft, change of station, and deployment work-up.

c. Overall responsible for maintenance data accuracy and compliance of readiness metric standards to include the accuracy of squadron generated mission capability rates. Periodically brief the CO on the performance of the Maintenance Department to include the metrics within activities most current AV3M summary, Type Wing or MAG aggregate AV3M summary, and COMNAVAIRSYSCOM statistical analysis as specified in Chapter 14. Periodicity and additional content of the briefs is at the discretion of the CO.

d. (O-level) Coordinate with the Operations Officer in planning aircraft and mission system requirements.

e. Coordinate with IMA Maintenance Officer, Supply Officer and Wing Maintenance Officer in obtaining resources to accomplish maintenance department objectives.

f. Conduct meetings with Maintenance Department officers and senior enlisted managers at least once per quarter to review the department's performance and preparation for upcoming events. At a minimum, the review must include:

(1) Performance metrics and trends utilizing activity current AV3M summary and Type Wing or MAG aggregate AV3M summary to identify common errors and areas of improvement within the activity as specified in Chapter 14. Additionally, ensure Maintenance Department officers and senior enlisted leaders are showing improvements in data accuracy and integrity based on previous data to validate training effectiveness.

(2) Aircraft and equipment status, including upcoming transfers and receipts, depot rework events, and major phase inspections.

(3) Current and projected manpower.

(4) Preparation for inspections, training events, detachments, and deployment.

3.4.3 Assistant Maintenance Officer (AMO)

The AMO serves as the MO's assistant department head. AMO responsibilities relative to specific programs and processes are listed throughout the NAMP. General duties include:

a. Coordinate the accomplishment of the MO's general responsibilities, including assuming the MO duties when the MO is unavailable.

b. Make recommendations to the MO for improved departmental policies.

c. Manage the following work centers, as applicable: Maintenance Training/ASM (Work Center 01B), Manpower (01C), SEAOPDET (01D), AIRSpeed (01E), and Maintenance Administration (030).

d. Manage the staffing of the Maintenance Department, to include:

(1) Monitor personnel transfer and report dates, and coordinating with manpower authorities to fill billets with qualified personnel.

(2) Coordinate with the Maintenance Department Master Chief (Navy) or Aircraft Maintenance Chief (Marine Corps) on recommendations for assignment of senior enlisted personnel.

(3) Monitor and coordinate TAD assignment of maintenance personnel within the command and to other activities.

NOTES: 1. I-level AMOs will ensure O-level personnel TAD to the IMA are assigned to duties within the normal spectrum of their technical specialties.

2. CVN, LHA, and LHD AIMD AMOs will ensure the Ship Evolution Support Services work center (3.2.5.10) is adequately manned to perform the AIMD's surface 3-M workload and other directed ship support services.

(4) Provide Maintenance Department personnel readiness data to the Operations Department for submission to the Defense Readiness Reporting System (DRRS).

(5) (Navy) Act as the Maintenance Department Activity Manning Manager (AMM) and comply with the responsibilities of BUPERSINST 1080.54, Enlisted Distribution and Verification Process.

e. Manage the training, qualification, certification, and designation of personnel assigned to the department, per 10.1.

NOTE: The Aircraft Maintenance Chief manages training, qualification, and certification of personnel for O-level Marine units.

f. Manage Maintenance Department administrative responsibilities to include:

(1) Coordinate with the Administration Department on administrative matters regarding maintenance department personnel, such as fitness reports, evaluations, and administrative requirements for personnel transfer and receipt.

(2) Control general classified material kept in the maintenance department, excluding technical manuals and letter-type technical directives.

g. Coordinate transportation and communication systems requirements.

h. (O-level) Assign spaces to divisions and establish responsibilities for security and cleanliness.

i. Conduct inspections of maintenance department spaces.

3.4.4 Maintenance Material Control Officer (MMCO)

The MMCO is responsible for the overall productive effort of the department. MMCO responsibilities relative to specific programs and processes are listed throughout the NAMP.

a. Manage Maintenance/Production Control (Work Center 020) per Chapter 5.

b. Coordinate and monitor the maintenance workload.

c. Publish a daily status report on the material condition of aircraft, mission systems, and other major equipment.

d. Coordinate with the Supply Department on types and quantities of engines, components, propellers, consumable parts, and maintenance materials required.

e. Review monthly summaries, MDS and NTCSS Optimized NALCOMIS reports for correct documentation on aircraft, engines and equipment.

f. Manage aircraft and equipment logbooks, records, and associated CM ALS per Chapter 8.

g. Review material and equipment allowance lists (IMRL, AVCAL, SHORCAL, etc.) for accuracy and adequacy, and initiate corrections and revisions.

h. Conduct a monthly maintenance planning meeting with all divisions and prepare the Monthly Maintenance Plan (MMP) per Chapter 5.

i. Perform the functions of the Material Control Officer (paragraph 3.4.6), if not assigned.

j. Additional O-level MMCO duties:

(1) Conduct a planning meeting in advance of each phase inspection and PMI event per Chapter 5.

(2) Attend IMA and Supply Department logistics planning meetings.

(3) Establish procedures for controlling aircraft cannibalization.

(4) Coordinate planning and support for deployed or detached operations, including material, equipment, and facilities requirements.

k. Additional I-level MMCO or Production Control Officer duties:

(1) Manage the Aeronautical Material Screening Unit (AMSU).

(2) Coordinate and monitor Production Control per the procedures of Chapter 5.

3.4.5 Quality Assurance Officer (QAO)

The QAO is responsible for managing quality assurance within the maintenance department, including the inspection of aircraft, engines, components, equipment, and the monitoring and auditing of related maintenance processes, per Chapter 7. QAO responsibilities for specific

programs and processes are listed in Chapter 10. The QAO manages the Quality Assurance/Analysis Division (040), Technical Library (04A), Maintenance Department Safety (04B), Analysis (04C, Non-NALCOMIS sites, only), and Quality Assurance/Verification (04D).

3.4.6 Material Control Officer

The Material Control Officer (MCO) is responsible to the MMCO for the operation of the Material Control Branch.

a. Manage Material Control (050) and applicable processes and work centers (Material Screening (05A/AMSU), Material Procurement/Accounting (05B), Accountable Material/IMRL (05C), Aviation Tool Issue/Tool Control Center (05D), and Hazardous Material Control (05H).

b. Be knowledgeable and current in the fundamental aviation supply, allowancing, and funding processes described in paragraph 3.3.1.e, as they relate to local supply procedures.

c. Verify the Material Control procedures of Chapter 6 are followed.

d. Expeditiously submit survey documents for lost, missing, or damaged material and equipment.

e. Manage OPTAR accounting and budgeting, to include:

(1) Maintain a separate material control register for each OPTAR held.

(2) Verify the appropriate fund code is applied when submitting material requirements, such as Operational Functional Category (OFC) 01 for aircraft flight operations and administrative supplies and OFC 50 for aircraft maintenance. Chapter 6 contains detailed information regarding appropriate AFM charges.

f. Participate in AVCAL, SHORCAL and Supplemental Aviation Spares Support (SASS) conferences and other logistics planning meetings.

3.4.7 Division Officers

Division Officers are responsible to the MO for the performance of their division in accomplishing the department's mission.

a. Fully employ personnel and resources.

b. Evaluate the division's organization and procedures for the most effective and efficient accomplishment of the Division's responsibilities.

c. Verify the security of the aircraft and equipment for which the Division is responsible.

d. Periodically inspect division spaces for security and cleanliness.

e. Verify adherence to classified material handling and security procedures.

f. Verify personnel are complying with safety instructions and procedures.

g. Keep the MO, AMO and MMCO informed of problems that may affect division productivity.

h. Accomplish Division Officer responsibilities for programs and processes in Chapter 10.

i. (I-Level) Manage the Division Maintenance Control (024, 025, 026, 027, 028, and 029), if established.

j. (I-Level) Use BMT reports to monitor daily workload and assign priorities.

3.4.8 Branch Officers

Branch Officers are responsible to the Division Officer for the performance of the branch in accomplishing the division's mission. Branch Officers have the same general duties as a Division Officer.

3.4.9 Manpower and Training (MP&T) Coordinator

The MP&T Coordinator, normally a Master Chief Petty Officer, performs staff functions under the MO or AMO of CVN AIMDs and the larger (500 or above manning, including TAD personnel) Navy shore Intermediate Maintenance Activities (IMA). MP&T Coordinator duties include:

a. Assist and advise the MO or AMO in the areas of manpower requirements, technical and professional training, assignment of enlisted personnel, and human resources policies.

b. Make recommendations for improvements to processes affecting personnel performance productivity, and career development.

c. Coordinate accomplishment of technical and professional training.

d. Coordinate with other activities and departments in matters related to personnel, TAD, and training.

3.4.10 Maintenance Master Chief Petty Officer (MMCPO) (Navy)

The MMCPO serves as the Maintenance Department Master Chief. The MMCPO must have NEC 724B and be designated in writing by the MO as the Maintenance Control Program Coordinator (O-Level) or Production Control Program Coordinator (I-Level).

3.4.10.1 General Responsibilities

a. Advise the MO in all matters affecting department operations and personnel, including recommendations for assignment of senior enlisted personnel (E-6, E-7, E-8) to billets commensurate with their qualifications and expertise.

b. Assist the MMCO in planning aircraft and equipment maintenance, including scheduling and forecasting future maintenance requirements based on operational tempo.

c. Direct Maintenance/Production Control production priorities.

d. Keep the MMCO advised of the material status of aircraft, engines and equipment, and the progress of maintenance workload.

e. Assist with analyses of maintenance department metrics (Chapter 14).

f. Review inspection records, QA reports, and flight records to verify proper maintenance procedures are followed.

g. Coordinate with supporting activities (IMA, Supply Department, Depot) to ensure requirements are known and satisfied.

h. Review Aviation Maintenance Material Management (AV3M) summaries, MDS, and NTCSS Optimized NALCOMIS reports to monitor the use of personnel, equipment, and facilities.

i. Monitor the maintenance of aircraft and equipment logs and records.

j. Monitor Life Limited Components and ensure life limits are not exceeded.

k. Coordinate pre-deployment planning for provisioning personnel, facilities, SE, and services for the activity or activities.

l. Review active COMFRC FST AMEAs with QA to determine applicability to the Maintenance Department.

3.4.10.2 (O-Level) MMCPOs

In addition to the responsibilities in 3.4.10.1, O-level MMCPOs will:

a. Manage the Safe for Flight (SFF) qualification program, to include screening candidates, monitoring progress, and recommending designation to the CO, via the MO.

b. Coordinate follow-on training for Safe for Flight designated personnel to ensure they are up-to-date on the latest procedures, to include new or changed instructions, publications, Aviation Maintenance Advisories (AMA), and Hazard Reports (HAZREP).

c. Coordinate submission of I-level work requests.

d. Attend phase and calendar inspection planning meetings.

e. Control and monitor aircraft cannibalization.

f. Ensure FCFs are conducted when required.

g. Monitor Maintenance Control for accurate WO documentation.

h. Coordinate with QA on completing QAR level inspection requirements for major scheduled maintenance, such as a Phase inspection, and unscheduled maintenance that requires QAR level inspection, including maintenance requiring FCF.

i. Validate the NMCS/PMCS status listings on a daily basis.

3.4.10.3 (I-Level) MMCPOs

In addition to the responsibilities in 3.4.10.1, I-level MMCPOs will:

a. Manage the qualification process for enlisted production management personnel assigned to Production Control, to include reviewing candidate qualifications, interviewing candidates, monitoring qualification progress, and recommending designation to the MO via the MMCO.

b. Coordinate currency training for Production Control personnel to ensure personnel are up-to-date on the latest procedures, for example, training on procedures in new or changed instructions, publications, Aviation Maintenance Advisories (AMA), and Hazard Reports (HAZREP).

c. If necessary to effectively control workload, establish satellite Production Control work centers for Aircraft, Power Plants, Avionics, Weapons or Support Equipment divisions.

d. Coordinate with MMCPOs of supported activities on production issues.

e. (Ashore IMAs) Coordinate D-level customer service support to the IMA.

f. Assist the MMCO in managing IMA Component Repair Review and Individual Component Repair List (ICRL) Validation Procedures, per paragraph 10.20.

3.4.11 Aircraft Maintenance Chief (Marine Corps)

The Aircraft Maintenance Chief serves as the Maintenance Department Senior Non-Commissioned Officer. The Aircraft Maintenance Chief is responsible to the CO for the core qualifications and MOS professional development of all enlisted Marines assigned to the Maintenance Department, and reports to the Aircraft Maintenance Officer (AMO) on all matters affecting aviation maintenance, assists in directing, supervising, and coordinating all enlisted personnel performing aircraft maintenance duties. The Aircraft Maintenance Chief must have MOS 6019 and be designated in writing by the AMO as the Maintenance Control Program Coordinator (O-Level) or Production Control Program Coordinator (I-Level).

a. Monitor the activity's maintenance effort to ensure proper maintenance, administration, and material handling procedures are exercised, directing particular attention to the detection and removal of all administrative impediments to aircraft readiness.

b. (O-Level) Monitor Maintenance Control for accurate WO documentation.

c. Advise and assist the AMO by identifying maintenance program deficiencies, providing training, and evaluating and supporting the objective of CPI.

d. Conduct both short and long range planning in support of Marine aviation and facilitate technical support to provide information flow and assistance from Depots, Fleet Support Team (FSTs), and other supporting activities.

e. Coordinate pre-deployment planning for provisioning personnel, facilities, SE, and services for the activity or activities.

f. Monitor the Aviation Maintenance Training Program to ensure all required training courses are routinely validated.

g. Analyze the mission accomplishment and core competency of the department using reports provided by ALERTS, ASM, MDS, and NTCSS Optimized NALCOMIS on a continuing basis and provide analytical data (as required) to support the NAE maintenance core competency readiness objectives.

h. Manage aviation maintenance manpower requirements to optimize the activity's readiness through the appropriate assignment of personnel based on experience and core competency.

i. Ensure the core competency requirement standards for aircraft T/M/S are validated and coordinated with peer activities to ensure discrepancies within the baseline are reported to the Readiness Leadership Team baseline managers and program managers via the MAG and MAW.

3.4.12 Division Chief

Division Chiefs assist the Division Officer in accomplishing the division's mission.

3.4.13 Work Center Supervisor

Work Center Supervisors are responsible to the Division or Branch Chief for the performance of the work center in accomplishing the division's mission. Work Center Supervisor responsibilities for specific maintenance programs and processes are detailed throughout the NAMP.

a. Manage workload per the priorities established by Maintenance Control (O-Level) or Production Control (I-Level). Additionally, IMA Work Center Supervisors will review BMT reports throughout the day to monitor accomplishment of workload priorities.

b. Direct CDIs upon receipt and transfer of aircraft, engines, components, SE, AWSE, and ALSS to perform a physical verification of the item for TD configuration and notify Logs and Records of current configuration

c. Keep Maintenance Control/Production Control current on workload status (In Work, AWM, AWP, etc.) by ensuring the accuracy of work orders generated by their work center. At the beginning and end of the work shift, work center supervisors will review the NALCOMIS work center workload report for correct EOC and WUC/UNS coding per procedures of paragraph 9.5.2.a and correct errors. Work orders will be screened for accuracy and completeness (worker hours, EOC, WUC/UNS, QA and tool control requirements have been met) before signing the work order supervisor field.

d. Immediately inform Maintenance/Production Control of any parts, equipment or personnel problems that prevent accomplishing workload priorities.

e. Direct and supervise work center personnel.

f. Assign trainees to work under the direct supervision of qualified personnel.

g. Periodically monitor work-in-progress to verify compliance with NAMP requirements. Ensure man-hours expended involving research and ordering parts are documented on the work order per paragraph 15.3.8.2.c or paragraph 16.1.2.1 procedures.

h. Maintain custody and accountability of tools, equipment and facilities.

i. Keep assigned work center, hangar, and flight line spaces clean.

NOTES: 1. Personnel designated as the primary supervisor for an Organizational-level work center must complete the Naval Aviation OMA Work Center Supervisor's Course (C-555-0045).

2. Personnel designated as the primary supervisor for an Intermediate-level work center must complete the IMA Work Center Management Documentation Procedures (Optimized) Course (C-555-0041).

3. I-level Work Center Supervisors (including designated Shift Supervisors) must complete Buffer Management Tool (BMT) training with the AIRSpeed Officer within 30 days of assignment to become familiar with the functions and report options available in the BMT.

Maintenance Function	Level	
	O	I
Servicing		
Replacement of fluids: LOX. gaseous oxygen. Nitrogen in:		
Aircraft and installed systems and components	X	
Removed systems and components		X
Inspections		
Daily. Turnaround. Special. Conditional. Inventory acceptance. Transfer. Phase	X	
Functional sets (applicable to ejection seat systems and components)	X	
Functional sets (adjustments/alignments of installed systems/components)	X	
Bench check. Functional test. Adjustment. Calibration. Alignment of removed systems and components		X
Preservation		
Aircraft level I . II	X	
Support equipment	X	X
Repair		
Remove/replace aircraft system(s)/components	X	X
Machine Operations		
Drilling. Cutting. Grinding. Sawing. Dimpling. Riveting. Filing	X	
Metal and metal machine work (plate. Bar. Sheet. Tubing. Rod. Wire. Cable). Shaping. Milling. Turning. Pressing. Forming. Flaring. Bending. Punching. Shrinking. Stretching. Spinning. Shearing. Swaging. Rolling.		X
Additive Manufacturing		
Remove and Replace	X	X
Manufacture		X
Testing	X	X

Figure 3-1 (page 1): Aircraft Systems/Components Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Cable, Tube, and Rod Work (Controls)			
Remove and replace	x	x	2
Manufacture, swage, and test cables		x	
Flex Lines and Rigid Tubing			
Remove and replace	x	x	2
Fabrication and testing		x	
Examination and Testing			
Liquid penetrant, eddy current, magnetic particle, optical inspection	x	x	2, 3
Leak detection, ultrasonic inspection, x-ray process, hardness testing installed or portable equipment		x	2
Paint, Acrylic, and Epoxy Resins			
Strip and refinish parts on aircraft and subassemblies	x	x	2
Paint identification markings on aircraft and components	x	x	
Brush and spray touch-up of aircraft	x	x	
Apply acid proof paint	x	x	2
Strip, repair, and refinish fiberglass components		x	
Strip, repair, and refinish composite components		x	
Welding and Soldering			
Oxyacetylene welding and cutting		x	
Electric Arc and Electric Inert Arc welding		x	
Soldering	x	x	

Figure 3-1 (page 2): Aircraft Systems/Components Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Corrosion Treatment			
Strip, treat, and paint aircraft surfaces and installed components	x	x	2
Strip, treat, and repaint removed surfaces and components (removed for other than accessibility)		x	
Blasting and Ultrasonic Cleaning			
Blasting	x	x	
Ultrasonic cleaning		x	
Hydraulic Systems Contamination Control			
Sample and analyze hydraulic fluid	x	x	
Clean systems using the recirculation method	x	x	
Flush systems	x	x	
Heat treating and baking		x	
Structural damage repair	x	x	4

NOTES: 1. Aircraft Level III preservation is a Depot-level maintenance function.

2. IMA provides on-aircraft assistance if beyond technical capability of the O-Level.

3. Equipment to perform these functions is sub-custodied from supporting IMAs.

4. Depots provide Field Team In-Service Repair support for on-aircraft structural repairs beyond the squadron's and supporting IMA's capability.

Figure 3-1 (page 3): Aircraft Systems/Components Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Power Plant System and Components			
Removal/Replacement of components (engine accessories, propellers, rotors linkages, cables, common hardware (installed/uninstalled))	X	X	1, 2
Minor repair of installed engines/APUs	X	X	1
Repair installed/uninstalled engines/APUs by replacement of parts/components (disassembly as authorized for the specific engine model)	X	X	1, 2
Perform installed engine/APU inspections per MRCs	X	X	1
Perform periodic inspections of engines/APUs normally installed		X	
Perform periodic inspections of engines normally uninstalled		X	
Repair of removed SEGTE and APUs		X	2
Engine turn-up, functional test and adjustments	X	X	
Preservation /depreservation of installed engines and APUs	X	X	1
Preservation/depreservation of uninstalled engines, APUs, and SEGTEs, including canning/uncanning		X	
Assemble QECAs		X	
Gas turbine engine cleaning	X	X	
Propeller/Rotary Wing Dynamic Drive Systems and Components Remove/replace propeller, associated components, and common hardware	X	X	1
Minor repair (blending of metal propeller blades and composite repair of fiberglass blades per applicable publications)	X	X	1
Perform final buildup of quick change rotary wing dynamic drive assemblies	X	X	1
Propeller assembly and disassembly		X	3
Preservation/depreservation of removed /uninstalled propellers	X	X	
De-icer boot replacement and propeller balancing (not applicable to aircraft carriers)	X		
Buildup of quick change rotary wing dynamic drive assemblies		X	

NOTES: 1. IMA provides on-aircraft assistance if beyond technical capability of the O-Level.

2. Applicable to IMAs assigned responsibility per NAVAIR NOTE 4700.

3. KC-130J squadrons authorized to perform propeller assembly and disassembly, preservation and depreservation of removed/uninstalled propellers for the R-391 propeller, and are authorized to stamp repaired propeller assemblies "READY FOR ISSUE" for immediate re-installation or acceptance or placement into the contractor supported Aircraft Parts Store, or equivalent supply warehouse (issue point) or pool (inventory).

Figure 3-2: Power Plant Systems and Propeller/Rotary Wing Dynamic Drive Systems/ Components Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Cartridges, Pyrotechnics, Cartridge Actuated Devices, and Propellant Actuated Devices			
Breakout, visual inspection	x	x	
Install/replace in parent equipment	x	x	
Aviation Life Support Systems			
Servicing/purging of installed/removed systems/components	x	x	
Inspections (daily, turnaround, special, conditional, inventory, phase, acceptance, transfer)	x	x	
Inspections (bench check, pressure test, visual, functional test, adjustment, calibration of components, and proof load test (rescue sling))		x	
Removal/replacement of systems/components/associated hardware	x	x	1
Repair of removed systems and components		x	2
Machine operations (sewing, searing, embossing/stamping, fabrication, pressing, recharging)	x	x	
Repair of emergency reclamation ALSS components		x	
Corrosion control/treatment (strip, treat, paint, or repaint)	x	x	
Manufacture of liquid oxygen and nitrogen		x	2

NOTES: 1. I-level authorized to provide assistance if function is beyond technical capability of O-Level.

2. Applicable to IMAs with assigned responsibility and resources.

Figure 3-3: ALSS and Cartridges, Cartridge Actuated Devices (CAD), and Propellant Actuated Devices (PAD) Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Avionic SE			
Operational check and test and routine servicing	x	x	
Minor adjustment, removal and replacement of components and minor parts (knobs, fuses, and light bulbs)	x	x	
Exterior cleaning/preservation, minor corrosion control, and finish touch-up	x	x	
Removal/replacement of major component parts, subassemblies, and modules		x	
Repair of components by replacement of parts (tubes, transistors, resistors)		x	
Bench test of components and calibration		x	
Non-Avionic SE			
Pre- and post-operation and daily inspections, servicing	x	x	
Cleaning/preservation, minor corrosion control, and finish touchup	x	x	
Periodic inspections and maintenance		x	1
Test and check, fault isolate, adjust, repair, remove, and replace components		x	
Cleaning, preservation, and corrosion control	x	x	
Minor repair to frames, housings, bodies, fenders, and enclosures, including welding and repainting		x	
Calibration of selected equipment and engine test stands, when standards are provided		x	
Repair of installed SE Gas Turbine Engines (SEGTE)		x	2
Repair and test of automotive components, including transmissions, axles, differentials, suspension systems, brake drums and rotors, and replacement or repair of diesel and internal combustion engine components, as well as wheel alignment.		x	3
Functional test of engines and accessories on a run-up stand		x	
Hydraulic system contamination control		x	
Hoisting slings and restraining devises classified as SE		x	4

NOTES: 1. Deployed O-Level units without IMA support may perform limited I-Level scheduled maintenance of SE, if conditions of paragraph 3.1.2.6.c are met.

2. I-Level activities assigned SEGTE repair functions per NAVAIR NOTE 4700.

3. Inspected, tested, and maintained Per NAVAIR 17-1-114.1.

Figure 3-4: Support Equipment Maintenance Function Applicability

Maintenance Function	Level		Note
	O	I	
Airborne Mine Countermeasures Equipment			
Servicing, functional test, and adjustment	x	x	
Inspection (pre-launch, turnaround, daily, post-launch, special, conditional)	x	x	
Inspection PSE, SE (preoperational)	x	x	
Removal and installation of components/parts (strainers, filters, fasteners)	x	x	
Inspection, repair, and bench test of components		x	
Replacement of parts requiring component disassembly, special tools, or SE		x	
Repair removed engines by replacement of parts	x	x	
Major repair of removed engines and complete repair		x	
Engine test, including performance evaluation		x	
Preservation and depreservation	x	x	
Cleaning, corrosion control, and prevention	x	x	

Figure 3-5: Airborne Mine Countermeasures (AMCM) Systems Maintenance Function Applicability

Activity	Level			Note	Activity	Level			Note
	O	I	D			O	I	D	
NAS Corpus Christi	x	x		2	NAF Atsugi	x	x		2, 8
NAS Fallon	x	x	x	3, 8	NAF Misawa	x	x		2
NAS Jacksonville	x	x	x	1, 9	NAF Washington DC	x	x		3
NAS Key West	x	x		3	NAF El Centro	x	x		4
NAS Kingsville	x	x	x	2	NAVSTA Guantanamo Bay	x	x		10
NAS Lemoore	x	x	x	1, 7	NAVSTA Mayport	x	x	x	1, 7
NAS Meridian	x	x		2	NAVSTA Norfolk	x	x	x	1, 7
NAS North Island	x	x	x	1, 9	NAVAIRWARCENWPNDIV China lake	x	x		3
NAS Oceana	x	x	x	1, 7	NAVSUPPACT Bahrain	x	x		3
NAS Patuxent River	x	x		1,	NAVSUPPACT Naples	x			4
NAS Pensacola	x	x		3	NAVSUPPACT Souda Bay	x	x		4
NAS Point Mugu	x	x		1	Joint Base McGuire-Dix-Lakehurst	x	x		3
NAS Sigonella	x	x		3, 5	Anderson AFB, Guam	x	x	x	3, 7
NAS Whidbey Island	x	x	x	1, 6, 7	Kadena AFB, Okinawa	x	x		4
NAS Whiting Field	x	x		2	PACMISRANFAC HAWAREA Barking Sands	x	x		6
NAS JRB Ft Worth	x	x		2					
NAS JRB New Orleans	x	x		2					

NOTES: 1. IMA performs full I-level maintenance in all functions for tenant activity aircraft.

2. IMA performs limited I-level maintenance in all functions for tenant activity aircraft.

3. IMA performs limited I-level maintenance in selected functions for tenant activity aircraft and aircraft on detachment.

4. IMA performs limited I-level SE maintenance and tire and wheel build-up for aircraft on detachment.

5. AIMD Sigonella provides limited SE support for line operations at NAVSUPPACT Souda Bay and Camp Lemonier, Djibouti.

6. Authorized to operate, maintain, and perform limited D-level maintenance functions on oxygen and nitrogen generating equipment.

7. Permanently-sited Depot services for Phased Depot Maintenance and Depot modifications, with support by the aircraft reporting custodian.

8. Permanently-sited Depot In-Service Repair capability.

9. Depot Fleet Readiness Center.

10. Station aircraft support only.

Figure 3-6: Types of Maintenance Activities at Shore Air Fields, Navy

Activity	Level			Note
	O	I	D	
MCAS Beaufort	x	x	x	1
MCAS Camp Pendleton	x	x	x	1
MCAS Cherry Point	x	x	x	2
MCAS Futenma	x	x		3
MCAS Iwakuni	x	x		3, 4, 5
MCAS Kaneohe Bay	x	x		4
MCAS Miramar				1
MCAS New River	x			1
MCAS Yuma	x	x		1
MCAF Quantico	x			

NOTES: 1. Permanently-sited Field Phased Depot Maintenance and MODs supported by aircraft reporting custodian.

2. Depot Fleet Readiness Center.

3. Permanently-sited Depot In-Service Repair capability, only.

4. Marine Corps and Navy O-Level and I-Level activities based at this air station.

5. Authorized to operate, maintain, and perform limited D-Level maintenance functions on oxygen and nitrogen generating equipment.

Figure 3-7: Types of Maintenance Activities at Shore Air Fields, Marine Corps

Activity	Level		
	O	I	Note
CVN (Aircraft Carrier Nuclear)	x	x	**1, 2, 3**
LHA (Amphibious Assault Ship (General Purpose))	x	x	**1, 2, 3**
LHD (Amphibious Assault Ship)	x	x	**1, 2, 3**
LPD (Amphibious Transport Dock)	x	x	**4**
Other Aviation Capable Ships	x		**5**

NOTES: 1. Ship provides O-level and I-level maintenance facilities for use by embarked aviation units; provides and maintains custody coded (P and E) SE, other than organizational property, for use by embarked aviation units; and provides I-level support and O-level maintenance material to embarked aviation units.

2. AIMD responsible for I-level maintenance of crash salvage equipment, flight and hangar deck cleaning and maintenance equipment.

3. Weapons department responsible for test, repair, calibration, and maintenance of air launched guided missiles and associated missile test equipment per OPNAV M-8000.16.

4. LPDs provide and maintain items of SE in support of embarked aviation units. I-level maintenance is limited to troubleshooting and replacing minor components, for example, starters, switches, belts, tires and wheels, and corrosion control. The Strike Group LHA or LHD is the responsible custodian of all SE subcustody to LPDs, and is responsible for I-Level maintenance beyond the capability of LPDs.

5. Ship is responsible for O-level maintenance and inventory management of assigned SE per directives published by the aviation TYCOM. I-level SE maintenance provided by IMAs designated by COMNAVAIRFOR N423B. D-level SE rework scheduled through COMNAVAIRFOR N423B.

Figure 3-8: Assigned Levels of Maintenance, Aviation Ships

Activity	Level		Note
	O	I	
HSC (Helicopter Sea Combat Squadron)	X	X	1
HM (Helicopter Mine Countermeasures Squadron)	X	X	1
HSM (Helicopter Maritime Strike Squadron)	X		
HT (Helicopter Training Squadron)	X		
VAQ (Tactical Electronic Warfare Squadron)	X	X	1
VAW (Carrier Airborne Early Warning Squadron)	X		
VFA (Fighter/Attack Squadron)	X		
VFC (Fighter Squadron Composite)	X		
VP (Patrol Squadron)	X	X	1
VPU (Patrol Squadron Special Unit)	X		
VR (Fleet Logistics Support Squadron)	X		
VRC (Fleet Tactical Support Squadron	X	X	1
VRM (Fleet Logistics Multi-Mission)	X		
VQ (Fleet Air Reconnaissance Squadron)	X	X	1
VT (Training Squadron)	X		
VX (Air Development Squadron)	X	X	1

NOTE: Authorized to perform limited I-level maintenance on equipment that is peculiar to the mission of the activity and assigned aircraft as authorized by ACCs and COMNAVAIRSYSCOM. While deployed, HM squadrons and detachments are authorized to perform limited I-level maintenance on airborne mine countermeasures equipment per the applicable Weapons System Planning Document.

Figure 3-9: Assigned Levels of Maintenance, Navy Squadrons

Activity	Level		Note
	O	I	
HMH (Marine Heavy Helicopter Squadron)	X		
HMLA (Marine Light Attack Helicopter Squadron)	X		
HMLAT (Marine Light Attack Helicopter Training Squadron)	X		
HMM (Marine Medium Helicopter Squadron)	X		
HMMT (Marine Medium Helicopter Training Squadron)	X		
HMT (Marine Heavy Helicopter Training Squadron)	X		
HMX (Marine Presidential Support Squadron)	X	X	1
Marine Air Traffic Control Detachment (MATCD)	X	X	2
MALS (Marine Aviation Logistics Squadron)	X	X	3
MWSS (Marine Wing Support Squadron)	X	X	4
VMA (Marine Attack Squadron)	X	X	5
VMAQ (Marine Tactical Electronics Warfare Squadron)	X	X	5
VMAT (Marine Attack Training Training Squadron)	X		
VMFA (Marine Fighter Attack Squadron)	X		
VMFA (AW) (Marine Fighter Attack (All Weather) Squadron)	X		
VMFAT (Marine Fighter Attack Training Squadron)	X		
VMGR (Marine Aerial Refueler Transport Squadron)	X		
VNM (Marine Medium Tiltrotor Squadron)	X		
VMMT (Marine Medium Tiltrotor Training Squadron)	X		
VMU (Marine Unmanned Aerial Vehicle Squadron)	X		
VMX (Marine Tiltrotor Test and Evaluation Squadron)	X		

NOTES: 1. HMX authorized to perform limited I-level maintenance.

2. Performs O-level and limited I-level maintenance on MATCALS equipment. I-level maintenance beyond MATCD capability is provided by the MALS. Refer to 10.30.

3. Authorized to perform limited D-level BCM interdiction maintenance actions when D-level artisans assigned.

4. Performs O-level and I-level maintenance on components of the Expeditionary Air Field (EAF) system and meteorological system complex. I-level support beyond the capability of MWSS is provided by the MALS.

5. VMA, VMAQ and VMGR authorized to perform limited I-level maintenance *on peculiar equipment when independently deployed.*

Figure 3-10: Assigned Levels of Maintenance, Marine Corps Squadrons

Activity	Level			Note
	O	I	D	
Naval Air Technical Training Center (NATTC) Pensacola	x			1
Marine Air Reserve	x	x		2
Naval Air Reserve	x	x		2

NOTES: 1. NATTC Pensacola Mechanical Equipment Maintenance Division performs O and I-level maintenance on all Aviation Support Equipment, Marine Expeditionary Air Field (EAF) Support Equipment, and other Electro/Mechanical training aids and equipment supporting training at NATTC. NAS Pensacola IMA provides repair services as needed on all Stricken Aircraft Training Devices and I Level maintenance on SE beyond the capabilities of NATTC.

2. Navy and Marine Air Reserve aviation squadrons and IMAs perform the same types of O-level and I-level maintenance as active forces during active duty for training periods and when activated and assigned to fleet control.

Figure 3-11: Assigned Levels of Maintenance, Naval Air Training Activities and Marine Air Reserve Squadrons and Units

Activity	Level			Note
	O	I	D	
Activities/Organizations Having Custody of Bailed/Loaned Aircraft	x			
Defense Contract Management Agency	x	x	x	1
Navy Recruiting Command Aircraft Training Device, Aircrew (Simulators)	x	x		2
Naval Weapons Evaluation Facility	x	x		1, 3
NAWCTSD (Naval Air Warfare Center Training Systems Division	x			1
Training Device Maintenance Crews	x	x		4
Tactical Support Center (TSC)	x	x		4, 5

NOTES: 1. I-level maintenance support provided by the IMA on the station or ship from which the activity operates, or an IMA designated by COMNAVAIRSYSCOM or ACC.

2. Maintenance on simulators assigned to naval recruiting districts is performed by individually contracted fixed base operators and conforms to FAA standards using Navy inspection criteria.

3. May be authorized to perform limited I-level maintenance on NWEF equipment, including tire and wheel buildup, engine buildup, and avionics maintenance.

4. Authorized to perform I-level maintenance on TSC equipment if supporting IMA capability does not exist.

5. Authorized to perform I-level maintenance on aviation training device unique equipment. CENNAVAVNTECHTRAU, at an NAS, will receive support for aircraft common equipment (modified or unmodified) by the NAS IMA where it is located. When located aboard an MCAS, the CENNAVAVNTECHTRAU will be provided support for aircraft common systems or equipment (modified or unmodified) by the nearest MALS supporting that aircraft or equipment.

Figure 3-12: Assigned Levels of Maintenance, Specialized Activities and Units

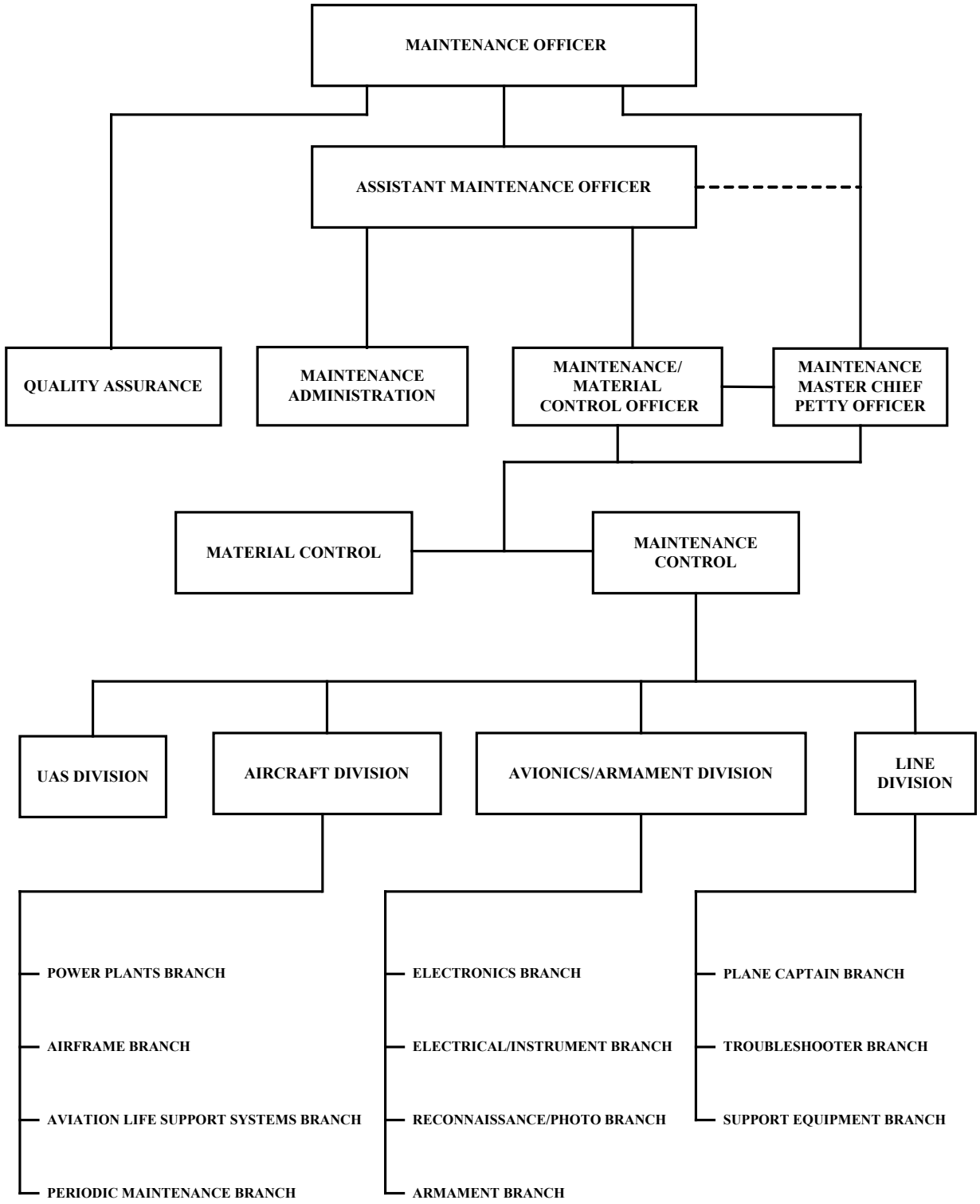
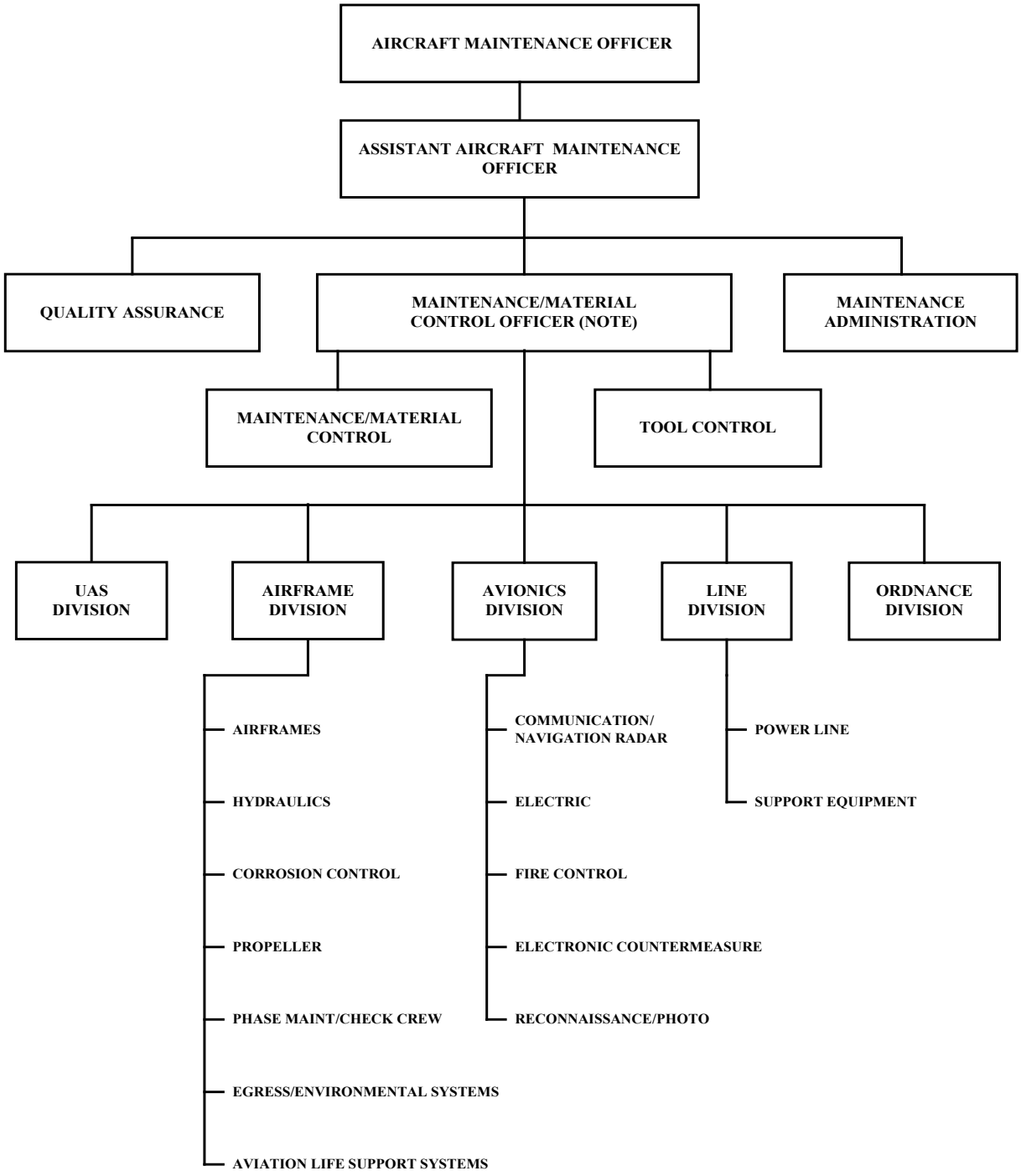


Figure 3-13: Navy O-Level Maintenance Department Standard Organization



NOTE: Maintenance military occupational specialty required.

Figure 3-14: Marine Corps O-Level Maintenance Department Standard Organization

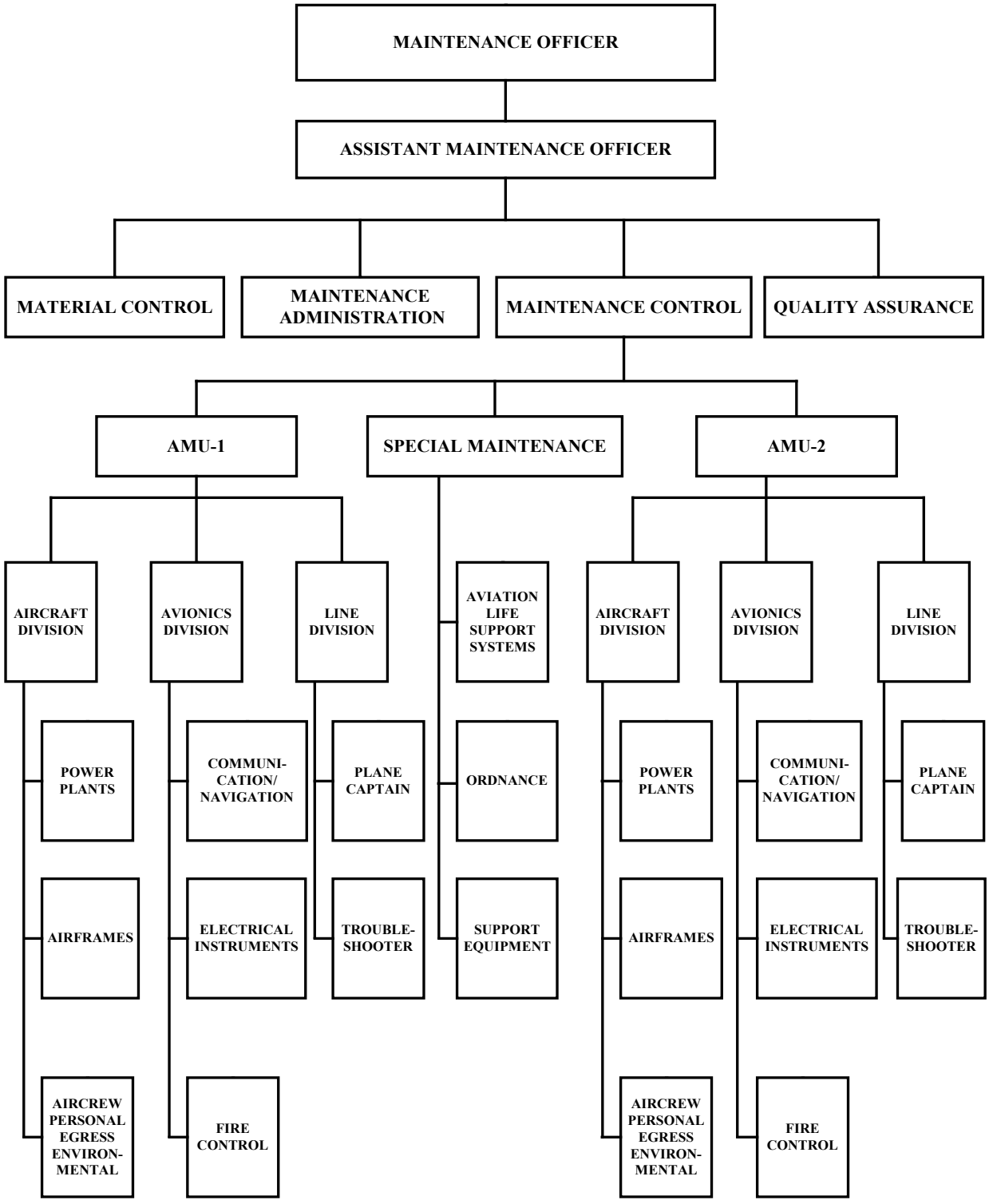
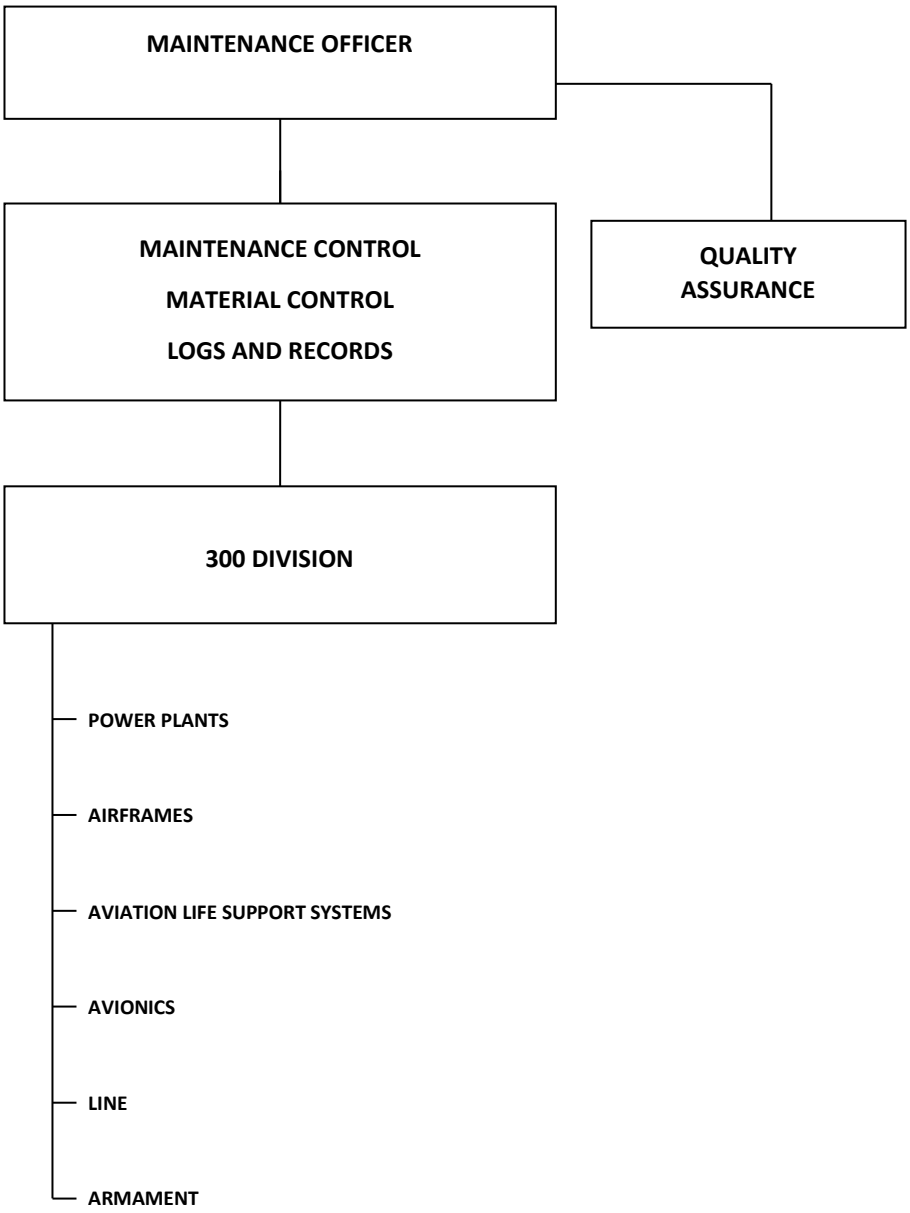


Figure 3-15: O-Level Autonomous Maintenance Unit Concept O-level Maintenance Department Standard Organization



NOTES: 1. Production branch sections may be segregated as indicated; or, if total personnel number less than 100, may be combined within one branch.

2. Maintenance Control, Material Control, Logs and Records and other non-production division functions may be combined to more efficiently use personnel.

3. This organization structure is not applicable to OMDs with an Activity Manning Document or Table of Organization that provides for QA division manning. The QA organization structure of Figure 3-13 (Navy), Figure 3-14 (Marines), and Chapter 7 Figure 7-3 applies.

Figure 3-16: Operations Maintenance Division (OMD) and Detachments Operating Four or Less Aircraft Standard Organization

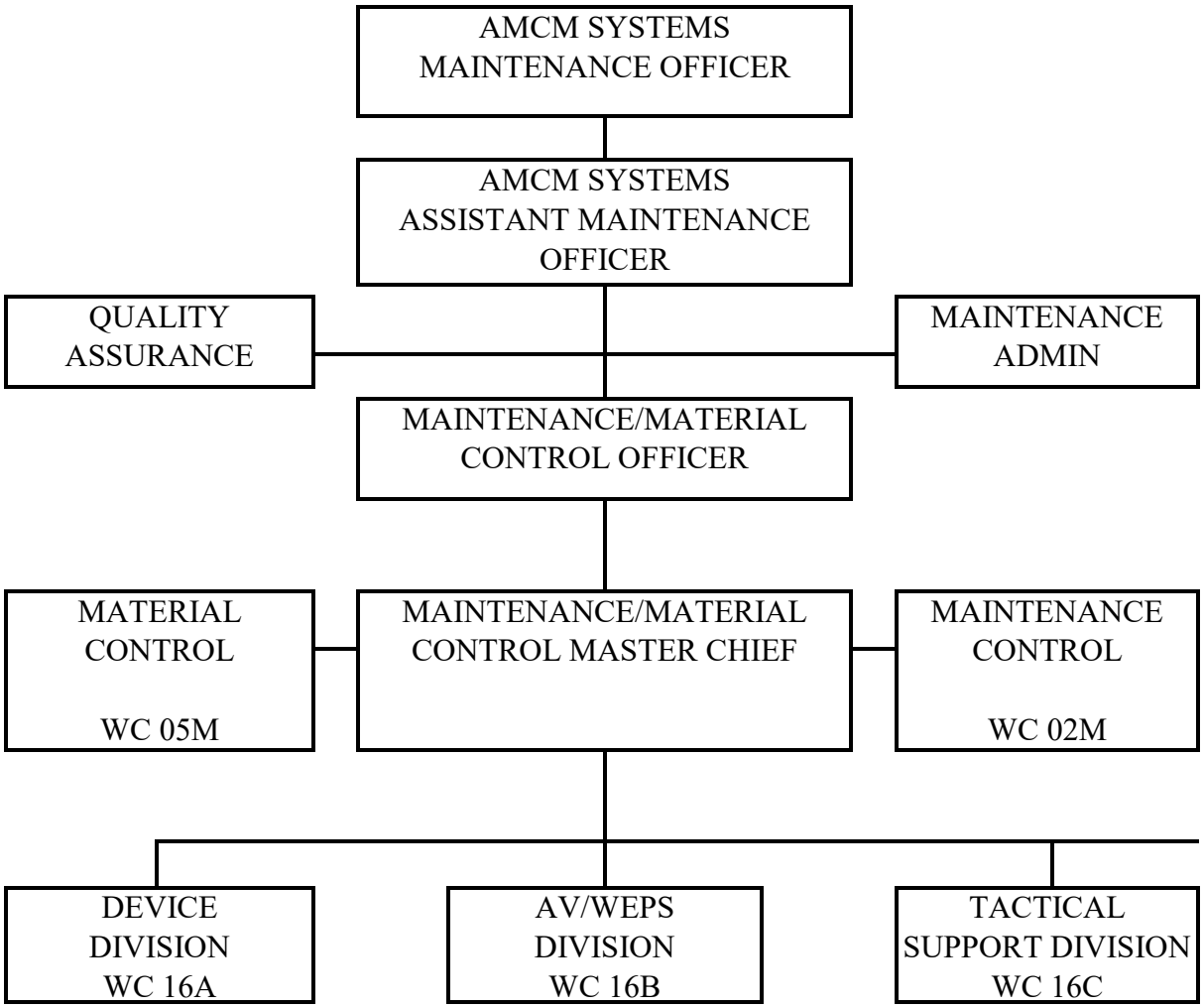
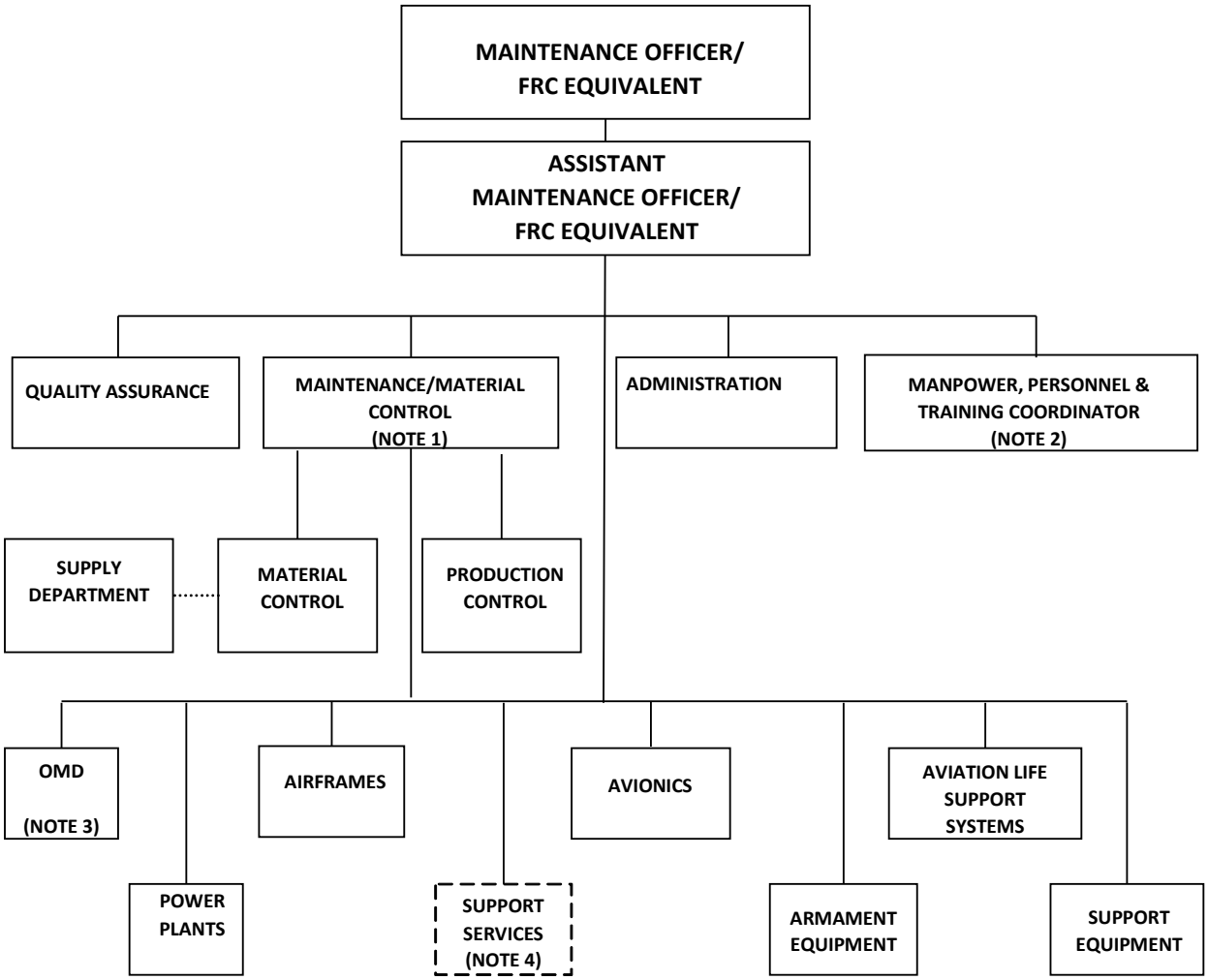


Figure 3-17: O-Level Airborne Mine Countermeasures Systems Maintenance Department



Breakdown beyond the basic divisions is not provided because of the variety of possible branches and shops. Activities will establish branches based on their assigned maintenance functions. Branches will be established only when there is more than one work center involved, for example, Jet Engine Repair Branch (410) with T64 Engine Repair Shop (41N) and T700 Engine Repair Shop (41R).

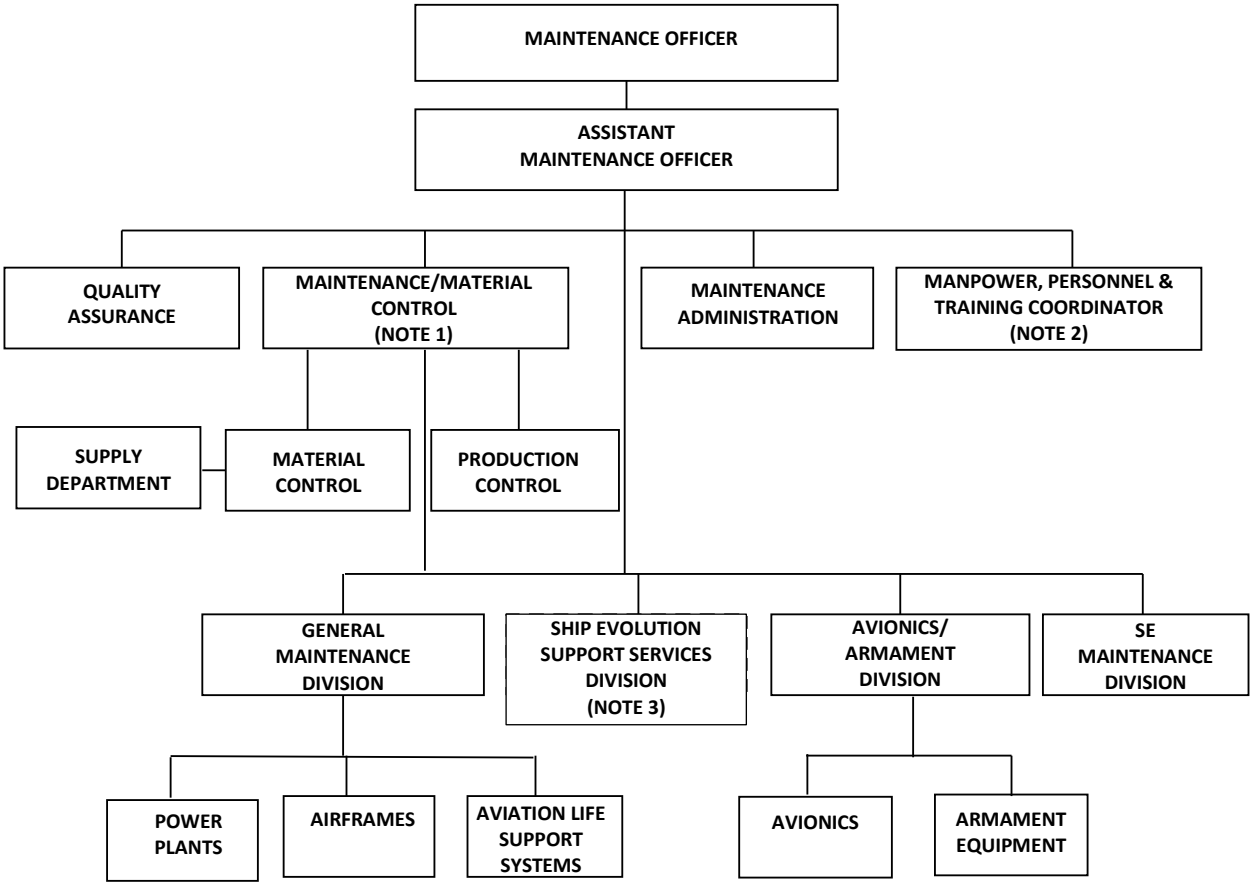
NOTES: 1. Direct authority for production matters only.

2. Authorized for activities with more than 500 personnel (including TAD personnel).

3. Organizational Maintenance Division (OMD) will be established only if specifically authorized to combine the OMD and IMA.

4. This is an optional division for general support services, for example IMRL management, as determined necessary by the MO.

Figure 3-18: Shore Based Aircraft Intermediate Maintenance Department and I-Level Fleet Readiness Center Standard Organization

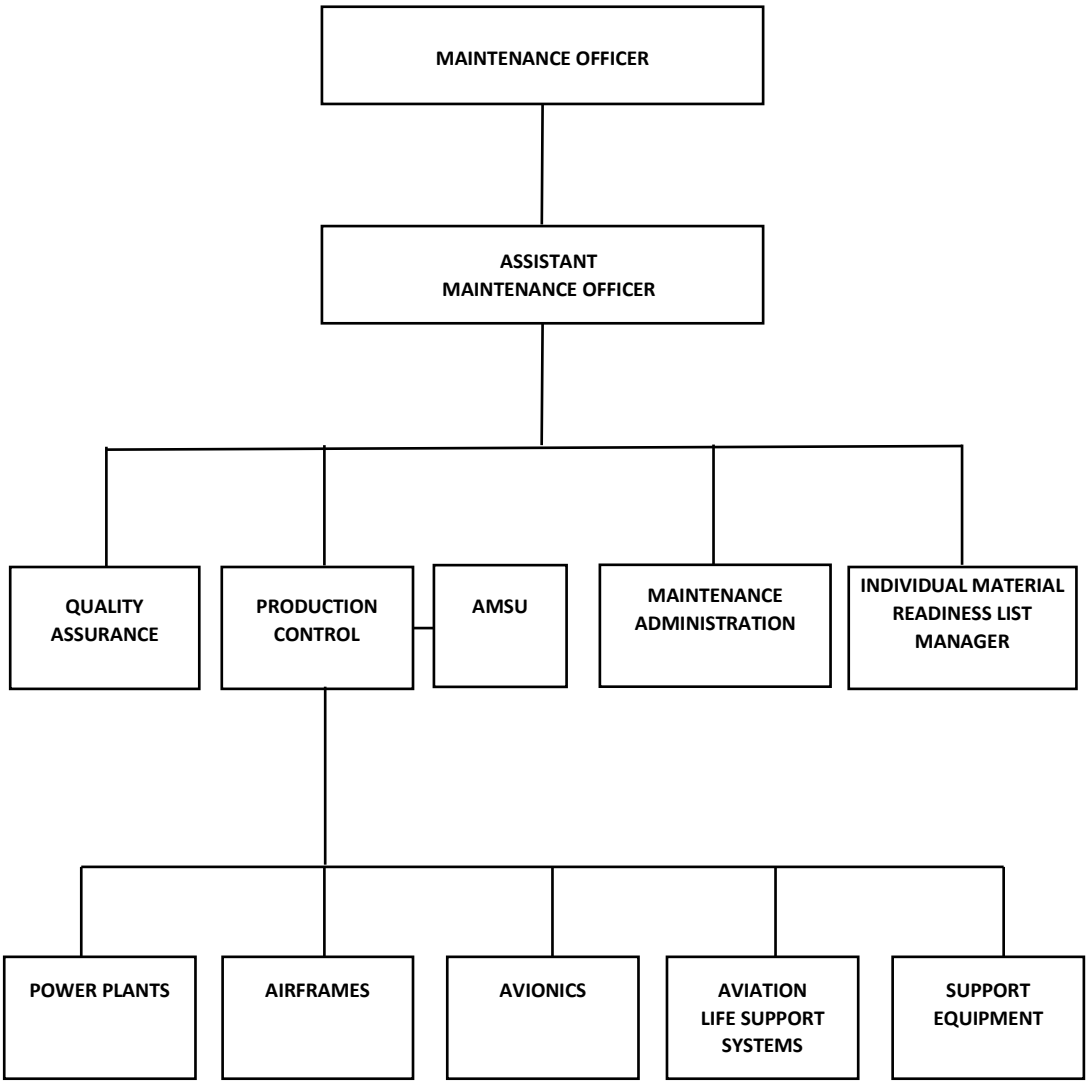


NOTES: 1. Direct authority for production matters only.

2. CVNs, only.

3. Ship Evolution Support Services will include AIMD surface 3-M and damage control personnel, and may include IMRL or other functions as determined by the MO.

Figure 3-19: CVN and L-Class Ship Aircraft Intermediate Maintenance Department Standard Organization



Breakdowns beyond the basic divisions are not illustrated because of the variety of branches possible. Activities will establish branches based on their assigned maintenance functions, for example, Power Plants Division (400) with Jet Engine Branch (41) with T700 Engine Repair Shop.

Figure 3-20: Marine Aviation Logistics Squadron (MALS) I-Level Maintenance Department Organization (Marine Corps)

CHAPTER 4

Marine Aviation Logistics Squadron (MALS) Maintenance, Ordnance, Supply Activity Organization, and Information Management Support

Table of Contents

4.1 Marine Aviation Logistics Squadron (MALS) Aircraft Maintenance 1
4.1.1 Aviation Logistics Functions 1
4.1.2 MALS Maintenance Staff Responsibilities 1
4.2 Marine Aviation Logistics Squadron (MALS) Aircraft Maintenance Officer (MO) 2
4.3 Marine Aviation Logistics Squadron (MALS) Avionics Department 5
4.3.1 Functions 5
4.3.2 Branches 6
4.4 Marine Aviation Logistics Squadron (MALS) Avionics Officer (AVO) 6
4.5 Marine Aviation Logistics Squadron (MALS) Aviation Ordnance Department 8
4.6 Marine Aviation Logistics Squadron (MALS) Aviation Ordnance Officer (ORDO) 10
4.6.1 ORDO Responsibilities 10
4.6.2 Ordnance Safety Officer (ORDSO) Responsibilities 11
4.7 Marine Aviation Logistics Squadron (MALS) Aviation Supply Department (ASD) 12
4.7.1 MALS ASD Management Responsibilities 12
4.7.2 ASD Functions 12
4.7.3 ASD Physical Location and Hours 12
4.7.4 Supply Response Division (SRD) 12
4.7.5 Consumables Management Division (CMD) 13
4.7.6 Repairables Management Division (RMD) 13
4.7.7 Supply Accounting Division (SAD) 14
4.7.8 Squadron Support Division (SSD) 14
4.7.9 Supply Management Division (SMD) 14
4.7.10 Supply Personnel and Administration Division (SPAD) 15
4.8 Marine Aviation Logistics Squadron (MALS) Aviation Supply Officer (AVNSUPO) 15
4.8.1 MALS Responsibilities 15

4.8.2 Aviation Supply Personnel Responsibilities: 15
4.9 Marine Aviation Logistics Squadron (MALS) Aviation Logistics Information Management and Support (ALIMS) 16
4.10 Marine Aviation Logistics Squadron (MALS) Maintenance Data Specialist (MDS) Chief (MOS 6046/6049) Responsibilities 16
4.11 Marine Aviation Logistics Squadron (MALS) AIRSpeed Department 18
Figure 4-1: Avionics Department Organization 20
Figure 4-2: Aviation Ordnance Department Organization (Marine Corps) 21
Figure 4-3: Aviation Supply Department Organization 22

CHAPTER 4
Marine Aviation Logistics Squadron (MALS) Maintenance, Ordnance, Supply Activity Organization, and Information Management Support

4.1 Marine Aviation Logistics Squadron (MALS) Aircraft Maintenance

4.1.1 Aviation Logistics Functions

The aviation logistics functions of the MALS include aircraft, avionics, support equipment (SE) maintenance, aviation supply, flight equipment, cryogenics, aviation ordnance, maintenance data collection, analysis, and information management and support.

4.1.2 MALS Maintenance Staff Responsibilities

a. Use all available talents and resources to ensure components are repaired to the highest standard of quality to further enhance the war fighting capabilities of the customer (the tactical squadrons).

b. Coordinate control of aircraft maintenance performed by, and in support of, squadrons and units under the cognizance of the Marine Aircraft Group (MAG) Commanding Officer (CO).

c. Conduct liaison among squadrons, stations, Marine Aircraft Wings (MAW), and other activities in connection with maintenance or material matters.

d. Ensure squadrons within the MAG provide augmentation personnel to intermediate maintenance activity (IMA)s on a temporary additional duty (TAD) basis (as required) for training in the maintenance of organic systems and subsystems.

e. Coordinate predeployment planning for the provisioning of personnel, facilities, SE, and services for supported squadrons.

f. Screen supported deploying squadron material to ensure only material considered essential to support the specific deployment is embarked and consolidation of multiple squadron requirements is made whenever possible.

g. Screen appropriate Marine Aviation Logistics Support Program (MALSP) individual material readiness list (IMRL) allowances to ensure they are tailored to support the quantity and type aircraft assigned to the MAG squadrons.

h. Ensure the MAG aircraft assignment board (or equivalent) is maintained and reflects current Office of the Chief of Naval Operations (OPNAV) XRAY status.

i. Maintain liaison with supported squadron Maintenance Material Control (MATCON) Centers and the Aviation Support Division (ASD) and ensure adequate communications exist between the MALS Maintenance Work Centers and Supply.

j. Monitor MAG squadrons to ensure effective maintenance programs are conducted.

k. Monitor MAG squadrons to ensure active and effective Quality Assurance (QA) monitoring programs exist.

l. Monitor MAG squadrons to ensure correct maintenance, administration, and material handling procedures are used, directing particular attention to the detection and removal of all administrative impediments to aircraft readiness.

m. Perform joint aircraft inspections periodically with squadron maintenance officers.

n. Assist squadrons in obtaining engineering technical assistance.

o. Coordinate, as required, with other staff organizations to ensure maintenance facility requirements for both MALS and the O-level are updated and submitted as required.

p. Coordinate with the MAG S-4, the assignment of aircraft parking spaces within the MAG.

q. Ensure an aggressive and effective management program is in place to control cannibalization of aeronautical equipment. To the maximum extent possible, ensure selective cannibalization actions are planned to prevent aircraft from being in a nonflyable status for more than 30 consecutive days.

r. Ensure inter-MALS liaison is maintained for repair of components in the secondary repair site program.

s. Coordinate D-level drive-in or field modifications of assigned aircraft.

t. Establish procedures for monitoring component repair capability, to include conducting Component Repair Reviews per paragraph 10.20.

u. Conduct frequent meetings, chaired by the Maintenance Officer (MO) and co-chaired by the Aviation Supply Officer (AVNSUPO), with supported units to ensure optimum communication and coordination.

v. Analyze the mission accomplishment and capabilities of the department using reports provided by the Maintenance Data Systems (MDS) and Navy Tactical Command Support System (NTCSS) Optimized Naval Aviation Logistics Command Information System (NALCOMIS), and Autonomic Logistics Information System (ALIS) on a continuing basis.

w. Ensure the Configuration Management (CM) baselines for aircraft Type/Model/Series (T/M/S) are validated and coordinated with subordinate activities so that discrepancies within the baseline are reported to the Type Commander (TYCOM) and COMNAVAIRSYSCOM Baseline Managers/Program Managers via the MAG and MAW.

x. Generate supplemental instructions for the non-Naval Aviation Maintenance Program Standard Operating Procedures (NAMPSOP) programs and processes when required.

4.2 Marine Aviation Logistics Squadron (MALS) Aircraft Maintenance Officer (MO)

The MO is responsible to the MALS CO for the accomplishment of the Aircraft Maintenance Department mission. Responsibilities include:

a. Ensure adequate maintenance support is provided to the subordinate units of the MAG by interpreting and implementing aircraft maintenance policies and procedures for the MAG.

b. Conduct inspections and assistance reviews on all aspects of aviation maintenance within the MALS and subordinate units of the MAG.

c. Be responsible for the performance and administration of the Maintenance Department and advise the MALS CO on readiness, effectiveness, and ongoing or planned projects within the MAG.

d. Maintain liaison with external supporting maintenance activities and higher headquarters staff to ensure MAG requirements are known and satisfied. In addition, the MO provides direction to the individual squadrons within the MAG on maintenance operations as they relate to readiness.

e. Be the Military Occupational Specialty (MOS) sponsor for all maintenance personnel (MOS 60XX/61XX) within the MAG and coordinates with and advises the MAG Consolidation Administration to make personnel assignments (officers and enlisted) to best support operational commitments.

f. Administer IMA Maintenance Department Operations

(1) Employ sound management practices in handling personnel, facilities, material, and in work flow methods to ensure redundancy of component repair capabilities within an IMA are avoided wherever possible, unless MALSP requirements necessitate it to support contingencies.

(2) Define and delegate responsibilities, and define and assign functions and operations per existing directives.

(3) Organize the department, submit recommendations and initiate change requests relative to personnel, facilities, and equipment required to accomplish assigned tasks.

(4) Ensure the accomplishment of training for both permanent and TAD personnel.

(5) Continually analyze the mission accomplishments and capabilities of the department, using reports provided by the MDS, NALCOMIS, NIIN Analysis Tool (NAT), and Buffer Management Tool (BMT).

(6) Ensure full and effective employment of personnel.

(7) Ensure the production in the Maintenance Department and in satellite production work centers is the proper quality and quantity.

(8) Maintain liaison with other department heads, representatives of higher authority, and other maintenance organizations.

(9) Publish and ensure internal compliance with maintenance, safety, and security procedures to ensure optimum performance is achieved.

(10) Schedule and hold periodic planning and information meetings.

(11) Establish and monitor programs to prevent fuel, hydraulic fluid, and oil contamination and corrosion.

(12) Provide data analysis products to seniors in the chain of command and other department heads, when requested, to show use of manpower, equipment, and facilities.

(13) Schedule and conduct monthly MALS maintenance and material planning meetings and publish a Monthly Maintenance Plan (MMP).

(14) Ensure effective support is provided to technical manual and directive verification programs.

(15) Ensure the establishment and execution of an effective program for Non-Destructive Inspection (NDI) of critical aircraft components and structures.

NOTE: The MO that provides portable X ray equipment and services must ensure qualified NDI technicians perform all radiographic operations.

(16) Determine, with the MALS AVNSUPO, the quantity of Local Repair Cycle Asset (LRCA) required to be on hand to support all MAG squadrons.

(17) Ensure, in conjunction with the MALS AVNSUPO, proper packaging and preservation of aircraft and aircraft components to prevent damage or deterioration.

(18) Designate a Foreign Object Damage (FOD) Prevention Program Manager. Ensure a MAG FOD Prevention Program is established and monitored per paragraph 10.11.

(19) Ensure qualification and recertification of personnel performing special processes are accomplished.

(20) Develop an understanding of the NALCOMIS concept and its application to management and automatic data processing requirements.

(21) Develop an understanding of the CM concept and its application to database management and baseline management. Ensure that MALS has qualified “C” school trained personnel to perform System Administrator/Analysis (SA/A) duties and CM Auto Log Set (ALS) duties.

(22) Ensure the MALSP IMRL is frequently reviewed, necessary changes are submitted, accurate equipage records are maintained, and required reports are submitted.

(23) Ensure Expeditious Repair (EXREP) requirements are validated on a daily basis and Awaiting Parts (AWP) requirements are validated weekly.

(24) Use the on-site Commander Naval Air Systems Command (COMNAVAIRSYSCOM)/Naval Aviation Technical Data and Engineering Services (NATEC) field service representatives (as required) to effect liaison and support for the NAMP.

(25) Develop a Continuous Process Improvement (CPI) strategic plan aligned to organizational priorities and goals.

(26) Designate an AIRSpeed Officer, a minimum of two BMT, and two Continuous Process Improvement Management System (CPIMS) Administrator.

NOTE: BMT and CPIMS Administrator training is provided by the AIRSpeed CPI Office.

(27) Complete Champion, Project Sponsor, or Yellow Belt Training.

(28) Establish an AIRSpeed CPI Department at the I-level with a minimum of four full time personnel, which includes an AIRSpeed Officer and a Supply Representative. AIRSpeed CPI team members must be Green Belt or Logistics Chain Improvement Practitioner (LCIP) certified within 12 months of assignment. At least one member of the AIRSpeed CPI Department will achieve Lean Practitioner Certification within 12 months of assignment to establish organic CPI training and certification capability. Personnel assigned to the AIRSpeed CPI Department will be assigned for a minimum of 18 months.

NOTE: The Lean Practitioner certification is a bridge between Green Belt and Black Belt that provides the candidate with the training and experience necessary to qualify for the Green Belt Instructor certification and to coach/mentor process improvement initiatives.

(29) In addition to the AIRSpeed CPI Department, maintain a core competency of two Green Belt or LCIP certified personnel from each Maintenance and Supply Division. Certification must be completed within 12 months of assignment to the core competency.

(30) Implement AIRSpeed within the Maintenance Department and perform a semi-annual verification to ensure CPI initiatives are sustained.

(31) Ensure workload priority assignments outlined in Chapter 5 are understood and followed by work center personnel.

(32) Ensure visual management queues such as 5S checklists, Time to Reliably Replenish (TRR) charts, shadowing, and control boards are in place and used to communicate safety information, equipment location, and standard work procedures.

(33) Attend all tollgate reviews for CPI projects.

(34) Execute the Fleet Engineering Disposition (FED) Program in conjunction with applicable Fleet Support Team (FST).

4.3 Marine Aviation Logistics Squadron (MALS) Avionics Department

4.3.1 Functions

The functions of the Avionics Department are organized to provide the maximum support, coordination, and leadership in support of the MAGs mission in the respective areas of aircraft maintenance, avionics equipment maintenance, integrated logistics resource management, and

professional personnel development. The management of the MALS Avionics Department is the responsibility of the MALS Avionics Officer (AVO). This is accomplished by interpreting and implementing avionics policies and procedures for the MALS commander.

4.3.1.1 All maintenance and support of MALS and supporting activities, to include avionics equipment, Weapons Replaceable Assemblies (WRA), Shop Replaceable Assemblies (SRA), SE, and Test, Measurement and Diagnostic Equipment (TMDE), will be performed by personnel assigned within the Avionics Division. These functions encompass programs, equipment, and support for activities both internal and, on occasion, external to the MAG.

4.3.1.2 The Avionics Department is responsible to the MO, who has the overall responsibility for the production effort within the MALS, for matters dealing with the scheduling, prioritization, and production of avionics equipment.

4.3.2 Branches

An Avionics Department (Figure 4-1) exists within each MALS and consists of functional branches. The department will be comprised of an Avionics Branch, Precision Measuring Equipment (PME) Branch, and various production branches necessary to support flying squadrons of a MAG. Each branch is responsible for the maintenance of its respective avionics equipment, the welfare of their personnel, an accurate accountability of work center IMRL assets, and individual branch security.

4.3.2.1 The Avionics Branch is responsible for overall division administrative duties, as well as I-level maintenance on avionics equipment. Depending upon the type of aircraft supported, the Avionics Branch may contain up to five work centers; Communications/Navigation, Electrical/Instrument Repair, Automatic Test Equipment (ATE), Electronic Warfare, and Radar.

4.3.2.2 The TMDE branch contains the calibration and repair work centers responsible for I-level maintenance on MAG and MALS IMRL equipment.

4.4 Marine Aviation Logistics Squadron (MALS) Avionics Officer (AVO)

The AVO manages the MALS Avionics Division and is responsible to the MALS MO for the accomplishment of the division mission. Responsibilities include:

a. Interpret and implement avionics policies and procedures for the CO.

b. Be responsible for the performance of the Avionics Division and the technical and administrative functions that require specialized avionics training and experience.

c. Advise the MO on avionics matters relating to readiness, effectiveness, training requirements, safety, calibration requirements, and ongoing and planned projects within the Avionics Division.

d. Sponsor all avionics MOSs (63XX/64XX) within the MAG and will coordinate with, and advise, the MALS S-1 in all personnel assignments or reassignments to best support the MAGs operational commitments.

e. Maintain liaison with the supporting and supported maintenance activities and staff to ensure avionics requirements pertinent to the MAG and MALS are known and satisfied. The AVO also maintains liaison with each squadron within the MAG and provides guidance on avionics operations as they relate to readiness.

f. Administer the Avionics Division operations.

g. Act with team-oriented professionalism under the cognizance of the MALS MO for the accomplishment of delegated executive tasks and for the continuous improvement of the Avionics Division.

h. Provide the necessary leadership, technical guidance, and personnel management within the Avionics Division; establish the most effective and economical procedures to accomplish assigned tasks; employ available resources to maximum potential within the guidelines of this instruction and Marine Corps policy directives; and develop performance measurement criteria to facilitate program monitoring and review processes.

i. Increase the potential of assigned personnel through technical and professional training, delegate/assign responsibilities within the division to achieve continuing success through qualified independent action, and provide the professional counseling and performance evaluation processes that will encourage subordinates to exercise their full technical and professional capacity.

j. Analyze the mission accomplishment and capabilities of the Avionics Division using reports provided by the MDS and NALCOMIS, ensuring full and effective employment of personnel, and ensure the production of the Avionics Division is of the proper quality and quantity.

k. Monitor squadrons within the MAG to ensure correct avionics maintenance, administration, and material handling procedures are used, directing particular attention to the detection and removal of all administrative impediments to avionics readiness.

l. Act as the central point of contact for avionics matters concerning policy, personnel assignments, training, support of avionics WRAs, and SE within the MAG or MALS. Maintain coordinating control of avionics maintenance performed by, and in support of, squadrons and units under the cognizance of the MAG.

m. Publish MAG and MALS instructions which highlight concepts and policies for the best conduct of avionics support.

n. Establish MAG and MALS training programs to optimize avionics capability at both the O-level and I-level and evaluate training programs for their ability to meet future requirements.

o. Coordinate all avionics personnel assignments with the MAG S-1 to ensure the maximization of experience in support of operational requirements.

p. Publish and ensure internal compliance with maintenance, avionics, safety, and security procedures to ensure optimum performance is achieved.

q. Schedule and hold periodic planning and information meetings.

r. Establish an effective technical manual and directive verification and validation program.

s. Provide applicable inputs to the MALS MO regarding avionics requirements for deployments and contingencies, including Aviation Logistic Support Ships and Maritime Preposition Ship employment.

t. Maintain liaison between MALS MO, Aviation Supply Division, supported squadrons, external commands, and activities in connection with avionics matters.

u. Manage the MAG Electronic Countermeasures (ECM) and Aircraft Survivability Equipment Program. The AVO will coordinate with the MAG S-3 to provide controlled Electronic Countermeasures (ECM), defensive ECM, and aircraft survivability equipment assets consistent with availability and mission requirements and will manage and report assets per current directives.

v. Manage the MAG Mobile Facility (MF) Program, to include MF support for all divisions within the MALS, deployed and deploying units, and other supported units with MF requirements.

w. Manage the MAG Reflectometry Testing Program.

x. Manage other controlled avionics systems not provided on a fully outfitted basis which must be shared by supported activities.

y. Coordinate predeployment planning with the MALS MO for the provisioning of avionics personnel, facilities, SE, materials, and services for the squadrons.

z. Screen squadron avionics material to ensure only material considered essential to support the specific deployment is embarked, and that consolidation of squadron avionics requirements are made wherever possible.

aa. Screen appropriate IMRL and allowance lists to ensure ATE is tailored to the type aircraft being deployed and it is made available in Ready for Issue (RFI) status.

ab. Ensure all deploying squadron avionics milestones are accomplished and documented.

ac. Assist squadrons in obtaining avionics engineering and technical service personnel.

ad. Manage an aggressive program to control cannibalization of avionics equipment.

ae. Ensure the proper use and continual evaluation of NALCOMIS.

af. Manage all avionics security requirements, to include the control of classified material, documents, and security access of personnel.

ag. Ensure personnel comply with command and local directives relating to professional military education and MOS proficiency attainment through formal and informal technical and follow-on training.

4.5 Marine Aviation Logistics Squadron (MALS) Aviation Ordnance Department

The function of the MALS Aviation Ordnance Department (Figure 4-2) is to provide the MAG with logistical and management support of Class V (A) ordnance, Aircraft Armament System (AAS), and Armament Weapons Support Equipment (AWSE). This is done by interpreting and implementing the ordnance policies and procedures for the MAG. Responsibilities include:

a. Ensure compliance with the policies, procedures, and responsibilities per this instruction.

b. Define responsibilities and assign functions within the Ordnance Department using existing directives.

c. Ensure the management and coordination of the Noncombat Expenditure Requirement (NCER) and Noncombat Expenditure Allowance (NCEA).

d. Ensure proper logistical support and storage requirements for prepositioned war reserve material requirements assets are identified, to include build up and delivery of Class V (A), ammunition stock points, advanced bases, and forward area refueling and rearming points.

e. Ensure the accomplishment of training for all assigned personnel.

f. Ensure assigned personnel are qualified, certified, and licensed to perform department missions.

g. Manage the MAGs Ordnance Safety Program and ensure explosive safety policies and procedures are issued as required. Ensure MAG compliance with the Qualification and Certification Program.

h. Comply with the policies and procedures of OPNAV M-8000.16 series, OPNAVINST 5102.1/MCO P5102.1 series, and 10.9 when preparing Product Quality Deficiency Report (PQDR), Conventional Ordnance Deficiency Report (CODR), Explosive Event Report (EER), Explosive Mishap Report (EMR), Technical Publication Discrepancy Report (TPDR)s, and Engineering Investigation (EI) requests.

i. Ensure Class V (A) material is managed per the current NAVSUP Publication 724 and other related directives.

j. Establish and monitor the Handling, Qualification, and Certification Program for Non-Nuclear Aviation Ordnance and Non-Nuclear Explosive Devices for the MALS.

k. Establish and maintain a satellite Production Control Work Center.

l. Analyze department production and readiness using reports provided by the MDS.

m. Ensure satellite production efforts support Maintenance Department goals, objectives, and standards.

n. Publish a Monthly Maintenance and Training Plan for the maintenance of airborne weapons, training assets, AWSE, AAS, and formal in-Service training of Aviation Ordnancemen.

o. Ensure all maintenance performed on the AAS pool and AWSE is per the standards and guidelines established by the MALS Maintenance Department. Maintain all CM ALSs, for example, Aeronautical Equipment Service Record (AESR), Scheduled Removal Component (SRC), Tracked Component Record (TCR), and Equipment History Record (EHR).

p. Provide information or data concerning manpower, equipment, Class V (A) material, and facilities to appropriate authorities.

q. Establish a verification program for technical manuals and directives maintained by the Maintenance Department.

r. Establish an AAS pool per MAW and ACC/TYCOM directives.

s. Ensure the Fleet Optical Scanning Ammunition Marking System and Standardized Conventional Ammunition Automated Inventory Record are used to manage Class V(A).

t. Monitor and coordinate nonexpendable aviation ordnance support provided by the MALSP.

u. Ensure the department maintains the capability to operate from advanced bases and forward area refueling and rearming point sites.

v. Coordinate predeployment planning for ordnance personnel, facilities, SE, ordnance materials, and services to support squadrons in accordance with (IAW) NAVSEA OP5 VOL III.

w. Screen squadron material requests and the availability of Class V (A) assets to ensure only material considered essential is embarked.

x. Screen appropriate IMRL allowances to ensure the IMRLs are tailored to support the quantity and type aircraft assigned to deploying squadrons within the MAG.

y. Ensure appropriate levels of support are identified in the time phased force deployment database.

4.6 Marine Aviation Logistics Squadron (MALS) Aviation Ordnance Officer (ORDO)

4.6.1 ORDO Responsibilities

The ORDO is responsible to the MAG and MALS CO for the accomplishment of the Aviation Ordnance Department mission. Responsibilities include:

a. Ensure ammunition magazines and lockers are properly maintained and safe handling procedures are established for all ordnance items stowed.

b. Administer and ensure compliance with the Non-Nuclear Ordnance Explosive Handling Qualification and Certification Program.

c. Coordinate with assigned aviation unit commanders or their representatives to determine type, quantity, and allowances of ordnance required to support the unit’s missions.

d. Administer the NCEA, submit required documentation and reports, and monitor expenditures of Class V (A) within the MAG.

e. Be responsible for inventory control and accounting for Class V(A) related material within the MAG.

f. Administer the Aviation Ordnance Department's operations.

g. Maintain liaison with the MAW Ordnance Officer, MAG S-3, and Squadron Ordnance Officers on NCEA, NCER, and Class V (A) availability and compatibility issues.

h. Organize the department, initiate requests, and recommend changes concerning personnel, facilities, and equipment.

i. Conduct liaison with MALS MO, AVNSUPO, S-3, and S-4 to ensure production and operational goals are accomplished.

j. Ensure effective employment of aviation ordnance personnel throughout the MAG and make personnel assignment recommendations to MAG S-1 after considering requirements for arm and de-arm, loading, weapons, assembly teams, safety factors, grade structure, maturity, and experience levels.

k. Publish appropriate airborne weapons maintenance, safety, security, and munitions management procedures.

l. Ensure a 65XX MOS training program exists to support the MAG spectrum of ordnance and weapons.

m. Ensure proper documentation of weapons support man-hours are captured through NALCOMIS.

4.6.2 Ordnance Safety Officer (ORDSO) Responsibilities

The MALS ORDO is also designated as ORDSO and is responsible for aviation ordnance safety for the entire MAG. Responsibilities include:

a. Be familiar with all instructions promulgating explosive safety regulations.

b. Advise the CO, department/division heads, and other personnel in all matters relating to explosive safety. The ORDSO has no authority to waive or alter safety regulations nor will the ORDSO permit violation of regulations by others.

c. Act positively to eliminate any hazardous operations and monitor all evolutions.

d. Ensure Class V (A) safety procedures, regulations, check lists, and other appropriate publications are understood and complied with during all evolutions.

e. Ensure active and effective ordnance QA and safety programs exist.

f. Conduct periodic safety visits throughout the MAG and host ordnance safety meetings with all ordnance personnel within the MAG.

g. Ensure the use of the qualification and certification criteria of Marine Corps Order (MCO) 8023.3.

4.7 Marine Aviation Logistics Squadron (MALS) Aviation Supply Department (ASD)

4.7.1 MALS ASD Management Responsibilities

The management of the MALS ASD is the responsibility of the AVNSUPO. Procedures established here apply to the support of Navy-funded aviation SE assigned to Marine Air Traffic Control Detachments (MATCD) and Marine Wing Support Squadrons (MWSS). All aviation material requirements are submitted to ASD. The ASD executes all functions dealing with the inventory, storage, and management of Navy provided material.

NOTE: Detailed functions of the ASD and various subcomponents are identified in MCO P4400.177, along with the procedures to be followed to satisfy those responsibilities.

4.7.2 ASD Functions

The ASD staff functions include, but are not limited to, the direct responsibilities listed in paragraph 4.7.3.

4.7.3 ASD Physical Location and Hours

An ASD exists within each MALS (Figure 4-3). The physical location of the divisions within the ASD can vary depending upon local situations. However, preferred locations are adjacent to the IMA. The hours of operation will be consistent with the operating hours of supported organizations. Functional divisions comprise an ASD.

4.7.4 Supply Response Division (SRD)

The SRD is responsible for the initial screening and technical research of all requisitions assigned by NALCOMIS as Off for Technical Research (OFFTR) or Off for Validation (OFVAL) local status code. The SRD will refer consumable requisitions that cannot be filled from Supply Officer Stores to the appropriate supply point of entry. Additionally, the SRD is responsible for the reconciliation and monitoring of all outstanding Direct Turn Over (DTO) requisitions except for custodial, Pre-Expended Bin (PEB), and service market items. The SRD consists of two branches:

a. The Technical Research Branch is responsible for the initial screening and technical research of all requisitions assigned an OFFTR or OFVAL local status code.

b. The Expeditor Reconciliation Branch is responsible for the internal and external reconciliation, monitoring, and expediting of all DTO requisitions.

4.7.5 Consumables Management Division (CMD)

The CMD is responsible for the procurement, receipt, storage, issue, delivery, and inventory of all consumable material (except classified consumable material, which is the responsibility of the Repairables Management Division (RMD). The CMD consists of five branches:

a. The Receiving Branch is responsible for the receipt and the redistribution of all material shipped to the MAG/MALS from external sources.

b. The Consumable Delivery Branch is responsible for delivering all consumable issues, consumable DTO receipts, and processing related transactions.

c. The Consumables Storage Branch is responsible for the storage, issue, and inventory of all consumable material in the supply officer's stores and is divided into the Consumable Storage Section and the Consumable Issue Section.

d. The Consumable Control Branch is responsible for all functions related to inventory management of consumable material.

e. The Pre-expended Branch is responsible for establishing, managing, and replenishing PEB sites authorized by the AVNSUPO or MO.

4.7.6 Repairables Management Division (RMD)

The RMD is responsible for repairables allowance management, procurement, receipt, storage, issue, delivery, and inventory of all repairable material. The RMD is also responsible for the induction and recovery of repairables into or out from the IMA, and for shipment and tracking of Beyond Capability of Maintenance (BCM) components to the appropriate activity. Management and control of all classified and fleet controlled material (repairable and consumable) are also the responsibility of the RMD. The RMD consists of five branches:

a. The Repairables Control Branch is responsible for establishing and maintaining repairable allowances and for their procurement, inventory, and accountability. It is also responsible for processing repairable requisitions and receipts, processing all repairables returned from the IMA, and for the screening and carcass tracking of BCM components. This branch will also perform all duties concerning classified material. This includes receipt, storage, issue, packaging, and shipment. Procedures for handling classified material are in Secretary of the Navy Instruction SECNAVINST 5510.30 and Office of the Chief of Naval Operations Instruction OPNAVINST 5218.7.

b. The Repairables Delivery Branch is responsible for delivering all repairable material (issues and DTO) to the customer. This branch will pick up all non-RFI repairable components from the customer ensuring accuracy of all applicable documents, such as logbook, SRC card, CM ALS and MAF or WO.

c. The Repairables Storage Branch is responsible for the receipt, issue, storage, and inventory of all repairable material in the Supply Officer's Stores. The storage of repairables is broken down into two separate sections: the WRA Section and the SRA Section.

NOTE: The receipt, issue, storage, and inventory procedures are the same for all repairables.

d. The Awaiting Parts Branch is responsible for storage and management of repairable components awaiting repair parts.

e. The Supply Shipping Branch is responsible for packaging and shipping all aeronautical-related components and equipment.

4.7.7 Supply Accounting Division (SAD)

The SAD is responsible for all tasks related to maintaining and reporting the financial accounts granted to the ASD. The SAD consists of two branches:

a. The End Use Branch is responsible for maintaining and reporting all end use accounts allocated to the ASD. This branch is divided by Operating Target (OPTAR) (funding).

b. The Stock Fund Branch is responsible for reporting transactions which affect the Navy Working Capital Fund (NWCF) Special Accounting Class 207 (SAC 207) inventory. Additionally, it is responsible for verifying the financial processing of all transactions processed by the MALS.

4.7.8 Squadron Support Division (SSD)

The SSD is responsible for receiving, processing, and monitoring all requirements for aeronautical related custodial material and for maintaining custody records for all organizational allowances. The SSD consists of two branches:

a. The Customer Assistance Branch is responsible for receiving, processing, and monitoring all requirements for aeronautical-related custodial material.

b. The Custody Records Branch is responsible for maintaining the custody record cards for all organizational allowance material, such as IMRL, Table of Basic Allowances (TBA), Consolidated Allowance List (COSAL), Controlled Equipage listed in the NAVAIR 00-35QH-2 (Section H), and Maintenance Assist Module (MAM)/Test Bench Installations. This branch is also responsible for formulation of the quarterly and annual budgets as well as the midyear budget review for all custodial material.

4.7.9 Supply Management Division (SMD)

The SMD is composed of the most knowledgeable and experienced aviation supply personnel responsible for monitoring the overall Supply Department operation, technical training, and Marine Aviation Logistics Support Program (MALSP) allowances and pack-ups (as they pertain to deployed and contingency operations). The SMD consists of two branches:

a. The Audit Branch monitors all supply functions within the ASD to ensure compliance with authorized procedures and achievement of established goals.

b. The MALSP Support Branch is responsible for validating and loading MALSP allowances and monitoring pack-ups.

4.7.10 Supply Personnel and Administration Division (SPAD)

The SPAD is responsible for the administrative control of all personnel assigned. The SPAD performs clerical functions and maintains the master files of all messages, orders, correspondence, and directives for the ASD. The SPAD consists of two branches:

a. The Supply Personnel Branch is responsible for performing functions related to administrative control of all personnel within the ASD.

b. The Supply Administrative Branch provides clerical assistance for the ASD as directed by the AVNSUPO or the aviation supply chief.

4.8 Marine Aviation Logistics Squadron (MALS) Aviation Supply Officer (AVNSUPO)

4.8.1 MALS Responsibilities

The MALS AVNSUPO is the head of the ASD and is responsible to the CO for the administration and proper performance of all ASD functions. The AVNSUPO may appoint subordinate supply officers to specific divisions within the Supply Department and delegate authority required by those officers to carry out the division's mission. The MALS AVNSUPO will:

a. Serve as the accountable officer within the MAG for DON Navy Working Capital Fund (NWCF) inventories and Operations and Maintenance, Navy (O&MN) OPTAR funds. As such the AVNSUPO is charged by law with the responsibility for keeping accurate records of public funds and properties. The AVNSUPO assumes a public trust that such funds and properties will be used only for purposes authorized by applicable law or regulation. The AVNSUPO must submit the Navy Stock Account Financial Inventory Report and OPTAR returns to DFAS on a monthly basis.

b. Be responsible for maintaining a high state of material and supply support to supported units. AVNSUPO, in coordination with the MO, will maintain a high state of repairables material availability. AVNSUPO, in coordination with the MALS S-3 and the MO, will maintain authorized aviation Consolidated Shipboard Allowance List (COSAL) and other authorized MALSP allowance for embarkation within required mobility response times to support expected and ongoing crises and contingencies.

c. Maintain liaison with external supporting supply activities and higher headquarters staff. The AVNSUPO is the MOS sponsor for all aviation supply personnel within the MAG and coordinates with, and advises MALS S-1 and MAG S-1 regarding personnel assignments to best support operational commitments.

4.8.2 Aviation Supply Personnel Responsibilities:

a. Receive requests for material.

b. Provide technical research and prepare requisitions.

c. Pick-up and deliver material.

d. Account for all repairable assets.

e. Maintain special LRCA storage areas and publish corresponding listings.

f. Establish, manage, and replenish PEBs maintenance support packages and publish related listings. Maintenance of the PEB is the responsibility of the squadron or work center.

g. Initiate inter-IMA repair, EXREP, and D-level site customer service requests.

h. Initiate, with the MO, material planning procedures in support of aircraft maintenance.

i. Accomplish all aviation supply related data processing functions.

j. Manage and monitor all functions of aviation financial accounting.

k. Develop and understand NALCOMIS and its application.

4.9 Marine Aviation Logistics Squadron (MALS) Aviation Logistics Information Management and Support (ALIMS)

The ALIMS Department's primary responsibility is to provide Aviation Information System (AIS) support to subordinate units of the MAG, including the MALS and operational squadrons. ALIMS specialist duties include installing, implementing, managing, monitoring, and sustaining AIS organic to MAG units. MCO 2020.1 provides the standardized policy and procedures for ALIMS operations.

4.10 Marine Aviation Logistics Squadron (MALS) Maintenance Data Specialist (MDS) Chief (MOS 6046/6049) Responsibilities

The MDS Chief is responsible to the MALS AMO for the accomplishment of the MAG mission. Responsibilities include:

a. Advise the MALS AMO on all Maintenance Data Specialist personnel (MOS 6046/6049) within the MAG and geographical location.

b. Coordinates with and advises Headquarter Marine Corps MOS sponsor on personnel assignments or reassignments to best support operational commitments.

NOTE: The MALS MDS Chief will consult with the MDS Chief at their respective Wing prior to all Staff Non-Commissioned Officer transfer.

c. Provide the necessary leadership, technical guidance, and personnel management within the MAG and geographical location. Establish the most effective procedures to accomplish assigned tasks. Employ available resources to maximum potential within the guidelines of this instruction.

d. Act as the central point of contact for all Maintenance Data Specialist (MDS) and System Administration (S/A), Maintenance Database Administrator (MDBA), and Analyst concerns with policy, personnel assignments, and training.

(1) MALS MDS Chiefs will ensure the proper accurate accounting of aircraft and engines inventory, status, and location via Aviation Maintenance Supply and Readiness Reporting (AMSRR) Web, Decision Knowledge Programming for Logistics Analysis and Technical

Evaluation (DECKPLATE) Aircraft Inventory and Readiness Reporting System (AIRRS) and DECKPLATE Engine Management within the cognizant MAG.

(2) MALS MDS Chiefs will ensure accuracy and timeliness of XRAY submission by squadrons and initiate corrective action on discrepancies within their cognizant MAG and geographical location. Additionally, the MALS MDS Chief will validate the status and any status updates daily within AMSRR.

e. Provide professional and performance counseling within the MAG and geographical location that will encourage subordinates to exercise their full technical and professional capacity.

f. Increase the potential of assigned personnel through technical and professional training by scheduling and conducting weekly training for all Maintenance Data Specialist personnel (MOS 6046/6049) within the MALS. The MDS Chief will conduct training for all MDS personnel (MOS 6046/6049) within MAG and geographical location twice a month.

NOTE: The MDS Chief will ensure a training program exists to support the MAG spectrum of MDS, SA, MDBA, and analyst responsibilities with the current 6046/6049 Training and Readiness Advance Skills Management (ASM) tasks.

g. Develop an understanding of all Configuration Management (CM) concepts and its applications to database and baseline management. Ensure that all MAG and geographical location have the required qualified "C" School trained personnel (Course C555-2018 (O-level) or C555-2017 (I-level)) to perform SA, MDBA, and Analysis to include CM Auto Log Sets (ALS) duties.

NOTE: The MDS Chief will coordinate with the MDS Chief at the respective Marine Aircraft Wing (MAW) for all "C" School class seat assignments.

h. Validate with unscheduled and scheduled inspections to include all monitored and managed programs are maintained per guidelines and instruction within the cognizant MAG and geographical location.

i. Validate all MAG and MALS instructions, which highlight concepts and policies for procedures and conduct of MDS, SA, MDBA, and analyst responsibilities.

j. Oversee ASM progression and documentation of all MDS (MOS 6046/6049) within the MAG and geographical location.

(1) Validate ASM task assignments are correctly administrated based on the Marines billet and duty assignment.

(2) Administer practical application testing to Marines nominated for Aircraft Logbook (Paper) and CM ALS signature authority.

(3) Verify Quality Assurance administrated testing within the MAG is being strictly complied with.

(4) Verify assigned external roles within ASM in order to facilitate the routing of ASM Aircraft Logbook (Paper) and CM ALS signature request for recommendation.

(5) Validate Marines authorized Aircraft Logbook (Paper) and CM ALS signature authority has completed the required ASM test requirements and assigned within ASM.

k. Coordinate deployment planning with MAG, MALS AMO, and MAW MDS Chief to ensure timely compliance of deployment milestones.

NOTE: The MALS MDS Chief will verify all milestones adhering within the time constraints. This includes SA, MDBA, and analyst responsibilities are completed within all MAG supported squadrons.

4.11 Marine Aviation Logistics Squadron (MALS) AIRSpeed Department

The function of the MALS AIRSpeed Department is to provide the MAG with CPI support and training. MALS AIRSpeed Officer (AIRSO) Responsibilities:

a. The AIRSO is responsible to the MAG and MALS CO for the accomplishment of the AIRSpeed Department mission.

b. Provide monthly AIRSpeed CPI progress reports to MAG and MALS COs.

c. Develop, facilitate, and monitor implementation of the Enterprise Project Alignment Tool that supports organizational goals.

d. Use AIRSpeed CPI analysis tools to identify, prioritize, and evaluate high impact improvement opportunities.

e. Execute focused Lean Six Sigma (LSS)/Theory of Constraints (TOC) projects and events aligned with organizational goals to improve and standardize processes that have a significant impact on operational readiness, cost, man-hour commitment, or inventory.

f. Liaise with MAG Squadrons and MALS Department heads to ensure AIRSpeed CPI implementation goals are achieved and the removal of intra-departmental barriers that prevent successful completion of projects and events.

g. Monitor completed projects to confirm improvements are implemented and sustained by the process owner.

h. Update AIRSpeed Design Documentation, SOPs and Plan of Action and Milestones (POA&M) to reflect changes made during process improvement events.

i. Verify all AIRSpeed CPI projects and supporting documentation are recorded in CPIMS within 15 days of tollgate review or event completion.

j. Manage MAG CPI training, qualifications and succession plans.

k. Verify appropriate AIRSpeed CPI training is completed per paragraph 10.36.3 within 6 months of check in.

l. Check Advanced Skills Management (ASM) and CPIMS or equivalents are updated with CPI training and certifications.

m. Attend all tollgate reviews for CPI projects conducted within the MAG.

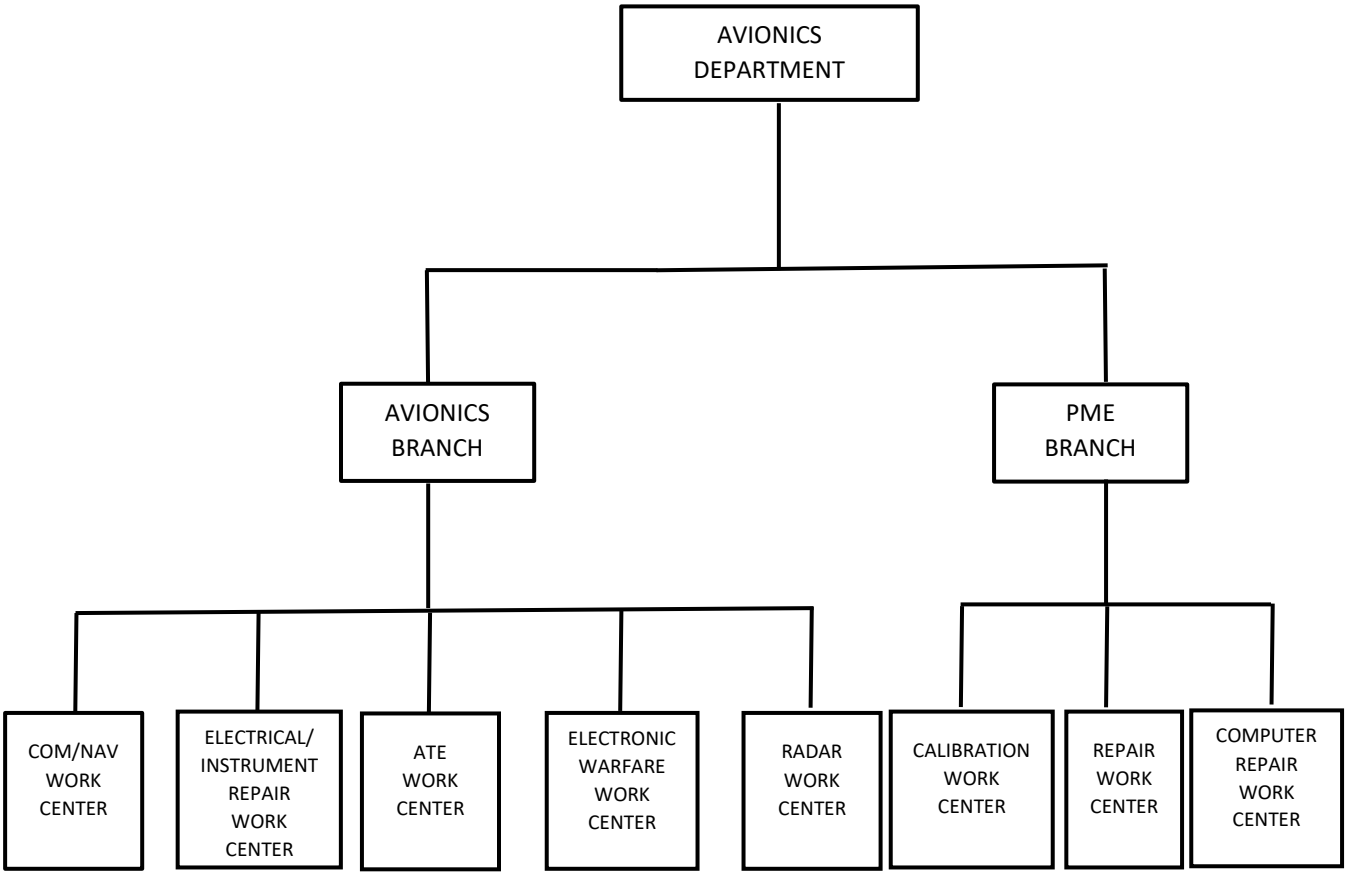


Figure 4-1: Avionics Department Organization

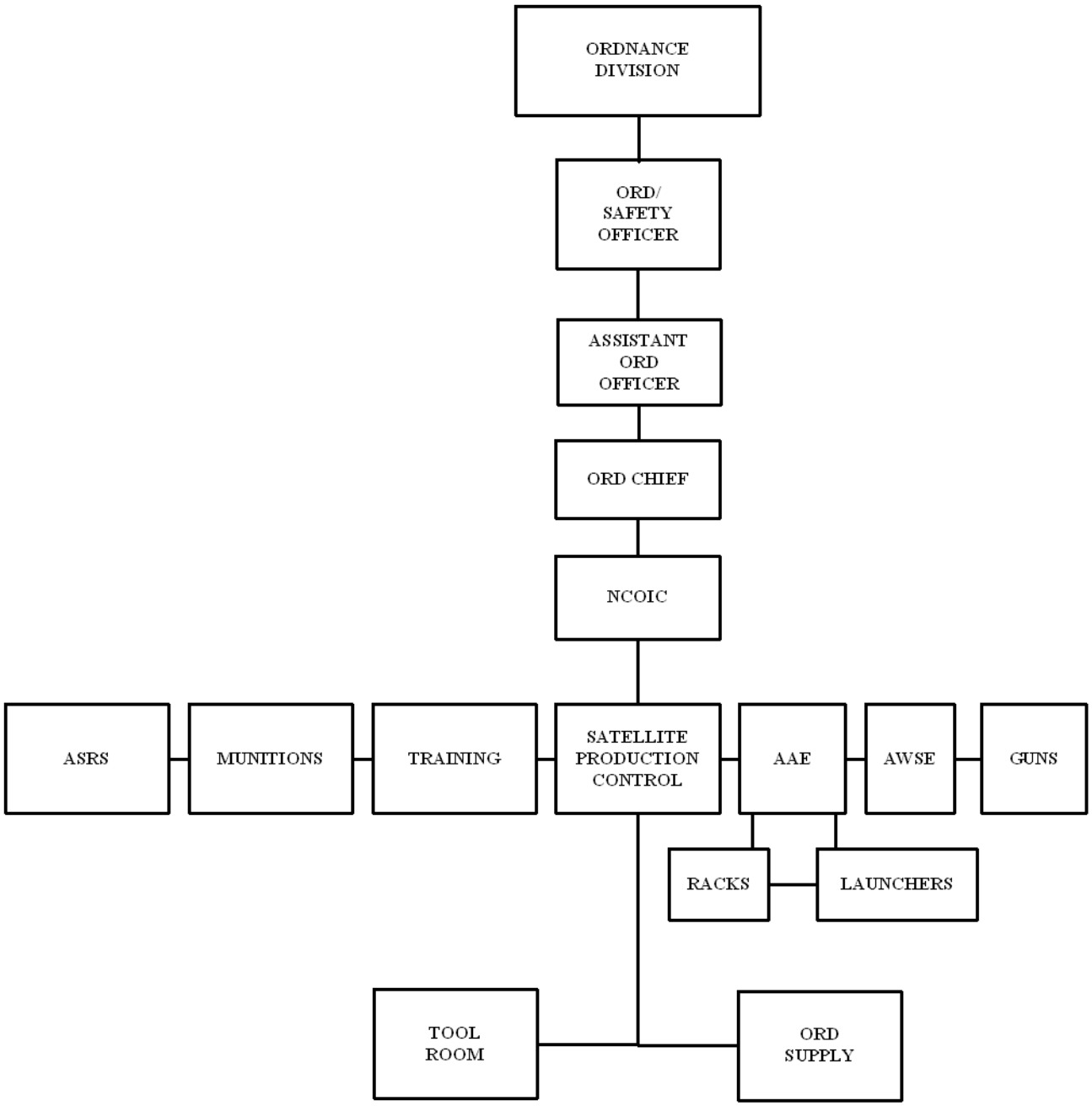


Figure 4-2: Aviation Ordnance Department Organization (Marine Corps)

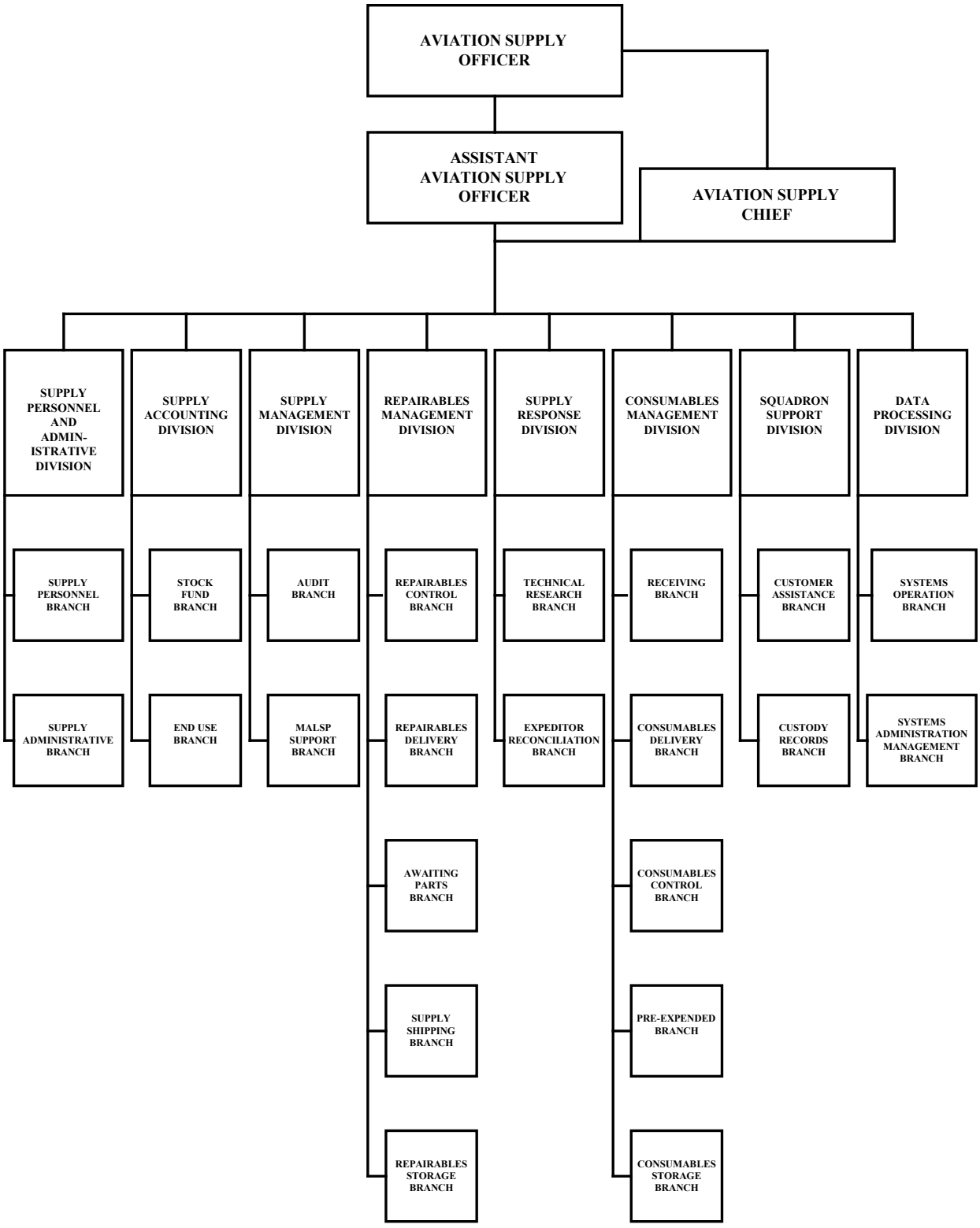


Figure 4-3: Aviation Supply Department Organization

CHAPTER 5

O-level Maintenance Control; I-level Production Control; Aircraft, Engine, and Equipment Inspection; Aircraft Acceptance, Transfer, and Ferry

Table of Contents

5.1 O-Level Maintenance Control 1
5.1.1 Introduction 1
5.1.2 Maintenance Control Manning 1
5.1.2.1 Management Personnel 1
5.1.2.2 Support Personnel 2
5.1.3 Workload Management 2
5.1.3.1 Planning 2
5.1.3.2 Direction and Coordination 3
5.1.3.3 Monitoring 3
5.1.3.4 Aircraft Status Reporting 4
5.1.4 O-level Monthly Maintenance Plan (MMP) 4
5.1.4.1 Purpose 4
5.1.4.2 Content and Scheduled Maintenance Requirements 4
5.1.4.3 Planning Factors 5
5.1.4.4 MMP Preparation and Distribution 6
5.1.5 Maintenance Control Work Order Documentation 6
5.1.5.1 Maintenance Control Work Order Documentation Requirements: 7
5.1.5.2 Work Requests 8
5.1.5.3 Aircraft Discrepancy Book (ADB) 8
5.1.5.4 Naval Flight Information Record (NAVFLIR) (OPNAV 3710/4) 9
5.1.6 Releasing and Accepting Aircraft for Flight 10
5.1.6.1 Designation to Certify Aircraft Safe For Flight (SFF) 10
5.1.6.2 Safe For Flight Certification 10
5.1.6.3 Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Figure 5-4) 12
5.1.6.4 Release of Aircraft for Hot Seat Crew Change 14
5.1.6.5 Release of Aircraft After Hot Refueling 14

5.1.7 Functional Check Flights (FCF) 15
5.1.7.1 FCF Conditions 15
5.1.7.2 FCF Checklists 17
5.1.7.3 FCF Procedures 18
5.1.8 Aircraft Cannibalization Management 18
5.1.9 Phase Inspection Management 20
5.1.9.1 Preparation 20
5.1.9.2 Phase Inspection Crew 20
5.1.9.3 Phase Inspection Management 21
5.1.9.4 Phase Inspection Documentation 21
5.1.10 Phased Depot Maintenance (PDM) Preparation 21
5.2 Intermediate Level (I-Level) Production Control 23
5.2.1 Production Control Manning 23
5.2.1.1 Production Control Managers 23
5.2.1.2 Support Personnel 24
5.2.2 I-Level Monthly Maintenance Plan (MMP) 24
5.2.3 Workload Prioritization 25
5.2.4 Component Repair 27
5.2.5 Beyond Capability of Maintenance (BCM) 27
5.2.5.1 BCM Codes 27
5.2.5.2 BCM Authorization 29
5.2.5.3 BCM MAF Documentation 29
5.2.6 Beyond Capability Maintenance Interdiction (BCMI) 30
5.2.7 I-Level Cannibalization Management 30
5.2.8 I-Level Documentation and Logs and Records 30
5.2.9 Broad Arrow (BA) Reporting 31
5.2.9.1 Broad Arrow Report Usage Not Mission Capable Project (NMC) 31
5.2.9.2 Broad Arrow Report Numbering 32
5.2.9.3 Broad Arrow Report for Automated Test Equipment (ATE) Malfunctions 32
5.2.8.4 Broad Arrow Addendum 33
5.2.8.5 Broad Arrow Support Equipment In-Service Report 33

5.2.8.6 Broad Arrow Requisition Completion Report 33
5.2.8.7 Broad Arrow Non-RFI Repairable components 33
5.2.8.8 Broad Arrow Temporary Loan and Cannibalization 34
5.3 Aircraft, Engine, and Equipment Inspection 34
5.3.1 General requirements 34
5.3.2 Scheduling 35
5.3.3 Inspection Documentation 35
5.3.4 Depot Rework Inspections 35
5.3.5 Aircraft Preflight, Daily, Turnaround, and Postflight Inspections 36
5.3.5.1 Aircraft Preflight Inspection 36
5.3.5.2 Aircraft Daily Inspection 36
5.3.5.3 Aircraft Turnaround Inspection 37
5.3.5.4 Aircraft Postflight Inspection 38
5.3.5.5 Documentation 38
5.3.6 Special Inspections 39
5.3.7 Phase Inspections 39
5.3.7.1 Concept 39
5.3.7.2 Cycle Initiation 40
5.3.7.3 Suspension During Depot Rework 40
5.3.7.4 Phase Inspection Kits 41
5.3.8 Engine Inspections 41
5.3.8.1 Special Engine Inspections 41
5.3.8.2 Phased Engine Inspections 41
5.3.8.3 Major Engine Inspections 41
5.3.9 Conditional Inspections 41
5.3.10 Inspection Deviations 42
5.4 Aircraft Acceptance, Transfer, and Ferry 44
5.4.1 Aircraft Acceptance Inspection 44
5.4.2 Aircraft Transfer 46
5.4.2.1 Transfer Inspection 46
5.4.2.2 Transfer Requirements 47

5.4.3 Aircraft Ferry 48
Figure 5-1: Monthly Maintenance Plan (Sample) 50
Figure 5-2: Daily Inspection Requirements (Page 1) 51
Figure 5-2: Daily Inspection Requirements (Page 2) 52
Figure 5-3: Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Front) (Sample) 53
Figure 5-3: Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Back) (Sample) 54
Figure 5-4: Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Sample) 55
Figure 5-5: BCM Authorization Form (Page 1) 56
Figure 5-5: BCM Authorization Form (Page 2) 57
Figure 5-6: Broad Arrow Report (Message Format) 58
Figure 5-7: Broad Arrow Report (Sample Message) 59
Figure 5-8: Broad Arrow Addendum (Message Format) 60
Figure 5-9: Broad Arrow Addendum (Sample Message) 61
Figure 5-10: Broad Arrow Support Equipment In-Service Report (Message Format) 62
Figure 5-11: Broad Arrow Support Equipment In-Service Report (Sample Message) 63
Figure 5-12: Broad Arrow Requisition Completion Report (Message Format) 64
Figure 5-13: Aircraft Transfer Report 65
Figure 5-14: Phased Depot Maintenance Work Request (OPNAV 4790/65) (Page 1) 66
Figure 5-14: Phase Depot Maintenance Work Request (OPNAV 4790/65) (Page 2) 67

CHAPTER 5

O-Level Maintenance Control
I-Level Production Control
Aircraft, Engine, and Equipment Inspection
Aircraft Acceptance, Transfer, and Ferry

5.1 O-Level Maintenance Control

5.1.1 Introduction

Maintenance Control is responsible for planning, directing, coordinating, and monitoring aircraft and equipment maintenance workload. In addition to all maintenance material requirements of all production divisions, branches, and work centers. This chapter covers Maintenance Control responsibilities for maintenance management. Additional Maintenance Control responsibilities are detailed throughout the NAMP.

NOTES: 1. Unless otherwise specified, procedures labeled "aircraft" also apply to Unmanned Aircraft Systems (UAS).

2. In addition to controlling the maintenance of Airborne Mine Countermeasures (AMCM) systems, AMCM Maintenance Control is responsible for managing the maintenance of tactical support equipment, including small craft, and Civil Engineering Support Equipment (CESE).

5.1.2 Maintenance Control Manning

5.1.2.1 Management Personnel

Maintenance Control managers are those personnel specifically responsible for managing maintenance department priorities. Maintenance Control managers are the Maintenance Material Control Officer (MMCO), Maintenance Master Chief Petty Officer (MMCPO-Navy), Aircraft Maintenance Chief (Marine Corps), Maintenance Control Supervisors, and other personnel assigned to Work Center 020 that are designated to release aircraft Safe for Flight (SFF). Maintenance Control manager qualifications:

a. Complete the Naval Aviation Maintenance Control Management for Optimized Organizational Maintenance Activities (OOMA) course (C-555-0053). Personnel previously designated to certify aircraft SFF that completed both the Naval Aviation Maintenance Control Management course (D or E-555-0040), and the Naval Aviation Officer and Senior Supervisor NALCOMIS OOMA Familiarization course (D or E-555-0054) are not required to complete the Naval Aviation Maintenance Control Management for OOMA course (C-555-0053).

NOTE: F-35 Maintenance Control management personnel will complete the Autonomic Logistics Information System (ALIS) Management and Supervision course (C-555-2019).

b. Complete the Wing mandated Job Qualification Requirement (JQR) for Maintenance Control and certifying the applicable T/M/S aircraft SFF, prior to being designated to certify aircraft SFF (paragraph 5.1.6.1).

NOTE: Maintenance Control trainees will be considered Under Instruction (UI). All actions undertaken by trainees must be monitored and are the responsibility of designated Safe for Flight personnel (paragraph 5.1.2.1).

5.1.2.2 Support Personnel

Maintenance Control support personnel are those personnel assigned to Maintenance Control that are responsible for routine Maintenance Control administrative functions, for example, initializing special inspections, maintenance of NALCOMIS data and Auto Log Sets (ALS) , and logs and records. For Marine Corps activities, Maintenance Control support personnel include Work Center 030 Maintenance Admin personnel assigned to Maintenance Control Work Center 020. Support personnel may initiate When Discovered "O" work orders, if directed to do so by Maintenance Control managers. Inspected By blocks on scheduled maintenance actions that require a control document (020 work center control work order) are considered administrative actions and may be signed by any personnel assigned Maintenance Control responsibilities. Typical Maintenance Control support personnel assignments include:

Maintenance Clerk
Logs and Records
Database Administrator/System Administrator
Phase Supervisor
Technical Directive Coordinator
Support Equipment (SE) Maintenance Coordinator

5.1.3 Workload Management

Maintenance Control is responsible for planning, directing, coordinating, and monitoring the maintenance-related workload of all divisions, branches, and work centers. This section prescribes basic Maintenance Control procedures and responsibilities for workload management.

5.1.3.1 Planning

Maintenance is planned in two time frames: Near-term (current day/week/month) and long-term (future months/year).

a. Near term planning focuses on accomplishing scheduled and unscheduled maintenance for the current day, week, and month to produce the required number of aircraft, equipment, and systems to support the published flight schedule. The following maintenance needs to be considered when setting priorities for near-term maintenance:

(1) Flight preparation inspections and servicing for aircraft assigned to the flight schedule.

(2) Unscheduled maintenance, conditional inspections, and technical directive requirements that must be completed for aircraft, equipment, and systems needed for the flight schedule.

(3) Scheduled inspections and forced removal requirements required to be completed for the day or coming due within the work week due to high limitation timeframe.

(4) Accomplishing the Monthly Maintenance Plan.

b. Astute long-term maintenance planning is the most critical factor in enabling the Maintenance Department to be able to generate manpower and materials capacity to accomplish both scheduled workload and unscheduled maintenance workload. Long-term planning is reviewing major maintenance events coming due in the next 3 months or longer, and adjusting resource availability (capacity) as needed to most efficiently and effectively produce the required number of aircraft, equipment, and systems to support future operations. Long-term planning is facilitated by the Monthly Maintenance Plan, paragraph 5.1.4.

5.1.3.2 Direction and Coordination

At the beginning of each work shift, Maintenance Control will meet with Division, Branch, and Work Center personnel to:

a. Review the flight schedule and assign aircraft to events.

b. Receive updates on ongoing maintenance.

c. Assign workload priorities.

d. Provide direction on coordinating maintenance that requires sequencing the work of different Divisions, Branches, and Work Centers.

e. Phase Inspections per paragraph 5.1.9.

5.1.3.3 Monitoring

Maintenance Control will monitor the status of maintenance via NALCOMIS Visual Electronic Display (VED) (Chapter 13). Maintenance Control will scan VEDs throughout the work day for changes in WO status, and enter brief remarks pertaining to specific maintenance actions affecting aircraft and related systems that may affect mission capability. NALCOMIS reports will also be used to monitor workload status, including: Outstanding TD report, Equipment Discrepancy Report, Aircraft Work Load Report, Work Center Work Load Report, and Inspection Near Due Report.

NOTE: Maintenance Control must be informed of aircraft armed/dearmed status at all times. Activities operating aircraft with ordnance must maintain a visual reference of armed/dearmed status within Maintenance Control. Examples include flagging Aircraft Discrepancy Books (ADB), maintaining a whiteboard indicating armed/dearmed status of each BUNO, and an electronic file viewed on a computer or television screen. The visual reference must be able to be viewed by all personnel and will, at a minimum, indicate ARMED or DEARMED for each aircraft. All maintenance personnel must receive training on the use of the armed/dearmed visual reference, including procedures for keeping Maintenance Control informed of armed/dearmed status at all times.

5.1.3.4 Aircraft Status Reporting

Maintenance control is responsible for Aircraft Material Condition Report (AMCR) status in Aviation Management Supply and Readiness Reporting (AMSRR). While the NAMP standardizes policy, CNAP/CNALINST 5442.1 standardizes detailed procedures for reporting aircraft material condition information in support of readiness-based decision-making by higher authority. The AMSRR process serves as the authoritative data source for measuring the current material condition for all active and reserve U.S. Navy and U.S. Marine Corps aircraft. Specifically, AMSRR is the readiness-based measure for Mission Capability (MC), Full Mission Capability (FMC), Partial Mission Capability (PMC), Non-mission Capability (NMC), and Non-mission Capable Air Worthy (NMC-AW) aircraft compared to all published mission capability goals and populating the Equipment (E) pillar for the Defense Readiness Reporting System - Navy (DRRS-N). Mission Capable Aircraft Required (MCAR) goals are established and published via naval message annually by Commander, Naval Air Forces (CNAF) and Deputy Commandant for Aviation (DCA). For complete reporting requirements, refer to CNAP/CNALINST 5442.1, AMSRR instruction.

NOTES 1. For availability measurements in support of sustainment analysis, refer to the maintenance data system located in Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE).

2. All units reporting must ensure their data is released in AMSRR. When using AMSRR web deployed (afloat), the daily data package is e-mailed to: amsrrmsg@amsrrashore.csd.disa.mil. If bandwidth or network problems do not allow for posting of the AMCR via AMSRR (ashore), draft and release the AMCR via naval message, and indicated in paragraph 4 remarks section, when bandwidth or network issues are expected to be resolved.

5.1.4 O-level Monthly Maintenance Plan (MMP)

5.1.4.1 Purpose

The purpose of the MMP is for maintenance managers to disseminate an UNCLASSIFIED planned and scheduled control of the predictable maintenance workload, for example, inspections, transfer or receipt of aircraft, and compliance with TDs. By using planning tools, the scheduling of predictable maintenance also increases the capability for determining unscheduled work and other factors affecting maintenance operations. Additional requirements, such as SE, material, manpower, and other factors affecting the maintenance operation can be determined in advance of actual need. The MMCO, with MMCPO or Maintenance Material Control Chief (Marine Corps) assistance, is responsible for preparing and publishing the MMP. Maintenance Control will note deviations from the MMP and initiate necessary actions to adjust the maintenance workload to meet the variations in operational tempo.

5.1.4.2 Content and Scheduled Maintenance Requirements

The MMP (UNCLASSIFIED) will contain a maintenance plan to accomplish major scheduled maintenance for the next three months. The three month plan will contain notations for holidays, operations (UNCLASSIFIED only), and any other events deemed important to scheduling

maintenance, such as preparing aircraft for Material Condition Inspection (MCI) and scheduled training that requires significant amounts of work stoppage time. Figure 5-1 is an example of using planning factors to generate a three month maintenance workload forecast for a 10-aircraft squadron.

a. Maintenance requirements to be included and listed by Side Number (MODEX) and Bureau Number (BUNO), and for each type model equipment or mission system by its Serial Number (SERNO) as follows:

(1) Due date for each type of calendar based inspection or scheduled maintenance action requiring more than two work days to complete.

(2) Operating time due and time remaining for inspections or scheduled maintenance based on operating hours more than 30 hours (based on projected usage).

(3) Cycles remaining for inspections or scheduled maintenance based on cycles, for example, catapults, arrestments, etc. (based on projected usage).

(4) Time or cycles due or cycles remaining for forced removal components.

(5) Technical Directive (TD) requirements and compliance NLT deadline.

(6) Estimated induction date for on-site depot rework (ISR, MOD) and projected completion date.

b. Estimated date of receipt or transfer of aircraft, equipment or mission system.

c. Scheduled AMI, MPA, MCI, or training impacting significant work stoppage.

d. SE or METCAL scheduled inspections or inductions.

e. Number of projected flight days and hours.

NOTE: Hard copy or electronic copies of NALCOMIS reports or other maintenance data sources may be used in the MMP. The MMP may also cross-reference the location of the information, for example, "Calibration information located in the MEASURE Format 800 Report." If the MMP cross-references information, Maintenance Control must maintain a copy (either hard copy or electronic) of the referenced data.

5.1.4.3 Planning Factors

The MMCPO (Navy) or Maintenance Material Control Chief (Marine Corps) will use the following planning factors in assisting the MMCO prepare the forecast of maintenance requirements for the MMP. Due to OPSEC, only UNCLASSIFIED information will be included into the published and distributed MMP.

a. Projected number of aircraft, equipment, and mission systems onboard, by week.

b. Projection of required number of aircraft, equipment, and mission systems, by week.

c. Projected number of operational aircraft, equipment, and mission systems, by week.

d. Projected readiness surplus or deficit, by week.

e. Estimated time to complete, in work days.

(1) Each type of scheduled inspection that normally takes more than one work day to complete. For ready reference, information should also include any logistics factors that must be planned in advance, such as coordinating I-level or D-level support, arranging for specialized support equipment, and obtaining authorization for aircraft immobilization.

(2) Preparation of an aircraft for transfer.

(3) Preparation of an aircraft after initial receipt.

(4) Preparation of an aircraft for induction for depot rework.

(5) Preparation of an aircraft after return from each type of depot rework.

f. Schedule of detachments or other major training events (UNCLASSIFIED information only), and any other events that will impact the maintenance schedule, such as Material Condition Inspections (MCI). Notations will be made for any special preparations, such as requirements to install and operationally check seldom-used systems that will be required for a training detachment.

5.1.4.4 MMP Preparation and Distribution

The MMCO and the MMCPO (Navy) or Maintenance Material Control Chief (Marine Corps) are responsible for coordinating preparation of the MMP. The MMP must be distributed no later than the 25th day of the month prior to the first month covered in the MMP. Prior to distribution, the MMCO will brief the Maintenance Officer for signature. The Assistant Maintenance Officer (AMO) and the MMCPO/Maintenance Material Control Chief will attend the brief. The MMCO's brief to the MO will include:

a. Progress in achieving the current month's maintenance schedule.

b. Maintenance schedule for the upcoming months, with emphasis on:

(1) Major scheduled inspections.

(2) Forced removals.

(3) Aircraft and equipment transfers and receipts.

(4) FCF requirements.

c. Expected number of aircraft or systems available to meet projected flight operations for the upcoming month, and any coordinating actions with the Wing required to transfer aircraft or systems earlier or later than planned in order to have sufficient assets on hand.

d. Obstacles to producing the required number of aircraft or systems for upcoming training detachments or deployment. The AMO will brief the MO on any expected deficiencies in numbers or qualifications of personnel, as they relate to accomplishing the MMP.

e. Coordination required with the Operations Department, such as scheduling FCFs, compass calibration flight, and flights to operationally check systems used for combat operations.

5.1.5 Maintenance Control Work Order Documentation

Maintenance Control is responsible for the accurate and timely documentation of maintenance in NALCOMIS Optimized Organizational Maintenance Activity (OOMA) for all work performed on

aircraft, engines, and assigned equipment, including Aviation Life Support Systems (ALSS), Aircraft Armament Systems (AAS), and Mission Mounted Equipment (MME). Chapters 15 and 16 provide detailed information on NALCOMIS functionality and OOMA documentation procedures.

5.1.5.1 Maintenance Control Work Order Documentation Requirements:

a. Ensure WOs are initiated per Chapter 15 procedures for all:

(1) Scheduled maintenance.

(2) Scheduled inspections.

(3) Conditional inspections.

(4) Preservation and Depreservation actions.

(5) Technical Directive (TD) actions.

(6) Administrative actions (When Discovered Code O), for example: Inspections, Forced Removals, Facilitate Other Maintenance (FOM), Work Requests, and Configuration Changes.

NOTE: All inspections, technical directives, forced removals, and corrosion treatment WOs must contain the applicable No Later Than date or time annotated in the system reason block.

b. Review WOs initiated by Work Centers for correct coding, and modify as required prior to approval. Maintenance Control has the option to modify all fields of the WO except BUNO, Assembly Cd, and TM.

c. Review WOs initiated by pilots or aircrew after completion of flight for adequacy of discrepancy description and correct When Discovered (WD) Code (Appendix E).

d. When parts or materials are required, assign the appropriate project code and priority designator on the WO, per DOD 4140.1-R and NAVSUP Publication 485 project code policy. The WO is electronically forwarded to Material Control for DDSN assignment and processing.

e. As a minimum, verify correct job status code changes have been made at time of shift change.

f. When corrective action has been completed:

(1) If the system does not support required corrections, Maintenance Control will determine whether a new WO must be created and referenced to accurately document actions taken, such as the removal and replacement of a tracked component with a specific work unit code (WUC).

NOTE: A repairable component is ordered and received under an incorrect WUC. The new component will not be able to be installed in the correct location with in configuration management, a new work order would have to be created to complete the removal and installation actions.

(2) Verify required QA in-process and final inspections have been documented, per Chapter 7 requirements.

(3) Verify all Work Order data fields for accuracy and coordinate with the Data Base Administrator to correct modifiable fields in the ALS Que prior to submitting up line through the approval process.

NOTE: Within the ALS Que modifiable fields are indicated by the field being a different color (often white) than the majority of data fields. Modifications to these fields is limited in some cases by the type of corrective action and type of work order.

5.1.5.2 Work Requests

Maintenance Control will issue all work requests. General procedures:

a. An E Block (Removed Item) entry is required for all WOs for items to be turned in to the I-level on a Work Request. E Block data must be verified against the Auto Log Set for accuracy of CAGE, Part Number, and WUC. Work requests are the receipt for accepting the equipment, and must be kept on file until return of the specific item or replacement item, or until action is completed.

b. Work requests for work done on the aircraft or on-site without turn-in do not require an E Block entry.

NOTE: Assembled A-series components are normally not stocked. Maintenance Control will coordinate with the IMA for repair of A-series components.

AMA 2024-07

5.1.5.3 Aircraft Discrepancy Book (ADB)

a. Maintenance Control will maintain an Optimized OMA NALCOMIS (OOMA) Automated Aircraft Discrepancy Book (AADB) for each aircraft assigned.

NOTE: Hardcopy ADBs will only be used to maintain those items required to determine Safe For Flight or for which the AADB has no functionality and the item is considered essential information. For example, Oil consumption, power checks, Weight and Balance forms, and T/M/S peculiar requirements.

b. The ADB/AADB must accurately reflect the current status of all pending maintenance requirements, and must be validated against the Work Load Report for completed and outstanding WOs at least daily.

c. The ADB/AADB must include the following content, at a minimum:

(1) Aircraft Inspection and Acceptance Record (OPNAV 4790/141) for at least the last ten flights.

(2) WOs for all active maintenance requirements that have not been completed, regardless of age.

(3) WOs for maintenance and inspections completed within the last ten flights.

(4) The control document for each type of Special or Phase Inspection will be retained in the AADB until completion of the next like inspection, regardless of age.

(5) Aircraft with an onboard Health Monitoring System (HMS), such as the F/A-18 and EA-18 Automated Maintenance Environment (FAME), will contain HMS data generated from the last ten flights.

(6) The most current completed Daily and/or Turnaround Inspection.

NOTES: 1. Hard copy (printed) forms for the Aircraft Inspection and Acceptance Records (OPNAV 4790/141) will be maintained if information considered necessary to record additional safety of flight data is entered in the Block 8. Ordnance, Block 9. Special Equipment/Limitations/Remarks. The OOMA AADB functionality does not populate or retain Blocks 8., 9., or 11. to the Summary Back-up, therefore any information entered into the Ordnance, Special Equipment/Limitations/Remarks and QA/SO signature block is lost upon issue of a new OPNAV 4790/141 record.

2. The Special Inspection tab under Configuration Management Logset Explorer for both aircraft and engines may be printed in lieu of maintaining the control documents for Special and Phase Inspections.

3. Hard copy Daily and Turnaround forms may be printed from the OOMA AADB and maintained in the hardcopy ADB until next like inspection in order to facilitate updating portion of inspection as deemed necessary by Maintenance Control for maintenance actions completed after the Daily and/or Turnaround are completed.

d. The AADB Summary page will be backed up in PDF format on an approved Government Furnished Equipment (GFE) external media source. For example, GFE external hard drive or share drive, prior to each flight after the aircrew signs the Aircraft Inspection and Acceptance Record and at the end of each shift. Backup storage locations will be determined by local procedures and will be readily available for use during system or network down time. All Maintenance Control personnel will be familiar with the process of performing an AADB Backup.

NOTE: Airborne Mine Countermeasures (AMCM) Maintenance Control is responsible for maintaining an Equipment Discrepancy Book (EDB) for each AMCM system.

5.1.5.4 Naval Flight Information Record (NAVFLIR) (OPNAV 3710/4)

NAVFLIR entry into NALCOMIS is crucial to flight time accuracy and the Safe for Flight (SFF) certification process. For Navy activities, Maintenance Control will ensure the pilot or aircraft commander enters NAVFLIR into OOMA immediately after each flight. For Marine Corps activities, the pilot or aircraft commander will enter NAVFLIR data utilizing M-SHARP as the primary flight data source immediately after each flight. The pilot or aircraft commander is responsible for complete and accurate NAVFLIR data.

NOTES 1. If successive flights occur during operations away from home base, for example, during a cross-country flight, and the pilot documents each flight on individual NAVFLIRs vice documenting them as multiple legs on one NAVFLIR, Maintenance

Control will ensure a separate "A" sheet for each NAVFLIR is entered into OOMA with any maintenance actions that occurred. This will allow for the proper alignment of the last ten "A" Sheets, flight records and work order documentation within the OOMA AADB. In such cases the pilot's name and grade should be entered into the Released by and Accepted blocks with a brief explanation in the Special Equipment Box, for example, "Cross Country Flight."

2. During times of limited or unavailable connectivity where M-SHARP to OOMA transmission is not possible Maintenance Control will ensure NAVFLIRS are entered into OOMA immediately after each flight.

5.1.6 Releasing and Accepting Aircraft for Flight

Two of the most critical responsibilities of Maintenance Control are certifying and releasing an aircraft Safe for Flight (SFF) and the acceptance of the aircraft by the aircrew. Attention to detail in these processes is essential to ensuring the integrity of the aircraft for flight and the safety of the aircrew.

5.1.6.1 Designation to Certify Aircraft Safe For Flight (SFF)

The Commanding Officer (CO) will designate in writing all personnel authorized to certify aircraft SFF. Prior to being designated to certify aircraft SFF, personnel must complete all Maintenance Control manager training specified in paragraph 5.1.2.1.a. and 5.1.2.1.b.

NOTES: 1. Commanding Officer certification in Aviation Skills Management (ASM) meets the requirement for written designation of personnel authorized to certify aircraft SFF.

2. Depot Fleet Readiness Centers (FRC) Flight Check, Flight Test, or Testline department releasing aircraft safe for flight will comply with this instruction and will be designated in writing by the FRC Commanding Officer.

3. Contractor personnel authorized to certify aircraft SFF will be designated in writing by the Contractor Site Manager.

5.1.6.2 Safe For Flight Certification

Prior to releasing an aircraft for flight, the individual certifying SFF must comply with the following minimum requirements:

a. Review the AADB and verify all outstanding discrepancies for accuracy, including the correct EOC applied per the applicable Mission-Essential Subsystem Matrix (MESM), correct maintenance status, and all tools accounted for.

b. Verify all downing discrepancies and flight safety Quality Assurance (QA) inspections are signed off.

c. As applicable to the flight, verify Preflight, Daily, Turnaround, and Postflight inspections were completed, and are current (paragraph 5.3.5 and Figure 5-2) and correctly documented on the Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Figure 5-3).

d. Verify fuel samples were taken and inspected per T/M/S maintenance technical manuals. Specific intervals for fuel samples are listed in the applicable aircraft maintenance requirement cards (MRC). Unless otherwise specified in aircraft MRCs, fuel samples must be taken within 24 hours preceding the aircraft's initial launch and are valid for no more than 24 hours.

e. Review Engine/Gearbox Oil Consumption Records and verify each engine or gearbox consumption is within the limit specified in the maintenance technical manuals (as required).

f. If the aircraft has an onboard Health Monitoring System (HMS), such as the F/A-18 and EA-18 Automated Maintenance Environment (FAME), review the BUNO HMS data and verify all required actions were taken and documented per applicable T/M/S policy and maintenance technical manuals.

g. Verify aircraft Weight & Balance (W&B) forms have been updated.

h. Verify pending Forced Removals, Scheduled Inspections, and issued Corrosion Treatment work orders are within compliance requirements.

i. Verify status of all personal ALSS for the scheduled aircrew for the event using ALSS VEDs and the Outstanding Transaction Report (OTR).

j. Verify Flight Hour accuracy by review of previous ten Aircraft Inspection and Acceptance Records (OPNAV 4790/141) and the OOMA Flight Summary report.

k. Verify there are no overdue TDs by reviewing the OOMA Outstanding Technical Directives Report against the compliance times listed in the MMP.

l. Verify AADB summary pages are backed up in PDF format prior to flight and the last 10 flights are saved.

m. Verify the aircraft has no Partial Mission Capable (PMC) limitations related to the assigned flight, as specified in the Mission Essential Subsystem Matrix (MESM). Maintenance Control will brief the aircrew on all aircraft limitations, regardless of mission assigned.

NOTE: UAS Control Stations are not required to be released Safe for Flight separately from the unmanned aircraft (UA). UAS Naval Air Training and Operating Procedures Standardization (NATOPS) preflight and system check procedures must be performed before the Control Station is utilized. For systems that do not have a NATOPS, approved preflight procedures identified in the IFC must be followed. Safe for Flight personnel will verify the Control Station is fully operational prior to signing off Safe for Flight.

5.1.6.3 Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Figure 5-4)

An Aircraft Inspection and Acceptance Record (OPNAV 4790/141) is required for each flight. The Aircraft Inspection and Acceptance Record will remain at the place of first takeoff. If the aircraft is in transit and being certified by an activity other than the parent squadron (transient line, Depot FRC flight test, etc.), the OPNAV 4790/141 record will be retained by the activity that released the aircraft and a copy will be forwarded to the parent squadron for entry into OOMA. Prior to releasing the aircraft to the aircrew, the person certifying the aircraft SFF will verify the Aircraft Inspection and Acceptance Record has been filled out as follows:

NOTES: 1. A locally produced and controlled Aircraft Inspection and Acceptance Record form may be issued for use by TYPEWING or MAG/MAW, provided minimum data requirements specified in the NAMP are met.

2. Hard copy (printed) forms for the Aircraft Inspection and Acceptance Records (OPNAV 4790/141) will be maintained if information considered necessary to record additional safety of flight data is entered in the Block 8. Ordnance, Block 9. Special Equipment/Limitations/Remarks. The OOMA AADB functionality does not populate or retain Blocks 8., 9., or 11. to the Summary Back-up, therefore any information entered into the Ordnance, Special Equipment/Limitations/Remarks and QA/SO signature block is lost upon issue of a new OPNAV 4790/141 record.

Block 1 - BUNO. Enter the aircraft BUNO.

Block 2 - T/M/S. Enter the aircraft T/M/S.

Block 3 - RPT. CUST. Enter the aircraft reporting custodian.

Block 4 - OXY. Enter total gaseous or liquid oxygen on board. Not applicable to aircraft with an on board oxygen generation system.

Block 5 - FUEL. Enter grade and quantity of fuel.

Block 6 - OIL. Enter grade and quantity of oil added to each engine.

NOTE: Due to system limitations, the OOMA AADB Aircraft Inspection and Acceptance Record (OPNAV 4790/141) does not calculate oil consumption for equipment that does not require servicing after each flight. T/M/S that cannot use the oil consumption functionality should disable it in OOMA under the Configuration Management inventory properties for the engines. Additionally, servicing will be annotated under the Special Equipment/Limitations/Remarks block within the AADB OPNAV 4790/141.

Block 7 - DATE. Enter date of pilot-in-command acceptance.

Block 8 - ORDNANCE. This section informs the pilot of ordnance loaded on the aircraft. To certify ordnance and associated AAS are Safe For Flight, enter the aircraft's weapons stations, all loaded ordnance and quantities, to include countermeasures/weapons/stores. Maintenance Control must verify the Quality Assurance/Safety Observer (QA/SO) certification has been

completed prior to certifying the aircraft Safe for Flight. Subsequent QA/SO certifications are not required after the initial QA/SO certification as long as no ordnance or AAS configuration changes have occurred. This includes, but is not limited to, hot seat crew changes and cross country flights.

NOTES: 1. Ordnance capable aircraft with no ordnance or AAS installed do not require a QA/SO certification. The person certifying the aircraft Safe for Flight will enter the statement "No ordnance or AAS installed." Empty countermeasures containers are considered AAS.

2. T/M/S aircraft with no ordnance capability are exempt from QA/SO certifications.

3. Units unable to meet QA/SO requirements due to manpower constraints must submit a waiver request to TYCOM/RC via ISIC as per OPNAVINST 8023.24 for Navy and via MCO 8023.3 for Marine Corps for an ordnance certified QAR or CDI to conduct QA/SO certifications.

4. The QA/SO will document ordnance certification in the AADB by entering the ordnance load and configuration and signing the ordnance block in the acceptance for flight tab.

Block 9 - SPECIAL EQUIPMENT/UAS CONTROL STATIONS/UAS LAUNCH AND RECOVERY EQUIPMENT/LIMITATIONS/REMARKS. This section informs the pilot of special equipment loaded on the aircraft, and uncorrected discrepancies or unique characteristics of the aircraft. For UAS, this section will also list the Nomenclature and S/N for the UA, UAS Control Stations, launch equipment, and recovery equipment.

Block 10 - SIGNATURE OF PLANE CAPTAIN. OOMA SMQ or printed name, rate or rank, and signature of the plane captain who inspected the aircraft.

NOTE: In the case of multiple Plane Captains performing inspections, the Plane Captain signing the Plane Captain signature block is responsible for ensuring all steps of the inspection have been performed and documented.

Block 11 – SIGNATURE OF QA/SO. Printed name, rate or rank, and signature of the person certifying the aircraft ordnance load and configuration has been verified. Subsequent QA/SO certifications are not required after the initial QA/SO certification as long as no ordnance or AAS configuration changes have occurred. This includes, but is not limited to, hot seat crew changes and cross country flights.

Block 12 – SIGNATURE SAFE FOR FLIGHT. OOMA SMQ or printed name, rate or rank, and signature of the person certifying the aircraft Safe for Flight. If the aircraft is away from home and T/M/S specific SFF certification personnel not available, the pilot-in-command must sign Block 12 to certify the aircraft is SFF. Signature requirement for Hot Seat Crew Change is covered in paragraph 5.1.6.4.b.

Block 13 - SIGNATURE OF PILOT IN COMMAND. OOMA SMQ or printed name, rank, and signature of the pilot accepting the aircraft.

5.1.6.4 Release of Aircraft for Hot Seat Crew Change

“Hot Seat" crew change is an operational evolution where a manned aircraft returns from flight in an “up” status, the engine(s) remain operating, the pilot in command is changed, and the aircraft is immediately re-launched.

a. Successive Hot Seat crew changes may occur until the expiration of the Daily Inspection or until the aircraft requires any scheduled or unscheduled maintenance or inspection that requires the aircraft to be shut-down.

b. Maintenance Control must complete a new Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Figure 5-4) for each Hot Seat evolution. The term "Hot Seat" must be entered in Block 8, and the new pilot in command must review the ADB and sign Block 11, and the debarking pilot must sign Block 10. Performance of these actions will signify a physical continuation for flight of an inspected, serviced, and certified SFF aircraft with a change in pilot in command.

NOTES: 1. Hot seat crew change evolutions are negated if all of engine(s), to include APU, are shut down prior to when pilot in command is changed.

2. Single engine or fixed wing aircraft may conduct a hot seat crew change with the engine(s) shutdown provided the APU remains operating from time of landing to relaunch. The T/M/S aircraft FST and wing must provide specific procedures and restrictions for single engine or fixed wing aircraft hot seat.

3. An Unmanned Aircraft (UA) Hot Seat is an operational evolution where the UA operator is changed while the UA is still airborne or while on deck with the engine(s) operating and the UA continues flight or is immediately re-launched. Final electronic copies of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) with all signatures will be maintained at the point of UA origin and a hardcopy Aircraft Inspection and Acceptance Record (OPNAV 4790/141) must be generated as reference for back fitting data into OOMA.

4. Hot weapons download or upload conducted in conjunction with Hot Seat crew change will strictly comply with NAVAIR 00-80T-103 procedures.

5.1.6.5 Release of Aircraft After Hot Refueling

Hot refueling is an operational evolution where an aircraft is refueled after landing while the engine(s) is (are) operating and the aircraft is immediately re-launched without a change in the pilot in command. Hot refueling does not require a new Aircraft Inspection and Acceptance Record (OPNAV 4790/141). Only those portions of the turnaround inspection applicable to hot refueling and any other maintenance or servicing done during the ground period must be complied with, as directed by Maintenance Control. This does not limit commands from performing other inspections before re-launch, as they deem necessary. Inspection or servicing intervals must not be exceeded during successive hot refueling evolutions. All applicable NATOPS checklists must be complied with prior to re-launch.

5.1.7 Functional Check Flights (FCF)

FCFs determine whether the airframe, power plant, accessories, and equipment are functioning per specified standards while subjected to the intended operating environment. FCFs are conducted when it is not possible to determine proper operation by ground checks, for example, aerodynamic reaction, air loading, or signal propagation.

NOTE: If the aircraft has capability to perform testing and operational functional checks of all flight critical equipment, i.e. flight controls, landing gear and engine checks without need for inflight verifications, NAMP directed 30 Day No Fly FCF does not apply.

5.1.7.1 FCF Conditions

Unless specifically directed by requirements in the applicable T/M/S NATOPS manual, MIMs, MRCs or User Logistics Support Summary (ULSS) for commercial derivative aircraft, The following conditions, require an FCF. Operational commanders may impose additional FCF requirements as deemed necessary. Mandatory FCF conditions:

a. Upon completion of acceptance inspection.

NOTE: Squadrons that deploy detachments are not required to perform an acceptance FCF for aircraft transferred between the parent activity and its detachments.

b. When an aircraft that has not flown in 30 or more days is returned to flight status.

c. When any mandatory FCF condition cited in the applicable NATOPS manuals occurs.

d. When directed by technical manual, Technical Directive, or MRC.

e. After the installation, reinstallation or rigging of any of the following components. An FCF is not required after the installation, reinstallation or rigging of any component on aircraft if that system can be fully operationally checked by ground operations without need for inflight verification as outlined in the T/M/S aircraft NATOPS, T/M/S maintenance manuals or ULSS.

(1) Engine.

(2) Propeller or propeller governor.

(3) Major fuel system component.

(4) Helicopter engine drive train, transmission, or gearbox.

(5) Fixed or movable flight surfaces.

(6) Rotary Wings.

(7) Any flight-critical component subject to stress during flight that cannot be fully operationally checked by ground operation.

NOTES: 1. FCF is not required when maintenance involves only the removal and reinstallation of connecting hardware without a change in adjustment or alignment. In this case, the Work Order (WO) Corrective Action taken block must include a

statement verifying the system was disconnected and reconnected without a change in adjustment or alignment, and a ground functional check was accomplished.

2. FCF is not required on fixed or movable flight surfaces if removal and reinstallation of quick-disconnect on aft sections of gas turbine engine aircraft when no work that requires an FCF is performed on the flight surfaces of the removed section. Refer to T/M/S specific technical manuals for FCF requirements.

3. FCF is not required for installation or reinstallation of exhaust gas vectored thrust nozzles (hot and cold) accomplished by pin alignment that does not affect the adjustment of the nozzle.

4. FCF is not required on aircraft equipped with onboard automated rotor vibration and diagnostic capability do not require an FCF after making small incremental adjustments to minimize rotor induced vibrations, provided no other maintenance actions that require an FCF were performed.

5. Unless directed by the applicable NATOPS, MIMs, MRCs or ULSS, or if all flight critical systems cannot be fully functionally checked without inflight verification, UAS require an FCF for acceptance inspection, after completion of standard rework, and when not flown for 30 days or more. Any additional FCF will be performed as directed by the applicable UAS NATOPS manual.

f. When an aircraft with a single primary attitude source per pilot station has had the attitude indicator or display, attitude source, subsystem, or component removed, replaced, or adjusted.

g. When an aircraft with dual or multi-independent attitude reference sources has had the indicators or displays, attitude reference sources, subsystems, or components removed, replaced, or adjusted in two or more of the attitude reference systems. Aircraft with four or more independent attitude reference sources in which two sources are known good, and the integrity of those two sources has not been jeopardized, do not require an FCF.

NOTES: 1. The CO must determine if an FCF is required when an aircraft undergoes Aircraft Battle Damage Repair (ABDR), paragraph 10.38. If an FCF is required due to ABDR, the CO will specify the scope of the FCF.

2. FCFs are not required after completion of Phase Inspections unless maintenance performed during the Phase Inspection meets a mandatory FCF condition.

h. Upon completion of standard depot rework (Phased Depot Maintenance), regardless of where the standard rework was performed.

(1) FCFs for aircraft that completed standard depot rework within a Depot Fleet Readiness Center (Depot FRC) facility are normally performed by military pilots and aircrews assigned to the Depot FRC. When required, designated FCF qualified military aviators assigned to other commands may be used.

(2) Aircraft that completed standard depot rework within the depot facility will have flight

profile requirements prescribed in the rework specifications and appropriate T/M/S NATOPS for the aircraft. The Depot Aviation Safety Officer (ASO) and the Depot Flight Check Officer will coordinate FCF standards and requirements with the various divisions of the depot Quality Department ensure the applicable safety of flight, quality, and reliability standards are met prior to designating an aircraft ready for depot FCF, including aircraft released to the accepting activity at the depot prior to or after the depot FCF.

(3) FCFs of commercially reworked aircraft may be accomplished by contractor or government personnel as specified in the rework contract. If a government FCF is required after a contractor's FCF, unnecessary duplication of checks successfully conducted and documented by the contractor will be minimized.

(4) All depot FCF pilots and aircrew members must be designated in writing by the depot CO, or by the head of the facility if it is commercial rework facility.

NOTES: 1. Aircraft which undergo on-site depot in-service repair or modification do not require an FCF unless the depot repair or modification process entailed a mandatory FCF requirement.

2. For commercial derivative aircraft which are commercially reworked, the FCF may be tailored to only those systems that cannot be fully operationally checked by ground operations.

5.1.7.2 FCF Checklists

NAVAIR issues FCF checklists based on FCF procedures contained in the applicable NATOPS manual. Procedures:

a. If an aircraft does not have a NAVAIR FCF checklist, the activity must prepare an FCF checklist to record the following information, at a minimum:

(1) Required instrument indications.

(2) Satisfactory or unsatisfactory performance of all listed items or systems.

(3) Detailed comments and recommendations concerning the flight.

NOTE: Deleting or modifying requirements of an FCF constitutes a modified FCF and requires joint concurrence of the Functional Check Pilot, Maintenance Control, and Quality Assurance. Deleted or modified steps will be annotated and initialed in the FCF checklist.

b. A complete FCF checklist for each type of FCF profile dictated by T/M/S NATOPS must be routed through QA and retained in the aircraft historical file. For example, if T/M/S NATOPS contains profiles A, B, C, and D, the aircraft historical file will contain the last complete FCF checklist for each of these profiles. If a combined profile is flown, for example, B and C profile are flown as one complete FCF and documented on one FCF checklist, the one complete checklist will replace the last B and C profiles in the aircraft historical file. If a complete FCF A profile is flown with all of the T/M/S NATOPS identified FCF profile checklist steps checked, for example A, B, C, and D, the complete FCF A profile checklist will replace all profiles in the historical files.

NOTE: A modified FCF profile is not a complete profile. Therefore, each modified type FCF profile checklist for each type FCF performed will be maintained in the aircraft historical file until completion of that complete type profile. For example, a modified profile B checklist must be maintained in the aircraft historical file until completion of the next complete profile B. If additional modified FCF profiles are performed, only one modified FCF profile checklist is required to be retained for each type FCF as long as the modified checklist steps are the same.

c. Pencil entries in the FCF checklist by the aircrew are acceptable while performing an FCF. Upon completion of the FCF, QA will ensure the functional check pilot annotates all entries in pen.

5.1.7.3 FCF Procedures

a. At the discretion of the CO, FCFs may be flown in combination with operational flights (check and go), provided the operational portion is not conducted until the FCF requirements have been completed and documented in the FCF checklist.

NOTE: Combining a post-depot rework FCF with an operational flight is prohibited.

b. Pilots and crew members who perform FCFs must be qualified per OPNAVINST 3710.7 and the applicable aircraft NATOPS manual.

c. Maintenance Control will coordinate an FCF brief by QA and work center personnel to pilots and crew members, prior to releasing the aircraft for flight. As a minimum, the FCF brief must cover the maintenance performed, the checklist requirements for the FCF, and the expected results.

d. FCFs will be conducted with the minimum crew necessary to accomplish the check flight objectives.

e. FCFs will be conducted per the criteria established by the applicable aircraft NATOPS manual.

f. The pilot and any other crew members required to operationally check systems covered by the FCF will annotate the FCF checklist, and debrief Maintenance Control, QA and work center personnel on the results.

g. In the event an FCF cannot be completed, the FCF may be continued using the same pilot or a different pilot. The original FCF checklist will be used. When a new pilot performs the continuation FCF, they will determine which elements of the previously completed portions of the FCF must be performed again. Each pilot will initial next to each completed step that they perform. Pre and post-FCF briefs are required.

5.1.8 Aircraft Cannibalization Management

Aircraft cannibalization is the removal of serviceable materials, parts or components from one aircraft for installation into another aircraft. Cannibalization is an acceptable management choice only when necessary to meet operational objectives. Commands are responsible for eliminating unnecessary cannibalization that provides no benefit to mission accomplishment. Conditions:

a. Under no circumstance will cannibalization be performed to create a pool of RFI parts for general use to support flight operations or detachments.

b. Egress system cannibalization will be minimized. Cannibalization of egress system cartridges, Cartridge Actuated Devices (CADs) , and Propellant Actuated Devices (PADs) requires Wing or MAG approval.

c. Maintenance Control will direct all cannibalizations by initiating a cannibalization WO. The WO will use the most appropriate cannibalization malfunction code (Appendix E) for the circumstances justifying the cannibalization decision. If the cannibalization requires Wing or Aircraft Controlling Custodian (ACC) approval, the approval notification will be cited in the Discrepancy block, for example, "Cannibalization approved by (Wing or ACC, and Rank and Name of approver) via email 01Feb2017."

d. Authority for cannibalization between squadrons within the same Type Wing or MAG will be requested via email from the requesting unit Maintenance Officer to the Wing or MAG Maintenance Officer. Cannibalization requests will include: Estimated delivery date (EDD) of the required component or equipment; supply system stock posture; and the effect the cannibalization will have on the operational readiness of the recipient unit. The approving Wing or MAG will direct the cannibalization action via email to the providing and recipient units, and will include the supporting supply activity, operational chain of command, and the ACC as info addressees.

e. Requests to cannibalize aircraft that have been non-mission capable in excess of 90 days or aircraft assigned to different Wings or MAGs must be requested via email from the Wing or MAG Commander to the ACC. The Wing will obtain concurrence of need to cannibalize from the supporting supply activity prior to submitting the request. Approval authorities:

(1) COMNAVAIRFOR (N421/N423) is the approval authority for COMNAVAIRFOR aircraft or equipment. Email requests to: cnaf_flt_canns@navy.mil.

(2) COMNAVAIRFORES (N42) is the approval authority for Reserve aircraft or equipment. Email requests to: cnafr_cann.fct@navy.mil.

(3) COMNAVAIRSYSCOM Aircraft and Support Equipment Branch is the approval authority for COMNAVAIRSYSCOM aircraft or equipment.

(4) CNATRA (N421) is the approval authority for CNATRA aircraft or equipment.

f. Requests to cannibalize aircraft that are out of reporting (OOR) for Material Condition Reporting Status (MCRS), will be sent to the respective ACC approval authority via email. ACC authorization is also required for diversion of RFI aircraft components intended for aircraft or equipment undergoing a depot rework event, for example, diversion of an RFI component from a depot production line to a fleet activity.

g. Squadrons, Type Wings, and MAWs must monitor and trend cannibalization actions. As a minimum, cannibalization monitoring will include:

(1) Total number of cannibalizations.

(2) Cannibalization actions per 100 sorties.

(3) Total direct maintenance man-hours (DMMH) used for all cannibalizations.

(4) Number of cannibalizations by Malfunction Code (812, 813, 814, 815, 816, 817, 818).

(5) Top five cannibalized items.

(6) Total maintenance man-hours used for cannibalization for each Top 5 cannibalized item.

NOTES: 1. Naval messages or letters will be used to request approval to cannibalize only if the activity has no email connectivity.

2. When deployed, the CVW or ACE Maintenance Officer will assume Wing responsibilities for cannibalization management.

5.1.9 Phase Inspection Management

5.1.9.1 Preparation

Maintenance Control is responsible for planning, coordinating, and documenting accomplishment of phase inspections. The MMCO or MMCPO will hold a planning meeting in advance of each phase inspection. The Phase Inspection supervisor and representatives from QA, Material Control, and applicable work centers will attend the meeting. The purpose of the meeting is to cover all maintenance actions that need to be completed in conjunction with the phase. The following will be accomplished at the planning meeting:

a. Review the outstanding TD report, Component Removal Due Report (CRDR), the CAD PAD Installed Explosive Device report, and all outstanding scheduled and unscheduled maintenance for the BUNO aircraft, and verify time or cycles data and next removal date or time. Any TD compliances, component and explosive device replacements, and any scheduled or unscheduled maintenance that must be complied with during the phase inspection will be added to the Sequence Control Card (SCC).

b. Review material requirements and validate availability.

c. Review component inventory requirements.

5.1.9.2 Phase Inspection Crew

Maintenance Control will assemble a Phase Inspection crew comprised of a Phase Inspection supervisor and maintenance personnel from the necessary ratings or MOS. Requirements:

a. The Phase Inspection supervisor is responsible for coordinating accomplishment of the Phase Inspection. The Phase Inspection supervisor will be assigned for the duration of the inspection. Prior to assignment, Phase Inspection supervisors must complete the Maintenance Control management course requirements of 5.1.2.1.a.

b. Maintenance personnel may be assigned to the crew for the duration of the inspection or as-needed during the inspection, based on the amount of workload in their rating specialty. The crew is normally temporarily assigned for individual phase inspections. Larger squadrons may determine it

to be more advantageous to establish a permanent Periodic Maintenance Branch (Work Center 140) when the number of aircraft assigned results in a consistent inspection workload.

5.1.9.3 Phase Inspection Management

Upon commencement of the phase inspection, the phase supervisor is responsible for managing all aspects of the inspection, to include coordinating the SCCs, directing workload, coordinating material requirements, coordinating work requests and assistance from other activities, and completion of related documentation.

NOTE: Cannibalization actions and Project/Priority Codes assignment required during the phase will be directed by Maintenance Control managers, only (5.1.2.1).

5.1.9.4 Phase Inspection Documentation

Documentation of the phase inspection will be consolidated into a Phase Maintenance Package. The package will be maintained in the aircraft historical file for one complete phase cycle. The package will contain:

a. The amended SCCs.

b. A copy of the verified CAD PAD Installed Explosive Device report.

c. A copy of the verified Component Removal Due report.

d. A copy of the verified NA500C, Aeronautical Technical Directive Index Report, per 10.10.3.6.e.

e. Serial Number verification, per 8.3.3.3.

5.1.10 Phased Depot Maintenance (PDM) Preparation

Maintenance Control must perform the following actions prior to delivery of aircraft to PDM:

a. No later than 180 days prior to the scheduled induction date, the MMCO will prepare and submit a Phased Depot Maintenance Special Work Request (OPNAV 4790/65) to the cognizant Wing or MAG Maintenance Officer. No later than 30 days after receipt, Type Wing or MAG MO is responsible for reviewing and forwarding the form to the ACC T/M/S Aircraft Class Desk. No later than 30 days after receipt, the ACC T/M/S Aircraft Class Desk is responsible for final approval and forwarding to the NAVAIR Program Office with a copy sent to the designated rework activity. PDM Special Work Requests for aircraft going to commercial rework activities will include a copy to the Contract Administration Office (CAO) at the rework activity.

(1) Blocks A through L, O, Q, and R, are completed by the reporting activity.

(2) Blocks M and N TD information will be filled in by the rework activity.

(3) Special work items requested in block O will be listed in order of priority.

(4) Special request items are workload over and above the planned PDM and result in extra cost.

(5) Special work will only be requested for maintenance actions beyond the capability of the operating activity and its supporting I-level activity, such as incorporation of D-level changes or modifications, correction of continuing or recurring discrepancies, special painting while disassembled, and tests that require D-level equipment.

(6) The rework activity and the ACC PDM Liaison Officer will mutually decide which of the items will be performed during PDM.

(7) COMNAVAIRSYSCOM activities will also provide information on peculiar aircraft instrumentation and configuration data that will assist the rework activity with processing the aircraft.

b. Remove all loose gear not required during the rework process and, if applicable, annotate the inventory log.

c. Remove all ammunition.

d. Remove all pyrotechnics, except those required for flight safety.

e. Remove all classified material and equipment.

f. Perform an aircraft transfer inspection per paragraph 5.4.2.

g. If transferring the aircraft to the depot, provide up-to-date logbooks and CM ALS and other necessary records. Verify all entries are current as of the date of delivery. Verify all MSR, ASR, EHR, and SRC cards are inventoried and verified against installed equipment. Refer to paragraph 5.4.2 for aircraft transfer procedures.

h. Deliver SE with the aircraft as prescribed in the PDM rework requirements, for example, jury struts, landing gear ground safety locks, and intake covers.

i. Deliver aircraft to the rework activity no later than 1200 of the day prior to the scheduled induction date. Refer to paragraph 5.4.3 for aircraft ferry procedures.

NOTES: 1. Depot rework Fixed Induction Dates (FID) or Period End Dates (PED) can only be adjusted by the CNO (N980L). Refer to OPNAVINST 3110.11.

2. "Special" Rework is non-PDM, non-recurring depot rework performed as required. Examples of Special Rework include modifications, conversion, and major repairs that cannot be performed in the field. Refer to Appendix A for full descriptions of Standard and Special Rework.

3. Depot field team In Service Repair (ISR) and Planner and Estimator (P&E) services are not categorized as depot rework.

4. For the few remaining T/M/S aircraft not converted to Phased Depot Maintenance, refer to 10.45 for information on P&E services for Depot Aircraft Service Period Adjustment (ASPA) evaluations and Depot Material Condition Inspections (MCI).

5.2 Intermediate Level (I-Level) Production Control

I-Level Production Control is responsible for managing the receipt, repair, and issuance of engines, components, aircrew survival equipment, support equipment, and other I-level services. Production Control includes Production Control (Work Center 020, often referred to as "Main" Production Control) and Division Production Controls (Work Centers 024, 025, 026, 027, 028, and 029), commonly referred to as "Satellite" Production Controls.

NOTE: Division PCs are not required. Division PCs will be established only if Main PC is unable to effectively manage the Division's workload due to scope, volume, and complexity.

5.2.1 Production Control Manning

5.2.1.1 Production Control Managers

Production Control Managers are personnel assigned to Production Control to manage workload requirements and maintenance priorities. Production Control Managers are the MMCO/Production Control Officer, MMCPO/Aircraft Maintenance Chief (Marine Corps), and Production Controllers. Production Control Manager qualifications:

a. Complete the IMA Production Control course (C-555-0043).

NOTE: Effective 25 May 2020, IMA Production Control course (C-555-0043) consolidated IMA Production Control and IMA Power Plants Production Control course (C-555-2021) into one. Personnel that have previously completed C-555-2021 are not required to take the new C-555-0043 course to remain qualified for assignment to IMA Production Control and or IMA Power Plants Production Control.

b. Complete the following configuration management courses, based on the assignment of personnel:

(1) Personnel who maintain logbooks and records must complete the Configuration Management for Organizational and Intermediate Activities course (C-555-0059).

(2) Personnel responsible for support equipment ALS records must complete the SE Configuration Management course (C-555-0057).

(3) Personnel responsible for Aviation Life Support Systems (ALSS) ALS records must complete the ALSS Configuration Management course (C-555-0056).

NOTE: Production Control managers with CM SMQ must attend one of the above configuration management courses.

c. Complete JQR/PQS covering the following areas, as a minimum:

(1) AMSU/JASU procedures (6.7.3.2).

(2) Buffer Management Tool (BMT) utilization for workload prioritization and execution (5.2.3).

(3) Individual Component Repair List (ICRL) management (10.20).

(4) Cannibalization management (5.2.6).

(5) Awaiting Parts (AWP) Unit operation familiarization (6.5.13).

(6) Beyond Capability of Maintenance (BCM) initiation and approval (5.2.5).

(7) Broad Arrow initiation and tracking (5.2.8).

NOTE: I-Level Work Center Supervisors will also complete BMT training to become familiar with the BMT functions and report options.

5.2.1.2 Support Personnel

Production Control support personnel are personnel assigned to Production Control to perform routine administrative actions. For example, Special Inspection Initialization, Logs and Records functions, NALCOMIS database upkeep and Auto Log Set management. Typical Production Control support personnel assignments include:

a. Maintenance Clerk.

b. Logs and Records.

c. Database Administrator/System Administrator.

d. Technical Directive Coordinator.

e. SE PMS Coordinator.

5.2.2 I-Level Monthly Maintenance Plan (MMP)

5.2.2.1 The I-level MMP is a forecast of maintenance workload with information on related planning factors. The I-level MMP will contain a month-by-month plan to accomplish major scheduled maintenance due for the next three months, and will contain the following enclosures, as a minimum:

a. Projected schedule of items to be inducted for check and test from supported squadrons, weapons departments, air departments, and supply activities (as applicable).

b. Projected Non-Destructive Inspection (NDI) requirements.

c. Chronological schedule of due dates for major scheduled inspections, maintenance, and calibration requirements for shop installed equipment and facilities. For example, Test stand hydrostatic and pneumatic testing; Environmental Protection Agency (EPA) certification; engine test cell correlation; overhead hoist load testing; and Test, Measurement, and Diagnostic Equipment (TMDE) calibration.

d. Active Technical Directives and directed compliance timeframe, listed in two separate enclosures:

(1) I-level and D-level TDs applicable to the IMA's equipment and systems.

(2) TDs applicable to supported engines and components, to include I-level TDs and D-level TDs with a compliance timeframe of next I-level repair or based on operating time.

e. Forced removal items for SE and shop-installed equipment, for example, hoses and cylinders.

f. Operational factors anticipated to affect the production effort, such as supported activity training detachments or deployment that will cause an increase or decrease in the volume of workload (unclassified, only).

NOTE: Copies of NALCOMIS reports or other maintenance data sources may be used in the MMP. The MMP may also cross-reference the location of the information, for example "Calibration information located in the MEASURE Format 800 Report." If the MMP cross-references information, Production Control must maintain a copy (either hard copy or electronic copy) of each referenced document used to build the current month's MMP.

5.2.2.2 The Maintenance Material Control Officer (MMCO) or Production Control Officer will prepare the MMP and brief the Maintenance Officer for signature no later than five working days prior to the first month covered in the MMP. The Assistant Maintenance Officer (AMO) and the Maintenance Master Chief (Navy) or Aircraft Maintenance Chief (Marine Corps) will attend the brief. The brief will include:

a. Progress in achieving the current month's maintenance schedule.

b. Scheduled maintenance for the upcoming month, with emphasis on maintenance that will impact production.

c. Operational factors anticipated to affect the production effort.

d. Current and projected problems in meeting production.

5.2.2.3 Production Control will maintain a working copy of the MMP and annotate changes and deviations from the schedule as they occur.

5.2.3 Workload Prioritization

5.2.3.1 Production Control will direct priorities for inspection, repair, testing, certification, modification, and manufacturing of all aeronautical components inducted into the IMA, including work requests. All workload, including off-equipment maintenance, component and sub-component repair, and work in support of the Weapons Department will be assigned one of the following priorities:

a. Priority 1 - Required to fill an outstanding NMCS or PMCS requisition (EXREP), NMC or PMC work request, or NMC or PMC test equipment requirement. Additionally, Priority 1 is assigned to all work requests from activities within 30 days of deployment, regardless of NMC or PMC status. All Buffer Status Red (BSR) and 0-Design components, including local repair cycle assets (LRCA), will be Priority 1.

b. Priority 2 - Items that are Buffer Status Yellow, to include local repair cycle assets (LRCA) and items of SE or test equipment.

c. Priority 3 - Items that are Buffer Status Green, to include Local Repair Cycle Assets (LRCA), items of SE or test equipment, and repair or manufacture of material not in NMC or PMC status.

d. Priority 4 - Processing salvaged material and non-aeronautical work.

NOTES: 1. The Aeronautical Material Screening Unit (AMSU) assigns the work priority to each Maintenance Action Form (MAF) at time of induction, per the procedures of paragraph 16.1.3.1.

2. Production Control will adjust work priorities as deemed necessary, for example prioritizing inspection or repair of items required to support an upcoming training event or deployment.

3. All items inducted under a single Family Group Code (FGC) will have the same priority. For example, if one item within the FGC has a management code of ER, then all items in that FGC will be priority 1.

5.2.3.2 The Buffer Management Tool (BMT) will be used to prioritize production. Production Control will:

a. Use the Abbreviated or Detailed Active TRR Report to monitor daily workload.

b. Use the Physical Buffer Reports to manage daily workload in components divisions.

c. Review the EXREP report (Detailed Active TRR Report with "ER" Management Code Selected) to determine if other components of the same Family Group Code are in the repair process and which items should be prioritized to fill EXREP requisitions as quickly as possible.

d. Align workload priorities to inventory allowances and customer demand by conducting historical repairable component time to reliably replenish (TRR) analysis, utilizing the Historical Detailed TRR Analysis Report to identify improvement opportunities. For example, if historical data indicates a specific Work Center or Family Group Code (FGC) consistently does not meet (TRR), adjustments must be made in order to avoid out of stock (EXREP) conditions.

e. Monitor items in the Black color zone on the Detailed Active TRR or other reports and determine constraint to production. The Black color zone indicates items that have exceeded the established TRR (Design TRR), which is usually due to problems with awaiting parts, equipment, assistance from other work centers, disposition instructions, or lack of personnel. Verify the Job Status (JS) is correct and any workable MAFs (M3) are put into the work cycle to complete the maintenance action.

f. Conduct AWP validation by using the BMT AWP Reconciliation Reports to track status of supply requisitions.

g. Use the Daily Production Report to coordinate turnover between work shifts.

5.2.4 Component Repair

5.2.4.1 Production Control will direct repair to the full extent of the IMA's capabilities for all components with Source Maintenance and Recoverability (SM&R) code indicating I-level capability.

NOTE: SM&R Code errors will be immediately reported to the TYCOM Class Desk responsible for the T/M/S aircraft/engine/equipment. SM&R code errors for Aircraft Armament Systems (AAS) will be reported to the TYCOM AAS Class Desk.

5.2.4.2 Non-RFI Field Level Repairables (FLRs) with SM&R code PAOOO will be processed through the IMA for review of potential to repair. If Production Control determines repairs are economically possible in consideration of the replacement cost of the item, the ICRL capability code will be listed as C1 or C3 (as determined by Maintenance Control) and the IMA will submit a recommendation to change the SM&R Code to PAOOG or PAOOH. If Production Control determines repairs to a particular PAOOO NIIN are not economically feasible, the ICRL capability will be listed as X1 and the local field will be annotated "1Y RevComp." Once the PAOOO item is coded X1, supported O-level activities are no longer required to turn-in the item and may locally dispose of the material.

5.2.4.3 IMAs will perform test, check and repair of items covered under a Performance Based Logistics (PBL) contract to the extent specified in the SM&R Code as per SECNAVINST 4410.23. If a PBL item has an SM&R code with a "G" or "H" in the 4th position, the IMA will test and repair the item per the specifications in applicable I-level technical manuals. Additionally, 6th position "E", "P", or "R" specifies test, Progressive or Gold Disk test routines that the I-Level can perform. Request to perform repairs at the I-level beyond the extent specified in the SM&R Code will be referred to the ACC with justification for deviating from the PBL contract.

5.2.5 Beyond Capability of Maintenance (BCM)

5.2.5.1 BCM Codes

Production Control is responsible for applying the most appropriate BCM Action Taken Code to components that cannot be repaired. BCM Action Taken Codes:

a. BCM 1 - Repair Not Authorized. The activity is specifically not authorized to repair the item in applicable directives, for example, required maintenance function not assigned by SM&R code, maintenance plan, technical manual, or other reference.

NOTE: BCM 1 will not be used for components with an F, G, or H in the 4th position of the SM&R code, which indicate I-level maintenance is authorized by F-Afloat IMAs, G-Afloat and Ashore IMAs, and H-Shore based IMAs. Use X2, X3, X6 or X8, as appropriate to the constraint preventing repair. BCM Code 2, 3, 6, or 8 will be used as most appropriate to the inability to repair. Additionally, ICRL Capability Code X1 will not be used for components with F, G, or H in the 4th position of the SM&R code. If BCM is required due to lack of SE, technical data, technicians or training,

ICRL Capability Code X2 must be assigned along with a Target Capability Code (TCC) and Target Capability Code Date (TCC DT).

b. BCM 2 - Lack of Equipment, Tools, or Facilities. The repair is authorized but cannot be performed due to lack of equipment, tools, or facilities, for example, required equipment is on IMRL but authorized quantity is zero, receipt of authorized individual material repair list (IMRL) equipment not expected within 30 days (zero quantity on hand), return of required equipment from repair or calibration not expected within 30 days, non-IMRL tools and equipment not on hand, lack of permanently installed facilities, or specifically directed by the ACC or TYCOM.

c. BCM 3 - Lack of Technical Skills. The repair is authorized but cannot be performed due to a lack of technical skills, for example, permanent billet will be vacant for more than 30 days; temporary additional duty (TAD) billet will be vacant for more than 30 days; billet incumbent absent (TAD, leave, etc.); formal technical training is nonexistent; formal technical training exists but cannot be used due to lack of quota or funds; Rating, NEC, or MOS required is not reflected on manpower authorization; or Rating, NEC, or MOS is on board but billet not assigned to IMA.

d. BCM 4 - Lack of Parts. Repair is authorized but cannot be performed because required parts will not be available.

NOTE: BCM 4 will be used only when there is a replacement asset in the wholesale system and the asset is required to resolve a material deficiency that is negatively affecting an operational requirement. The unit requiring the material meets one of the following Force Activity Designator (FAD) conditions: Designated FAD II or higher; FAD III, but directly supporting a deploying or deployed FAD II unit; FAD III and the lack of parts are preventing the unit from achieving specified aircraft readiness requirements, e.g., Ready for Tasking (RFT).

e. BCM 5 - Fails Check and Test. The activity's authorized level of maintenance is limited to check and test only and repair is required.

f. BCM 6 - Lack of Technical Data. Repair is authorized but cannot be performed due to a lack of technical data.

NOTE: BCM 6 will only be used when Naval Aviation Technical Data and Engineering Command (NATEC) and the TYCOM or MAW have acknowledged inability to obtain the required technical data within 30 days, does not exist or does not provide adequate technical information. Use ICRL Capability Code X6 with accompanying Target Capability Code (TCC) and Target Capability Code Date (TCC DT), per 10.20.3.4.

g. BCM 7 - Beyond Authorized Repair Depth. Some level of repair beyond check and test is authorized, but the maintenance function required to return the item to a RFI condition is not assigned by SM&R code, MIMs, maintenance plan, or other technical decision.

h. BCM 8 - Administrative. Repair is not attempted due to an HMR EI exhibit, missing SRC data that cannot be determined, item under warranty, repair costs exceed Aviation Depot Level

Repair (AVDLR) Net Price or replacement cost, excessive backlog, budgetary limitations, materials in excess of requirements, or when specifically directed by the ACC or TYCOM. Conditions for using BCM-8:

(1) BCM 8 will be performed if the repair costs exceed the AVDLR replacement cost, unless the additional repair cost is justified due to a critical readiness shortfall.

(2) BCM 8 for excessive backlog will only be used when the BCM will result in improved delivery time of a component needed to mitigate a critical readiness shortfall. BCM 8 will not be used to improve a repair site's TRR metric.

(3) ACC approval is required to BCM 8 for materials in excess of requirements or due to budgetary limitations.

i. BCM 9 - Condemned. A repairable item is so severely worn or damaged that repair is not feasible, as determined by local maintenance personnel, or specifically directed by ACC or TYCOM. The item is locally condemned and returned to the Supply Department for survey, retrograde, or scrap (as appropriate) per applicable directives.

5.2.5.2 BCM Authorization

a. The MO will specify procedures for authorizing BCM actions in a Local Command Procedure (Appendix D). The LCP will include direction on which billets can authorize BCM Action Taken Codes 1, 5, 7, and 9.

NOTE: Authorization to BCM Aircraft Armament Systems (AAS) must be requested from the AAS TYCOM per COMNAVAIRFORINST 8380.2.

b. The CO/OIC (FRC/MALS) OCONUS (AIMD), MO (CVN/L-Class) must approve all BCM 2, 3, 6, or 8 actions. Authority to approve BCM 2, 3, 6, and 8 can be delegated to the MMCO.

c. The CO/OIC (FRC/MALS) OCONUS (AIMD), MO (CVN/L-Class) will jointly approve BCM 4 with the station or ship Supply Officer after confirming operational need with the Wing Maintenance Officer (Type Wing, CVW, or ACE). The CO is the BCM 4 authority for a MALS.

NOTE: BCM 4 authority cannot be delegated.

d. BCM authorization will be documented using a locally developed form (Figure 5-5).

NOTE: Once BCM is authorized, the component will be shipped within two working days to the designated support point (DSP), designated rework point (DRP), or other activity having repair or processing capability.

5.2.5.3 BCM MAF Documentation

Refer to 16.2.5.27 for BCM MAF documentation and parts procedures.

5.2.6 Beyond Capability Maintenance Interdiction (BCMI)

5.2.6.1 Beyond Capability of Maintenance Interdiction (BCMI) is a Commander, Fleet Readiness Centers (COMFRC) managed program where selected IMAs are supplemented with on-site artisans to perform D-Level repair tasks on selected components that are within the capability of the artisan and the IMA.

5.2.6.2 The purpose of the BCMI program is to reduce component lifecycle repair costs and increase aircraft readiness. BCMI focuses on enhancing or implementing capability for aeronautical component repairs through the co-location of D-Level artisans, Sailors and Marines at the IMA. BCMIs are not meant to substitute required D-Level overhaul, rework, or calibration mandated by technical data.

5.2.6.3 Production Control is responsible for managing and prioritizing BCMI artisan workload. Production Control will coordinate with the locally assigned BCMI Site Supervisor and COMFRC to:

a. Recommend changes to BCMI capability.

b. Request artisan manpower changes.

c. Perform periodic reviews of BCMI performance as directed by COMFRC.

d. Follow BCMI induction and MAF documentation processes outlined in chapter 16.1.7.

5.2.7 I-Level Cannibalization Management

5.2.7.1 I-Level cannibalization is an acceptable management choice only when necessary to meet the readiness requirements of supported commands.

5.2.7.2 Production Control and the Aviation Support Division will co-develop procedures for authorizing cannibalization.

5.2.7.3 Production Control is responsible for eliminating unnecessary cannibalization. Orders to cannibalize must come from Production Control. Production Control must enter the appropriate malfunction code (Appendix E) when initiating a cannibalization WO. Production Control will assess the effectiveness of cannibalization by tracking related measurements, such as AWP time, Y-Code rate, Time to Reliably Replenish (TRR), and average maintenance man-hours per cannibalization.

5.2.7.4 To minimize opportunity for unauthorized cannibalization, AWM and AWP components will be removed from work centers and stored in a centralized, controlled location. When centralized location of AWM items is not possible due to space limitations, AWM items may be stored in the work centers. If bins are available, the exact location of the AWM item should be marked on the MAF to facilitate location by AMSU.

5.2.8 I-Level Documentation and Logs and Records

5.2.8.1 Production Control is responsible for the complete and accurate documentation of work performed per Chapter 16.

5.2.8.2 Production Control is responsible for the accuracy and currency of logs and records and associated CM ALS, per Chapter 8. When satellite Production Controls are established, Logs and Records and CM ALS will be maintained within the satellite Production Control work space.

5.2.8.3 Production Control will screen incoming WOs, Logs and Records and CM ALS for all inspections and repairs required to be performed. Particular attention will be paid during the induction of Work Requests submitted from other activities. The Work Request Removal Record ("E" block) must be verified with the ALS in NALCOMIS prior to starting the induction process. Inductions with incorrect CAGE, Part Number or Serial Number prevent the link between the I-level Work Order and the ALS residing on the server. Forcing this action fails to update the inspection due date and write to the inspection record of items.

5.2.9 Broad Arrow (BA) Reporting

All IMAs are responsible for Broad Arrow reporting. A Broad Arrow Report (Figure 5-6 and Figure 5-7) will be submitted whenever an item of SE (bench/test set/operational test program set (OTPS)/rolling stock) is inoperative (loses its capability to perform its designated function) and the loss of function impacts, or potentially impacts, the ability of the IMA to provide I-level support. A BA report will be submitted any time an item of SE is transferred from the owning activity to another organization, reducing the on hand quantity below the authorized allowance, for rework, calibration, as a temporary loan, or as a permanent transfer, all transfer transactions will be reported in SERMIS. The report will be submitted as soon as the BA condition occurs. BA reports are exempt from communications MINIMIZE restrictions. A BA report must be submitted even though there are no repair parts on order, for example, when Engineering and Technical Services (ETS) assistance is required to analyze the problem or to make adjustments or alignments. The BA brings attention to the lost capability and expedites assistance. The BA report is not a substitute for an ETS request.

NOTES: 1. New construction ships will be exempt from BA Reporting until IMRL assets are accepted by CNAL.

2. Inputting Broad Arrow data via AMSRR on activity's Aircraft Material Readiness Report (AMRR) and the BASE (Broad Arrow/Support Equipment) module does not satisfy communication requirements of official Naval message. BA reports must be submitted via official Naval message system such as Automated Message Handling System (AMHS).

5.2.9.1 Broad Arrow Report Usage Not Mission Capable Project (NMC)

Use NMC Project Code ZF7 for all broad arrow categories and assign a GB series document number. BA Related impact codes:

C1: No impact on repair capability.

- Repair capability can be maintained with multiple or legacy test benches.

C2: Impact on repair capability.

- Repair turnaround time is able to meet customer demand rate.
- AWM backlog is low or none.
- Workaround may exist, but is unreliable.

C3: Significant impact on capability.

- Repair turnaround time does not meet customer demand rate.
- Workaround exists, but cannot meet demand.
- Supply reserves may exist, but are or approaching Pool Zero with on-board/on-station replacement assets available but at critical level.
- No supply reserves, but no maintenance backlog with no on-aboard/on-station replacement assets available and no immediate requirements exists.

C4: No capability to provide repair/calibration/service.

- 1 of 1 bench/test set/OTPS/rolling stock non RFU with no workaround.
- 1 of 2 bench/test set/OTPS/rolling stock RFU, but EXREPs cannot be cleared in a timely manner.

5.2.9.2 Broad Arrow Report Numbering

For accounting purposes, BA report numbers will be a two-part number. Part one will be the year the BA report is initiated and part two will be a three digit sequential number starting with 001 for the first BA of the calendar year, for example, BA report 2018001 followed by 2018002 followed by 2018003. If more than 999 reports are generated in a calendar year start over with sequence number 001. The original BA report number should be referenced in any follow-on correspondence, such as the BA Addendum, BA SEIS Report, BA Requisition Completion Report. Multiple items that fall under different WUCs will be given different BA report numbers. Multiple test benches with two or more stations down will have separate BA report numbers given to each station.

5.2.9.3 Broad Arrow Report for Automated Test Equipment (ATE) Malfunctions

ATE malfunctions are often caused by failure of the Test Program Set (TPS) instead of failure in the basic ATE. If failure is due to the TPS, the BA report must clearly cite the TPS element as the failed item (as opposed to the bench itself). TPS consisting of multiple items such as an Interface Device (ID), Test Fixture (TF), Holding Fixture (HF), Cable Assembly Set (CAS), and/or Accessory Set individually reported in Support Equipment Management System (SEMS) will receive a separate BA report number identifying each IMRL item that is inoperative. If a second TPS should fail affecting additional components, a separate BA report must be submitted. Broad Arrow for ATE and/or TPS are considered separate items and must receive separate BA reports and report

numbers, for example, the Broad Arrow for a CASS ALQ-99 TPS ID will have its own BA report number, different from the Broad Arrow report number for CASS itself. Additionally, if the CASS ALQ-99 TPS CAS requires repair, it would have its own BA report number to identify the two different elements of the TPS affecting the BA condition.

NOTE: Only ACC or TYCOM may direct transfer or temp loan of an IMRL asset. Operational Test Program Sets (OTPSs) for CASS Family of Testers (FoT) are not IMRL. Therefore the BA reports must reflect the specific failed TPS IMRL item that would mitigate the condition driving the BA requirement. (See paragraph 5.2.8.8, Broad Arrow Temporary Loan and Cannibalization.)

5.2.8.4 Broad Arrow Addendum

A BA Addendum (Figures 5-8 and Figure 5-9) will be submitted when additional problems, directly related to the original failure, are detected. In most cases a BA Addendum is submitted when additional repair parts are needed to solve the problem described in the original message. However, a BA Addendum may also be appropriate to highlight a requirement for additional assistance, for example, Engineering and Technical Services (ETS), technical data, and FRC field team. Additional parts should be annotated on the activity's Aircraft Material Readiness Report (AMRR) and the BASE (Broad Arrow/Support Equipment) module in Aviation Management Supply and Readiness Reporting (AMSRR).

5.2.8.5 Broad Arrow Support Equipment In-Service Report

A Broad Arrow SEIS Report (Figure 5-10 and Figure 5-11) must be submitted when the SE is operational and no further assistance is required.

5.2.8.6 Broad Arrow Requisition Completion Report

A Broad Arrow Requisition Completion Report (Figure 5-12) must be completed within one day of receipt of parts required to resolve a BA condition. If a BA SEIS Report can be submitted in the same one day period, the parts requisition information may be included in the BA SEIS report and a separate BA Requisition Completion Report is not required.

5.2.8.7 Broad Arrow Non-RFI Repairable components

Non-RFI repairable components related to a BA condition that are beyond the IMA's repair capability must be requisitioned. Requisitions will be submitted and retrograde component will be preserved, packaged, documented, and shipped within 24 hours. Shipment of retrograde parts will be made via fastest traceable means to the organic or commercial Designated Rework Point (DRP) or Advanced Traceability and Control (ATAC) hub (as appropriate), unless otherwise directed by the ACC or TYCOM. ACCs will expedite BA material requisitions from the time the requisitions are first visible until receipt of the BA Requisition Completion Report or BA SEIS Report.

5.2.8.8 Broad Arrow Temporary Loan and Cannibalization

Generally, a temporary loan of equipment or cannibalization of parts between activities will occur only when replacement equipment or parts are available within the system, but cannot be obtained in a timely manner, such as immediate need to support a deploying activity. Procedures as follows:

a. The ACC will direct the BA temporary loan via naval message. The message will identify the equipment, shipping TCN, and means of replacement.

b. The receiving activity must:

(1) Advise the ACC and all concerned upon receipt of transferred material.

(2) If directed by the ACC, cancel the BA requisition.

(3) Submit a BA Support Equipment In Service (SEIS) Report (Figure 5-10 and Figure 5-11) the next day following the restoration of the unit's operational capability for overseas and afloat activities and within 5 working days for all other units. A report must be submitted even if the condition has been resolved through the temporary loan of SE from another activity.

c. The transferring activity must:

(1) Initiate a BA message citing the ACC or TYCOM transfer or temporary loan authority message.

(2) If the asset was not taken as a temporary loan and if directed by ACC, place an asset on order and cite the receiving activity's requisition as proof of turn in.

5.3 Aircraft, Engine, and Equipment Inspection

5.3.1 General requirements

a. The aircraft and equipment inspection intervals and procedures specified in technical manuals will be strictly adhered to.

b. Aircraft will not be released for flight and equipment will not be operated when the maximum limit between scheduled maintenance intervals is reached.

c. Aircraft will not be released for flight and equipment will not be operated when an over limit condition requiring a conditional inspection has not been resolved, for example: hard landing, overstress, over temp, lightning strike, overweight take-off or landing, field arrestment, or as result of an Aircraft Ground Mishap (AGM).

d. Physical custodians of aircraft, engines and equipment may increase the frequency or depth of any inspection whenever excessive flight or calendar time has elapsed between inspections, or when environmental or operational conditions are considered to have impaired the material reliability or integrity of the aircraft or equipment. Inspections performed at an increased frequency or depth do not alter the schedule of the programmed inspections and are logged, if required, as the type which would normally be performed.

e. Components with a forced removal requirement based on operating time or cycles will normally be replaced during the scheduled inspection that falls within the component's plus or minus 10 percent operating limitation, unless operation beyond the specified forced removal time is expressly prohibited by the applicable periodic maintenance information card (PMIC) or other directive.

5.3.2 Scheduling

Inspections will be scheduled to minimize the number of aircraft or equipment undergoing inspection at any one time. When an individual special inspection or a group of special inspections are due simultaneously and loss of the aircraft or equipment will impact operational requirements, Maintenance Control may divide the inspection into portions performed incrementally as long as the inspection(s) are completed within the allowable high limit. When this deviation is used, Maintenance Control or the Periodic Maintenance Branch (WC 140) must maintain the controlling inspection WO for each inspection performed. QAR and/or CDI in-process inspections must be documented on the applicable work center WOs.

5.3.3 Inspection Documentation

a. Inspections must be documented in NALCOMIS. The appropriate mission capability impact and EOC code will be assigned to aircraft inspection WOs. When inspection requirements do not require a major disassembly of the aircraft and do not affect mission capability, the aircraft is considered to be mission capable during the entire inspection. However, if panels or components are removed to conduct the inspections and cannot be replaced within a 2-hour time frame, that portion of the inspection will be considered to have impacted mission capability and must be documented using the appropriate EOC code. EOC codes must be applied to material discrepancies found during inspections.

b. Completed inspection WOs will be maintained in the aircraft's or equipment's historical file or the electronic historical files. Chapter 8 provides direction documenting inspections in Logs and Records.

c. Depots will make logbook entries for all inspection requirements actually performed during rework. Entries will contain sufficient detail to enable the receiving activity to accurately determine when the next inspection is due.

5.3.4 Depot Rework Inspections

5.3.4.1 Special Inspections are normally completed by the depot during standard rework, unless the rework is performed at the reporting custodian's site. If Special Inspection requirements were not included in depot standard rework, all Special Inspections due must be completed prior to the post-depot rework FCF.

NOTE: The FST, with the concurrence of the ACC, will include an MRC exclusion list in each standard rework specification. The MRC exclusion list will contain all MRC items that are not performed during standard rework. The accepting squadron must

complete all deferred Special Inspection requirements prior to the post-depot rework FCF.

5.3.4.2 When an aircraft returns to the reporting custodian after standard rework, the new base date for those Special Inspections performed as part of the standard rework will be the date the aircraft completed rework. If the rework specification satisfied Special Inspection requirements, the depot may rebase all completed special inspections as of the rework completion date. The new base date will be entered in the Miscellaneous/History section of applicable AESRs, and NTCSS Optimized OMA (OOMA) CM procedures will be used to establish the new base dates in OOMA.

5.3.4.3 All MRC tasks required for flight safety or aircraft ferry must be included in the applicable standard rework specifications and accomplished during rework.

5.3.4.4 Depots will perform conditional inspections when situations requiring conditional inspection compliance occur during the depot rework process or during depot FCF.

5.3.4.5 Phase Inspections and major engine inspections are not normally included in depot rework unless specifically requested by the reporting custodian and approved by the ACC and COMNAVAIRSYSCOM.

5.3.5 Aircraft Preflight, Daily, Turnaround, and Postflight Inspections

5.3.5.1 Aircraft Preflight Inspection

A Preflight Inspection is performed to verify the material integrity and correct servicing of the aircraft prior to aircrew acceptance of the aircraft for flight. The Preflight Inspection is conducted per T/M/S aircraft MRCs and NATOPS.

5.3.5.2 Aircraft Daily Inspection

The Daily Inspection is conducted to inspect for defects to a greater depth than the turnaround inspection.

a. Daily Inspections will be conducted per T/M/S aircraft MRCs.

b. Daily Inspections are valid for a maximum of 72 hours commencing from the date and time the inspection is completed, provided no maintenance other than servicing is performed and no flight occurs during the 72-hour period. Once a flight occurs, the aircraft may make multiple flights within a 24-hour period without performing another Daily Inspection, provided no maintenance other than servicing is performed. The 24-hour period begins with the first launch following completion of the Daily Inspection. In no case is a Daily Inspection valid for more than 72 hours unless the end of the 72-hour period occurs while the aircraft is in flight. Figure 5-2 provides examples of Daily Inspection requirements under various aircraft flight scenarios.

c. In the event maintenance (other than servicing) is performed after the Daily Inspection is completed, Maintenance Control must determine if another complete Daily is needed or if a partial inspection will suffice to return the aircraft to compliance with the Daily requirements.

d. When required for a cross-country flight, or when aircraft must be operated away from home base without qualified maintenance support for periods not exceeding 72 hours, the CO may authorize the pilot-in-command to conduct applicable T/M/S NATOPS pilot inspection in lieu of a Daily inspection, certify servicing requirements are accomplished, and sign the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Figure 5-4) in the certification block. In these cases, the Daily Inspection must be performed immediately prior to the commencement of the mission. The expiration of the CO 72-hour authorization may occur during the return flight to home base (or to a site with maintenance support), per NOTE 3 of Figure 5-2. On a case-by-case basis, Wings and MAGs may authorize an additional 24 hours (maximum of 96 hours), due to operational necessity. COs must request the authorization in writing (email, letter, memorandum, or naval message) citing the specific BUNO, name and rank of the pilot in command, and a description of the mission with justification of operational necessity. Type Wing or MAG authorization must be in writing. The email reference, Date Time Group (DTG) of the message, or serial number of letter authorizing the deviation must be cited in the Daily Inspection WO or in the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) completed prior to commencement of the mission.

NOTE: The local flying area defined as within a 350-mile radius of a unit's home base per CNAFINST 3710.4.

5.3.5.3 Aircraft Turnaround Inspection

Turnaround Inspections are performed between flights that occur after completion of the Daily Inspection. A Turnaround Inspection is conducted to detect material degradation that may have occurred during the previous flight, verify fluid consumption levels were within limits, and service the aircraft.

a. Turnaround Inspections are valid for a period of 24 hours commencing from the date and time the inspection is completed, provided no flight and no maintenance other than servicing occurs during this period. When required for a cross-country flight, or when aircraft must be operated away from home base without qualified maintenance support for periods exceeding 24 hours, the CO may authorize the pilot-in-command to conduct applicable T/M/S NATOPS pilot inspection in lieu of a Turnaround inspection, certify servicing requirements are accomplished, and sign the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Figure 5-4) in the certification block. In these cases, the Turnaround Inspection must be performed immediately prior to the commencement of the mission.

b. Once the aircraft is weight off wheels, the Turnaround Inspection is considered to be expired.

c. Completing a Daily Inspection does not satisfy Turnaround Inspection requirements.

d. Accomplishment of a complete Turnaround Inspection is not required between repetitive flight evolutions interspersed with brief ground periods, such as Hot Seating, hot refueling, passenger or cargo stops, short interruptions for adjustments during helicopter FCFs, or if cold refueling the aircraft for immediate relaunch when the pilot in command remains the same. When servicing or other minor maintenance is performed during such ground periods, only those portions of the Turnaround Inspection applicable to that servicing or maintenance need to be performed, as directed by Maintenance Control. Periodic inspections or servicing intervals will not be exceeded

during successive ground evolutions. All applicable NATOPS checklist must be complied with during ground periods.

e. Turnaround Inspections are not required for Hot Seat evolutions. In the event servicing or minor maintenance is required during Hot Seat, only those portions of the Turnaround Inspection applicable to the specific servicing or maintenance must be performed, as directed by Maintenance Control. This does not limit commands from performing other inspections they deem necessary. Special Inspection and servicing intervals must not be exceeded during successive Hot Seat evolutions. All applicable NATOPS checklists must be complied with prior to launch.

5.3.5.4 Aircraft Postflight Inspection

Aircraft Postflight inspection is performed immediately after aircraft shut-down to inspect for visible damage that may have occurred during flight. Aircraft Postflight Inspection is performed per T/M/S MRCs.

5.3.5.5 Documentation

Aircraft Preflight, Daily, Turnaround and Postflight Inspections are documented on a Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Figure 5-3). The records may be destroyed on completion of the next like inspection. All other inspections are documented on the WO per Chapter 15. The Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) is completed by entering the following information:

Block 1 - PREFLIGHT, DAILY, TURNAROUND, and POSTFLIGHT blocks. Check the type of inspection being performed.

Block 2 - DATE AND TIME. Date and time the inspection is performed.

Block 3 - T/M/S. Aircraft T/M/S being inspected.

Block 4 - BUNO. BUNO of aircraft being inspected.

Block 5 - SIDE NO. Side number of aircraft being inspected.

Block 6 - ACTIVITY. Activity performing inspection.

Block 7 - CARD NUMBER/RTG/MOS. Separate entries are required for each MRC, for example, PC-1, PC-1.1, and PC-1.2 would be three separate line entries. If desired, rating or MOS may be included. When using checklists enter one step number per line, for example, steps 1, 2, 3, 4, would be four separate line entries.

Block 8 - TOOL CONTAINER NUMBER. Tool container number, entered once, on the line where the using technician's name first appears.

Block 9 - DISCREPANCY / JCN. Enter a brief narrative description of each discrepancy. A JCN is required for all discrepancies except those corrected by servicing to replace fluids routinely consumed in flight, such as fuel and LOX. (Chapter 15 contains additional guidance.)

Block 10 - CORRECTED. Check in YES column if discrepancy in Block 9 is corrected; check in NO column if discrepancy has not been corrected. If NO is checked, there must be a JCN in Block 9.

Block 11 - SIGNATURE AND RATE / MOS. Signature and rate or MOS of the individual performing the inspection. A signature and rate or MOS must appear for each line entry.

NOTE: For inspections requiring only one individual to perform all applicable MRC/checklist numbers, the first and last card number are required to be signed (with an arrow connecting both signatures) by the individual performing the inspection.

Block 12 - MAINTENANCE CONTROL REPRESENTATIVE. Signature and rate or rank indicating Maintenance Control has reviewed the inspection record, MRCs have been checked for currency, and JCNs have been issued as required.

5.3.6 Special Inspections

Special Inspections are scheduled on a prescribed recurring interval other than daily, phase, major engine, or standard depot rework. Special inspection intervals are directed in technical publications with intervals based on elapsed calendar time, flight hours, operating hours, or number of events or cycles, for example, every 28 days, every 100 flight hours, every 50 operating hours, every 10 arrestments, and every 5000 rounds fired. In some cases, aircraft special inspections also contain engine inspection requirements and are referred to as combined airframe and engine special inspections. Requirements:

a. Compliance with established special inspection intervals is mandatory for aircraft in all status codes (Appendix E), except for Strike Codes 1S0 through 4S0, and all aeronautical equipment.

b. Special inspections may be deferred while aircraft and equipment are in preservation as long as preservation is maintained per the applicable preservation MRCs. A one-time inspection, consisting of all special inspection MRCs not accomplished while preserved must be performed prior to returning the aircraft or equipment to operational status.

c. The first interval for special inspections based on calendar time commences on the date of the Department of Defense (DOD) acceptance check flight. In the event a new production aircraft is accepted by Defense Contract Management Agency (DCMA), but immediately commences modifications prior to delivery to a fleet or test activity, the first interval for inspections based on calendar time commences on the date the aircraft is accepted by the first fleet or test activity. The first interval for inspections based on flight hours, operating hours, cycles, or events will include any hours/cycles/events accumulated prior to Navy acceptance.

5.3.7 Phase Inspections

5.3.7.1 Concept

Some, but not all, T/M/S aircraft have an established Phase Inspection cycle that divides major inspection and maintenance requirements into ordered segments (Phase A, B, C, D, etc.) performed

sequentially at specified flight-hour or calendar intervals. Completion of all required phase inspections in sequence completes the phase inspection cycle, which then starts over. The cycle is repetitive for the service life of the aircraft and is not interrupted during standard rework.

5.3.7.2 Cycle Initiation

The Phase Inspection cycle for new production aircraft may be initiated at any time during the time interval specified for the first phase in the cycle, but may not exceed the allowable deviation high limit. For example, if a new production aircraft has a 100 flight hour phase interval, the first phase inspection may be completed at any time up to 100 flight hours time since new (TSN) + 10 flight hours allowable deviation = 110 flight hours TSN maximum. If the first phase is completed at 70 flight hours TSN, the next phase in the cycle is due at 70 + 100 = 170 flight hours TSN. However, if the first phase is completed after 100 flight hours TSN, the next phase is due as if no high limit deviation had occurred; i.e., at 100 + 100 = 200 flight hours TSN. Activities may elect to initiate the phase inspection cycle at other than the first phase in the cycle, provided all MRCs necessary to certify accomplishment of all previous phases in the cycle are performed. For example, if the cycle is started at Phase C, the activity must perform all MRCs for Phase A and Phase B as well as Phase C, and will document accomplishment of Phase A, B and C in the aircraft logbook and any affected aeronautical equipment service records (AESR).

5.3.7.3 Suspension During Depot Rework

A calendar-based phase inspection cycle is suspended when an aircraft and its Logs and Records are in depot physical custody. Procedures:

a. The cycle is suspended the date the aircraft changes to an AIRRS Standard or Special Rework Status code ending in "0" (aircraft located at the depot) per 9.1.6.3. The cycle resumes when the aircraft and logs and records are accepted back from the depot and returns to AIRRS operating status code ending in "0" per 9.1.5.1. For example, an aircraft that had 100 calendar days remaining until the next phase inspection when it was transferred to depot custody has the next phase inspection due 100 days after acceptance by the reporting custodian.

b. A flight-hour based phase inspection cycle is not suspended during depot rework. For example, an aircraft that went into depot rework with the next phase inspection due at 1234 flight hours TSN still has the next phase in the cycle due at 1234 flight hours TSN.

c. Maintenance Control may elect to reset the phase inspection cycle at any phase within the cycle that exceeds the last phase completed, provided those MRCs for each phase advanced are performed. For example, the inspection cycle consists of Phase A, Phase B, Phase C, and Phase D, and the next phase due is Phase B. If Maintenance Control wants to advance the phase cycle to Phase D. To accomplish the reset, all MRCs for Phase B and C must be completed either before or at the time the Phase B is due. The reset will be documented in the aircraft logbook and any affected aeronautical equipment service records (AESR) as accomplishment of Phase B and C. Phase D will then be due at the expiration of the established Phase D interval.

5.3.7.4 Phase Inspection Kits

Standard materials for phase inspections are normally assembled in a Phase Maintenance Kit per paragraph 6.6.7 procedures.

5.3.8 Engine Inspections

5.3.8.1 Special Engine Inspections

Special engine inspections are based on calendar or operating hour intervals.

5.3.8.2 Phased Engine Inspections

Phased engine inspections (Phase A, B, C, etc.) are engine inspection and maintenance requirements that must be accomplished sequentially at the specified interval. Completion of all required phases at their specified interval completes the engine phase inspection cycle. The cycle is repetitive for the service life of the engine and is not interrupted during aircraft standard rework.

5.3.8.3 Major Engine Inspections

Major engine inspections are comprehensive I-level or D-level inspections to determine the material condition of the engine. The operating activity removes the Quick Engine Change Assembly (QECA) due for major engine inspection from the aircraft, turns the QECA in to the supporting IMA for inspection, and requisitions a replacement QECA. IMAs will perform the next major engine inspection due on all engines turned in for unscheduled I-level repair, per the following criteria:

a. All engine inspections will be accomplished during first-degree engine repair. Engines installed following first-degree repair will be "zero timed" for inspection purposes.

b. Engines with major inspection intervals of 400 hours or more will have major inspections performed if 25 percent or less of the interval remains until the next inspection.

c. Engines with major inspection intervals of less than 400 hours will have major inspections performed if less than 100 hours remain until the next inspection.

5.3.9 Conditional Inspections

5.3.9.1 Conditional inspections are inspections required due to an over limit condition, specific usage, operational event, or ground event. Hard landing, over stress, over temp, lightning strike, over weight take-off or landing, and field arrestment are examples of over limit conditional inspections. A post-fire gun inspection is an example of a specific usage conditional inspection. Pre-and-post carrier operations are examples of operational event conditional inspections. An Aircraft Ground Mishaps (AGM) is an example of a ground event conditional inspections.

NOTES: 1. If a conditional inspection is required due to exceedance of a limit, because of specific usage, or as result of an Aircraft Ground Mishap (AGM), the aircraft/engine/equipment is down until the inspection and related maintenance is completed.

2. In some instances, the PMIC may direct more frequent performance of special inspections as a result of an over limit condition. Cumulative occurrences of an over limit condition may require performance of a higher level inspection (such as a major engine inspection), as directed by the applicable aircraft, engine or equipment maintenance technical manual.

5.3.9.2 One-time inspections directed by higher authority (not directed by a TD) are conditional inspections for which no predetermined situation or event has been identified, but an inspection is determined necessary by the CO, MO, Maintenance Control or Production Control, or by an authority in the chain of command, such as Type Wing, CVW, ACE, MAG, MAW, or ACC. The discrepancy block for WOs issued for one-time inspections must contain the inspection requirement, directive and compliance time limit. For example, "Inspect for missing 1-inch spanner wrench per COMNAVAIRFORINST 4790.2 Tool Control NAMPSOP prior to next flight;" and "Inspect for aircraft identification plate per COMNAVAIRPAC message DTG 010026Z JUL 2018 no later than 15 July 2018."

5.3.9.3 Aircraft Ground Mishaps (AGM). An AGM is defined as a mishap where there is no intent for flight that results in reportable damage to an aircraft, UAV death or injury involving an aircraft or UAV. This applies to both afloat and ashore. At a minimum, an AGM will be documented as a conditional inspection Work Order (WO) to determine extent of damage and cost. All work centers are required to perform a look phase to assess damage, cost and repairs. The AGM control, look, and fix phase (as required) WOs will be issued and documented per para 15.5.38 and 15.5.39.

a. A WO will be initiated regardless of mishap severity defined in the OPNAV 3750.6.

b. Discrepancy block for WOs issued as AGM conditional inspections (control and look phase) must contain detailed description of damage sustained and date AGM occurred. For example, "Perform conditional inspection due to aircraft ground mishap damage sustained to RH upper stabilizer. AGM date: 11FEB2022."

NOTES: 1. Do not enter sensitive personnel information in WO.

2. One-time inspection Type WOs (OC, OL, OF, OX) will not be utilized to document discrepancies as result of an AGM.

3. Reportable damage will not be combined on a single WO. All reportable damage to aircraft or equipment identified with their own WUCs must be documented on separate conditional fix phase (Type WO CF) WOs.

5.3.9.4 Conditional inspection documentation requirements are in Chapter 15 (O-level activities) and Chapter 16 (I-level activities).

5.3.10 Inspection Deviations

5.3.10.1 If a plus or minus interval is not specified in the applicable T/M/S MRC or commercial derivative aircraft task cards, one of the following deviations or a portion thereof may be applied:

a. Plus or minus three days may be applied to the interval of inspections, including preservation inspections, that are performed in increments of calendar days. The next inspection is scheduled as if no deviation had occurred. Deviations within the plus or minus three-day interval do not require logbook entry.

b. Plus or minus 10 percent may be applied to the interval of inspections based on flight hours, operating hours, cycles, or events. Intervals that create fractional deviations will be rounded to the lower value. For example, 10 percent of a 125-hour inspection cycle equates to a 12.5 hours fractional deviation that must be rounded down to 12 hours. The next inspection will be scheduled as if no deviation had occurred. Deviations within the plus or minus 10 percent interval do not require a logbook entry.

NOTE: 1. To facilitate establishing a concurrent airframe and engine inspection cycle, new engines or engines that have had a major engine inspection are authorized a plus or minus 10 percent deviation in the scheduled inspection interval without requiring the next engine inspection to be scheduled as though no deviation has occurred.

2. Inspection deviations do not apply to Technical Directives per 10.10.

5.3.10.2 Plus or minus 10 percent may be applied to the stated operating limitation of components, unless prohibited by the applicable Periodic Maintenance Information Card (PMIC) or other directive.

NOTES: 1. Plus 10 percent extension is not authorized for LCF limited items that have accumulated their assigned cycles or operating hours, or for structural life limited components (listed in NAVAIRINST 13120.1, NAVAIRINST 13130.1, and applicable PMICs) that have reached their basic life limitations or would reach those limitations during the extension.

2. Aircraft Guns Systems (AGS) and Aircraft Crew Served Weapons (ACSW) are not authorized a plus or minus 10 percent deviation. AGS and ACSW are authorized plus or minus 500 (+/- 500) round deviation from the specified inspection interval. This deviation does not apply to weapon system or weapons system components at end of service life.

5.3.10.3 Aircraft, UAS, and UAS Control Stations that exceed an inspection limit will be restricted from flight operations until completion of the applicable inspection. Equipment that exceed an inspection limit must be restricted from use until completion of the applicable inspection.

NOTE: Completion of a past-due inspection does not rebase the inspection and therefore does not require a Miscellaneous History entry. The next inspection will be performed at the next due date or time interval as if no deviation had occurred.

5.3.10.4 Inspections may be done earlier (rebased) than the applicable minus three days or 10 percent limit. When an inspection is done earlier than the low limit of the interval, the next inspection is due based on the hour or cycle the inspection WO was initiated. Document the word "REBASE" in the discrepancy and the system reason blocks of the WO and include the next

inspection due date or time. Inspection rebasing will be documented using the OOMA "Inspections Near Due" queue. Using task properties in CM is not acceptable for documenting inspection rebasing.

NOTE: Once an inspection is started for rebasing purposes, the aircraft or equipment is restricted from use until the entire inspection is completed.

5.3.10.5 A one-time deviation in excess of the applicable high (+) limits specified in paragraphs 5.3.10.1 or 5.3.10.2 may be granted due to operational necessity or aircraft ferry schedule only. Reporting custodians must submit deviation requests via naval message to the cognizant Wing, COMFAIR, CVW, or Aviation Combat Element (ACE) commander, with the ACC T/M/S aircraft class desk as an information addressee. The Wing, COMFAIR, CVW, or ACE commander may grant up to one additional high (+) limit interval. Authorization for additional deviations must be approved by the ACC. Deviation requests must contain sufficient detail on the conditions of the deviation. Requests will clearly state the deviation being requested, the circumstances necessitating the deviation, and the estimated completion of the deferred inspection. For example, “Request deviation to go 10 flight hours beyond the 10 percent “plus” high limit for the 200 Hour engine inspection on BUNO 161234. Deviation is required for ferry flight for short notice directive to transfer aircraft. 200 hour inspection will be performed during acceptance inspection by the receiving squadron.” If applicable, the request must provide details of any logistics deficiency related to the deviation, such as requisition number, National Item Identification Number (NIIN) and part number, and status. If a deviation is authorized, a Miscellaneous/History (OPNAV 4790/25A) logbook entry is required. The next inspection is scheduled as if no deviation had occurred. Activities operating OOMA will use the CM procedures to change tasking and update CM ALS to record deviation authorization.

5.3.10.6 During combat, operational commanders are authorized to defer scheduled maintenance of otherwise functional equipment. Combat operational commanders may also defer the replacement of high time components, with the exception of LCF or structural life limited components (those items whose disposition is "RETIRE" in the PMIC). Deferral of scheduled maintenance during combat should not exceed one interval of that maintenance event; the ACC will be consulted before authorizing further deferrals. Deferral authority during combat cannot be delegated below the CO of the ship, Marine Expeditionary Unit (MEU) commander, or Air Wing commander, as appropriate. ACC notification is not required except for deferral of replacement of high time components, which will be reported to the ACC by priority message when components are at or beyond high time. Notification will include the following information: T/M/S, BUNO, Component Nomenclature, P/N, Replacement Due Time/Cycles, Current Time/Cycles, and applicable requisition numbers and status. As soon as operations permit, deferred maintenance actions must be brought current.

5.4 Aircraft Acceptance, Transfer, and Ferry

5.4.1 Aircraft Acceptance Inspection

5.4.1.1 An acceptance inspection must be performed when a reporting custodian receives an aircraft transferred by Aircraft Transfer Order (ATO) and accepted with XRAY Action Code R (receipt of

an aircraft from another reporting custodian) (Chapter 9). An acceptance inspection must also be performed whenever an aircraft is received from off-site depot rework, regardless of custody transfer. Acceptance inspection must include:

a. Inventory of all equipment listed in the Aircraft Inventory Record (AIR), per 6.7.2.7.

b. Visual verification that required cartridge actuated devices (CAD) and propellant actuated devices (PAD) are installed. Disassembly beyond daily inspection requirements of applicable planned maintenance system (PMS) publications is not required for visual verification of CADS or PADs.

c. Hydraulic fluid sampling.

d. Daily Inspection.

e. Aircraft acceptance conditional inspection technical publication requirements (if applicable).

f. Logs and records and configuration verification, including verification of all scheduled inspection and forced removal times, per paragraph 8.2.5. For CM ALS refer to 8.6.

NOTE: Disassembly of the aircraft beyond T/M/S daily inspection requirements is not required for visual configuration verification of any component, assembly, CAD or PAD. Disassembly of an F-35 aircraft beyond the daily inspection requirements is not authorized without ACC approval.

g. Verification of the aircraft data plate. If the data plate is missing, send a Naval Message to the ACC T/M/S Aircraft Class Desk, with the responsible Wing or MAG and the transferring squadron as info addressees. The Aircraft Class Desk will arrange replacement.

h. Complete FCF.

NOTE: Wings may waive the acceptance FCF requirement for aircraft transfers within the same wing, providing all other requirements of 5.4.1.1 are met.

5.4.1.2 Activities may elect to increase the depth of an acceptance inspection if defects found during external inspection or logs and records verification indicate additional inspection is needed to verify the material condition of the aircraft.

5.4.1.3 Due to the dynamic nature of Test Evaluation (TE) and Fleet Support (FS), COMNAVAIRSYSCOM ACC is authorized to waive acceptance inspection and FCF requirements for all aircraft under its cognizance. This waiver authority does not apply to acceptance of aircraft from off-site D-level special rework. Administrative requirements listed in paragraph 5.4.1.6 are required.

5.4.1.4 Squadrons that transfer aircraft between home-guard and detachments are not required to perform an acceptance inspection or FCF.

5.4.1.5 Aircraft received back from on-site Phased Depot Maintenance (PDM) will complete all acceptance inspection procedures of paragraph 5.4.1.1. An Aircraft Delivery Deficiency Report (ADDR) will be submitted per the procedures of 10.9.

5.4.1.6 The following administrative requirements must be completed for aircraft acceptance:

a. Submit DECKPLATE-AIRRS aircraft acceptance XRAY and engine transaction reports per paragraph 9.1.3.

b. Electronically receive aircraft and associated ALSS equipment in the Virtual Fleet Support (VFS) CADPAD, TRACE CADPAD, and TRACE LIFE SUPPORT Modules (if applicable).

c. Log the hydraulic fluid sampling results in the Miscellaneous/History (OPNAV 4790/25A) section of the aircraft logbook.

d. Log completion of the acceptance inspection in the aircraft and AESR logbooks as a Conditional inspection. Authority for the Conditional inspection entry is COMNAVAIRFORINST 4790.2. Entries will include the following statements:

(1) "This date, the Monthly Flight Summary flight hours in period and since new were verified to be correct."

(2) “The following scheduled inspection due dates or times verified to be correct:” List all applicable scheduled inspections and next due date or time immediately following this statement.

e. If the aircraft was received new from the manufacturer or was received from depot standard rework, submit an Aircraft Inspection Discrepancy Report (AIDR) per 10.9.3.4.

f. Activities not using NTCSS Optimized OMA NALCOMIS will submit a MAF for Aircraft Inventory Gain per 15.4.1.

5.4.2 Aircraft Transfer

5.4.2.1 Transfer Inspection

A transfer inspection must be performed when a reporting custodian is directed to transfer an aircraft by Aircraft Transfer Order (ATO) to another operating unit. A transfer inspection is also required when an aircraft and its records are physically transferred to a Depot FRC or commercial facility for standard or special rework. Transfer inspections must include:

a. Inventory of all equipment listed in the Aircraft Inventory Record (AIR), per 6.7.2.7.1.b. Verification that cartridge actuated devices (CAD) and propellant actuated devices (PAD) are installed.

b. Logs and records and configuration verification per paragraph 8.2.5. For CM ALS refer to 8.6.3.4.

c. Verification of the aircraft data plate. If the data plate is missing, the reporting custodian squadron must send a Naval Message to the ACC T/M/S Aircraft Class Desk, with the responsible Wing or MAG as info addressees. The Aircraft Class Desk will arrange replacement. For aircraft being transferred to Aerospace Maintenance and Regeneration Group (AMARG), the reporting custodian will send a clear picture of the data plate to the ACC T/M/S Aircraft Class Desk as proof the aircraft data plate is installed.

d. Hydraulic fluid sampling.

NOTE: Depot FRC and commercial rework facilities must perform hydraulic fluid sampling and verify acceptable readings before transferring an aircraft.

e. Daily Inspection.

f. Aircraft transfer conditional inspection technical publication requirements (if applicable).

NOTES: 1. Squadrons that transfer aircraft between home-guard and detachments are not required to perform a transfer inspection or FCF.

2. The Wing may waive transfer inspection requirements for short-term (90 days or less) transfers in support of operational or Test and Evaluation (TE) requirements.

3. An FCF is not required for aircraft transfer, but should be done if deemed necessary to verify the mission capability of the aircraft.

5.4.2.2 Transfer Requirements

The following administrative requirements will be completed for aircraft transfer:

a. Log Hydraulic fluid sampling results in the Miscellaneous/History (OPNAV 4790/25A) section of the aircraft logbook.

b. Log completion of the transfer inspection in the aircraft and AESR logbooks as a conditional inspection. Authority for the conditional inspection entry is COMNAVAIRFORINST 4790.2. Entries will include the following statements:

(1) "This date, the Monthly Flight Summary flight hours in period and since new were verified to be correct."

(2) "The following scheduled inspection due dates or times verified to be correct:" List all applicable scheduled inspections and next due date or time immediately following this statement.

(3) "Automated Log Set verified to be saved in PDF and OOMA data file format on (choose actual method in the entry)", on an approved GFE external hard drive, share drive, share portal, or by utilizing a CD-RW.

c. Verify logbook and records are current, accurate, and closed out per paragraph 8.2.5.

d. Electronically transfer all associated Auto Log Sets to the accepting activity using NTCSS Optimized OMA NALCOMIS CM Group explorer. After electronic transfer of Auto Log Sets, save files to CD-RW from the Offloaded items tab in CM Group explorer.

e. Electronically transfer aircraft and associated ALSS equipment in the Virtual Fleet Support (VFS) CADPAD, TRACE CADPAD, and TRACE LIFE SUPPORT Modules (if applicable).

f. Activities not using NTCSS Optimized OMA NALCOMIS will produce a NALCOMIS OMA ad hoc Aircraft Transfer Report (Figure 5-13) and send it to the receiving activity.

5.4.3 Aircraft Ferry

5.4.3.1 Aircraft ferry is the flight or flights of an aircraft for the exclusive purpose of transfer between physical custodians. For example,

a. Flying an aircraft to physically transfer it from one operating activity to another.

b. Flying an aircraft to a Navy or commercial activity for rework.

c. Flying an aircraft to deliver it to storage.

d. Flying an aircraft after completion of rework to deliver it to the receiving activity.

NOTE: Aircraft ferry movement may involve change in reporting status or physical custody, based on guidance in the Aircraft Transfer Order (ATO). Refer to Chapter 9 for DECKPLATE-AIRRS reporting procedures.

5.4.3.2 Prior to the ferry flight, the activity having physical custody of the aircraft must:

a. Complete the aircraft transfer procedures of paragraph 5.4.2.

b. Verify the minimum requirements for a safely flyable aircraft are met in consideration of the flying environment, distance and duration. All aircraft will be properly equipped per OPNAVINST 3710.7 and mobility criteria set forth in the MESM on CNAP SharePoint website https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/ to include W&B limitations.

c. Complete all special and conditional inspections and the applicable portions of the appropriate MRCs, which are due or might reasonably be expected to fall due during the ferry mission, are completed or waived by this instruction prior to starting the mission.

d. Make a "Conditional Inspections" logbook entry certifying compliance with the above provisions. The entry will state the type of inspection, for example, aircraft ferry inspection; authority is "COMNAVAIRFORINST 4790.2." Any waivers granted for the ferry will be logged on the Miscellaneous/History page.

e. Place the following documents aboard the aircraft:

(1) Handbook of W&B data

(2) Electronic copies of OOMA CM ALS records

(3) All QA trending data associated with the BUNO

5.4.3.3 Aircraft being ferried to storage facilities under NASC FS controlling custody will be flown by crews assigned to the transferring reporting custodian. When aircraft are removed from storage, the receiving activity will provide the ferry crew.

5.4.3.4 Aircraft approved for strike will be ferried or moved to the site of final disposition prior to the reporting custodian issuing a Strike Action XRAY Report. Refer to Chapter 9 for Strike Action XRAY procedures.

NOTES: 1. Activities ferrying an aircraft for storage at the Aerospace Maintenance and Regeneration Group (AMARG) must notify AMARG at least 10 days in advance. AMARG point of contact information is specified in the Aircraft Transfer Order (ATO).

2. Refer to the OOMA users guide for documenting ferry movement.

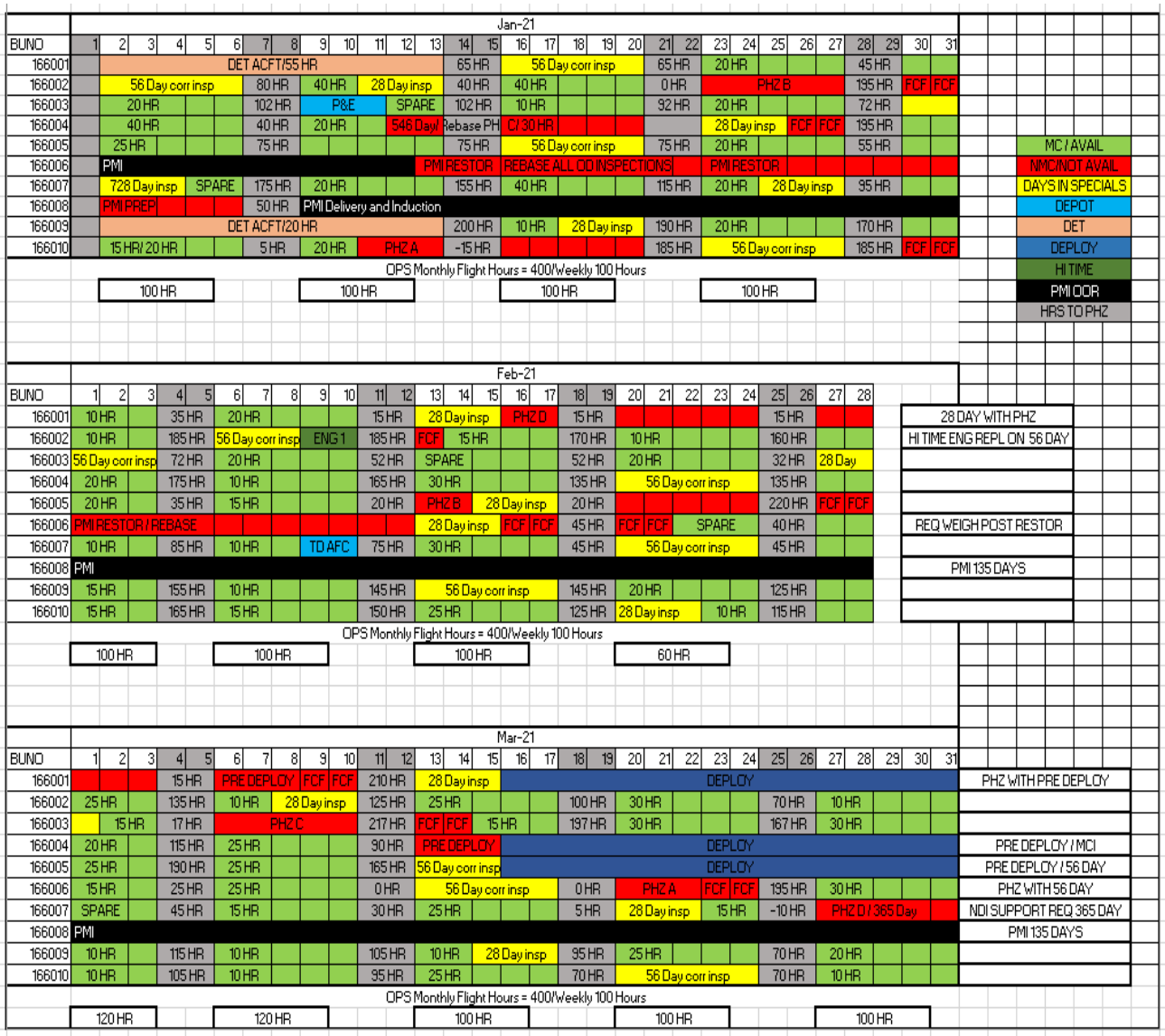
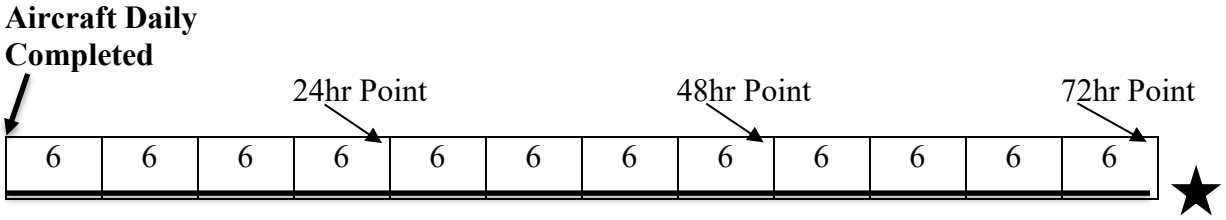


Figure 5-1: Monthly Maintenance Plan (Sample)

NOTE 1: A Daily Inspection is valid for 72 hours from the date and time completed, provided no maintenance other than servicing is performed and no flight occurs during the 72-hour period.



NOTE 2: Once a flight occurs, the aircraft may make multiple flights within a 24-hour period without performing another Daily Inspection, provided no maintenance other than servicing is performed. The 24-hour period begins with the first launch following completion of the Daily Inspection.

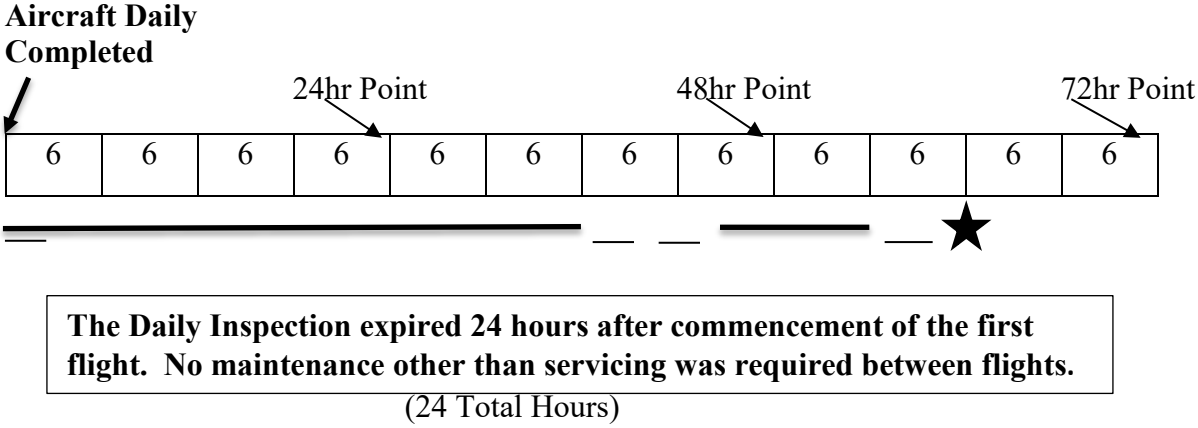


Figure 5-2: Daily Inspection Requirements (Page 1)

NOTE 3: In no case is a Daily Inspection valid for more than 72 hours unless the end of the 72 hour period occurs while the aircraft is in flight.

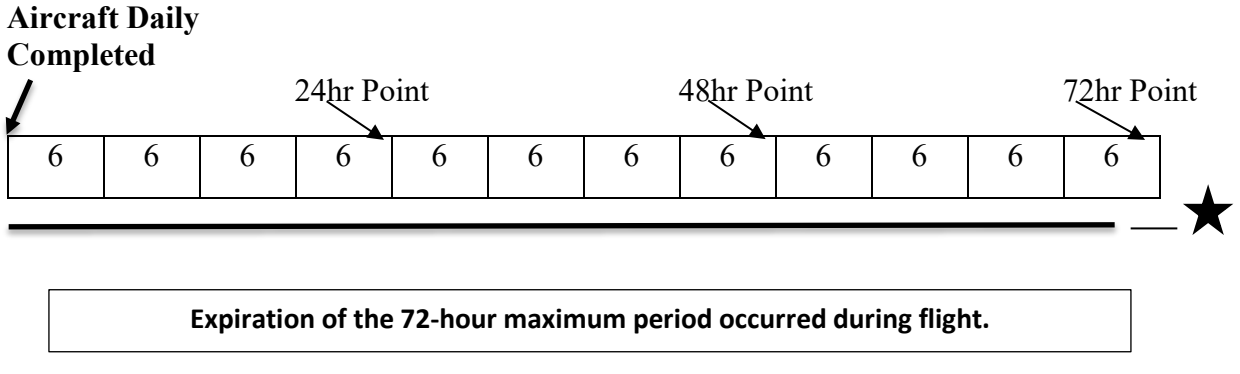


Figure 5-2: Daily Inspection Requirements (Page 2)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

PREFLIGHT / DAILY / TURNAROUND / POSTFLIGHT MAINTENANCE RECORD

1. ☐ PREFLIGHT ☐ DAILY ☐ TURNAROUND ☐ POSTFLIGHT

2. DATE AND TIME	3. T/M/S	4. BUNO	5. SIDE NO.	6. ACTIVITY
STARTED:				
COMPLETED:				

7. CARD NUMBER RTG/MOS	8. TOOL CONTAINER NUMBER	9. DISCREPANCY / JCN *	10. CORRECTED YES	10. CORRECTED NO	11. SIGNATURE AND RATE / MOS **

* JCN NOT REQUIRED FOR CORRECTED SERVICING ACTIONS.
** SIGNATURES CERTIFY THAT MRCs HAVE BEEN COMPLIED WITH, WOS/MAFS HAVE BEEN INITIATED FOR DISCREPANCIES, AND ALL TOOLS ARE ACCOUNTED FOR.

12. MAINTENANCE CONTROL REPRESENTATIVE
(Signature and rate/rank)

OPNAV 4790/38 (REV 4/2015)

Page 1 of 2

Figure 5-3: Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Front) (Sample)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

7. CARD NUMBER RTG/MOS	8. TOOL CONTAINER NUMBER	9. DISCREPANCY / JCN *	10. CORRECTED		11. SIGNATURE AND RATE / MOS **
			YES	NO	

OPNAV 4790/38 (REV 4/2015) BACK

Page 2 of 2

Figure 5-3: Preflight/Daily/Turnaround/Postflight Maintenance Record (OPNAV 4790/38) (Back) (Sample)

AIRCRAFT INSPECTION AND ACCEPTANCE RECORD

1. A/C BU/SER NO.	2. T/M/S	3. REP. CUST.	4. OXY	5. FUEL		6. OIL					7. DATE
				GRADE	QTY	GRADE	1	2	3	4	

8. ORDNANCE:	10. I have personally inspected this aircraft in accordance with the applicable MRCs/checklists. Any discrepancies noted have been entered on CNAF 4790/38.	
	a. PRINTED NAME OF PLANE CAPTAIN:	b. RANK/RATE:
	c. SIGNATURE OF PLANE CAPTAIN:	
	11. Certification of ordnance load and configuration has been verified by the Quality Assurance/Safety Observer (QA/SO).	
	a. PRINTED NAME OF QA/SO:	b. RANK/RATE:
	c. SIGNATURE OF QA/SO:	
9. SPECIAL EQUIPMENT/LIMITATIONS/REMARKS:	12. Certification of safe for flight condition by personnel authorized by the Commanding Officer to release aircraft Safe For Flight.	
	a. PRINTED NAME	b. RANK/RATE
	c. SIGNATURE	
	13. I have reviewed the discrepancy reports of the 10 previous flights, insured proper filing of weight and balance data, and accept this aircraft for flight.	
	a. PRINTED NAME	b. RANK/RATE
	c. SIGNATURE	

OPNAV 4790/141 (REV. AUG-2023)

Figure 5-4: Aircraft Inspection and Acceptance Record (OPNAV 4790/141) (Sample)

BCM Authorization Form

Ref: COMNAVAIRFORINST 4790.2, Chapter 5

Date:_____

Work Center:_____Nomenclature:_____

P/N:_____S/N:_____SM&R Code:_____

MCN:_____JCN:_____DDSN:_____Priority:_____

WUC:_____ICRL CC:_____ TCC:____TCC DT:_____

BCM Action: (Check applicable BCM Code and provide justification)

☐ BCM-2: Lack of Test Equipment (List equipment and status)

_____

☐ BCM-3: Lack of Technical Skills (List the NEC/MOS and Billet)

_____

☐ BCM-4: Lack of Parts (List Nomenclature, NSN, P/N, and status)

_____

☐ BCM-5: Fails Test and Check (List failure)

_____

☐ BCM-6: Lack of Technical Data (List publication and status)

_____

☐ BCM-7: Beyond Authorized Repair Depth (List the defect)

_____

☐ BCM-8: Administrative (List specific reason: EI exhibit, SRC data unknown, item under warranty, repair costs exceed AVDLR Net Unit Price or replacement cost, excessive backlog, budgetary limitations, materials in excess of requirements, or directed by ACC)

_____

☐ BCM-9: Condemned (List the defect)

_____

Figure 5-5: BCM Authorization Form (Page 1)

Reviewer, Signature, and Date	Required For BCM
W/C SUPV	ALL
ICRL MGR	BCM 2, 3, and 6
S-6/ASD Supply Officer/MALS ASO	BCM 4
QAR	BCM 6 and 8
IMRL MGR	BCM 2
SAT PC	ALL
MAIN PC CPO	ALL
MMCO	ALL
CO or OIC (FRC/MALS) OCONUS (AIMD) or MO (CVN/L-Class):	
	BCM 2, 3, 4, 6, and 8

NOTE: Per COMNAVAIRFORINST 4790.2, Chapter 5, paragraph 5.2.5.2.b, authority to approve BCM 2, 3, 6 and 8 can be delegated to the MMCO.

Figure 5-5: BCM Authorization Form (Page 2)

FM REPORTING UNIT
TO APPLICABLE AIRCRAFT CONTROLLING CUSTODIANS
COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMNAVAIRFORES SAN DIEGO CA//N42//(Reserve units)
COMFAIRFWD ATSUGI JA//(WESTPAC activities)
APPLICABLE MAW/WING/MARBDE/MAG
INFO APPLICABLE COMCARGRU /COMPHIBGRU/COMPHIBRON
COMNAVSURFOR SAN DIEGO CA//N42//
COMMARFORCOM (Marine activities only) COMMARFORPAC (Marine activities only)
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
NAVSUP WSS PHILADELPHIA PA//0332//
APPLICABLE FST
UNCLAS //N04790//
SUBJ/BA REPORT NR XXXXXXX//
POC//(POC for the reporting unit)
RMKS/1. FAILURE DATA
A. EQUIPMENT NOMENCLATURE, PART NR, AND SERIAL NR
B. AIRCRAFT (EACH TMS IF MORE THAN ONE), AIRCRAFT SYSTEM SUPPORTED (EACH SYSTEM IF MORE THAN ONE) AFFECTED
C. CAL REQUIRED/TYPE REQUIRED (NA IF CAL NOT REQUIRED)
D. DTG OF TECH ASSIST MESSAGE (NA IF NOT REQUIRED)
E. PART 1 OF X REQUIRED:
(1) REQUIRED PART DATA: (DOC NR, NOMEN, PART NR, QTY, SM&R, CAGE, NIIN, TECH DATA)
(2) DISPOSITION OF RETROGRADE (FOR EXAMPLE TURNED INTO SUPPLY, DISPOSED OF, OR CANNIBALIZED FOR TRANSFER TO XXX IAW AUTHORITY MESSAGE DTG)
PART 2 OF X REQUIRED:
(1) REQUIRED PART DATA: (DOC NR, NOMEN, PART NR, QTY, SM&R, CAGE, NIIN, TECH DATA)
(2) DISPOSITION OF RETROGRADE (FOR EXAMPLE TURNED INTO SUPPLY, CONSUMABLE, OR CANNIBALIZED FOR TRANSFER TO XXX IAW AUTHORITY MESSAGE DTG)
F. NEXT HIGHER ASSY: (NOMEN, PART NR, CAGE, NIIN, TECH DATA)
G. OUTSTANDING DOC NRS/STATUS FOR MAMS REQUISITIONS
H. REMARKS: (NA IF AMPLIFICATION NOT DESIRED)
I. MILSTRIP DATA

Figure 5-6: Broad Arrow Report (Message Format)

FM USS NIMITZ
TO COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMNAVAIRFORES SAN DIEGO CA//N42//(Reserve units)
COMFAIRFWD ATSUGI JA // (If deployed)
INFO COMCARGRU SEVEN
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
NAVSUP WSS PHILADELPHIA PA//0332//
FRCSE JACKSONVILLE FL//
UNCLAS //N04790//
SUBJ/BA REPORT NR 2000001//
POC/A. ARMAGOST/AVCM/DSN 439-0123/COMM 206-479-0123//
RMKS/ 1. FAILURE DATA
A. RADCOM, A31U14200-5, PPD085
B. EACH TMS, SYSTEM
C. NA
D. NA
E. PART 1 OF 2
(1) 8360GB03, CKT CARD ASSY, D8255A, 6, PAOGG, 34649, 4920-01-120-6436, AT-170G1-000, FIG 7-3, PG 7-12
(2) CONSUMABLE
PART 2 OF 2
(1) NA, NA, DIGITAL WORD GENERATOR, A31U30200-1, 1, PBGGD, 26512, 4920-01-220-4516, AT-828RA-MMI-000, WP008-00 FIG 1 PG 32 ITEM 173
(2) CANNIBALIZED TO USS LINCOLN IAW COMNAVAIRFOR MSG DTG 101023Z DEC04
F. PART 1 OF 2, AFG DRAWER, A31U13900-1, 26512, 7RH4790-01-220-4821, AT-828RA MMI-00 WP008-00 FIG 1 PG 32 ITEM 184.
PART 2 OF 2 NA
G. PART 1 OF 2, NA, PART 2 OF 2 0150DP75/265BBN32
H. DIGITAL WORD GENERATOR SHIPPED TP01 GREENSHEET MUST RIDE
TCN R03368-9100-GB99XXX
I. A01N72S662501411704719EA00001R033398360GB03RYS6PMUA9S07R9BU029995

Figure 5-7: Broad Arrow Report (Sample Message)

FM REPORTING UNIT
TO APPLICABLE AIRCRAFT CONTROLLING CUSTODIANS
COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMNAVAIRFORES SAN DIEGO CA//N42//(Reserve units)
COMFAIRFWD ATSUGI JA//(WESTPAC activities)
APPLICABLE MAW/WING/MARBDE/MAG
INFO APPLICABLE COMCARGRU/COMPHIBGRU/COMPHIBRON
COMNAVSURFOR SAN DIEGO CA//N42//
COMMARFORCOM (Marine activities only) COMMARFORPAC (Marine activities only)
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
NAVSUP WSS PHILADELPHIA PA//0332//
APPLICABLE FST
UNCLAS//N04790//
SUBJ/BA ADDENDUM NR XXXXXXX //
POC//
RMKS/1. DTG OF ORIGINAL FAILURE BA REPORT
2. SERIAL NR OF ADDENDUM XX (XX = A THROUGH ZZ CONSECUTIVELY)
3. FAILURE DATA
A. EQUIPMENT NOMENCLATURE, PART NR, AND SERIAL NR
B. AIRCRAFT (EACH TMS IF MORE THAN ONE), AIRCRAFT SYSTEM SUPPORTED (EACH SYSTEM IF MORE THAN ONE) AFFECTED
C. CAL REQUIRED/TYPE REQUIRED (NA IF CAL NOT REQUIRED)
D. DTG OF TECH ASSIST MESSAGE (NA IF NOT REQUIRED)
E. PART 1 OF X REQUIRED:
(1) REQUIRED PART DATA: (DOC NR, NOMEN, PART NR, QTY, SM&R, CAGE, NIIN, TECH DATA)
(2) DISPOSITION OF RETROGRADE (FOR EXAMPLE, TURNED INTO SUPPLY, CONSUMABLE, OR CANNIBALIZED FOR TRANSFER TO XXX IAW AUTHORITY MESSAGE DTG)
PART 2 OF X REQUIRED:
(1) REQUIRED PART DATA: (DOC NR, NOMEN, PART NR, QTY, SM&R, CAGE, NIIN, TECH DATA)
(2) DISPOSITION OF RETROGRADE (FOR EXAMPLE, TURNED INTO SUPPLY, CONSUMABLE, OR CANNIBALIZED FOR TRANSFER TO XXX IAW AUTHORITY MESSAGE DTG)
F. NEXT HIGHER ASSY: (NOMEN, PART NR, CAGE, NIIN, TECH DATA)
G. OUTSTANDING DOC NRS/STATUS FOR MAMS REQUISITIONS
H. REMARKS: (NA IF AMPLIFICATION NOT DESIRED)
I. MILSTRIP DATA

Figure 5-8: Broad Arrow Addendum (Message Format)

FM USS NIMITZ
TO APPLICABLE AIRCRAFT CONTROLLING CUSTODIANS
COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMFAIRFWD ATSUGI JA // (If deployed)
INFO
COMCARGRU SEVEN
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
NAVSUP WSS PHILADELPHIA PA//0332//
FRCSW NORTH ISLAND CA//JJJ//
UNCLAS //N04790//
MSGID/GENADMIN/NIMITZ//
SUBJ/BA ADDENDUM NR 2000001//
POC/H.D. BIKE/LCDR/DEPLOYED/-/MMCO//
RMKS/1. 150125ZJAN 99
2. ADDENDUM E
3. FAILURE DATA
A. RSTS AN/APM446 AND DAG-0011
B. EACH TMS, SYSTEM
C. NA
D. NA
E. PART 1 OF 1 REQUIRED:
(1) 9350GB77, CKT CARD ASSY, 446AS22-131-001, 1, PAGDD, 30003, 7RH4920-00-166-6799, NA 16-30 APM446-3-22 FIG 002-00 PG 4 ITEM 37
(2) TURNED IN TO SUPPLY
F. BB-22, 446AS22-100-006, 30003, 7RH-4790-LL-R95-2061, NA 16-30 APM447-3-22 FIG 001-00 PG1320
G. 8355D498/150BBN32 EDD 0020
H. NA
I. A01N72S662501411704719EA00001R3339350GB77RYS6PMUA9S07R9BU029995

Figure 5-9: Broad Arrow Addendum (Sample Message)

FM REPORTING UNIT
TO APPLICABLE AIRCRAFT CONTROLLING CUSTODIANS
COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMNAVAIRFORES SAN DIEGO CA//N42//(Reserve units)
COMFAIRFWD ATSUGI JA//(WESTPAC activities)
APPLICABLE MAW/WING/MARBDE/MAG
INFO
APPLICABLE COMCARGRU/COMPHIBGRU/COMPHIBRON
COMMARFORCOM (Marine activities only) COMMARFORPAC (Marine activities only)
COMNAVSURFOR SAN DIEGO CA//N42//
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
NAVSUP WSS PHILADELPHIA PA//0332//
APPLICABLE FST
UNCLAS //N04790//
MSGID/GENADMIN/ACTIVITY//
SUBJ/BA SUPPORT EQUIPMENT IN-SERVICE REPORT//
RMKS/1. BA NR XXXXXXX IN SERVICE DATA
A. EQUIPMENT NOMENCLATURE, PART NR, SERIAL NR
B. JULIAN DATE EQUIPMENT RETURNED TO SERVICE
C. COMPLETED DOCUMENT NRS
D. DTG OF BA REPORT//

Figure 5-10: Broad Arrow Support Equipment In-Service Report (Message Format)

FM USS NIMITZ
TO COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMFAIRFWD ATSUGI JA // (If deployed)
INFO
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
COMCARGRU SEVEN
NAVSUP WSS PHILADELPHIA PA//0332//
FRCSW NORTH ISLAND CA//
UNCLAS //N04790//
SUBJ/BA SUPPORT EQUIPMENT IN-SERVICE REPORT//
RMKS/1. BA NR 2000001 IN-SERVICE DATA
A. ENGINE TEST STAND, A/F32T-1, 000027
B. 8360
C. 8330D497, 8330F498
D. 290219ZNOV98//
E. DOCUMENT REMAINS OUTSTANDING AS PAYBACK TO XXX. (IF REQUIRED)//

Figure 5-11: Broad Arrow Support Equipment In-Service Report (Sample Message)

FM
REPORTING UNIT
TO
APPLICABLE AIRCRAFT CONTROLLING CUSTODIANS
COMNAVAIRFOR SAN DIEGO CA//N421/N423/N413/N4131C/N423R//
COMNAVAIRFORES SAN DIEGO CA//N42//(Reserve units)
COMFAIRFWD ATSUGI JA//(WESTPAC activities)
APPLICABLE MAW/WING/MARBDE/MAG
INFO
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-260//
APPLICABLE COMCARGRU /COMPHIBGRU/COMPHIBRON
COMNAVSURFOR SAN DIEGO CA//N42//
COMMARFORCOM (Marine activities only) COMMARFORPAC (Marine activities only)
UNCLAS //N04790//
SUBJ/BA REQUISITION COMPLETION REPORT//
REF/A/GENADMIN/REPORTING UNIT/ORIG BA DTG//
RMKS/1. THE FOLLOWING BA REQUISITIONS WERE COMPLETED JD XXXX:
BA NR REQ NR NIIN RCVD QTY
XXXXXXX XXXXGBXX XX-XXX-XXXX X//

NOTE: List all GB document numbers received each day on one message.

Figure 5-12: Broad Arrow Requisition Completion Report (Message Format)

AIRCRAFT TRANSFER REPORT PART I BUNO 161862

MCN	JCN	W/C	SYSTEM REASON	WUC	TC	WD	TM	AT	MAL	IP	MNHRS	EMT	DT COMP	WORKER SIGNATURE	QA CD	SIGNATURE	SUPER SIGNATURE	CF	QA
OAC7VMZ	AC7205738	021	10 EHRS (P)	030000A	11	O	K	0	000	01	0.0	0.0	97205			AZ3 JONES	AZ3 JONES	N	N
OAC7VN2	AC7205739	021	10 EHRS (S)	030000A	11	O	K	0	000	01	0.0	0.0	97205			AZ3 JONES	AZ3 JONES	N	N
OAC7VSB	AC7206723	021	O/STRESS 7.0	030	11	O	S	0	000	01	0.0	0.0	97206			AZ3 JONES	AZ3 JONES	N	N

AIRCRAFT TRANSFER REPORT PART II BUNO 161862

MCN	W/C	DISCREPANCY	CORRECTIVE ACTION	CF	QA
OAC7VMZ	021	PERFORM 10 EHRS SPECIAL INSP:	C'ED/W ABOVE MRC'S	N	N
OAC7VN2	021	PERFORM 10 EHRS SPECIAL INSP:	C'ED/W ABOVE MRC'S	N	N
OAC7VSB	021	CHECK AIRCRAFT FOR O/STRESS	C'ED/W ABOVE MRC'S	N	N

AIRCRAFT TRANSFER REPORT PART III BUNO 161862

MCN	JCN	W/C	SYSTEM REASON	AT	MAL	E CAGE	E PART NUMBER	E SERNO	G CAGE	G PART NUMBER	G SERNO
OAC7VXN	AC7207700	110	NOZ. PUMP	T	814	07482	1156M46P08	23781	07482	1156M46P11	VKJE2854
AC7AA8H	AC7201188	110	L06 CODE T4B OT/BE	R	029	07482	1344M74P01	GDB0201V	07482	1344M74P01	GDBB5217
AC7AAZ3	AC7200700	200	BLGTING A/S IND	R	374	26512	21285-1139	239778	26512	21285-1139	316211

AIRCRAFT TRANSFER REPORT PART IV BUNO 161862

MCN	JCN	W/C	AWN NO	RSN CD	AWM HRS
OAC7VXN	AC7207700	110	1	8	21.2
AC7A9KW	AC7199701	122	1	3	6.0
AC7AFX4	AC7214A01	13B	1	6	0.5

AIRCRAFT TRANSFER REPORT PART V BUNO 161862

MCN	JCN	W/C	SYSTEM REASON	WUC	INDX	IND	AT	MAL	CAGE	PART NUMBER H-Z	QTY
AC7AFX4	AC7214A01	13B	WATER SEP. BAG	4112K	H	Y	R	105	70210	180849-10	1
AC7AFY1	AC7215048	280	WAVEGUIDE BROKEN	74A1500	H	Y	R	070	82577	3196864	1

AIRCRAFT TRANSFER REPORT PART VI BUNO 161862

MCN	JCN	W/C	CD	BASIC	KIT	INT RV	AMD	PRT	LV	NOT LATER THAN	PRI	DTE ISS	MNHRS	RCSN	DT	DRCTV	SERNO
AC792K5	AC7089146	120	50	0806	00						R	1092		4Q97		813	
AC7AZX7	AC7269119	230	57	0679	00				1	GUN INSP, 90 DAY	U	0395	2.0	4Q96		1287	
AC79R2D	AC7152116	280	50	0852	00				1	NEXT PHASE	R	0595	1.0	2Q00		1265	
									1								

Figure 5-13: Aircraft Transfer Report

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

PHASED DEPOT MAINTENANCE WORK REQUEST

A. REPORTING CUSTODIAN:	B. AIRCRAFT MODEL:	C. BUREAU NUMBER:

D. SCHEDULED INDUCTION DATE	E. FID/PED:	F. EXTENSION:	G. TIME SINCE ACCEPTANCE: MONTHS: HOURS:

H. TIME SINCE PDM: MONTHS: HOURS:	I. TOTAL CATAPULTS:	J. CATAPULTS THIS PDM:	K. MONTHS DEPLOYED THIS FID/PED:

L. ENGINE DATA

ENGINE POSITION	MODEL	SERIAL NUMBER	HOURS SINCE NEW	HOURS SINCE OVERHAUL

M. TECHNICAL DIRECTIVES INCORPORATED (LIST)

Add a Row | Remove a Row

N. TECHNICAL DIRECTIVES NOT INCORPORATED

DIRECTIVE	REASON	DIRECTIVE	REASON

Add a Row | Remove a Row

Copy to:
COGNIZANT WING
TYPE COMMANDER
NAVAVNDEPOTOPSCEN

OPNAV 4790/65 (REV 11/2016)

Page 1 of 2

Figure 5-14: Phased Depot Maintenance Work Request (OPNAV 4790/65) (Page 1)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

O. SPECIAL WORK ITEMS		
ITEM NUMBER	DISCREPANCY	REMARKS
Add a Row		Remove a Row

P. SIGNATURE (REPORTING OFFICER):	Q. TELEPHONE:	R. DATE (DAY/MONTH/YEAR):
	DSN:	
	COMMERCIAL:	

OPNAV 4790/65 (REV 11/2016)

Page 2 of 2

Figure 5-14: Phase Depot Maintenance Work Request (OPNAV 4790/65) (Page 2)

CHAPTER 6

Material Management and Control

Table of Contents

6.1 NAVY SUPPLY SYSTEM 1

6.1.1 Overview 1

6.1.2 Funding Aviation Materials 2

6.1.3 Standard Supply References 3

6.1.3.1 Department of Defense and Federal Government References 3

6.1.3.2 OPNAV References 5

6.1.3.3 COMNAVAIRFOR and Marine Corps References 5

6.1.3.4 COMNAVAIRSYSCOM References 5

6.1.3.5 COMNAVSUP References 6

6.1.4 Special Programs and Processes 8

6.1.4.1 Buy Our Spares Smart (BOSS) III Program 8

6.1.4.2 Price Challenge Hotline 10

6.1.4.3 Shelf Life Management 11

6.1.4.4 Warranty Program 11

6.1.4.5 Consolidated Remain In Place List (CRIPL) 12

6.1.4.6 Technical Directive (TD) Materials 13

6.1.5 Training 16

6.2 MATERIAL ALLOWANCING 16

6.2.1 Concept 16

6.2.2 Operational Support Inventory (OSI) 17

6.2.2.1 Concept 17

6.2.2.2 Establishing OSI 17

6.2.2.3 Initial OSI Outfitting 19

6.2.2.4 AVCAL Reviews 19

6.2.3 Inventory Accounting 20

6.2.4 Inventory Funding 20

6.3 MATERIAL REPORTING 20

6.3.1 Concept 20
6.3.2 Local Material Reports 21
6.3.3 Expense Item Management Reports 21
6.3.4 Material Surveys 22
6.3.5 General Equipment (GE) 22

6.4 FINANCIAL MANAGEMENT 22
6.4.1. Introduction 22
6.4.2 Budgeting 22
6.4.3 Aviation Material Costs 23
6.4.3.1 Material Cost 23
6.4.3.2 Aviation Depot Level Repairables (AVDLR) 23
6.4.3.3 Depot Level Local Procurement (Open Purchase) 27
6.4.4 Financial Accounting 28
6.4.4.1 Responsibility 28
6.4.4.2 Financial Records, Logs, and Files 28
6.4.4.3 Financial Transmittals and Reports 29

6.5 SUPPLY DEPARTMENT ORGANIZATION 30
6.5.1 Standard Organization 31
6.5.2 Aviation Support Division (ASD) 31
6.5.3 Supply Response Section (SRS) 33
6.5.4 Requisition Control Unit (RCU) 34
6.5.5 Technical Research Unit (TRU) 35
6.5.6 Material Delivery Unit (MDU) 36
6.5.7 Program Management Unit (PMU) 37
6.5.8 Pre-expended Bin (PEB) Unit 37
6.5.9 Component Control Section (CCS) 38
6.5.10 Document Control Unit (DCU) 39
6.5.11 Local Repair Cycle Asset (LRCA) Storage Unit 41
6.5.12 Supply Screening Unit (SSU) 41
6.5.13 Awaiting Parts (AWP) Unit 42

6.6 SUPPLY DEPARTMENT RESPONSIBILITIES 45
6.6.1 General Responsibilities 45
6.6.2 Response Time Standards 47
6.6.3 Inspection 47
6.6.4 SERVMARTs and MINIMARTs 47
6.6.5 Pack-up Kit Management 48
6.6.6 Stricken Aircraft Reclamation and Disposal Program (SARDIP) 49
6.6.7 Phase Maintenance Kit Management 50
6.6.8 Preservation, Packaging and Handling 50
6.6.9 Procedures for Components Awaiting Investigation 51
6.6.10 Processing Material Under the Control of Naval Sea Systems Command 52

6.7 ORGANIZATION-LEVEL MAINTENANCE ACTIVITY (OMA) AND INTERMEDIATE-LEVEL MAINTENANCE ACTIVITY (IMA) MATERIAL CONTROL 53
6.7.1 General Responsibilities 53
6.7.2 OMA Material Control Procedures 54
6.7.2.1 Organization 54
6.7.2.2 Responsibilities 54
6.7.2.3 Receipt and Delivery of Parts and Material 55
6.7.2.4 Receipt of Unsatisfactory Material 56
6.7.2.5 Deployment and Detachment Planning 56
6.7.2.6 Phase Maintenance Kits 57
6.7.2.7 Aircraft Inventory Record (AIR) 57
6.7.2.8 Flight Clothing 67
6.7.2.9 Flight Packets 67
6.7.2.10 Aviation Into-Plane Reimbursement (AIR) Card 68
6.7.3 Intermediate-level Material Control 69
6.7.3.1 Organization 69
6.7.3.2 AMSU/JASU 69
6.7.3.3 Awaiting Parts (AWP) 71
6.7.3.4 Preservation and Packaging 71

6.8 MARINE CORPS AVIATION MATERIAL MANAGEMENT 71

6.8.1 Policy 72

6.8.2 Marine Aircraft Wing (MAW) Supply Officer 72

6.8.3 Marine Aviation Logistics Squadron (MALS) Aviation Supply Officer 72

6.9 DEPOT LEVEL REPAIRABLE (DLR) MANAGEMENT 73

6.9.1 General DLR Policy and Processes 73

6.9.2 Commercial Depot Rework General Policy and Procedures 75

6.9.3 DLR Requisitioning 76

6.9.4 Contracting for Commercial Rework of DLRs 76

6.9.4.1 Planning 76

6.9.4.2 Life of Rework Contracts 77

6.9.4.3 Constructive Change 77

Figure 6-1: Flow of Accounting Data 78

Figure 6-2: Supply Department Organization Ashore 79

Figure 6-3: Supply Department Organization Afloat 80

Figure 6-4: ASD Organization 81

Figure 6-5: Aircraft Inventory Record (OPNAV 4790/110) (Front) 82

Figure 6-5: Aircraft Inventory Record (OPNAV 4790/110) (Back) 84

Figure 6-6: Aircraft Inventory Record Equipment List (OPNAV 4790/111) 84

Figure 6-7: Aircraft Inventory Record Shortages (OPNAV 4790/112) 85

Figure 6-8: Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) 86

Figure 6-9: Commercial Rework Milestones For Existing Commercial Contracts 87

CHAPTER 6

Material Management and Control

6.1 Navy Supply System

6.1.1 Overview

6.1.1.1 The Navy Supply System is part of the Federal Supply System, and is responsible for procuring, maintaining, and distributing equipment, repair parts, and consumable inventories (except ordnance ammunition) to Department of the Navy (DON) consumers. The complexity of installations and activities in the Navy Supply distribution network, such as Fleet Logistics Centers and Defense Distribution Centers (DDC), are generally termed Designated Support Points (DSP), where the physical work of receiving, storing, and issuing items takes place.

6.1.1.2 The Navy Supply System provides material in support of the operation and maintenance of aeronautical equipment with the goal to have material located when and where it is needed by the customer.

6.1.1.3 Commander Naval Supply Systems Command (commonly referred to as NAVSUP) is responsible for material support of the NAMP. NAVSUP Weapons Systems Support (NAVSUP WSS) is the primary organization responsible for naval aviation material support. NAVSUP WSS manages spare parts for aircraft, engines, systems, components and accessories, safety equipment, support equipment (SE), and aeronautical photographic and meteorological equipment. Primary functions of NAVSUP WSS include:

a. Computes range and depth of aviation material requirements, identification and transfer of items to be managed by other Inventory Control Points (ICP).

b. Develops budgets for and funds assigned aviation material requirements.

c. Procures material directly from industry or other government agencies.

d. Allocates NAVAIR procured material to stock points, distributes material to fill replenishment stock requirements, and refers requisitions to stock points to meet end-use requirements.

e. Disposes of material in excess of system requirements, including SE, when authorized by NAVAIR.

f. Maintains aeronautical spares and spare parts catalogs, including obtaining National Stock Numbers (NSN) from the Defense Logistics Service Center.

g. Determines system asset rework requirements of repairable components processed by naval, inter-service, or commercial rework facilities, equipment, e.g. Aviation Depot Level Repairables (AVDLRs), Weapons Repairable Assemblies, Shop Repairable Assemblies, containers funded with Operations and Maintenance Navy (OM&N), engine modules (funded

with APN6) processed by Naval, Inter-Service or Commercial rework facilities during the Interim Supply Support period as well as Post Material Support and throughout sustainment.

h. Develops, issues, and updates the Allowance Requirements Registers (ARR) and allowance and load lists applicable to the NAMP.

i. Provides primary material support for air launched weapons.

j. Coordinates and conducts provisioning conferences.

6.1.2 Funding Aviation Materials

6.1.2.1 The aviation wholesale supply system consists of expense and repairable items. Expense items are consumable items or field level repairables procured by NAVSUP WSS or Defense Logistics Agency (DLA) with Navy Working Capital Fund (NWCF) or DWCF dollars and carried in the Navy inventory (for NWCF) account or DLA inventory (for DWCF) account. Repairable items are aviation depot level repairables (AVDLR) which are carried under a dual pricing system: standard (full) price (when there is no repairable carcass available) and net price for replacement of a not-ready for issue (NRFI) asset.

6.1.2.2 The Navy Working Capital Fund (NWCF) is a revolving fund which finances the purchase of new assets and the repair of common stock of supply items required for support and operation of the Navy weapon systems. Its basic capital assets are provided from an appropriation made by the Congress. The NWCF provides a means for managing, financing, controlling, and accounting for material, supplies, and equipment. It serves as a means to improve financial control of the consumption of material through budgeting, financing, and accounting for the use of such material. The NWCF finances procurement of most of the Navy's repairables and centrally managed consumable spares by purchasing consumable spares from Defense Logistics Agency (DLA) and Government Services Agency (GSA), which are then placed in Navy wholesale inventory and at retail stock locations. The capital to acquire replacement stock is provided by reimbursement for all issues (sales) to the customer from the Operations and Maintenance Navy (O&MN) funds in the hands of the customer. In this respect, it differs from appropriation purchase account (APA) material that is issued without charge to the customer's O&MN fund and is only statistically costed to the customer except under specific circumstances. Customer orders are the basis for the NWCF budget and the solvency of the fund is dependent on the receipt of a customer order and a subsequent sale of the material. When NAVSUP WSS conducts procurement computations for stock fund items the procurement quantity is based on historical recorded demands, Demand Transaction (DHAs) MILSTRIP submission for non-supply source material use, and engineering estimates for new items.

6.1.2.3 NWCF components consumed by aviation units are paid for with aviation fleet maintenance (AFM) operating funds. The NWCF in turn uses the payment to replenish the material, either by financing a repair at a designated rework point (DRP), formerly a designated overhaul point, or by purchasing a replacement item in the case of beyond economical repair or

loss situations. This differs from APA methods that separately fund the procurement and repair of aviation inventories, where such funding may be inadequate to meet demand. Under NWCF, the revolving fund receives payment when material is used and those funds will finance the subsequent D-level repair or replenishment action. Therefore, full funding of the D-level component repair is a primary benefit of the Aviation Depot Level Repairables (AVDLR) process. Additional NWCF benefits are:

a. Reduced back orders and customer wait time due to an increase of Ready for Issue (RFI) components being available in the supply system.

b. Improved financial flexibility due to Defense Finance Accounting Service's (DFAS) ability to direct funds to either repair or procure as conditions warrant. This is not possible in an APA environment where repair or procurement reprogramming actions require congressional approval.

c. Improved aircraft readiness due to improved material support.

d. A financial incentive for O-level and I-level maintenance activities to maximize repair permitted under the applicable COMNAVAIRSYSCOM aircraft maintenance plan.

6.1.2.4 Management of NWCF DLR items are under 7-series Cognizant (COG) Symbol and are issued with a charge to the customers' operating target (OPTAR) at the point of sale (when the user is charged for DLR usage). One point of sale is at NWCF activities with RSupply Force Level (Air Stations, CVN, MALS and MAGS) and Enterprise Resource Planning (ERP) activities (Air Station) when 7- series COG repairables are issued from stock and the retrograde turn-in is determined to be beyond the capability of maintenance (BCM) at the I-level activities). Another point of sale is when a 7-series COG repairable is issued for either stock or direct turn over (DTO) from a NWCF inventory and the retrograde is not available for turn-in. This charge will be either at a net or standard price, where:

a. The net price is charged for the RFI replacement of a NRFI asset that is BCM and returned to the wholesale Supply System. The net price is less than the standard price and is based on depot repair cost vice new procurement cost.

b. The standard price is charged for issues when the requisitioning activity does not make or does not have a turn-in. The standard price is based on procurement cost for replacement of the asset and is usually significantly greater than the net price, encouraging prompt turn-in of the NRFI component.

6.1.3 Standard Supply References

6.1.3.1 Department of Defense and Federal Government References

a. DOD 4160.21-M is applicable to all DOD activities in the reporting, redistribution, and use of excess, surplus, and foreign excess personal (as opposed to real) property; in the disposal

by donation, sale, abandonment, or destruction of property determined to be surplus or foreign excess, and in the sale of such property.

b. DODINST 6050.05 provides information to assist users in managing hazardous materials to minimize the risk involved in performance of various jobs. This instruction also provides labeling and packing requirements, shipment and storage, handling safety precautions, and other information.

c. DoD Financial Management Regulation 7000.14-R (FMR) and the DON Financial Management Policy Manual (FMPM) contain information relating to, and procedures for, maintaining OPTARs and definitions of terms used in the resources management system pertaining to activities, ships, and squadrons. The DoD FMR and DON FMPM are housed in several locations (SECNAV, OSD Comptroller and PBIS websites). The following Program Budget Information System (PBIS) link contains the latest versions of the FMR and FMPM: https://fmbweb1.nmci.navy.mil/policy/Policy.htm

d. Federal Logistics Data (FEDLOG) is now available for FREE as a download from FEDMALL. To download go to the FEDMALL site at https://www.fedmall.mil/index.html FEDLOG contains descriptions of the format and contents of the Master Cross Reference List, Management List-Consolidated, Management List-Navy, Federal Item Logistics Data Record, Identification Lists, Interchangeability and Substitutability, CAGE, Federal Supply Classification Groups and Classes, Selected Federal Item Name Directory For Supply Cataloging Data, List of Items Requiring Special Handling, Master Repairable Item List (MRIL), and Navy Item Control Number to NIIN Cross Reference.

e. Commercial and Government Entity (CAGE) Codes provide the name, address, and socioeconomic data on all manufacturers and non-manufacturers doing business with the federal government. CAGE Codes can be located on the Web Federal Logistics Information System (WebFLIS) database. Access to WebFLIS may be requested by logging on to the following website: https://www.dla.mil/HQ/InformationOperations/Offers/Products/LogisticsApplications/WebFLIS.aspx. Three types of organizations are addressed in the H4/H8: government designed control activities, manufacturers, and non-manufacturers. Each type of organization is uniquely identified by a five position CAGE code or an NATO SUPPLY CODE FOR MANUFACTURERS (NSCM) and categorized by an Organizational Entity type code. The CAGE reflects codes assigned to organizations worldwide. WebFLIS contains the organization's or contractor's name (if applicable), assigned CAGE code, and status code. In some instances, the replacement code for the contractor's assigned CAGE code(s) will consist of an NSCM code assigned to an Organization Entity located in a North Atlantic Treaty Organization member nation.

f. General Services Administration (GSA) Federal Supply Catalog. This catalog lists approximately 20,000 line items stocked in GSA supply distribution facilities. The items listed in this catalog are assigned COG 9Q.

6.1.3.2 OPNAV References

a. OPNAVINST 4614.1 contains instructions for using the Uniform Material Movement and Issue Priority System (UMMIPS), which assigns a Force Activity Designator (FAD) to all activities for determining priorities for material support. UMMIPS and FAD procedures are implemented by Fleet Commander and Aircraft Controlling Custodian (ACC) or Type Commander (TYCOM) instructions. The FAD is correlated with an urgency of need to determine the priority assigned to requisitions. The priority assigned to material requisitions, not the project code, determines the speed a requisition is filled by the Supply system. UMMIPS abuse dilutes Supply System responsiveness in processing MILSTRIP requisitions.

b. OPNAVINST 4440.25 contains responsibilities and procedures for establishing, maintaining, and modifying Consolidated Remain In Place Lists (CRIPL) for aviation material.

6.1.3.3 COMNAVAIRFOR and Marine Corps References

a. COMNAVAIRFORINST 4440.2 Afloat Supply Operation Manual and COMNAVAIRPAC/COMNAVAIRLANTINST 4415.1 Ashore Supply Operation Manual establish aviation supply procedures, guidelines, and standards for afloat and ashore aviation support divisions/departments.

b. MCO P4400.177, Marine Corps Aviation Supply Desk-Top Procedures provides guidelines specific to Marine Corps activities.

6.1.3.4 COMNAVAIRSYSCOM References

Illustrated Parts Breakdowns (IPB), also called Illustrated Maintenance Parts Lists or Illustrated Parts Catalogs, are prepared by the manufacturer for each model aircraft, engine, accessory, electronic equipment, or SE. The IPB is designed to assist supply and maintenance personnel to identify and order replacement parts for aircraft and equipment. All procurable assemblies with detail parts are illustrated and listed in such a manner as to make quick identification of assemblies and their component parts possible. The items are arranged continuously in assembly breakdown order with the illustrations placed as near as possible to their appropriate listing.

a. Illustrated Parts Breakdowns (IPB), also called illustrated maintenance parts list or illustrated parts catalogs, are prepared by the manufacturer for each model aircraft, engine, accessory, electronic equipment, or SE. The IPB is designed to assist supply and maintenance personnel to identify and order replacement parts for aircraft and equipment. All procurable assemblies with detail parts are illustrated and listed in such a manner as to make quick identification of assemblies and their components parts possible. The items are arranged

continuously in assembly breakdown order with the illustrations placed as near as possible to their appropriate listing.

b. NAVAIR Instruction 4790.41 establishes policy, roles, responsibilities, processes and procedures for additive manufacturing (AM) in support of the Naval Aviation Enterprise (NAE) and implements NAVAIR SOP 4790.41. This instruction complements and aligns requirements set forth in DODINST 5000.93 and Marine Corps Order (MCO) 4700.4. AM parts produced organically for installation on naval aircraft, ALRE, SE or weapons systems will only be performed by intermediate level, depot level maintenance activities or Naval Air Warfare Centers (NAWC), and will be approved by the cognizant technical authority and technical decision authority for aircraft parts requiring flight clearance prior to use.

6.1.3.5 COMNAVSUP References

a. NAVSUP P409 serves as a reference for personnel responsible for originating and processing MILSTRIP and MILSTRAP documents. This booklet contains common definitions, coding structures, and abbreviated code definitions used on a day-to-day basis.

b. NAVSUP Publication 485, NAVAL SUPPLY PROCEDURES, Volume I establishes policies for the operation and management of afloat supply departments and shore-based units of the fleet operating forces. It is designed to assist supply personnel in the proper performance of their assigned duties and to aid them in understanding and performing their individual tasks associated with afloat Supply operations. NAVSUP Publication 485 is designed for both automated and non-automated entities. The procedures in NAVSUP Publication 485 are the minimum essential acceptable processes for supply management and are mandatory unless specifically stated as being optional. The CO or Supply Officer may prescribe additional controls when circumstances dictate the requirement for more stringent controls. This publication is also intended as a training manual for officers and enlisted personnel and as a guide in handling supply problems that are not a matter of regulation. It is divided into the following chapters:

c. NAVSUP Publication 485 Volume 2 contains appendices and a glossary for the material found in Volume 1.

d. NAVSUP Publication 488 issues policy for establishing Consolidated Shipboard Allowance Listing (COSAL).

e. The NAVSUP Publication 700 (https://tarp.navsup.navy.mil/) provides preservation and packaging requirements for specific repairable components.

f. The NAVSUP Publication 723 provides guidance and standards for wholesale and retail NWCF inventory.

g. NAVSUP Publication 2003 lists current publications, directives, and forms used throughout the Navy that have stock numbers assigned. Individual directives listed on the NAVICP Publication 2003 are also stocked at NAVSUP WSS Philadelphia, PA.

h. NAVSUPINST 4423.29 provides direction on Source, Maintenance, and Recoverability (SM&R) codes. SM&R Codes communicate maintenance and supply instructions for a particular end item and its components. SM&R codes are published in allowance lists, maintenance technical manuals, and supply documents. SM&R Codes are assigned based on the logistic support plan. The primary objective is to establish uniform policies, procedures, management, and integrated material support within and among the military services.

NOTE: NAVAIRINST 4423.12 provides direction on submitting changes to SM&R codes specific to aviation material.

i. NAVSUPINST 4440.182 provides policy for Remain-In-Place (RIP) of depot level repairables (DLR) managed by NAVSUP WSS.

j. NAVSUPWSSINST 4441.15 issues policy for establishing Aviation Consolidated Allowance List (AVCALs).

k. NAVSUPWSSINST 4441.16 contains detailed Operational Support Inventory (OSI) and Shore Consolidated Allowance List (SHORCAL) policy and procedures.

l. Allowance lists contain material and equipment for the purposes indicated in each list. Allowance lists contain the following basic information:

(1) The equipment and material (both consumable and repairable) necessary to outfit and maintain units of the aeronautical organization.

(2) Items used with sufficient frequency to justify their issuance to all activities maintaining aircraft or equipment for which the lists are designed.

(3) Information concerning NSN, nomenclature, interchangeability, and superseded NSNs.

(4) Detailed instructions for the application and use of the publication.

(5) A table of logistic data showing the total weight and cube of all material contained in the list.

m. Allowance Requirements Registers (ARR) list material and equipment for the purposes indicated in the register. The various ARRs are used as guides in establishing an AVCAL for ships and MALS; and SHORCAL for air stations. Material listed is retained in Supply Department stocks until required for use.

n. Tables of Basic Allowance (TBA) are listings of equipment and material required for performance of specific missions. They contain both shop equipment and common supporting spare parts, and include allowances of tools and material required for use by such activities as Fleet Marine Force (FMF) squadrons, guided missile activities, and drone type activities. TBAs are approved by COMNAVAIRSYSCOM and published by NAVSUP WSS.

o. Allowance Parts Lists (APL) are provided by NAVSUP WSS. APLs list both an equipment's technical characteristics and logistics information, and specify all maintenance significant repair parts associated with the equipment and is the basis for shipboard allowances.

p. Allowance Equipage Lists (AEL) are provided by NAVSUP WSS. AELs describe a system supported by an authorized range of operating space items. This material falls into the general categories of tools and equipage to be retained in the custody of the user's department.

q. Equipment Lists. NAVSUP WSS originates three different types of equipment lists:

(1) Weapons Equipment Lists (WEL) list repairable assemblies, supporting repair parts, attaching parts, loose equipment, and accessories used on various aircraft. Not all Navy aircraft have WELs.

(2) Equipment Requirement Lists (ERL) contain information on specific types of equipment, such as meteorological equipment, aircraft tires and tubes, and specialized shipping containers, and list the supporting repair parts required to maintain and overhaul the respective equipment.

(3) Support Equipment Lists (SEL) provide a listing of part numbers and NSNs applicable to selected types of SE.

6.1.4 Special Programs and Processes

6.1.4.1 Buy Our Spares Smart (BOSS) III Program

6.1.4.1.1 BOSS is a partnership in which the Navy seeks to reduce supply support costs by improving reliability and maintainability of NAVSUP WSS managed items in fielded weapon or support systems. The goal of this logistics partnership is to reduce costs and improve readiness. Sources of candidates are the fleet, Navy Hardware Systems Commands, NAVSUP WSS, FRCs, NAVAIRWARCENs, Naval Shipyards, in-service engineering activity (ISEA), Program Management Air (PMA), and private industry. Typical candidates will exhibit low mean time between failure and high repair costs.

6.1.4.1.2 The BOSS III Program reviews all Integrated Logistic Support (ILS) elements to determine affordable overall support solutions. Initiatives covered under the BOSS III Program include:

a. Reliability improvements, for example, logistics engineering change proposals (LECP).

b. ILS solutions, for example, technical manual, training, and supply support changes. Additional emphasis is placed on supply support changes.

c. Maintenance philosophy enhancements.

6.1.4.1.3 The cornerstone of the BOSS III Program is the logistics engineering change proposals (LECP). An LECP is a reliability or maintainability related ECP (officially, a cost reduction, justification code "R" ECP) for a NAVSUP WSS managed item, sponsored and funded by NAVSUP WSS, designed to reduce support costs while maintaining or improving safety and performance. LECPs are funded by the NWCF if the ROI is two to one over 10 years. Savings to this account are equal to repair and procurement avoidance. Savings to other accounts may also be considered. Investment includes non-recurring engineering and logistics costs plus equipment buys. The benefits evaluation is primarily financial rather than technical. A copy of the ROI model can be provided from the BOSS III Program Office in hard copy or digital format via e-mail. BOSS III LECPs are processed as follows:

a. Originator identifies LECP candidate by determining if:

(1) Reliability and maintainability is increased.

(2) Support costs are reduced.

(3) Safety and performance are maintained or improved.

b. Originator submits LECP candidate to the NAVSUP WSS BOSS III Program Office.

c. NAVSUP WSS gathers "Quick ROI" data to determine if the LECP should proceed.

d. NAVSUP WSS coordinates with originator and applicable Systems Command, ISEA, or PMA to complete BOSS III Cost Analysis Data Requirements if the LECP proceeds.

e. NAVSUP WSS performs cost benefit analysis using ROI model.

f. NAVSUP WSS notifies originator via letter if LECP candidate does not meet ROI requirements.

g. NAVSUP WSS sponsors the LECP through pre-board review process if LECP candidate meets ROI requirements.

h. NAVSUP WSS conducts Investment Board for final approval.

i. NAVSUP WSS notifies originator of results.

j. Originator prepares and submits formal LECP to NAVSUP WSS if not already accomplished.

k. NAVSUP WSS and applicable Systems Command, ISEA, or PMA coordinate LECP through the implementation process.

6.1.4.1.4 BOSS III Program/LECP points of contact:

a. NAVSUP WSS Philadelphia, PA Program Manager: (215) 697-5740/6177 or DSN 442-5740/6177.

b. Website: https://www.navsup.navy.mil/public/navsup/wss/lecp/

6.1.4.2 Price Challenge Hotline

6.1.4.2.1 Contracting and procurement personnel rarely have the technical background necessary to evaluate the intrinsic value of every item they purchase. Therefore, it is necessary for personnel at the user level to be alert to those items that appear to be excessively priced. Any employee of the DOD or other government agency, as well as employees of contractors performing work for the DOD, can question the price of any DOD managed spare part or consumable by submitting a price inquiry to the Price Challenge Hotline. The Price Challenge Hotline Operations Manual serves as the implementing instruction. Types of price inquiries include, but are not limited to, spare parts and consumables that:

a. Appear to be overpriced.

b. Are identical and would achieve a reduced price through combined demand by consolidating their management under one NSN.

c. Would achieve a reduced price through a new commercial source of purchase.

d. Would achieve a reduced price as a result of a buy or make decision.

6.1.4.2.2 The preferred method of submitting price inquiries is via the website (https://www.navsup.navy.mil). Price inquiries may be submitted via:

a. Telephone: (757) 443-2006 or DSN 646-2006.

b. Toll-free: 1-800-NAV-CHAL.

c. Facsimile: (757) 443-2019 or DSN 646-2019.

d. Mail: PRICE CHALLENGE HOTLINE (CODE 078), PO BOX 15129, NORFOLK VA 23511-0129.

e. Website: https://www.navsup.navy.mil/public/ops$pch.pch_form.

6.1.4.2.3 When a price inquiry is received, the Price Challenge Hotline accumulates information for use during the price verification or challenge investigation. The price inquiry is assigned a case number and a Letter of Acknowledgment of Receipt is mailed to the challenger. If information is determined to be insufficient, Price Challenge Hotline personnel will mail a letter to the challenger requesting additional information. The challenger has 30 days to respond or the case will be closed. The price verification or challenge investigation will begin after all necessary information is collected. An average price challenge will take up to 90 days to

investigate; however, a more complex case may take longer. Upon completion, the Price Challenge Hotline will provide the challenger with disposition of the case.

6.1.4.3 Shelf Life Management

The objective of shelf-life management is to maintain the required level of stock availability while minimizing the risk of shelf life expiration prior to issue. The use of shelf life codes and shelf life action codes are an integral part of the shelf life management program. They are designed to reflect the assigned time period, at the end of which subject items are unfit for issue or items are inspected or tested or restorative actions taken as specified by the shelf life action code. An effective shelf life management program issues the stock that has the earliest expiration date, and must be in an RFI condition per applicable storage standards. Each site must develop a local shelf life program to ensure the proper identification and management of Type I and Type II shelf life materiel in accordance with DoD 4140.27-M, Shelf-Life Item Management Manual.

6.1.4.4 Warranty Program

6.1.4.4.1 Warranty Contracting

a. Each contract must contain warranties covering design and manufacturing requirements, defects in materials and workmanship, and essential performance requirements.

b. Warranties will provide ample time, after delivery of the weapon system equipment, for the government to assess achievement of specification requirements and ensure the equipment is free from defects in materials and workmanship.

c. Program Manager Air (PMA) will examine the value of warranties on major systems and pursue such warranties when appropriate and cost-effective. When appropriate, the PMA will incorporate warranty requirements into major systems contracts per FAR 46.7.

d. If a warranty is cost effective and approved by the chief of the contracting office, the contract must contain warranties covering design and manufacturing requirements, defects in materials and workmanship, and essential performance requirements.

e. The warranty contract will include a requirement to identify the warranty administration process.

6.1.4.4.2 Identifying warrantied items

Aircraft and engine warranties cover the basic aircraft or engine, and the contractor furnished equipment (CFE). Warranty markings and information are documented in the Miscellaneous/History section of the aircraft logbook or engine AESR. AVDLR components under warranty are identified with the warranty information marked on the component, as well as on associated records. For components that are tracked in NTCSS Optimized NALCOMIS, the CM ALS will perform this function. Government Furnished Equipment (GFE) will have a

distinct and separate warranty and will have the warranty information marked on the equipment and on any associated record cards or CM ALS. GFE will usually have a Work Unit Code (WUC) of 51000 or higher.

6.1.4.4.3 Repairing warranted items

a. Warrantied items will be repaired at the maintenance level which would normally repair such items as determined by the logistics support analysis process if they were not under warranty.

b. AVDLR components under manufacturer's warranty will be processed for repair in the same manner as repair of AVDLR components no longer under manufacturer's warranty.

c. Prioritization of warranty item repair will be the same as non-warrantied items. Components under manufacturer's warranty will be processed as Expeditious Repair (EXREP) when the need arises in the same manner as failed components no longer under the manufacturer's warranty.

d. Repairs of warrantied items will be documented in the same manner as repairs to non-warrantied items, with only minor changes to Maintenance Action Form (MAF)/Work Order (WO) documentation procedures. For example, normal repair of warranted items will be documented using special indicators to identify repair of a warranted item was accomplished. Chapters 15 (O-level) and 16 (I-level) provide direction on documenting warranty repairs.

e. Product Quality Deficiency Reports (PQDR) will be processed for warrantied items per the procedures of 10.9.

f. Determination of any monetary or material re-imbursement to the Navy as the result of contractual liaison between NAVAIR, NAVSUP WSS and other involved Navy Field Activities and the equipment manufacturer are based on the Material Data Sheet (MDS)/3M data compiled by NAVAIR. Determination is made after repairs have been completed. Payback to the Navy will be per contractual procedures specified by COMFRC FST HQ Technical Data Department or NAVSUP WSS. Such determination will be based on MDS data supplied by COMFRC FST Technical Data Department and will be made after the fact, for example, after fleet maintenance personnel have made repairs.

6.1.4.5 Consolidated Remain In Place List (CRIPL)

The NAVSUP WSS CRIPL provides for instances where removal of a failed aircraft component is not feasible or advisable prior to receipt of the replacement component; therefore, qualifies as a RIP item. The NAVSUP WSS CRIPL designation is based on ACC input with concurrence from COMNAVAIRSYSCOM. The responsibilities and procedures for establishing, maintaining, and modifying the NAVSUP WSS CRIPL designation are in NAVSUPINST 4440.182 and OPNAVINST 4440.25.

6.1.4.6 Technical Directive (TD) Materials

6.1.4.6.1 General information

a. The TD system is the authorized means for directing accomplishment and documentation of modification or one-time inspections of naval aviation aircraft and equipment. COMFRC FST HQ Technical Data Department is responsible for the allocation, shipment, distribution, issue, inventory accounting, and disposal of TD parts kits. These controls are applicable to all modification kits procured by or for COMNAVAIRSYSCOM, including kits manufactured or procured by field activities and those procured by NAVSUP WSS.

b. Materials for TD modifications are issued and accounted for based on the requirements stated in the TD. TD kits and related government furnished equipment (GFE) are budgeted for and issued as COMNAVAIRSYSCOM owned material for one-time installation in the specified equipment during fleet maintenance overhaul, repair, or modification programs.

c. TD kits are issued for one-time installation and are not considered items of supply or within the scope of the national stock number processes of the National Cataloging Program. Instead, the kits are carried under a 6V cognizance (COG) code and are assigned a Kit Identification Number (KIN) for the purposes of identification, requisitioning, and reporting. Centralized records and stock balances are maintained by NAWC AD Operating Material and Supplies Branch at the NAVSUP WSS on their Master Data Files through daily receipt and processing of Transaction Item Reports received from the designated stock points.

d. TD kits are not considered items of supply. Kit Identification Numbers (KIN), in lieu of NSNs, are assigned to TD kits and GFE by COMNAVAIRSYSCOM for the purposes of identification, requisitioning, and reporting. TD kits are normally at wholesale stock points, but may be positioned at any TIR activity to support local modification requirements with ACC approval.

e. Selected KINs are designated as controlled items and are identified with Material Condition Code (MCC) Z. The other KINs are designated non-controlled and are identified with MCC M. Applicable requisition procedures are determined by MCC.

6.1.4.6.2 TD Kit Management

a. The COMNAVAIRSYSCOM Aircraft Program Manager for Logistics (APML) has overall responsibility for management and implementation of TDs. The APML determines logistic support requirements for the TD and the APML Acquisition Manager determines total kit quantity requirements. When the incorporation of a TD is planned over a period of time, consideration will be given to multi-year procurement or manufacture of kits. Responsibilities:

(1) The APML will task kit manufacturers to submit TD Kit Shipment Reports (NAVAIR 13053/1) for each TD. The cognizant contract administration service office or the assigned FRC manufacturing the kits will distribute TD Kit Shipment Reports. The first issue of the TD Kit

Shipment Report will indicate the production schedule for the kit. Kit manufacturers must provide the TD Kit Shipment Report (NAVAIR 13053/1) per the systematic, uniform, and comprehensive reporting system directed in DID-MGMT-80771A.

(2) NAWC AC Operating Material and Supplies Branch is responsible for inventory management of TD kits and for the control of TD kit allocation, distribution, and redistribution. Kits will be scheduled for delivery at a rate which will support the incorporation schedule specified in the compliance paragraph of the TD and the production delivery schedule of the modified article. Upon receipt of the first TD Kit Shipment Report and prior to the first shipment of kits, the Kit Manager will develop a distribution and allocation schedule based on kit requests and advise the appropriate contract administration service office or FRC. This allocation is designed to support all requirements for basic equipment, spares, SE, and training devices. When designating TD kit Wholesale Stock Points (WSP), direct shipments will be considered for those TDs where depot field teams or contractor modification teams are to be employed, where installed equipment at fixed facilities will be modified, or where small numbers of modifications such as developmental or limited production are involved.

(3) The Kit Manager is responsible for the distribution of kits between WSPs in a manner that will provide the best support for operating units, rework schedules, and special modification programs. Direct distribution to operating units other than designated WSP is authorized when directed by the Kit Manager based on the trade-off between economic advantages, possible dilution of management control, and operational expediency. The Kit Manager may direct redistribution of kits when advised by a WSP of a requirement for kits that are not available locally or forthcoming from future deliveries under the basic allocation. The Kit Manager will direct reallocating kits from WSPs. If the requirement cannot be supported by reallocation, the Kit Manager will determine the additional quantities of kits required and submit the requirement to COMFRC Operating Material and Supplies Branch for action.

(4) When a TD reaches its Target Completion Date (TCD), the Kit Manager will coordinate with COMFRC Operating Material and Supplies Branch to determine if the modification has been incorporated in all applicable aircraft, components, and equipment and that all required logistics support actions have been accomplished.

b. TD kits will contain all material required to accomplish the modification in one affected article (or part of the modification if the TD is being issued in parts) so that a minimum of requisitioning or local fabrication is required except as authorized by COMNAVAIRSYSCOM. Conditions:

(1) Each kit will contain one copy of the kit’s parts listing. A copy of the TD may be included but is not mandatory.

(2) Classified, hazardous, or shelf life materials requiring special handling will not be part of a kit. These materials will be identified in the TD as "Other Materials Required." This

requirement is not mandatory for those quantities of kits which will be retained by the kit manufacturer for installation during established modification programs.

(3) TD kits will, to the extent that is practical, not contain shelf life items or explosive, flammable, or other hazardous material which require extraordinary packaging and handling techniques. Local stock items or items to be fabricated from local stock material may also be excluded when specifically authorized by COMNAVAIRSYSCOM. Other items may be excluded from kits when authorized by COMNAVAIRSYSCOM for reasons of cost or impracticability.

c. Wholesale Stock Point are responsible for the receipt, storage, issue, and accounting functions for kits. Kits may be stocked at any Supply point that submits transaction item reports to NAVSUP WSS as arranged by COMFRC Operating Material and Supplies Branch.

d. ACCs will use TD Kit Shipment Report data to control the distribution of TD kits; schedule the modification of aircraft, aeronautical weapons, weapon systems, spare components, and related equipment; and for phasing provisioning actions to support the modified configuration.

6.1.4.6.3 TD Kit Requisitioning Procedures

a. Upon receipt of a TD that requires a kit, the activity that will incorporate the TD will submit a requisition to the supporting Supply point per the TD requisition instructions. Special requisitioning procedures have been established with the local Supply point to issue controlled kits by furnishing exception data. COMFRC Operating Material and Supplies Branch will accept MILSTRIP requisitions for kits sent directly to the kit manager via e-mail, letter, message, or facsimile.

b. To preclude kit deficits, requisitioning activities must review requirements prior to submitting requisitions to ensure:

(1) The modification is applicable to the aircraft, component, or equipment for which the kit is being requisitioned.

(2) The using activity has the level of capability required to incorporate the kit consistent with the compliance requirements specified by the applicable TD.

(3) The kit requested has not been requisitioned previously and received for the affected aircraft, component, or equipment.

(4) The kit has not been previously reported as incorporated.

NOTE: A request for a replacement kit will be forwarded to the respective PMA if a kit has been previously reported as incorporated, but the affected item does not have the TD.

c. TD kits required by commercial rework contractors are normally positioned in a Government Furnished Equipment (GFE) bond room at the contractor's site. When kits are not available to support commercial rework programs, the cognizant Contract Administration Services Office must submit a MILSTRIP requisition to COMFRC Operating Material and Supplies Branch.

6.1.5 Training

6.1.5.1 In-service training on supply management is accomplished via on-the-job training (OJT) and Joint Aviation Supply and Maintenance Material Management (JASMMM) CNATTU formal classroom training. JASSMM is a 2-week course of instruction taught at the Navy Supply Corps School, Newport, Rhode Island with the goal of developing and reinforcing the aviation support related supervisory, technical, and management skills. This course may be attended by Navy, Marine Corps, and civilian personnel, active duty and reserve officer (W1 and above) and enlisted (E6 to E9), Supply, Maintenance, and Engineering personnel, and aviation squadron prospective COs and Executive Officers (XO).

6.1.5.2 Officers and enlisted personnel assigned to an Aviation Support Department/Division (ASD) ashore, S-6 Division afloat, directly responsible for supervising Component Control Section or Repairables Management Division (RMD) must attend the IMA Component Control Section (CCS) Procedures course (C-555-0042).

6.2 Material Allowancing

6.2.1 Concept

6.2.1.1 Efficient maintenance requires an adequate range and depth of material and equipment on hand at the maintenance site. Provisioning is the process of determining the range and quantity of items, such as spares and repair parts, special tools, test equipment, and SE required to support and maintain an end item of material for an initial period of service. Provisioning includes the identification of items of supply, establishment of data for cataloging, technical manual and allowance table preparation, and preparation of instructions to ensure delivery of necessary support items with related end articles. A basic input to the provisioning process is the maintenance plan, which identifies the repairable items and delineates their levels of removal and repair.

6.2.1.2 One of the significant considerations in determining the size of the overall inventory and the allowancing at individual supply sites for a given repairable component is the length of time from when a failed component is removed from use until it is restored to serviceable condition and made available for use again. The average of this period or interval is defined as turn around time (TAT). The objective is to keep this TAT as short as practicable. The factors influencing this objective are:

a. The impact on readiness of not being responsive to the needs of the operating forces, since spares are procured only in quantities sufficient to support requirements or fill the pipeline during TAT. Pipeline and repair cycle requirements are part of the total spares requirements for procurement.

b. Inventory investment costs for spares which increase to compensate for long TAT.

c. Additional maintenance costs to support the increased number of spares.

6.2.2 Operational Support Inventory (OSI)

6.2.2.1 Concept

Aviation systems are supported under the Operational Support Inventory (OSI) concept. NAVSUP WSS retail operation division in collaboration with the cognizant ACC establishes fixed allowances for DLR and 1RD Field Level Repairable (FLR) items authorized for stock at each operating site, and are considered part of the site's OSI. Entities may not exceed NAVSUP WSS fixed allowances without prior approval. Fixed allowances are based on factors such as TAT, failure rate, repair capability, mission essentiality, weapons system planning document (WSPD), flying hours, and other data necessary to ensure operational commitments will be met. Consumable items are also listed in the SHORCAL or AVCAL and include material controlled by NAVSUP WSS, DLA, GSA, and other service managers. NAVSUP WSS controlled material allowances are adjusted quarterly by NAVSUP WSS for TIR activities. NAVSUPWSSINST 4441.15 and NAVSUPWSSINST 4441.16 provide direction on establishing ship (AVCAL) and shore (SHORCAL) material allowances.

6.2.2.2 Establishing OSI

OSI fixed allowances are established through negotiations between operating sites, the ACC, and NAVSUPWSS. Conditions:

a. Current 3M data is used in computing the fixed allowance. TAT and monthly usage determine repairable item fixed allowances. Repairable managers will monitor TAT performance and liaison with IMAs when excessive TAT begins to impact availability. When computing allowance requirements, each TAT element will be computed using following timeframes:

(1) Removal to IMA - 1 day.

(2) Scheduling time - 3 days.

(3) AWP time - 20 days.

(4) Actual repair time - 8 days.

NOTE: Total average TAT will be limited to a maximum of 20 days for each NIIN in each case. Constraints will be applied to each element before totaling.

b. The computed fixed allowance will be provided to each ACC and operating site in a SHORCAL or AVCAL.

c. Between periodic revisions of the allowance authorization document, changes to the fixed allowance may be requested by the item manager, ACC, or operating site. Submit fixed allowance changes to the inventory control point (ICP) using an allowance change request per NAVSUPWSSINST 4441.15 and NAVSUP Pub 488.

d. Activity operational support inventory (OSI) or fixed allowance repairables are subject to NAVSUP WSS redistribution (with concurrence from the TYCOM) only to fill an issue Priority Designator 1, Priority Group 1, NMCS, or PMCS requisition. Otherwise, OSI or fixed allowance repairables are protected from NAVSUP WSS redistribution.

e. Repairable allowance computations after initial outfitting, or under OSI or fixed allowance procedures, are based on activity reported data. This database used for allowance computation will be for the last 12 months except for a new system or aircraft supported less than 1 year. New systems and aircraft will be supported from the available database or Allowance Requirements Register (ARR).

f. The OSI or fixed allowance quantity of any repairable item must be determined by taking the total repairs during the historical time frame used, plus associated TAT constraints as applicable, following item manager directives and cross-indexing to the allowance quantity. Compute a BCM level based on the previous 12-month BCM history. For new equipment, the base may be reduced to a minimum 3-month history. The authorized BCM level is the average number of BCMs occurring during a 30-day period for continental United States activities, a 60-day period for overseas shore activities, and a 90-day period for ships and MAGs. The average monthly BCMs registered for the repairable will be summed with the RFI items average TAT allowance to obtain total OSI or fixed allowance. If the sum exceeds the existing fixed allowance quantity, submit an Allowance Change Request - Fixed via the NAVSUP Allowance Change Request website https://www.navsup.navy.mil/public/navsup/gateways/ (Refer to NAVSUP P-485 para 2105 for in depth ACR procedure) for the deficiency.

g. The total OSI or fixed allowance quantity will be carried on the Supply Officer's records in Purpose Code W or L. All or any part of this quantity may be located in the LRCA storage unit. Addition or deletion of assets from the LRCA storage unit, within the range of the site fixed allowance, is TYCOM criteria.

h. The fixed allowance is regarded as the maximum level to be maintained.

(1) All assets of each item or family, regardless of condition, location, or status (except assets installed in aircraft and SE and those BCM off station) are counted towards the fixed allowance. This includes assets in DIFM, on an exchange basis with the exception of in-use assets, which are undergoing EXREP, assets sub-custody to an aviation unit, and those due in from the Supply System or contract.

(2) Strict one-for-one exchange discipline between the O-level, I-level, and Supply Department must be maintained.

(3) No off-station requisitioning will occur prior to BCM action, excluding the CRIPL and anticipated NMCS items.

(4) All OSI assets are carried in Purpose Codes W and L on the Supply Officer's records. Non-TIR activities will not hold any repairables in excess of TIRs. TIRs are routinely submitted to the Afloat/MALS Logistics Liaison Office (AMLLO).

(5) Storage of fixed allowance assets is authorized at any location within an operating site, while meeting the requirement in NAVSUP P-485 and approved by TYCOM N41.

6.2.2.3 Initial OSI Outfitting

Initial allowance for a newly established Navy or Marine Corps aviation unit is issued by an outfitting directive from the ACC. The ACC will also issue outfitting directives for units making a change of permanent duty station or as a result of a change in T/M/S or numbers of aircraft or equipment. OPNAVINST 4441.12 governs aeronautical material outfitting and supply support of the operating forces. Initially, and every 2 years thereafter, NAVSUP WSS provides air station Supply departments with preliminary allowance documents. After the air stations review the documents, an allowance negotiation conference is held at NAVSUP WSS to finalize the activity's OSI allowances. Air stations will establish their allowance quantity on the stock record and provide initial issue requisitions (Advice Code 5D) directly to NAVSUP WSS for any increase to the allowance or new items to be carried as a result of the SHORCAL review. These initial issue requisitions will have a fund code of QZ for 7 series COG or Y6 for 0 series COG APA DLRs. NAVSUP WSS will validate these Advice Code 5D 7 series COG requisitions against the aviation retail management file and reject those that exceed the established allowance increase.

6.2.2.4 AVCAL Reviews

As a minimum, ship AVCALs will be reviewed and revised incident to major ship overhauls and prior to each carrier deployment. Marine Air Group (MAG) AVCALs will be reviewed and revised periodically as determined by COMNAVAIRFOR, COMMARFORCOM, and COMMARFORPAC, but not more than every 36 months. After the fleet unit review, an AVCAL Quality Review Conference is held at NAVSUP WSS to negotiate the activity's OSI allowances. NAVSUP WSS will provide revised AVCAL allowances to the site via electronic text file for afloat units and update Navy ERP for ashore units no later than 270 days prior to deployment for CVNs. The site will then load the new allowances to their stock records, and submit initial issue requisitions (Advice Code 5D) directly to NAVSUP WSS for any increase to allowance or new items to be carried as a result of AVCAL review. These initial issue requisitions will have a fund code of QZ for 7 series COG or Y6 for 0 series COG APA DLRs.

NAVSUP WSS will validate these Advice Code 5D 7 series COG requisitions against the aviation retail management file and reject those that exceed the established allowance increase.

6.2.3 Inventory Accounting

The Force Inventory Management Analysis Reporting System (FIMARS) shows visibility of all fixed allowance repairables at a site. All OSI fix allowance assets are carried in Purpose Code W or L on the Supply Officer's records.

6.2.4 Inventory Funding

6.2.4.1 At Navy and Marine Corps shore activities, Shore Consolidated Allowance List (SHORCAL) consumer level retail W and L Purpose Code, 7 series and 0 series COG inventories are under end-use NWCF funding (Stores Account 51000). MAGs, CVNs, and LHAs have transitioned in conjunction with RSupply implementation to this process. Only those assets within authorized allowances (SHORCAL, AVCAL, or packups) were decapitalized.

6.2.4.2 At Depot FRCs, consumable material and supplies required for operation are procured with Navy Working Capital Fund (NWCF) money and accounted for as NWCF inventory assets until issued to a customer job order or an expense account. Conditions:

a. The NWCF retail store inventory consumable items are stocked and repetitively ordered on the basis of historical usage.

b. Direct material inventory items are those ordered for a specific customer job order and in the quantities required for scheduled work based on a bill of material. Direct material inventory items include both consumable and APA type material.

c. AVDLRs and APA material are not authorized to be stocked in the NWCF retail store inventories. When required for a specific job, AVDLR material is requisitioned from the local DSP under the dual accounting system stated above.

6.3 Material Reporting

6.3.1 Concept

Material reporting is a procedure where all supply action documents in support of maintenance are entered and merged with the Material Reporting history file maintained by COMNAVAIRSYSCOM Enterprise Services Division. Material Reporting information is collected via the reporting command's end of the month, and is summarized and reported to higher levels of management by COMNAVAIRSYSCOM Enterprise Services Division. Material usage data allows management to:

a. Relate material issues and turn-ins to weapon systems and components by activity and maintenance level.

b. Appraise higher commands of material expenditures in support of maintenance.

c. Determine weapon systems costs at the O-level and I-levels of maintenance.

d. Determine usage, failure, and turnaround time (TAT) rates for OSI or fixed allowance development and allowance change requests.

6.3.2 Local Material Reports

Local Material Reports (MR-1-1 and MR-1-2) are provided for repairables management and fixed allowance determination under OSI procedures. These reports merge supply and maintenance data elements to determine usage and TAT of repairables. The MR-1-1 and MR-1-2 are identical reports except for the sequence in which they are produced and the totals. Each report has two parts: Part I is a detailed list and Part II is a summarization of the detailed list. Data for the current 6 months is used for production of these reports. The requesting activity can select the report period desired. The requested report must be within the current 6 months and specify increments of monthly accounting periods. The requesting activity may select either Part I or Part II independently or both. Part I detail lines will represent a single material issue (RECTYP 60) (DD 1348) which has a corresponding (JCN match) 31/32 MAF transaction/(63) component turn-in card MAF. If a material issue resides in the database without a matching 31/32 MAF transaction or RECTYP 63 transaction, it will not be printed until it has remained in the database for 6 months. A 31/32 MAF RECTYP 63 transaction residing in the database without a matching material issue will never be printed. The TAT printed in the repair cycle data section of these reports contain the constraints as described in NAVSUPWSSINST 4441.15, and NAVSUPWSSINST 4441.16. Actual results are printed for each repair cycle data element but the constrained results will be accumulated within the computer and applied to the TAT. Data sources for these reports will be material issue documents (RECTYP 60) which have Material Condition Codes (MCCs) of D, E, G, H, Q, or X, and a COG of 1R, 4Z, 6K, 6R, 7E, 7G, 7R, 7Z, or with a blank MCC and COGs of 9F, 9I, 9J, or 9V. These RECTYP 60 records are matched to the corresponding MAF, with Transaction Code of 31/32/RECTYP 63 transaction.

6.3.3 Expense Item Management Reports

Expense item management reports (MR-2-1, MR-2-2, and MR-2-3) are provided for reviewing consumable (expense) item maintenance usage, thus permitting set stock levels of these items under OSI procedures. The reports display frequency and demand data on all maintenance and related expense items. The three reports are the same except for sequence differences. Data source will be RECTYP 60, RECTYP 64, RECTYP 65, and RECTYP 67. Only those records where the first position of the COG code is 0, 1, 3, 5, or 9 (except 1R when MCC=D), will qualify for these reports. Data up to the current 6 months is used when producing these reports. The SUPORG code is the basis of organization selection. The requesting activity can select the report period desired. The requested report must be within the current 6 months and must be specified in increments of monthly accounting periods.

6.3.4 Material Surveys

Material surveys are required when Navy property and Defense Logistics Agency (DLA) material, including IMRL equipment/SE, in Navy custody is lost, damaged, or destroyed. The Financial Liability Investigation of Property Loss (DD 200) will be used in connection with survey procedures. Detailed procedures for proper accountability for government property lost, damaged, or destroyed are contained in NAVSUP Publication 1, Vol II, and NAVSUP Publication 485. Optimized OMA (OOMA) NALCOMIS activities with NAVAIR funded items, including IMRL equipment/SE that is lost, damaged, or destroyed, must send a copy of approved survey to COMFRC FST HQ Technical Data Department. The surveying activity must annotate in the CM ALS that the component is missing, stricken, or surveyed, change the CM indicator to BCM, and make remarks in the miscellaneous record of the CM ALS.

6.3.5 General Equipment (GE)

6.3.5.1 GE is tangible personal property that is functionally complete for its intended purpose, durable, and nonexpendable. GE typically has an expected service life of 2 years or more; is not intended for sale; does not ordinarily lose its identity or become a component part of another article when put into use; and has been acquired or constructed with the intention of being used.

6.3.5.2 Personal property is all property (systems and equipment, materials, and supplies) except real property (land and improvements to facilities), and records of the Federal Government. Personal Property includes (but is not limited to); Military Platforms (e.g. Ships Aircraft, and Tanks), Weapons (including small arms and light weapons), Weapon Systems, support equipment, office equipment, industrial plant equipment, vehicles, material handling equipment, automated data processing equipment or property acquired through capital or operating leases.

6.3.5.3 GE having a security code identifying the GE as controlled, classified or sensitive, must be recorded in Defense Property Accounting System (DPAS).

6.3.5.4 All GE purchased, or otherwise obtained, that has a unit acquisition cost less than the capitalization threshold identified in SECNAV M-5200.45, must be recorded in DPAS.

6.4 Financial Management

6.4.1. Introduction

Management at the DOD level requires the measurement of performance against plans for given programs and functions. Therefore, resources (funds) are identified, budgeted, and accounted for in terms of Six Year Defense Plan and budget activities.

6.4.2 Budgeting

Operating resources identified by subhead are allocated by CNO to the major claimants, for example, the Commander U.S. Fleet Forces Command. The Commander U.S. Fleet Forces

Command issues the expense limitations, by subhead, to themselves for fleet level functions and to ACCs/TYCOMs. Each ACC/TYCOM issues an operating budget to each assigned unit to finance the operations, maintenance, administrative, and TAD travel requirements, and issues an operating budget to fund the operations, administration and TAD requirements of their own staff. Type and fleet commanders also issue operating budgets to themselves as responsibility centers for centrally managed programs, such as ship overhaul, the expenses of their own staffs, and expenses of their ships, squadrons, and units.

6.4.3 Aviation Material Costs

6.4.3.1 Material Cost

Aviation material costs are costs resulting from maintenance performed on, or in support of aircraft. Aviation material costs are reported against the aircraft units which used the service. ACCs are responsible for apportioning aviation material costs. O-level, I-level, and D-level costs are reported separately.

6.4.3.2 Aviation Depot Level Repairables (AVDLR)

Aviation material costs include costs for repair or replacement Aviation Depot Level Repairables (AVDLR), cost of materials purchased with Flight Operations Funds (OFC-01), and costs of material purchased with Aviation Fleet Maintenance (AFM) funds.

a. Consumable material is material which after issue from stock, is consumed in use, or while having continued life, becomes incorporated in other property thus losing its identity when it is dropped from property accountability. Consumable items under the centralized management of the DLA or the GSA are procured with Navy stock funds and carried in the Navy stock account.

b. Aviation Depot Level Repairables (AVDLR) are financed by the Navy Working Capital Fund (NWCF). Under the NWCF process, the end user finances the D-level repair and procurement of 7R COG repairables through the local replenishment of these repairables determined to be non-ready for use (NRFU) and Beyond Capability of Maintenance (BCM) at the I-level, and repairables that are lost or missing. Squadrons and Intermediate Maintenance Activities (IMA) initiate requisitions for AVDLRs, and the T/M/S aircraft maintenance plan dictates through Source, Maintenance and Recoverability (SM&R) codes whether repairable materials can be repaired at the I-level or must be sent direct to the Depot Repair Point (DRP). AVDLRs repaired at the I-level result in a charge for the actual material costs of the repair. AVDLRs that are BCM at the I-level result in a set NWCF charge. AVDLRs that are missing or loss result in a NWCF for full replacement. The Intermediate Maintenance Cost is the gross adjusted obligations used by the IMA to perform I-level maintenance. Additional information on AVDLR charges:

(1) The net price is charged for the RFI replacement of a NRFI asset that is BCM and returned to the wholesale supply system. The net price is less than the standard price and is based on depot repair cost vice new procurement cost.

(2) The standard price is charged for issues when the requisitioning activity does not make a turn-in. The standard price is based on procurement cost for replacement of the asset and is usually significantly greater than the net price, encouraging prompt turn-in of the NRFI component.

(3) Turn-in and repair of a NRFI carcass ~~a~~t the I-level is a closed loop process, with all actions accomplished within the IMA and supporting supply activity. When a NRFI component cannot be repaired locally and must be turned in for repair at a D-level repair facility CTRs serve as the basis to monitor user turn-in of exchange carcasses. Transactions recorded on CTRs determine whether the ICP will generate follow-up actions or additional billing to user activities for outstanding carcass turn-ins. When a CTR is not closed out within a specified timeframe, the ICP initiates a carcass tracking action to request status from the delinquent turn-in from the activity. Afloat and ashore user activities handling NWCF NRFI condition material are responsible for posting proof of shipment and other carcass tracking functions via electronic retrograde management system (eRMS) program. Activities must generate carcass tracking reports available to review and reconcile any pending carcass charges, investigations and actual bills. Perform continuous monitoring and tracking on regular basis to avoid additional carcass billing and assure outcome to close tracking record.

NOTE: Complete procedures for DLR requisitioning, turn-in, and carcass tracking are in NAVSUP Publication 485 and COMNAVAIRFORINST 4440.2.

c. Flight Operations Funds (OFC-01) will be used for:

(1) Aviation fuels consumed in flight operations.

(2) Initial and replacement issues of authorized items of flight clothing and flight operational equipment for pilots and flight crews.

(3) Consumable office supplies for aviation squadrons.

(4) Aerial film, recording tape, and chart paper consumed in flight.

(5) Flight deck shoes and safety shoes used by squadron personnel directly involved in the readiness, launch, and recovery of aircraft.

(6) Liquid and gaseous oxygen consumed during flight by the aircrew.

(7) Nitrogen used in aircraft and weapon systems.

(8) COG 1I forms when not directly used in support of maintenance.

(9) Consumable ASW operations center supplies when consumed in flight.

(10) Publications (other than those of a recreational nature) used to impart technical and professional knowledge to officers and enlisted personnel of the command.

(11) Plaques for CO and XO offices only.

(12) Special identification clothing, for example, flight deck jerseys and helmets, used by squadron personnel in the readiness, launch, and recovery of aircraft.

d. Aviation Operation Maintenance (AOM) will be used for:

(1) Paints, wiping rags, towel service, cleaning agent, and cutting compounds used in preventive maintenance and corrosion control of aircraft.

(2) Consumable repair parts, miscellaneous material, and Navy stock account parts used in direct maintenance of aircraft, including repair and replacement of FLRs, AVDLRs, and related SE.

(3) Pre-expended, consumable maintenance material meeting requirements of NAVSUP Publication 485 used in maintenance of aircraft, aviation components, or SE.

(4) Aviation fuel used at I-level in test and check of aircraft engines during engine buildup, change, or during maintenance. Oils, lubricants, and fuel additives used at both O-level and I-level.

(5) Allowance list items used strictly for maintenance, such as impermeable aprons, explosive handler coveralls, industrial face shields, gas welders gloves, industrial goggles, and nonprescription safety glasses.

(6) Fuels used in related SE (shipboard only).

(7) Replacement of components used in test bench repair.

(8) Maintenance or equipment replacement of aircraft loose equipment listed in the AIR.

(9) Consumable hand tools and IMRL items used in the readiness and maintenance of aircraft, maintenance and repair of components, and related equipment.

(10) Safety and flight deck shoes used in maintenance shops.

(11) Repair and maintenance of flight clothing and pilots and crew equipment.

(12) Authorized decals used on aircraft.

(13) Items consumed in interim packaging and preservation of aviation fleet maintenance repairables.

(14) Items, such as MAFs, MAF bags, equipment condition tags, and COG 1 forms, and publications, used in support of direct maintenance of aviation components or aircraft.

(15) Authorized special purpose clothing for unusually dirty work while performing maintenance of aircraft.

(16) Civilian labor only when used in direct support of AFM (requires ACC approval prior to use).

(17) Costs incurred for repair of IMRL items.

(18) Replacement of general purpose electronic test equipment allowance items which are missing or unserviceable (COG Z).

(19) Oils, lubricants, and fuel additives consumed during flight operations.

(20) Navy stock account repairable material (non-AVDLR) used in direct maintenance of aircraft component repair, or related SE.

(21) Requisitioning low cost consumable materials required for TD installation, for example, HAZMAT, not to exceed one hundred dollars per TD installation. COMNAVAIRSYSCOM is responsible for funding all materials valued at one hundred dollars or more per TD installation.

(22) IMRL and Table of Basic Allowance (TBA) item replenishment or replacement.

e. AFM funds will not be used for:

(1) Housekeeping, office supplies, or habitability items.

(2) Services, such as printing and office equipment maintenance.

(3) General station collateral equipment, including labor-saving devices (Section C allowance list items).

(4) Packing, crating, and preservation for storage or shipment.

(5) Data processing equipment and supplies.

(6) Operating costs of vehicular and mobile equipment other than shipboard SE.

(7) Non-aviation miscellaneous equipment, even though repair may be performed in the ship's AIMD, for example, MG-5, automotive vehicles, crash cranes, deck scrubbers, and fork lifts.

(8) Maintenance of SE by Public Works Departments or Centers.

(9) Initial outfitting of IMRL and TBA items. OFC-01/09 funds with Fund Code 8X will be used to fund IMRL and TBA initial outfitting.

(10) Labor, unless specifically authorized.

6.4.3.3 Depot Level Local Procurement (Open Purchase)

a. Navy stock fund allotments are granted by NAVSUP WSS for the specific purpose of permitting local procurement for emergency requirements and limited stocks of centrally managed 1R cognizance material to satisfy priority 1 through 8 or NMCS and PMCS requirements.

b. ICPs have approval authority for the local purchase of centralized items (items for which the cognizant inventory manager has prescribed central procurement and management) from commercial sources in a quantity sufficient to satisfy emergency requirements and sustain normal operations during the period of an emergency without the need for repetitive procurements, providing all the following conditions exist:

(1) The items or a suitable substitute cannot be obtained from normal Supply sources in time to satisfy the emergency requirement.

(2) The purchase will not exceed purchase authority limitations established by field purchasing or other governing procurement regulations.

(3) Adequate quality control standards and test requirements can be applied locally for items involving health, safety, or operational effectiveness.

c. Stock points are not authorized to purchase centralized items locally without the specific approval of the cognizant inventory manager except under the conditions stated in paragraph 6.4.3.3.a. When required material is not available in the Supply System, stock points may request local purchase authority from the cognizant inventory manager.

d. Part numbered item requirements may be satisfied by local manufacture, fabrication, assembly, or procurement.

e. When the Navy Working Capital Fund (NWCF) is used to finance local procurement, ASN (FM&C) instructions on obligations for material to be delivered from stock fund inventories and policy for financing expense type material must be followed.

(1) Local procurement of 1R COG material for COMNAVAIRSYSCOM Sustainment Group, Mission Systems Group commercial rework contracts will be made against the NWCF allotment and reimbursed at the time of issue with COMNAVAIRSYSCOM furnished funds. On stock numbered material which is obtained through manufacturing or open purchase, the demand on the Supply System must be recorded.

(2) Depot FRC requirements for local purchase of 1R cog items will be submitted to the local supply organization. All such requirements will be financed by the NWCF (BP34) allotment granted by NAVSUP WSS to the supply organization with subsequent sales to the Navy Industrial Fund (NWCF). Requirements for local purchase of nonstandard or non-part numbered items will be financed by direct citation of the NWCF.

6.4.4 Financial Accounting

6.4.4.1 Responsibility

Auditable records will be maintained by all activities with an operating budget, referred to as an Operating Target (OPTAR). Records will show the transaction costs incurred and the available balance of the operating budget, including such values for each OPTAR granted. Each ship, aviation squadron, or command issued an OPTAR is responsible for the efficient and effective use, including accurate and timely accounting and reporting per procedures outlined here. Prompt action will be taken to research and validate transactions reported by the Defense Finance and Accounting Service (DFAS) operating location, Pacific or Atlantic, relative to the status of each OPTAR held by the command.

6.4.4.2 Financial Records, Logs, and Files

a. Each ship, aviation squadron, and command will establish a Requisition/OPTAR Log (NAVCOMPT 2155) to record OPTAR grants and the value of transactions authorized to be incurred as chargeable to the ACC operating budget. A separate Requisition/OPTAR Log will be established for each OPTAR received. AVCAL holders will maintain an AVCAL Requisition/OPTAR Log (NAVCOMPT 2206) for the AVCAL account. When consolidated accounting is authorized, the command will establish a Requisition/OPTAR Log for each ship, aviation squadron, or unit concerned. The Requisition/OPTAR Log parallels and provides a check on the official accounting records maintained at applicable DFAS operating locations. OPTAR grants will be entered on the Requisition/OPTAR Log and reduced by the value of chargeable requisitions (unfilled orders). All chargeable requisitions and purchase orders must be recorded in the log. All non-chargeable, for example, appropriation purchases account requisitions will also be entered, but these documents have no effect on the OPTAR balance. Additionally, differences reported by the DFAS on the Summary Filled Order/Expenditure Difference Listing (SFOEDL) must be entered in the log and will increase or decrease the OPTAR balance. A mechanized Requisition/OPTAR Log with data files maintained per data processing procedures approved by the ACC (and ASN (FM&C) (if applicable)) will satisfy the requirements of the Requisition/OPTAR Log.

b. Personnel assigned responsibility for maintaining the Requisition/OPTAR Log must be E-4 and above and attend Financial Management for Naval Aviation Operation Target Accounting (OPTAR) course (Course C-555-0018) within 6 months of assuming this position.

NOTE: For Marine Corps activities, this is a combined function performed by the Operations Management Division.

c. Holding files will be established by fiscal year for each OPTAR received to hold the appropriate accounting documents and listings pending transmittal to applicable DFAS operating locations. Holding files contents are defined as follows:

File 1. Unfilled Order Chargeable Documents For Transmittal. This file contains the accounting copy DD 1348 green copy, DD 1348M, and DD 1149. Underway replenishment requisitions and all debit adjustment documents which increase the estimated cost chargeable based on an advance price change will be included. Requisitions for appropriate purchase account (APA) items or other non-chargeable material will not be placed in this file. All documents will be priced, extended, and entered in the estimated cost chargeable section of the Requisition/OPTAR Log for the period involved, with a corresponding decrease to the OPTAR balance.

File 2. Unfilled Order Cancellation Documents/Lists for Transmittal. This file contains lists of confirmed cancellations or copies of individual cancellation documents, advance downward price adjustments, and copies or lists of administrative cancellations of above threshold unfilled orders that decrease the estimated cost chargeable (credit adjustment). All documents will be priced, extended, and entered in the estimated cost chargeable section of the Requisition/OPTAR Log for the period involved, with a corresponding increase to the OPTAR balance.

6.4.4.3 Financial Transmittals and Reports

Commands will submit the following financial transmittals and reports:

a. OPTAR Document Transmittal Report (NAVCOMPT 2156). Unfilled orders, cancellation documents, processed listings (or detail cards) and other transactions documents which affect the status of the OPTAR will be transmitted to applicable DFAS operating locations on an accurate and timely basis to permit the up-to-date maintenance of the official accounting records of the ACC or other operating budget holders (Figure 6-1). On the 15th and last day of each month, the documents in holding files 1 and 2 for the current fiscal year, will be removed for transmittal with the OPTAR Document Transmittal Report (NAVCOMPT 2156) to the applicable DFAS operating locations. If no transactions have taken place since the last transmittal, a transmittal will not be made for such period or periods.

b. Budget and OPTAR Report (NAVCOMPT 2157). Except when the ship or unit is in the immediate vicinity of a DFAS operating locations or during periods of message minimize, a message report of Budget and OPTAR data will be submitted in lieu of the Budget and OPTAR Report (NAVCOMPT 2157). The message report will be submitted to applicable DFAS operating locations, with a copy to the ACC on the first work day of the month following the end of the month being reported. Current and prior year OPTAR reports and any other related information prescribed by the ACC will be included. The Requisition/OPTAR Log is the principle source of data required in the preparation of the Budget and OPTAR Report. Prior to the preparation of the Budget and OPTAR Report, the Requisition/OPTAR Log will be balanced.

c. DFAS Transaction Listings:

(1) Monthly, an N-SABRS Report is sent to each OPTAR Holder listing the itemized differences between unfilled orders submitted by the OPTAR Holder and expenditures submitted by the issuing activities.

(2) Overview. Monthly the TYCOM produces two listings for each activity, Obligation Validation Review (OVR) Difference Listing (DL) and Un-Matched Disbursements (UMD).

(a) OVR. This listing contains all unfilled orders (obligations) held in N-SABRS that have not matched with related expenditure documents and have not been cancelled. It also lists unfilled orders that are partially complete; some of the requisitioned material or service has been received and an expenditure processed, the outstanding quantity and partial dollar value will appear on the list.

NOTE: An OVR recoupment is identified as a UOL recoupment in R-Supply.

(b) DL. This listing contains DTO documents that have not cleared the matching cycle at DFAS Operating Locations (OPLOC). As part of the accounting process, TYCOM personnel match unfilled order documents transmitted by the OPTAR Holder with corresponding expenditure documents received from supply activities. The DL contains the results of the reconciliation performed by TYCOM personnel since distribution of the last DL to the activity (OPTAR Holder). These listings are forwarded to the OPTAR holder for review and processing. The activity must annotate action taken adjacent to each record. The system generated Challenge Response Page detailing each challenge will be forwarded to TYCOM.

(c) Unmatched Disbursements (UMD). This listing is produced monthly, typically before the DL or OVR, and provided to each OPTAR holder for appropriate action. The listing shows expenditures that do not have a matching obligating document in N-SABRS. Why UMD's occur vary, therefore each TYCOM provides guidance on frequency and appropriate corrective action.

(d) Obtaining Listings. The Financial Support Listings are produced on approximately the 25th of the month, they report transactions from the prior month (i.e., transactions processed in October will populate on the listing released in November). They are forwarded to the unit via TYCOM.

(3) Command Financial Management System (CFMS) Difference List. The CFMS (original and 1 copy) will be forwarded monthly by the DFAS to individual OPTAR holders for each OPTAR held. OPTAR holders will accept and post to the Requisition/OPTAR Log all differences shown on the CFMS Difference List. After posting the differences, the OPTAR holder will review the listing and annotate transactions considered invalid with the rejection codes. Rejection codes are listed in NAVSO P-3013-1. The valid rejections will be revised with a correction transaction by DFAS and will appear on a later CFMS Difference List.

6.5 Supply Department Organization

6.5.1 Standard Organization

6.5.1.1 The standard organization of ashore supply departments is displayed in Figure 6-2. The standard organization of afloat supply departments is displayed in Figure 6-3. The Supply Officer of a Navy shore Supply Department reports to the Type Wing Commander. At sites with multiple Type Wings, the Supply Officer reports to a designated Type Wing Commander, but serves all Type Wings on the site.

NOTE: Refer to Chapter 4 for Marine Aviation Logistics Squadron (MALS) organization.

6.5.1.2 ACCs and TYCOMs issue directives for TAD of logistics specialists. Supply Departments receive logistics specialist manning augments through TAD assignments from squadrons to compensate for the added workload per the squadron manning document's integrated support section. When Marine Corps squadrons deploy for short periods of time, the MAW or MALS MO and the AVNSUPO will negotiate the number of TAD personnel commensurate with expected operational requirements.

6.5.2 Aviation Support Division (ASD)

ASD is the mandatory point of entry for supply support for O-Level and I-Level maintenance activities. ASD organization is shown in Figure 6-4. ASD is composed of two sections: Supply Response Section (6.5.3) and Component Control Section (6.5.9). ASD is located adjacent to maintenance areas to improve maintenance and material support coordination. Physical location may vary according to local geographic or facilities layout. ASD, and all its functional elements, will be manned and operational consistent with the operating hours of supported maintenance organizations. If maintenance is being performed 24 hours a day, then Supply support is required 24 hours a day. Manning levels during other than normal working hours will be consistent with the support required and requisition processing standards. ASD functions include:

a. Receive requests for material.

b. Perform technical research and prepare requisitions.

c. Pick up and deliver material.

d. Measure Supply response time.

e. Account for all repairable assets.

f. Maintain special LRCA storage areas and publish listings.

g. Establish, maintain, and replenish PEBs and their listings.

h. Initiate inter-IMA repair and return service requests.

i. Maintain AWP storage areas, control requisitions and piece parts, and initiate follow-ups on outstanding requisitions.

j. Expedite high priority requisitions.

k. Be familiar with NALCOMIS and its application to supply management and automatic data processing.

l. Supervise the operation of the SRS and the CCS.

m. Provide the Supply Officer (afloat) or Type Wing Commander (ashore) with status on the quality of Supply support rendered.

n. Coordinate with the IMA and O-level activities to maintain the authorized level of TAD personnel.

o. Provide one Supply representative to participate in AIRSpeed CPI Work Center events.

p. Ensure ASD personnel complete job-appropriate CPI training within 6 months of assignment.

q. Be familiar with aviation 3M reports pertinent to O-level and I-level Maintenance and Supply Operations, Buffer Management Tool (BMT) functionality and reports (I-level), and the ad hoc capabilities of NTCSS NALCOMIS, and Optimized OMA or IMA.

r. Attend monthly Maintenance and Supply meetings.

s. Initiate all D-level customer service requests that are not initiated by the IMA. ASDs will initiate D-level customer service if:

(1) NMCS, PMCS, or work stoppage documents exist.

(2) The unserviceable exchange item requires D-level check and test.

(3) Available Supply System asset status indicates that a replacement is not now available. ASD will interrogate the ICP (if feasible) to determine system availability.

t. Process specific customer service requests initiated by customers or IMAs requiring support for repairables of intermediate and depot manufacture of parts (NAVAIRINST 4790.41), providing an NMCS, PMCS, or work stoppage requirement exist. At a minimum, ASD will:

(1) Prepare a funded Work Request Customer Service (Figure 10.46-3) citing the malfunction description entered on the MAF or the work requirements obtained from IMAs.

(2) Transship all repairables or material requiring customer service to and from applicable depots via traceable means.

(3) Maintain suspense and completed records on customer service transaction, record associated statistics, and usage data.

(4) Coordinate with Work Center 550 across all I-Level maintenance activities in the distribution of efforts to support supply deficiencies with local additive manufacturing capabilities.

NOTES: 1. The ASD Officer is responsible to the afloat Supply Officer or the ashore Type Wing Commander (with or without an attached Wing Supply Officer) for the performance of the Division. The ASD Officer acts as a direct link between the IMA Maintenance Officer and the Supply Officer (afloat) or Type Wing Commander (ashore).

2. COMNAVAIRFORINST 4440.2 and COMNAVAIRPAC/COMNAVAIRLANTINST 4415.1 provide detailed Force Supply instructions applicable to CNAF, CNAFR, and CNATRA Navy and Marine Corps activities.

3. D-level customer service will not be requested for repairables requiring extensive repairs or overhaul. However, if the item is not included in the Hi-burner and Application Operation B08 Scheduling Programs, COMNAVAIRSYSCOM Sustainment Group, Mission Systems Group will be requested to authorize customer service if a serious NMCS, PMCS, or work stoppage condition exists.

6.5.3 Supply Response Section (SRS)

SRS is a section of ASD, and serves as the point of contact for processing maintenance material requirements. SRS is divided into five units: Requisition Control Unit (RCU), Technical Research Unit (TRU), Material Delivery Unit (MDU), Program Management Unit (PMU), and Pre-Expended Bin (PEB) Unit. Primary SRS functions:

a. Process requirements.

b. Maintain a control file for all requirements.

c. Transmit requests to other on-station Supply processing points as required.

d. Deliver all parts and materials.

e. Review and monitor NALCOMIS mailbox messages.

f. Maintain all authorized station or ship aviation PEBs.

g. Expedite high priority requisitions.

h. Quality Assurance (QA) proof of delivery (PODs) DD 1348 with legible printed name, signature, date, time and circled quantity.

6.5.4 Requisition Control Unit (RCU)

RCU is a section of SRS and is the receipt point for material requisitions. Not carried (NC) and Not In Stock (NIS) requisitions are automatically referred to the supply system through electronic interface. All warehouse refusals will be processed and referred off station per TYCOM SOM. NALCOMIS is automatically updated with the referral status. Upon referral, the customer's NRFI material becomes owed to the Supply System.

6.5.4.1 Requisitions submitted to RCU must include:

a. Organizational code.

b. JCN (NOTE 1).

c. TEC.

d. Bureau or serial number (NOTE 2).

e. WUC (NOTES 1 and 3).

f. CAGE (NOTE 4).

g. Manufacturer's PN.

h. Quantity.

i. Document number.

j. Demand code.

k. Delivery point (NOTE 5).

l. Fund code (NOTE 2).

m. Project code (NOTE 6).

n. Priority.

o. Required delivery date (NOTE 2).

p. Advice code (NOTE 7).

q. IPB Reference, as applicable.

NOTES: 1. Requests for material in support of TD compliance (RECTYP 64) or initial issue (RECTYP 65) require ASD notification. The WUC may be omitted on RECTYP 64 issues. The JCN and WUC may be omitted on RECTYPs 65, 66, and 67 issues.

2. May be omitted if not applicable.

3. Requests for consumable material that does not have a unique WUC must indicate the WUC of the subsystem on which the consumable material is being installed.

4. When an aircraft engine is requisitioned this element must contain the engine TEC in lieu of the CAGE.

5. For intra-station use only.

6. Project codes are in NAVSUP Publication 485, App 6.

7. Mandatory for repairables.

6.5.4.2. Instances will occur when issued material is incorrect or defective, for example, the wrong material is received, the material was improperly marked, or the material is correct but determined to be defective (NRFI). When this occurs, RCU must:

a. If incorrect part is RFI:

(1) Return part to the shelf.

(2) Exchange with correct part, if available.

(3) If not available, use Customer Refusal function to update status to EXREP.

b. If incorrect part is NRFI:

(1) Exchange with correct RFI part, if available.

(2) If not available, use Customer Refusal function to update status to EXREP.

(3) CCS induct non-RFI material into the IMA to make RFI.

c. If correct part, but determined to be defective (NRFI) at time of installation:

(1) If part was RFI'd by I-level, squadron will return the part on a WO with When Discovered code "Y" (Upon Receipt or Withdrawal from Supply, found to be discrepant upon installation.)

(2) If the part was new or newly reworked material, the squadron or I-level will submit a Product Quality Deficiency Report (PQDR) per 10.9.3.9.

6.5.5 Technical Research Unit (TRU)

TRU is under the functional control of SRS, and is responsible for performing research on all requisitions that fail initial system validation, such as wrong NSN, PN, or CAGE, or excessive quantity, or high money value. Technical research requests are processed by TRU as follows:

a. Receive requisitions that are OFFTR or OFVAL.

b. Perform requisition research using publications, catalogs, stock lists, and manuals to verify data elements.

c. Update NALCOMIS using researched data.

d. Process requisitions using NALCOMIS.

e. Clear mailbox messages.

6.5.6 Material Delivery Unit (MDU)

MDU is under the functional control of SRS, and is responsible for the pickup and delivery of all material to supported activities. Deliveries should be planned, scheduled, and carried out to the maximum extent depending upon the number of drivers or vehicles available and the volume of material to be delivered. MDU must:

a. Receive DOD Single Line Item Release Receipt Document (DD 1348-1) for carried items from designated areas (LRCA, RCU, and PEB).

b. Deliver requisitions to indicated storage locations. Fragile material and delicate components that require special handling, including special padding and racks, will be delivered by the most direct route to reduce the risk of damage.

c. Pick up and deliver material from appropriate staging areas within the issue response time goals when drivers are provided from supported squadrons per squadron manning document integrated support section. When delivering repairable components, an immediate exchange or proof of prior turn-in is required unless the component is an authorized CRIPL asset.

d. Have customer circle quantity of items received, annotate time, date, print legible name and signature on the DOD Single Line Item Requisition System Document (DD 1348) as receipt for material (ensure annotations are legible). Provide customer the copy of POD for their records and deliver original signed copy to RCU.

e. For repairable components (exchange available), have customer annotate time, date, print legible name and signature on the DOD Single Line Item Requisition System Document (DD 1348) as receipt for material. Receive turn-in component from customer with a MAF and applicable logs and records. Physically validate CAGE, or PN and component serial number against the MAF. Date and sign a copy of the DD 1348 and provide to the customer as proof of retrograde turn-in receipt, and deliver turn-in components to AMSU via SSU.

f. For repairable components (exchange not available), unless authorized CRIPL asset, no issue will be made if NRFI turn-in is not available.

g. Deliver material received in main Supply from off-station requisitions. Local procedures must be developed to ensure expeditious delivery to customer.

6.5.7 Program Management Unit (PMU)

PMU is under the functional control of SRS and is responsible for processing and expediting high priority requisitions, such as NMCS or PMCS, Broad Arrow, and work stoppage requirements. PMU must:

a. Provide daily mechanized listings providing of complete supply status for all NMCS, PMCS, and anticipated NMCS PMU to both the O-level and I-level in sufficient quantity for distribution throughout the activity.

b. Validate all outstanding material requirements daily with O-level activities and ensuring NMCS/PMCS and anticipated NMCS requisitions are listed on the squadron's AMCR.

c. Initiate requisition actions, for example follow-ups, cancellations, and modifications.

d. Perform local rescreen procedure.

e. Update requisitions with latest status received.

f. Initiate the referral of part numbered requisitions.

g. Process as ROB and POD for off-station high priority requisitions.

h. Process BUNO or SERNO change requests received from customer.

i. Prepare and submits inputs to the Aircraft Material Condition Report.

6.5.8 Pre-expended Bin (PEB) Unit

6.5.8.1 The PEB Unit is under the functional control of SRS, and is responsible for managing and stocking PEBs. The purpose of a PEB is to shorten the issue and accounting procedures for maintenance materials that are frequently issued to support on-going maintenance. PEBs contain high usage, maintenance related consumable materials, which have been expended from the Supply Department stock records and financial accounts.

6.5.8.2 The Supply Officer uses the NALCOMIS PEB module for determining those eligible items to be added to or purged from pre-expended stocks under the criteria prescribed. Rules:

a. Eligible items with a unit cost of $2,000 or less may be routinely established in pre-expended stocks bins for items averaging a monthly demand frequency of three over the past six months. Eligible items with a unit cost in excess of $2,000 may be pre-expended with the approval of the CNAP/CNAL N41. TYCOM SOM periodically updates the maximum unit value for eligible items.

b. PEB stock is limited to maintenance related material having a minimum demand frequency of three per month. Stock records will be reviewed quarterly to ensure all items have sufficient usage to be retained in a pre-expended status and to correct any mixing of pre-expended items.

c. Items NOT authorized for inclusion in PEBs:

(1) DLRs (MCC=E, G, H, Q, or X).

(2) FLRs (MCC=D).

(3) Pilferable items (Pilferage Codes I, J, M, N, P, Q, R, V, W, X, Y, and Z). Repair parts, with Pilferage Codes I, Y, or Z, and those unclassified items assigned Pilferage Code J may be pre-expended provided such items are retained in a security storage cage.

(4) Items with assigned issue restriction codes for which issue approval must be provided by the cognizant ICP, systems commands, or higher Navy authority.

(5) Items with assigned Storage Codes showing a requirement for specialized storage facilities, for example, hazardous or flammable items.

(6) Items with assigned Security Codes A through H, K, L, O, S, T, or Z.

(7) Items with assigned Special Material Content Codes A through Z, 2, 3, and 4.

(8) Items on critical or short supply lists published by inventory managers or other authority, and special materials needed for a specific job.

6.5.8.3 The value of material placed in PEBs will be charged to overhead at industrial type activities or to the account chargeable for operations at other activities. If more than one account is chargeable for material in a pre-expended category, ASU will apportion the cost to the appropriate accounts.

6.5.8.4 PEBs will be located where they are readily accessible to maintenance personnel and, when feasible, where they can be observed by the retail outlet Logistics Specialist to aid in recognizing abuses to the pre-expended system. Items subject to pilferage must be retained within an enclosure with access limited to authorized personnel.

6.5.9 Component Control Section (CCS)

CCS is responsible for managing and accounting for repairables in the IMA repair cycle, stored in LRCA storage areas, or being processed for shipment to DRPs. CCS is divided into four units: DCU, LRCA Storage Unit, Supply Screening Unit (SSU), and Awaiting Parts (AWP) Unit. CCS must:

a. Physically store and manage controlled access areas adjacent to O-level or I-level activities.

b. Ensure any LRCA stock records maintained independent of the master stock item records are in agreement.

c. Execute issue and control procedures for all repairable demand requests.

d. Process repairables received from IMA.

e. Store and manage AWP repairables.

f. Control AWP requisitions.

g. Ensure CCS transaction documents, requisitions, and receipts affecting repairable item stock records are forwarded to stock control.

h. Ensure material reporting transactions for repairables are forwarded to SSCA.

i. Ensure proper workload priority is assigned (EXREP repair of critical repairable).

j. Execute overall repairables management policies and procedures for all uninstalled or in work DLRs, FLRs, and supply assets. This includes retail OSI items and excess wholesale Supply System items. When managing OSI repairables, maximum attention will be given to the best stock level maintenance. When the OSI stock level on an item becomes critically low, IMAs will be requested to apply priority effort to repair like items in the IMA repair cycle. Success in preventing stock outages occurs only when ASD and IMA Production Control work together with the same objectives. This liaison is enhanced when CCS and IMA Production Control are physically located together, sharing the same records and files when possible. Other OSI repairables not subject to local repair will receive expeditious handling in the IMA and Supply Department to hasten the BCM and DRP shipment functions.

k. Manage Stricken Aircraft Reclamation and Disposal Program (SARDIP) parts per paragraph 6.6.6.

6.5.10 Document Control Unit (DCU)

DCU is under the functional control of CCS, and is responsible for maintaining control of repairable components in all phases of the repair cycle. DCU must:

a. Review and monitor NALCOMIS generated IOU, EXREP, and DIFM reports.

b. Review completed repair action mailboxes.

c. Receive RFI or NRFI materials from IMAs.

d. Perform DIFM returns.

e. Perform inter-IMA service return (Repair and Return program).

f. Process RFI material to stock and:

(1) Perform DIFM returns.

(2) Perform issue select, if outstanding EXREP requisition exists.

(3) If no outstanding EXREP, forward material with stow notice to SSU.

(4) If LRCA item, forward material with stow notice to LRCA unit.

g. Process RFI EXREP and:

(1) Perform DIFM returns.

(2) Forward material with DOD Single Line Item Requisition System Document (DD 1348) to MDU.

h. Process BCM, Stock or DTO items and:

(1) Perform DIFM returns.

(2) Forward material with DOD Single Line Item Requisition System Document (DD 1348) to SSU.

i. Inter-IMA Support. Instances will occur where a repairable component is beyond the repair capability of the local maintenance activity; therefore, the aviation support entity will ship the NRFI asset to another IMA for repair and return using NALCOMIS functions and eRMS.

j. Process defective components for shipment or repair to an off-station IMA and:

(1) Perform DIFM return, ensuring action taken code is D.

(2) Indicate UIC of repairing off-station IMAs.

(3) Forward material with DOD Single Line Item Requisition System Document (DD 1348), MAF, and applicable logs and records to SSU for shipment.

k. Process returned defective components from off-station IMA and:

(1) Perform inter-IMA service return.

(2) Depending on material condition, perform (6.5.10f through 6.5.10h).

l. Process incoming defective components from other IMAs and:

(1) Receive and screen component with DOD Single Line Item Requisition System Document (DD 1348), MAF, and applicable logs and records or CM ALS. If CM ALS is not received, query previous unit or OMAWHOLE.GM.fct@navy.mil.

(2) Deliver component to AMSU for induction to IMAs.

(3) Upon completion of repair cycle, perform DIFM return.

(4) Forward component with DOD Single Line Item Requisition System Document (DD 1348), MAF, and applicable logs and records to SSU for shipment.

6.5.11 Local Repair Cycle Asset (LRCA) Storage Unit

6.5.11.1 The LRCA Storage Unit is under the functional control of CCS , and is responsible for the receipt, storage, issue, and accountability of repairable assets under the control of the ASD. LRCAs are part of an activity's repairable fixed allowance. LRCAs will be located in an area that promotes efficient supply support of aircraft maintenance, that is, rapid issue to an O-level or I-level activity, rather than storage or record keeping convenience. Collocation of the LRCA with either I-level Production Control or the O-level activity is the most desirable arrangement.

6.5.11.2 The LRCA concept allows intensive management of selected repairables. The major criteria for determining which repairables will be placed in the LRCA Storage Unit are local demand and space availability. However, inclusion of an item in the LRCA storage unit will not be constrained by a specific usage rate. Repeated critical shortage of an item in the LRCA will be reviewed by the Supply Officer and IMA Maintenance Officer for initiation of appropriate management actions. The LRCA Supervisor will determine the high and low limits for built-up main and nose mounts/tires, with consideration to the number of assets to provide subcustody assets to assigned squadrons.

NOTES: 1. Positioning of LRCA assets in maintenance spaces, for example, built-up wheels, engines, and props, is authorized when mutually agreed upon by the Supply Officer and MO.

2. The Supply Officer may temporarily sub-custody SO assets to the local I-Level activity to assist in the trouble shooting of assets. Upon completion of the repair action, the SO asset will be returned to the supply officer's shelf and must be in a RFI condition.

3. Material issued from Purpose Code W stocks (LRCA or other storage locations) will not be expended from the Supply Department records. Instead, a DIFM record will be established when the repairable issue is made. When the defective exchange item is repaired and returned to Purpose Code W stock the Purpose Code W DIFM quantity is transferred to the Purpose Code W on hand field or record. When the defective exchange item is BCM, the item will be expended and shipped to the applicable DSP or DRP (document identifier = BC1 or BC2 as applicable). Purpose Code W DIFM records will be reconciled quarterly and during scheduled repairable inventories. When a customer's requirement is issued from off-station sources and the defective exchange item is BCM, this item is forwarded to the DRP without a stock record adjustment using document identifier BC1.

6.5.12 Supply Screening Unit (SSU)

SSU is under the functional control of CCS, and is responsible for processing all items returned from IMAs via DCU and for screening RFI or BCM components using NALCOMIS functions.

The SSU should be located next to the AMSU. Rapid movement of BCM DLRs into the DRP pipeline is required prior to requisitioning replacements for stock or end use. Under fixed allowance procedures, DLRs must be certified BCM and prepared for shipment to a DRP before a replacement can be requisitioned for stock or end use (excluding CRIPL items and ZA9 or ZCJ project code). SSU must:

a. Comply with NAVSUP Publication 485 procedures for retrograding BCM repairables received from the IMA and will use the eRMS to create and prepare the NRFI shipping document.

b. Process components for inter-IMA repair and return support as follows:

(1) Receive component with DOD Single Line Item Requisition System Document (DD 1348), MAF, and applicable logs and records from DCU.

(2) Ship component to the IMA designated to repair and return.

c. Prepare MAFs for IMA processing of excess or shelf NRFI components

d. Arrange for disposition of BCM unserviceable Field Level Repairables (COG 1R, MCC=D) per eRMS. .

NOTE: Field Level Repairables (FLR) with SM&R code of PAOOO will be processed through AMSU for disposition. Refer to 5.2.4.2 for additional direction.

6.5.13 Awaiting Parts (AWP) Unit

6.5.13.1 The AWP Unit is under the functional control of CCS, and is responsible for receiving, storing, and controlling all AWP components in the I-level repair cycle that are in AWP status for subcomponent parts that are either being worked bv another I-level shop or that have an outstanding requisition for a part referred off station. The AWP Unit must:

a. Be located within the IMA facilities whenever possible.

b. Establish holding and staging areas.

c. Maintain requisitions and records necessary to monitor, follow up, expedite, reconcile, validate, and report material demands for component repair.

d. Maintain liaison with SRS on maintenance material matters to ensure delivery of material required for component repair.

e. Receive incoming material, identify it to the failed component, and when all required material is received, re-induct component.

f. Implement procedures to ensure unsatisfactory LRCA AWP situations are made known to higher authority for assistance.

g. Make recommendations for controlled cannibalization of AWP components after joint review and determination between AWP unit representative and IMA Production Control.

h. Expedite transfer of BCM components to the next level of repair.

i. Maintain accurate AWP inventory requisition records and perform weekly reviews of requisition status.

j. Reassign incoming material to AWP components with higher priorities.

k. Establish a location system so any AWP component can be readily located.

l. Develop and use a means of readily identifying requisitions against AWP components.

m. Move requisitions from one component to another whenever cannibalization is authorized.

n. Store all repair parts received but not installed, associated documentation and hardware received from the work center, and repair parts subsequently received with the AWP component.

o. Present AWP components for re-induction when all parts have been received.

p. Deliver all repair parts accompanying the component to the appropriate work center.

q. Reorder all AWP requisitions with system cancellation and erroneous parts received.

r. Conduct a weekly validation of AWP components using the DIFM status report per established procedures. The goal for AWP accuracy is 98 percent. Record the results of each validation in terms of overall accuracy for the following categories:

(1) One or more valid outstanding requisitions exist for each AWP component.

(2) A valid AWP component exists for each outstanding requisition.

(3) Initiate corrective actions to reconcile all discrepancies noted during validation.

6.5.13.2 Prior to accepting a component from the work center, the AWP Unit will:

a. Ensure component has an outstanding document that is either EXREP or referred off station.

b. Ensure all uninstalled repair parts are inventoried prior to taking custody of the AWP component.

c. Ensure work center personnel acknowledge installation of piece parts by initialing related completed requisitions recorded in the H through Z field of the accompanying MAF.

6.5.13.3 If the AWP Unit delivers material to the I-level work center that does not satisfy the intended maintenance action (wrong material is ordered or delivered, material was improperly marked, or the material is determined to be NRFI on receipt), the AWP Unit will:

a. For material received and determined to be NRFI after installation, the original work center will requisition replacement material.

b. For material received and determined to be NRFI and not installed or improper replacement received, the original work center will return erroneous material to AWP. AWP will perform material turn-in to stock and reorder requisition in NALCOMIS.

6.5.13.4 AWP retention goals and thresholds apply to all fixed allowance assets. Additional management attention, including a joint review of the overall AWP situation by Maintenance and Supply management personnel, must be undertaken anytime the number of AWP components on hand exceeds 15 percent of the average monthly IMA inductions or the number of aged (more than 60 days) AWP components exceeds 1 percent of the average monthly IMA inductions. AWP component age will be computed when the AWP repair parts status summary reports is produced. As part of this review, BCM-4 actions will be considered and decided on a case by case basis per the guidelines contained in the following paragraphs.

6.5.13.5 Beyond Capability of Maintenance for AWP (BCM-4). All management actions to resolve AWP status will be taken before BCM-4 action is initiated. Parts requisitions will be reviewed each day. Follow up action will be initiated if status on a parts requisition is not received within 10-days period. If satisfactory status is not received within an additional 10-day period, a request for assistance will be directed to CNAP/CNAL N41. BCM decisions must consider many variables including:

a. Operational requirement. The component may be required to meet a specific operational tasking. Even though aircraft readiness may be high, projected tasking may require even higher aircraft readiness, thus increasing the importance of the single component.

b. Readiness (MC, FMC).

c. IMA production capacity.

d. Supply System availability of repair parts versus availability of the WRA or SRA.

e. Financial impact. The cost of repair parts vice net cost of the WRA or SRA.

NOTE: Refer to 5.2.5.2 for BCM authority policy.

6.5.13.6 Cannibalization of AWP components. NMCS or PMCS requisitions affecting aircraft readiness may require the cannibalization of piece parts from one AWP component to another to resolve the readiness problem. The cannibalization decision can come from:

a. Work Center Supervisor or designee determination that some items item in the repair cycle that are AWP can be made RFI by cannibalizing piece parts from parts held in the AWP Storage Unit.

b. CCS screening of NMCS or PMCS repairable requirements on NALCOMIS AWP listings and determine that cannibalization actions are feasible to satisfy NMCS or PMCS requirements. If so, CCS will request the Work Center perform the cannibalizations.

NOTE: The cannibalization candidate may be an uninstalled or installed item.

6.6 Supply Department Responsibilities

6.6.1 General Responsibilities

Supply Departments are responsible for:

a. Inventory management of asset inventories on monthly basis

b. Financial management of repairables

c. Determination of allowances, including maintaining sufficient OSI for supported activities.

NOTE: The MAW conducts allowancing for all MALS within their Wing.

d. Shipment of NRFI retrograde DLR material.

e. Communication and coordination between Maintenance and Supply elements.

f. Investigations of receipt of incorrect or unsuitable material.

g. Compliance with procedures, policies, and regulations for supply support of the operating forces

h. Material planning and technical research.

i. Issuing, receiving, storing, and controlling all material assets carried in local stocks.

j. Recording and reviewing demand at least monthly, replenishing stock, adjusting allowances in response to demand patterns, and maintaining all associated records.

k. Performing technical research, including:

(1) Converting a manufacturer Part Number (PN) to a National Stock Number (NSN) and determining family group application.

(2) Reviewing Source, Maintenance and Recovery (SM&R) code for nonstock numbered material to determine proper procurement source, for example, local purchase, I-level, or D-level

repair or manufacture. Repeated requests for nonstock numbered items form the basis for a request to review SM&R code assignment.

l. Assist the IMA in the assignment of repairable and additive manufacturing workload priorities at the time of induction based on local stock posture and status of requisition (issue completed or EXREP).

m. Prepare Military Standard Requisitioning and Issue Procedure (MILSTRIP) requisitions (or automated input) from the customer request and in support of Work Center 550, per NAVADMIN 226/20 Process for Parts and Supplies Produced by Organic Navy Additive Manufacturing.

n. Completing on and off-station material requisition processing.

o. Providing on-station pickup and delivery of all material when MDU drivers are TDY based upon squadron manning document's integrated service section.

p. Providing daily mechanized or electronically generated listings with complete supply status for all NMCS or PMCS requisitions, and anticipated NMCS requirements (ZA9 or ZCJ project code) to O-Level activities and the IMA. Data will be sequenced to expedite the daily validation process.

q. Providing AWP NALCOMIS generated status listings to IMAs daily. This listing must contain the following information as a minimum: requisition number, NSN, unit of issue and quantity, originator code of the requisitioning activity, project and priority, JCN, nomenclature, WUC, work center, status, and RIC of activity submitting status.

r. Providing work stoppage status listings to O-level activities each week.

s. Validating NMCS and PMCS requirements daily by 0800 and AWP requirements at least weekly.

t. Maintaining a technical library for supply purposes containing Supply and Maintenance publications and directives, standard contractor and vendor drawings, military specifications, and modification directives.

u. Establishing and replenishing PEBs per paragraph 6.5.8.

v. Scheduling weekly meetings between Supply, O-level, and I-level maintenance representatives, and unit QA NAMDRP personnel to discuss NMCS, PMCS, EI or PQDR exhibits, and other high priority related requirements.

w. Validating and submitting Material Reporting (MR) data to the local SSCA within 1 work day after the supply transaction is completed. Subsequent revalidations of MR data will be performed within 1 work day after receipt of notification of erroneous data. The Supply Department will maintain an MR document control system to monitor RECTYP transactions

submitted to the SSCA and will maintain liaison with data services personnel to prevent backlogs.

6.6.2 Response Time Standards

Supply Departments must meet or exceed standards for response time. Maximum elapsed response times are established for issuing items available in local supply stocks. Response time starts when Material Control (O-level or I-level) places a requirement on ASD, the order date and time; and the response time stops when the requested material is delivered or place at the delivery point. Initial supply status is furnished automatically to the customer for all requisitioned material. Issue response standards are based upon when MDU drivers are TDY based upon squadron manning document's integrated service section. Response standards:

Issue Priority Group	Priority Designator	Processing Time
1	1 - 3	1 Hour
2	4 - 8	2 Hours
3	9 - 15	24 Hours

6.6.3 Inspection

Supply Departments supporting CNAF, CNAFR, and CNATRA activities must comply with COMNAVAIRFOR N41 Supply policy, and will receive annual or semi-annual Supply Management Assists Assessments (SMA) and Supply Management Inspections (SMI) to validate compliance.

6.6.4 SERVMARTs and MINIMARTs

Supply Departments will have a SERVMART or MINIMART to provide a retail outlet for nontechnical supplies of an administrative and housekeeping nature and high-consumption maintenance materials such as hand tools, corrosion preventive material, and petroleum, oils and l lubricants (POL). Depending on base or regional regulations, a HAZMIN center may fulfill POL requirements. SERVMARTs and MINIMARTs provide the ability to requisition and pay for many line items of supply with one request document, which reduces paperwork and speeds material issue. Procedures:

a. SERVMART and MINIMART requisitions will carry a stated monetary limitation to preserve accounting integrity and help prevent pilferage and theft.

b. SERVMART and MINIMART requisitions to maintenance organizations will be reported by specific weapon system TECs.

c. The customer will ensure a DOD Single Line Item Requisition System Document (DD 1348) is prepared with RECTYP 66 entered in Block V. The DD 1348 original copy will be forwarded to the SSCA for processing.

6.6.5 Pack-up Kit Management

6.6.5.1 If a determination is made to request a limited long-term augment outfitting of material at the site of a shore deployment or detachment, the Type Wing or MAW Commander will forward the request to the ACC.

6.6.5.2 Marine Corps squadrons will submit shore based deployment or detachment support requirements to their MALS. Upon receipt of the request, the MALS will determine support available at the deployment site and prepare a pack-up to augment support at the site.

6.6.5.3 When a ship is deployed, the ship Supply Department is responsible for providing pack-up kit support for embarked squadrons operating ashore. In general, a pack-up kit will be sent ashore in the custody of the squadron, for those components the squadron cannot get support from a co-located IMA at the detachment site. Pack-up kit arrangements and requirements will be established in advance between the ship, squadron, air wing commander, and shore station. Expenditure requisitions will be returned to the ship. The ship will initiate, coordinate, and monitor the support and keep the air group commander and squadron advised as to status. Requisitions should be initiated by the station when the ship is not within range to support the detached squadron.

6.6.5.4 Type Wing maintenance staff will initiate and coordinate pack-up kit support for non-deployed squadron detachments operating away from home station. The Type Wing will ensure pack-up kit support is only for material essential to accomplishment of the detachment mission. For Marine Corps activities operating ashore, this is a function of the MALS Aviation Supply Officer.

6.6.5.5 Upon completion of the detachment, the Supply Department will ensure all unused material is returned, accompanied by the requisitions to replace all consumed material.

6.6.5.6 Air capable ships supporting embarked helicopter detachments are provided a pack-up kit from ACC-designated shore outfitting sites. Requirements:

a. Air detachments must request material in support of helicopter maintenance from the host air capable ship by preparing and submitting a DOD Single Line Item Requisition System Document (DD 1348) (6PT) to the ship's Supply Department. Requisition document numbers will be assigned only from the unique series provided to the ship by the supporting shore site point of entry (POE). Requisitions must cite the appropriate job order number in the supplementary address block (card columns 45-50) as specified by ACC directives.

b. ACCs will designate shore sites to provide aviation maintenance related material support to air capable ships functioning as the POE. POE functions include:

(1) Furnish each requesting ship with a unique series of document numbers for use in requisitioning DTO aviation maintenance support and pack-up kit replenishment requirements from the POE.

(2) Receive and process MILSTRIP requisitions from air capable ships transiting to, or operating in, the POE assigned area of responsibility.

(3) Issue available material or provide MILSTRIP referral action to the appropriate source of supply within UMMIPS time frames.

(4) Furnish MILSTRIP status on all requisitions received, via naval message, using Immediate message precedence for NMCS and PMCS requirements and Priority precedence for all other requisitions.

(5) Coordinate material shipments with area logistics control and monitor activities to ensure timely delivery of critical requirements.

(6) Perform AFM, AVDLR accounting functions for supported ships.

(7) Conduct quarterly MOV with supported ships to ensure requisitions held as outstanding by the POE have not been received or canceled by the ship.

(8) Perform total AVDLR carcass tracking functions for supported ships.

(9) Receive NRFI AVDLR or FLR components from supported ships and process for induction into the local I-level repair cycle.

(10) Actively follow-up on overdue AVDLR or FLR retrograde shipments and ensure a final comprehensive reconciliation prior to the ship's out-chop.

(11) Assemble and stock complete phase A, B, C, and D maintenance kits for supported helicopter models and issue kits as requisitioned by supported ships.

6.6.6 Stricken Aircraft Reclamation and Disposal Program (SARDIP)

6.6.6.1 The Supply Department will request a SARDIP master save list from NAVSUP WSS for reclamation of parts from crashed or stricken aircraft, engines, or equipment.

6.6.6.2 When salvaged parts are received, CCS will identify them by NSN, or by PN when the NSN cannot be determined. CCS will decide which items are to be inducted into the IMA for test and check or repair for RFI certification. Induction MAFs will be prepared per the procedures directed in 16.2.3.17. When reclaimed components are returned from the IMA RFI, they are put in stock as a gain by inventory. If NRFI, the salvaged item will be processed with BCM Action Type code D and shipped to the designated repair point.

6.6.6.3 After reclamation, the aircraft, engine or equipment carcass will be reported to COMNAVAIRSYSCOM, who will respond within 90 days with final disposition instructions.

NOTE: Refer to 10.45.12, and OPNAVINST 3750.6 for general procedures for recovery, reclamation, and transfer of crash damaged aircraft.

6.6.7 Phase Maintenance Kit Management

Establishing Phase Maintenance Kits is optional. If Phase Maintenance Kits are established, the Supply Department must:

a. Coordinate with O-level and I-level activities to determine type, quantity, and items to be included.

b. For ashore sites, establish the kits within the PEB for ordering through NALCOMIS. For afloat sites, establish procedures for ordering kits.

c. Construct the required number of kits.

d. Pre-expend the cost of the kits.

e. Ensure items are not over aged.

f. Store kits in ASD and issue kits on demand.

NOTES: 1. Depot Level Repairables (DLR) and Field Level Repairables (FLR) are not authorized in Phase Maintenance Kits.

2. Kits may be cannibalized by ASD for other requirements and then replenished.

3. Kits may be pre-expended or charged to each squadron upon issue, based upon the total parts inventory cost in each kit.

6.6.8 Preservation, Packaging and Handling

All aeronautical material, regardless of its condition, must be preserved, packaged, and handled by Supply or Maintenance personnel to prevent damage or deterioration. Requirements:

a. When it is positively known that a component repaired by an IMA will be reissued to local operating units in a short period of time, only the minimum amount of preservation and packaging to ensure positive identification and short time protection are required. In no case will NRFI material be casually or carelessly handled merely because it is to undergo repair. Particular care must be given to prevent further damage of repairable items that are being returned to rework.

b. Intra-station movement of repairables provides the greatest opportunity for damage to occur. Protective material such as a container designed specifically for the component, bubble wrap and foam cushioning will be used to protect repairables. Bubble wrap alone is not

acceptable protection for packaging repairables for shipment. The preferred packaging technique for each component for shipment is listed in NAVSUP P-700.

6.6.9 Procedures for Components Awaiting Investigation

6.6.9.1 Supply departments must have registered JDRS (https://jdrs.mil) users to process material pending investigation. Supply departments will hold all defective material related to a Hazardous Material Report (HMR) or Product Quality Deficiency Report (PQDR) until shipping or disposition instructions are received from the FST. The shipping instructions will be depicted within the Preliminary Report. If shipping instructions are not received within 20 days, follow up with the FST or other directing authority, either by JDRS technical dialog or by message traffic. Do not ship an exhibit without express shipping instructions from these activities.

6.6.9.2 HMR and PQDR material will be prepared and handled per paragraph 10.9. Material directed to be shipped for Engineering Investigation (EI) will be handled as follows:

a. The words "Engineering Investigation" or "Product Quality Deficiency Report" will be conspicuously written on containers and all documents, such as air bills, government bills of lading, and Navy cargo documents. Cite control number, FRCs customer service, or as instructed by the FST. All sides of the containers must be marked to assist in special handling. Parcel post shipments must be registered. Attach a copy of the message report or a description of the circumstances of the malfunction or failure, photos if practicable, and a statement of suspected failure cause if circumstances make a statement of this nature possible.

b. Assign Movement Priority designation 03 to all material being shipped for investigation. PQDRs must have a Project Code of Z66 with a Doc ID of BQD. EIs must have a Project Code of 754 with a Doc ID of BEI.

c. The DOD Single Line Item Release Receipt Document (DD 1348-1) will accompany all HMR and PQDR material shipments.

(1) In the ship to block, enter "investigation material" and the control number.

(2) In CC 1-3, use document identifier BEI for HMR EIs and use BQD for PQDRs.

(3) In CC 71, insert Condition Code L in block P and the EI or PQDR control number in block D.

(4) Include the contract number in the "Remarks."

(5) Stamp "EI" or "PQDR" in 3-inch letters on the face of the DD 1348-1 without obliterating any vital data elements.

(6) Provide a copy to NAVSUP WSS.

d. Notify the receiving activity of the shipment by completing the shipping tool of the related DR on the JDRS website.

6.6.9.3 Additional policy for DLRs shipped for investigation are in NAVSUP Publication 485.

6.6.10 Processing Material Under the Control of Naval Sea Systems Command

Naval Sea Systems Command ship components and equipment processed through an aviation IMA for repair will be documented using aviation and surface 3M procedures as follows:

a. Defective components removed from a ship or surface craft for repair at an aviation IMA must be documented on a Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K) per OPNAVINST 4790.4.

b. The Supply Department will receive the defective component from the originating ship or surface craft. CCS will initiate a MAF per Chapter 16 and forward the defective component and documentation to AMSU. Data blocks on the MAF will be completed as indicated:

Block A22. Enter the WUC.

Block A48. Enter ZBAA.

Block A52. Enter the ship UIC. This will be extracted from Block 1 of the Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K). This field will be preceded with a zero to reflect six positions, that is, UIC 52189 is recorded as 052189.

Block A58. Enter alpha code O.

Block A59. Enter B.

Blocks E08 through E52. Enter the CAGE (Block E08), serial number (Block E13), and PN (Block 23) from the data plate attached to the component. If the serial number is more than 10 characters, enter the last 10. If the PN is more than 15 characters, enter the last 15. (For Optimized NALCOMIS the serial number and part number field is unlimited.) Enter the Julian date the component was removed from the ship or surface craft in Block E38. Obtain this from the defer data (Block 26) of the Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K). Enter the appropriate time or cycle prefix code (paragraph 15.4) followed by four numeric characters (preceded by zero as necessary) in Block E42.

Blocks A08 through A17. Enter the organization code of the supporting Supply activity as specified in the NALDA Organization Code Translator (http://www.navair.navy.mil/logistics/orgtranslator/) in Block A08. Enter the last three numbers of the when discovered date (Block 17 on the Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K)) in Block A11. Enter a local assigned sequence number in Block A14.

DISCREPANCY Block. Transcribe the discrepancy (Section IV on the Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K)) to the MAF.

TURN-IN DOCUMENT Block. Enter Julian date and document number on which the replacement component was ordered.

Annotate in Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K) Discrepancy Block (Block 35) the JCN assigned. Attach Ship's Maintenance Action Form (2-Kilo) (OPNAV 4790/2K) to the MAF for record purposes.

6.7 Organization-level Maintenance Activity (OMA) and Intermediate-level Maintenance Activity (IMA) Material Control

6.7.1 General Responsibilities

OMA and IMA Material Controls must:

a. Ensure officer and enlisted personnel assigned to the Material Control Work Center (050) attend the Naval Aviation Material Control Management course (C-555-0051).

b. Submit accurate material requisitions to the supporting Supply Department with valid Part Number, (PN), commercial and government entity (CAGE), technical reference, issue priority designator, and project code.

c. Prepare documents for material required for operational support, for example, aviation fuel, lube oil, flight clothing, and material carried in service market outlets.

d. Establish delivery points for retrograde (NRFI) material and expeditiously route received material to work centers. Identify on the material the DDSN and BUNO.

e. Maintain inventory control and accountability of material and equipment allowances listed in the Individual Material Readiness List (IMRL) and other material allowance lists.

f. Provide technical assistance in determining interchangeability and substitution of parts.

g. Operate tool rooms and account for tools per the procedures of the Tool Control NAMPSOP, paragraph 10.12.

h. Perform memorandum Operating Target (OPTAR) funding, accounting, charting, and budgeting of costs. A separate material control register must be maintained for each OPTAR held.

NOTE: Marine Corps squadron OFC01 is managed by the MALS.

i. Provide accurate and timely response to internal and external Material Obligation Validations.

j. Prepare surveys per paragraph 6.3.4 for loss, damage, or destruction of accountable material.

k. Prepare and handle HMR and PQDR exhibits per paragraph 10.9.4.

l. Act as approving authority for indirect material requirements.

m. Comply with Financial Improvement Audit Readiness (FIAR) requirements.

6.7.2 OMA Material Control Procedures

6.7.2.1 Organization

OMAs must establish a Material Control Branch (050) and any additional 050 O-level Work Centers deemed necessary to control material, such as 05C Accountable Material/IMRL Manager, 05D Aviation Tool Issue/Tool Control Center, 05H Hazardous Material Control, and 05M Airborne Mine Counter Measures (AMCM) Material Control.

NOTE: Navy O-Level Material Control Supervisors and Financial Managers must attend the Naval Aviation Material Control Management course (C-555-0051) and the Financial Management for Naval Aviation Operating Target Accounting course (Course C-555-0018) within 6 months of assuming duties. Marine squadrons are exempt due to the MALS managing OPTAR.

6.7.2.2 Responsibilities

In addition to the general material management and control responsibilities of paragraph 6.6.1, OMA Material Controls must:

a. Use OOMA (ALIS for F-35 aircraft) to requisition material.

b. Receive and deliver material per paragraph 6.7.2.3.

NOTE: The date and time ordered on the requisition must be the exact time of submission to ASD. This time is required for determining accurate NMCS/PMCS start time.

c. Validate NMCS/PMCS requisitions daily and maintain (by aircraft BUNO) current NMCS/PMCS status records and forward the annotated and signed report to the supporting supply activity.

d. Charge the appropriate fund when submitting organizational material requirements, such as Operational Functional Category OFC-01 for aircraft flight operations and administrative supplies, OFC-50 for aircraft maintenance, and OFC-09 for IMRL equipment.

e. Ensure retrograde repairable material is made available for turn-in when a requisition is submitted.

NOTE: Embarked air detachments will turn-in NRFI repairables to the host ship for retrograde shipment to the supporting shore site. The turn-in WO must cite the same document number used to requisition the replacement.

f. Review and verify turn-in documents are complete, accurately match the retrograde material, and contain the same document number used to requisition the replacement material.

g. Comply with the supporting supply activity's NMCS/PMCS requisition validation process.

h. Immediately turn in retrograde repairables unless specifically authorized to remain in place by the NAVSUP WSS Consolidated Remain In Place List (CRIPL). Items identified in the NAVSUP WSS CRIPL are the only authorized exceptions to the one-for-one exchange rule. When the replacement CRIPL item is received, the retrograde item must be turned in within 24 hours. Non-CRIPL component delayed turn-ins will be handled per COMNAVAIRFORINST 4440.2 Afloat Supply Operation Manual or COMNAVAIRPAC/COMNAVAIRLANTINST 4415.1 Ashore Supply Operation Manual, as applicable.

NOTE: Under no circumstances will spare repairable components of any type (RFI or NRFI) be allowed to be held in any activity unless authorized by COMNAVAIRFOR N41.

i. For retrograde components with an ASR, EHR, or SRC record, ensure the record is enclosed in a plastic envelope and is securely attached to the outside of the component or its container, and ensure OOMA Configuration Management Auto Log Set (CM ALS) data is transferred to the receiving activity at time of turn-in. F-35 activities will ensure the Electronic Equipment Logset (EEL) data is transferred to the receiving activity via ALIS.

j. To provide short term protection during handling and transportation to Supply, retrograde material will be packaged using a cushioning material, cellular plastic film (bubble wrap) PPP-C-795, class 1 or class 2. When available, reusable shipping containers will be used to protect the non-RFI components awaiting turn-in to Supply. Refer to, paragraph 10.21, for packaging, handling, and storage requirements of Electrostatic Discharge Sensitive (ESDS) components.

k. Perform Aircraft Inventory Record (AIR) duties per 6.7.2.7.

6.7.2.3 Receipt and Delivery of Parts and Material

When material is received, OMA Material Control must:

a. Receive the material and a DOD Single Line Item Requisition System Document (DD 1348) (or facsimile form) from the ASD MDU.

b. Annotate the DD 1348 with legible printed name, signature, date, time and circle quantity.

c. Determine if the component is ASR, EHR, or SRC card trackable and that the appropriate ASR, EHR, or SRC card is with the component before forwarding it to the work center. Upon receipt or delivery of a tracked component, activities with NTCSS Optimized OMA NALCOMIS will ensure the CM ALS has been received. If the appropriate record or card is not received with the component and a replacement RFI component is not available, contact NAWC AD Requirements Branch for reconstruction or disposition directions. For activities with

NTCSS Optimized OMA NALCOMIS, contact NAWC AD Requirements Branch for providing the appropriate CM ALS record.

d. Distribute received material to the appropriate work center, ensuring the material is annotated with the DDSN and BUNO of the requisition. Work center personnel receiving material will annotate the DD 1348 with legible printed name, signature, date, and time, and will circle quantity received.

6.7.2.4 Receipt of Unsatisfactory Material

If material received from Supply is incorrect (not the material that was ordered) or defective, Material Control must:

a. If part was incorrect, prepare a DOD Single Line Item Release/Receipt Document (DD 1348-1A) for turn in, using the NSN of the unsatisfactory material. Ensure blocks V and Y contain the original JCN and document number, blocks AA through CC (remarks) contain a statement why the material is being returned, and blocks DD through EE contain the correct part number of the material being turned in. The remarks section of the DD 1348-1 must include sufficient data for the Supply Department to prepare a Supply Discrepancy Report (SDR), if required.

b. If the part was the correct part, but determined to be defective (NRFI) at time of receipt or installation:

(1) If part was RFI'd by I-level, return the part on a WO with When Discovered code "Y" (Upon Receipt or Withdrawal from Supply, found to be discrepant upon installation.)

(2) If the part was new or newly reworked material, the squadron QA must submit a Product Quality Deficiency Report (PQDR) per 10.9.3.9.

c. Return all accompanying documentation, for example, RFI tag, SRC card, and VIDS/MAF Copy 4, with the items.

d. Reorder material, if required, using a new document number and cite original document number in remarks of new requisition. Use Advice Code 5G (if applicable).

e. Notify supporting Supply activity the incorrect/defective material is ready for pickup.

6.7.2.5 Deployment and Detachment Planning

OMAs that deploy or operate detachments ashore or afloat must plan and coordinate material support. OMAs will:

a. Prior to deployment or detachment, the OMA must contact the supporting supply and intermediate level maintenance activities to determine:

(1) Available materials and I-level services.

(2) Material replenishment procedures, including transportation of materials to and from the operational site.

(3) NALCOMIS equipment and connectivity issues that may impede material requisitioning.

b. If necessary, arrange for pack-up kit support per paragraph 6.6.5 in sufficient time to coordinate assembly and movement of required material. If a pack-up is required, the OMA will take custody of assigned pack up material and maintain accurate stock records and usage data. Submit requisitions for all material used. Return the balance of unused material to the supplying activity. Ensure all repairable items are returned RFI or NRFI. Deficits must be covered by a funded document. Unserviceable repairables must be accompanied by a turn in WO. Upon return from deployment or detachment, provide the Type Wing Commander with a summary of usage and recommendation of changes to provide more efficient support of future operations.

6.7.2.6 Phase Maintenance Kits

If an OMA determines a phase maintenance kit is required or a change is needed to an existing kit, the requesting activity's MMCO will submit a request to ASD, via their Type Wing, with the following information:

a. All PNs and quantities for each phase maintenance kit.

b. Expected frequency of need, for example one per month.

NOTE: Refer to paragraph 6.6.7 for additional information on establishing Phase Maintenance Kits.

6.7.2.7 Aircraft Inventory Record (AIR)

6.7.2.7.1 Purpose

a. The AIR is a list of specific equipment and material installed on or designated for use on an aircraft that must be periodically inventoried. The AIR documents the reason for shortages that exist at time of transfer, and certifies accountability for the items at time of receipt.

b. The AIR is not a packing list, bill of materials, or configuration list. The following guidelines apply to items that will be included in the AIR, without regard to whether the items are GFE or CFE:

(1) Special equipment items essential to the health, safety, and morale of the crew, for example, bedding, life rafts, first aid kits, crash axes, and portable fire extinguishers.

(2) Equipment/material required for the protection of the aircraft during flight and overnight storage, for example, covers, control locks, plugs, and covers for external openings.

(3) Items of equipment subject to pilferage or readily convertible to personal use, for example, clocks, tool kits, compasses, Aldis lamps, and mirrors.

(4) All classified items which are installed or for which installation provisions have been incorporated on the aircraft except when items are accounted for by an authorized classified material accounting system during aircraft transferring actions.

(5) All items of loose equipment applicable to an aircraft that are designated for transfer by the ACC /COMNAVAIRSYSCOM whenever the aircraft is transferred.

(6) All mission essential equipment that cannot be installed in a given aircraft or configured for other missions.

c. These items will NOT be included in AIRs:

(1) Items of equipment which are rigidly fixed and are considered to be a basic or integral part of the aircraft, for example, engines, propellers, wheels, tires, brakes, instruments, and ejection seats.

(2) Items considered personal issue that are furnished or authorized by a squadron allowance.

(3) Equipment and material that is authorized by the IMRL.

(4) Equipment and material that is provided on a less than a one-per-aircraft basis and is accounted for by another material accounting system.

(5) ACC controlled material.

6.7.2.7.2 Initiation

a. COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group is responsible for producing a standard Master AIR (MAIR) for each T/M/S aircraft. An AIR will be compiled for each new block or series of operational, tactical, and non-tactical aircraft, unless exempted by COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group for reasons such as aircraft that are procured for research and development only or in small numbers.

b. The AIR will be initiated by the aircraft manufacturer and will be delivered with each individual aircraft. A copy of the AIR for each block or series (as applicable) will be forwarded to COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group for approval prior to delivery to the Navy. This proposed AIR will include Contractor Furnished Equipment (CFE), Government Furnished Equipment (GFE), and Mission Essential Subsystem Matrix (MESM) related equipment, which will be provided subsequent to the delivery of the aircraft.

c. The cognizant Defense Contract Management Area/District (DCMD) is responsible for providing COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group with the aircraft manufacturer's proposed AIR, and for providing a copy of the AIR actually delivered for each.

d. COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group is responsible for determining the adequacy and accuracy of the AIR, ensuring the AIR has been prepared per the AIR item criteria in paragraph 6.7.2.7.4, and ensuring the AIR contains complete item identification and PNs covered by the contract.

e. AIRs be unclassified whenever possible. When classified equipment meets the criteria for an AIR item, the following will apply:

(1) When the nomenclature, title, and location of classified equipment are not classified, the information will be shown in the same manner as unclassified equipment. However, the security classification, SECRET or CONFIDENTIAL, will be indicated in the AIR in capital letters, immediately following identifying nomenclature or title. In addition, an asterisk (*) with a footnote, "Nomenclature and title unclassified," will be included.

(2) When the nomenclature/title of the equipment is classified, but the location or installation in the aircraft is not, only the security classification, in capital letters, will be indicated. In addition, the symbol # with a footnote, "Location unclassified," will be included.

(3) When the location or installation of the equipment is classified, no notation will be made in the basic AIR.

(4) When the conditions outlined above pertain, the notation, "See supplemental pages for classified items" will appear in the "Miscellaneous Section" of the AIR. Supplemental pages must be prepared showing the nomenclature, title, location, and security classification of all classified material either installed in the aircraft or for which provisions have been incorporated. The classification assigned to the supplemental pages will be the highest classification of any of the contents listed. If circumstances cause the classified supplemental pages to become longer than the basic record, supplemental pages will not be used. The basic record will then be given a classification equal to the highest classification of the equipment installed in the aircraft. The handling of the classified supplemental pages or the basic record when classified is per current classification guides.

(5) When provisions for installation of classified equipment are incorporated in the aircraft, and the classified items are not installed at that time, the item will be shown in the basic record or supplemental pages (as applicable) and the appropriate shortage entries will be made.

6.7.2.7.3 Responsibilities

a. In addition to other responsibilities for AIRS in this chapter, COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group will:

(1) Act as the authority for changes and revisions to MAIRs.

(2) Provide direction on the disposal of AIRs.

b. COMNAVAIRSYSCOM Fleet Support Team (FST) will provide COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group with recommendations for changes to MAIRs based on TDs or other configuration changes.

c. Aircraft Controlling Custodians (ACC) will provide assistance in managing AIRs, to include:

(1) Ensure AIRS are in agreement with the applicable MAIRs

(2) Review recommended changes to MAIRs. ACCs will forward recommendations for changes or revisions to a MAIR to COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group with a full justification.

(3) Provide direction on accounting for and transferring AIRS equipment in Aircraft Transfer Orders (ATO).

d. Aircraft custodian Material Control personnel will maintain AIRS as specified in this chapter.

6.7.2.7.4 Forms and Documentation

a. The AIR is a multi-part record consisting of the following OPNAV forms:

(1) Department of the Navy Aircraft Inventory Record Cover (OPNAV 4790/109)

(2) Aircraft Inventory Record (OPNAV 4790/110) (Figure 6-5)

(3) Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6)

(4) Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7)

(5) Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8)

b. The Aircraft Inventory Record (OPNAV 4790/110) (Figure 6-5) will be annotated as follows:

AIRCRAFT TYPE. The complete government aircraft designation.

SERIAL NO. The government serial number.

CONTRACT NO. The government contract number.

PRIME CONTRACTOR. The full name of the contractor.

ACCEPTANCE DATE. The date the government accepted the aircraft.

EXPLANATION. The section letter, designation, and name of each section shown on the sectional breakdown diagram will be entered, for example, Section A. Nose section.

SECTIONAL BREAKDOWN DIAGRAM. The diagram will consist of a side elevation of each particular aircraft, drawn to an appropriate scale, but not less than 5 inches in length. Additional views, such as the plan view of a wing, may also be in the diagram. Division of the diagram must correspond to the natural divisions of the aircraft. The sections shown in the diagram may be further subdivided laterally, if necessary, to facilitate checking. The identification of sections contained in the diagram will be alphabetical, the letter A being assigned to the first section, B to the next, and so on, generally to the rear of the aircraft. The letter R will denote items mounted on the exterior of the fuselage, and the letter F will denote those items to which access is gained from the fuselage. Any subdivisions of the sections will be identified by the letter assigned to the section as outlined above followed by a lower-case letter, for example, Aa, Ab.

MISCELLANEOUS DATA. Any additional information concerning the contents of the form may be entered.

c. The Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6) is not to be considered a complete list of components for an operational and tactically complete aircraft upon delivery from the aircraft manufacturer's plant. It will include both GFE and CFE which are applicable to listings as required in this instruction. The equipment list will be divided into sections that list the items pertaining to that particular section of the aircraft. Individual items within each section will be numbered as nearly as possible in the sequence of their physical location, generally from front to rear. Each section must be headed by a notation, for example, Section B pilot's compartment stations 106-201. Each section must begin with page 1; with the addition of equipment items, the necessary pages can be inserted and numbered in the proper sequence. All equipment listings in the AIR will be double spaced between items and listed as follows:

SECTION. The appropriate section designator.

GOVERNMENT SERIAL NO. The applicable serial number.

AIRCRAFT TYPE. The complete government aircraft designation.

PAGE OF PAGES. The applicable page number.

Column A - ITEM NO. Item numbers must contain a letter prefix to indicate the section/compartment of the aircraft where the item is located. The numbers must start with No. 1 for each section/compartment. Items must be numbered, if possible, in numerical sequence corresponding to their physical location.

Column B - NOMENCLATURE, TYPE, AND MODEL. The nomenclature, type, and model for each item must be entered. GFE must carry the nomenclature, type, and model as designated in the government furnished list. CFE must carry the nomenclature, type, model, and PN corresponding to that shown in the airplane model specification or other authorized CFE lists. Items within a box or assembly, if listed, must be indented to show the relationship to the major item.

Column C - REQUIRED HERE. The quantity of that item installed at that particular section of the aircraft must be entered.

Column D - EQUIPMENT CHECKS. This column is provided for inventory personnel to use in denoting the physical presence of equipment/items. The subdivisions, 1 through 24, of this column must be identified by appropriately completing the legend at the bottom of the page. Entries in the legend must be accomplished by inserting the date the inventory was completed and must be signed by the person conducting the inventory. Enter the number of items present and if none of the items are present, enter 0. The person physically inventorying the aircraft at that time must make these notations.

Column E - LOCATION OR REMARKS. This column may be used to denote a brief description of the exact location of those items which are considered difficult to locate. Station numbers may serve as auxiliary information. It will not be necessary to list the location of items easily recognized and when location is readily apparent. The visual stowage location of an item and its actual location may be given.

d. The Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7) must reflect shortages of equipment or parts subject to inventory when an aircraft is transferred. Items not accounted for or retained at the time of transfer will be listed as shortage. The following shortages not subject to inventory must be listed and forwarded with the AIR:

Column A - ITEM NO. Column A must reflect the item number corresponding to the item listed in the equipment list and prefixed with the section designator.

Column B - NOMENCLATURE, PN, TYPE AND MODEL. Information required in this column must be the same as in Column B of the Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6).

Column C - QUANTITY SHORT. Enter the shortage quantity.

Column D - AUTHORITY OR REASON FOR SHORTAGE. The authority/reason for the shortage must be entered.

Column E - REMARKS. This column may be used to enter brief remarks.

NOTE: When an aircraft is transferred in less than Full Mission Capable (FMC) status due to AWP for mission impacting subsystem components, the missing equipment will be listed in the AIR as shortages with the requisition or survey number.

e. The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) lists each transfer and receipt, and must be completed by the transferring and receiving activities.

6.7.2.7.5 AIR Inventories

Material Control is responsible for accounting for and inventorying all items listed in the AIR. Requirements:

a. An AIR inventory must be completed prior to aircraft transfer and at time of receipt. In all other instances when an aircraft is transferred, an inventory of the aircraft is accomplished based on items of selected equipment and material listed in the AIR.

NOTE: Equipment inventories for aircraft without a COMNAVAIRSYSCOM AIR will be completed as agreed upon by the transferring and accepting activities.

b. AIR items that are not required by the operating activity's mission may be removed from the aircraft and lined out of the applicable Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6) after obtaining concurrence from the ACC or COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group. Removed items will be turned-in to the supporting Supply activity for appropriate disposition. The name of the removing organization and turn-in control number will be entered in Column E of the Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6). In addition, an entry will be recorded on Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7). COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group will continue to maintain required quantities of such items on the MAIR if other operating activities require the equipment.

c. Immediately upon receipt of notification of transfer, the transferring activity will inventory all AIR equipment specifically assigned to the aircraft and all MESM equipment, including all items which cannot be placed aboard the aircraft for transfer. This "loose equipment" will be turned in to Supply on a Requisition and Invoice/Shipping Document (DD 1149) for shipment to the receiving activity. A copy of the Requisition and Invoice/Shipping Document (DD 1149) will be attached to the AIR and one will be retained by the shipping activity for their records. The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) will be certified during the transfer action.

d. When an aircraft is transferred on site, inventory teams from the transferring and accepting activities will jointly inventory the aircraft and record the quantity of each item onboard the aircraft at the time of transfer in the appropriate column of the Aircraft Inventory

Record Equipment List (OPNAV 4790/111) (Figure 6-6). The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) will be certified during the transfer action.

e. When an aircraft is ferried for transfer, two inventories are required: one prior to the ferry flight by the transferring activity and one upon completion of transfer by the accepting activity. The aircraft ferry pilot accept custody of pilferable and classified equipment from the transferring activity and transfer custody of the items to the accepting activity. AIR items that cannot be placed on the aircraft for transfer will be shipped separately marked as "AIR Equipment for Aircraft BUNO". A note to indicate such shipments is made in Column E of the Aircraft Inventory Record Equipment List (OPNAV 4790/111) (Figure 6-6) opposite each affected equipment.

f. When an aircraft is delivered to a Depot FRC or contract depot facility and is scheduled to be returned to the same Reporting Custodian after rework, the items that do not require rework or are not required by the depot activity will be retained by the Reporting Custodian. All retained items will be noted as such on an Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7) to relieve the depot activity of accountability requirements. The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) will be certified during the transfer action.

g. When it is known that an aircraft will be transferred to a new Reporting Custodian while undergoing depot rework, the transferring Reporting Custodian will ship only the minimum essential AIR items to the depot, noting all shortages on an Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7). The remaining equipment will be shipped to the new Reporting Custodian per transfer Xray direction. The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) will be certified during this transfer action. The record will not be certified for delivery until receipt of the aircraft.

h. When an aircraft is unexpectedly transferred to a new Reporting Custodian while undergoing depot rework, the transferring Reporting Custodian will ship all retained AIR items to the new Reporting Custodian per transfer Xray direction. All shortages will be noted on an Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7). The Aircraft Inventory Record Certification and Record of Transfers (OPNAV 4790/104) (Figure 6-8) will be certified during this transfer action. The record will not be certified for delivery until receipt of the aircraft.

i. When an aircraft is being transferred to the Aerospace Maintenance and Regeneration Center (AMARC) for storage, any AIR items used to protect the aircraft from damage, or to make the aircraft safe for maintenance, or required for passenger support will remain with the aircraft. Questions concerning the disposition of AIR items prior to transfer of aircraft to AMARC will be forwarded via the chain of command to COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group.

NOTE: When an AIR is completely used, that is, the data applicable to a number of separate transfers has been completely used, additional copies of the specific forms will be inserted in the record after listing the items of material and equipment as shown on the originals. The inventories recorded on new forms are numbered in sequence, starting with the first subsequent transfer. When the second subsequent transfer has been recorded on the new forms, the superseded forms may be destroyed.

6.7.2.7.6 AIR Equipment Shortages

a. The Aircraft Inventory Record Shortages (OPNAV 4790/112) (Figure 6-7) must be completed by both the transferring and receiving activity to identify shortages of AIR items and installed equipment. The shortage list will contain all missing AIR and MESM related items. The original signed copy of this form will be retained by the transferring activity as a permanent record of transfer. A second copy of the form will be placed in the AIR and delivered to the accepting activity.

b. Following are mandatory entries on the Aircraft Inventory Record Shortages (OPNAV 4790/112) (Figure 6-7):

(1) Name of transferring/receiving activity.

(2) Equipment check/certification number.

(3) Date.

(4) Signature of inventorying activity's CO or representative authorized to sign by direction.

c. When a new production aircraft is authorized for delivery with CFE/GFE shortages, the DCMD will ensure the Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7) is prepared listing shortage items with estimated delivery dates. Copies of this form must be provided to the aircraft receiving activity, ACC, and COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group.

d. When new production aircraft are received by a Navy or Marine Corps activity with item shortages not identified on Aircraft Inventory Record Shortages (OPNAV 4790/112) (Figure 6-7), the activity receiving the aircraft will report the CFE shortages to the Defense Contract Management Area or District (DCMD) by naval message, requesting item shipping data. GFE shortages will be reported by naval message to COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group requesting acquisition instructions, with an information copy to the ACC and the supporting MAW)/Type Wing. The message will include the PN and nomenclature of each missing item, identified to the applicable aircraft BUNO.

e. Every effort will be made to locate or replace missing AIR items prior to transfer. However, aircraft transfer will not be delayed pending replacement of the items. The transferring organization will make entries on the Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6) and Aircraft Inventory Record (Shortages) (OPNAV 4790/112) (Figure 6-7). If missing items were removed for repair, a notation will be entered in Column D of the Aircraft Inventory Record - Shortages (OPNAV 4790/112) and necessary steps taken to forward the items marked for the applicable BUNO when received. If a missing item is on order, Column D will include a statement that the item will be forwarded on receipt. If an AIRs item is on back-order at time of transfer, the transferring activity will cancel the requisition(s), advise the accepting activity, and furnish information and justification on the Aircraft Inventory Record (Shortages) (OPNAV 4790/112), which can be used by the accepting activity for obtaining replacement items. CFE shortages noted on a previous record must be transcribed to the new Aircraft Inventory Record (Shortages) (OPNAV 4790/112). The transferring activity must notify the DCMD of the aircraft CFE shortage and provide updated shipping instructions for the CFE.

f. When shortages are discovered upon receipt of an aircraft and are not recorded in the AIR, the receiving organization will itemize shortages and submit a list of the shortages to the activity that transferred the aircraft within 10 working days of receipt of the aircraft. The transferring activity will take one of the following actions within 15 working days after receipt of shortage notification:

(1) Furnish vouchered turn-in document, or

(2) Furnish shipping data indicating shortages are being delivered, or

(3) Provide a Financial Liability Investigation of Property Loss (DD Form 200) for missing items to the accepting activity. If the item is not missing, but was not supplied due to other reasons, such as ACC direction, the activity CO must provide a written statement on the authority for retaining the item and supporting documentation, such as the ACC/TYCOM naval message or letter authorizing retention.

NOTE: In all cases, authority for transferring aircraft with shortages must be obtained in writing from the ACC/TYCOM prior to aircraft transfer.

g. The notation "Missing on Receipt" will not be used on Aircraft Inventory Record (Shortages) (OPNAV 4790/112). Appropriate authority will be referenced and a copy of the authorization, for example, letter, message, document, will be included in the AIR until the shortage is filled.

h. Missing MESM equipment that is not listed on the AIR but required to be transferred with the aircraft, will be included on the Aircraft Inventory Record Shortages (OPNAV 4790/112) (Figure 6-7). When missing MESM equipment is received by the accepting activity, appropriate deletions will be made to Aircraft Inventory Record Shortages (OPNAV 4790/112). No changes

are required to be made to the Aircraft Inventory Record (Equipment List) (OPNAV 4790/111) (Figure 6-6) unless equipment is listed on the MAIR.

i. If an AIR is lost or destroyed, the reporting custodian will reconstruct the AIR using a copy of the MAIR provided by COMNAVAIRSYSCOM Product Support Management/INTEGR DEP, Mission Systems Group and by performing a physical inventory.

6.7.2.8 Flight Clothing

Flight clothing may be purchased for issue to personnel in a flying status. Flight clothing pools are defined as articles of flight clothing listed in the NAVAIR 00-35QH-2 held in stock at the activity. Flight clothing pools must be accounted for, inventoried, and maintained as follows:

a. NAVSUP 306 custody cards will be established for each item carried in the flight clothing pool.

b. 100% inventory validity must be maintained at all times.

c. All items held in the pool must be inventoried quarterly and upon change of custodian. In the event of a loss by inventory, the loss will be reported via survey procedures of paragraph 6.3.4.

d. Replacement flight clothing issues must be conducted by PR rate (USMC MOS equivalent) personnel qualified to perform Place In Service inspections. Items must be issued on a one-for-one exchange basis to personnel in a flying status only. Quantity of items issued will not exceed the allowances established in the NAVAIR 00-35QH-2.

e. Turned-in flight clothing will be processed for disposal at the nearest supporting DLA Defense Reutilization and Marketing Service and must retain documentation of adequate disposal.

6.7.2.9 Flight Packets

Material Control is responsible for constructing and controlling flight packets for issue to pilots making extended flights. Requirements:

a. Each aircraft making an extended flight will be provided with a flight packet containing, at a minimum, those items listed in NAVSUP Publication 485 and ACC/TYCOM instructions. Flight packets will contain instructions to assist pilots in obtaining material or services necessary for the continuation of a flight.

b. COs will issue written procedures for flight packet control, issue, and use.

c. Strict accountability of the Purchase Order/Invoice/Voucher (SF 44) will be established using the preprinted serial control number on the document for accountability.

d. Flight packets must be inventoried by the Supply Officer or Material Control Officer when returned after each extended flight and at least monthly.

6.7.2.10 Aviation Into-Plane Reimbursement (AIR) Card

6.7.2.10.1 Department of the Navy (DON) commands participating in the AIR Card program are required to implement a local command procedure (LCP) per NAVSUPINST 4200.97.

a. DON personnel are responsible for the proper use of the AIR Card to include:

(1) Using the AIR Card for official Government business only

(2) Compliance with applicable regulations, policies, ethics and procedures

(3) Reporting misuse of the AIR Card to appropriate authority

(4) Reporting loss and or theft of an AIR Card

b. All persons entrusted with an AIR Card shall be held to the highest ethical standards.

c. DON personnel, whether military or civilian, are to ensure proper safeguarding of government charge card numbers.

6.7.2.10.2 The AIR Card provides a commercially accepted, effective, and convenient method to procure aviation fuel and related ground services and supplies for DON-owned aircraft. AIR Cards are assigned to aircraft, not individuals, and must remain with the aircraft assigned. The AIR Card is embossed with the aircraft's Bureau Number (BUNO). Specific guidance for account establishment, AIR Card usage, and priority resources, refer to NAVSUPINST 4200.97. Authorized users of the AIR Card are pilots, flight commanders, aircraft commanders, crew chiefs, and contracting officers.

NOTE: Per NAVSUPINST 4200.97, if any unauthorized purchases are accrued, the invoice will be short-pay with Government funds, and the individual who made the purchase will pay the amount owed to the card contractor with their personal funds.

6.7.2.10.3 The participating AIR Card program activity Commanding Officer (CO) will provide oversight and support to all participants within their command. The CO will appoint an Agency Program Coordinator (APC), Approving Official (AO), and Approving Certifying Officers (ACO) in writing. This authority cannot be delegated. Specific APC, AO and Certifying Officer's roles and responsibilities are detailed in NAVSUPINST 4200.97. The CO will ensure all APCs and AO have received the required training per DOD and DON policy and procedures. The CO will establish local policies and procedures identifying informal and formal disciplinary action to be taken against APCs, ACO, AO's, and card users, for non-compliance, fraud, misuse and or abuse. The activity ACO will ensure monthly accountability of AIR Card invoices match all receipts. The ACO will reconcile with aircrew all transactions used during extended flight operations to ensure all receipts are received. The AIR Card will be inventoried monthly.

6.7.3 Intermediate-level Material Control

In addition to the general responsibilities of paragraph 6.7.1, IMAs are responsible for the material management responsibilities prescribed in this section.

NOTE: Weapons Department Material Controls interface with the Supply Department in a similar manner as IMA Material Controls. Weapons Departments will order weapons support equipment WSE components from the Supply Department when removal and replacement of repairable components is involved. The defective component(s) will be turned into the Supply Department.

6.7.3.1 Organization

a. IMAs must establish a Material Control Branch (050) and any additional 050 I-level Work Centers needed to control material, such as 05A Material Screening (AMSU) or Joint Aviation Screening Unit (JASU), 05B Material Procurement/Accounting, 05C Accountable Material/IMRL Manager, 05D Aviation Tool Issue/Tool Control Center, and 05H Hazardous Material Control.

NOTE: I-Level Material Control Supervisors and Financial Managers must attend the Naval Aviation Material Control Management course (C-555-0051) and the Financial Management for Naval Aviation Operating Target Accounting course (Course C-555-0018) within 6 months of assuming duties.

6.7.3.2 AMSU/JASU

IMAs must establish an Aeronautical Material Screening Unit (AMSU) or a Joint Aviation Screening Unit (JASU) in conjunction with the Supply Department. AMSU/JASU will:

NOTE: AMSU/JASU and the Supply Screening Unit (SSU) have two distinct functions and responsibilities, but both share joint ownership of components undergoing repair in the IMA. The IMA and Supply Department may combine SSU, Document Control Unit (DCU), and AMSU/JASU, as long as specific ownership is identified.

a. Process all NRFI components received from O-level activities or IMA work centers to determine whether the component is within the check, test, or repair capability of the IMA.

b. Receive check, test, and repair components from the Component Control Section (CCS) or Warehouse Control Branch (WCB) for the Marine Corps and verify all documentation logs, records, MAF, WO, and CM ALS electronic data) were received with the component.

NOTE: AMSU/JASU will check the part number (P/N) on the WO or MAF against the P/N on the component identification plate. If the ID plate is missing, AMSU/JASU will validate the P/N with the Technical Research Unit (TRU) and the WO or MAF originator. New P/Ns will be added to NALCOMIS by TRU.

c. Identify components and determine whether they are within the check, test, and repair capability of IMA using the standard ICRL. When check, test, or repair capability does not exist, components must be shipped to the designated support point or DRP (via the ATAC Program), or another activity having the capability to repair the component. Under normal circumstances, the determination must be made within 24 hours. When determined that repair capability does not exist, the component will be shipped to another activity within 24 hours. Total IMA, Supply and Maintenance, hold time must not exceed 2 days.

d. Notify QA and Production Control when a component is received with When Discovered Code Y (found defective upon installation). AMSU/JASU must complete section C of the Y-Code Process Form (Figure 6-7), and will process the component after QA assigns a report number and completes Section B of the Y-Code Process Form. AMSU/JASU will route the Y-Code Process Form to the cognizant work center with the component.

e. Initiate an Individual Component Repair List (ICRL) Change Request (Figure 10.20-1) per paragraph 10.20 for P/Ns being inducted for the first time.

f. Review the discrepancy against items listed as X1 CC on the ICRL for potential to repair, for example, broken/missing knobs or fasteners, and contact Production Control for direction to induct or not induct the item.

NOTES: FLRs with SM&R coded PAOOO will be processed through AMSU/JASU for disposition. AMSU/JASU will confer with Production Control to determine if a repair is feasible and cost-effective. Refer to paragraph 5.2.4.2 for additional direction on processing items with SM&R Code PAOOO.

g. Notify Production Control for direction on scheduling the component into the repair cycle.

h. Route components to the Work Center designated in the ICRL or per Production Control direction.

i. Verify the ASR, EHR, or SRC card for the component is packaged properly to prevent loss or damage. When components are shipped between activities, the following procedures must be followed:

(1) Photocopy the ASR, EHR, or SRC card and place it in a plastic envelope and securely attach it to the outside of the shipping container. If the component must be shipped in an open crate or without a container, a photocopy is not required; however, special attention must be given to ensure the envelope containing the ASR, EHR, or SRC card is securely attached to the component.

NOTE: The photocopy of the ASR, EHR, or SRC card may be used to reconstruct a new card in the case of a lost or mutilated card. Refer to 8.2.10 for additional procedures to reconstruct missing records.

(2) Insert and seal the ASR, EHR, or SRC card in a plastic envelope. Shipping documents and WOs or MAFs will not be placed in the same envelope. Attach the plastic envelope directly to the component and put both items inside the shipping container.

(3) Move CM ALS data to the receiving activity.

6.7.3.3 Awaiting Parts (AWP)

When notified that parts are not available in the local supply chain, the IMA Work Center will deliver the component, all associated documentation, uninstalled RFI parts, and hardware (such as nuts and screws) to the Supply Department AWP Unit (6.5.13). All hardware delivered with the component will be in an appropriate container labeled "hardware". A component with outstanding (not filled by local supply action) AWP requisitions will be delivered to the AWP holding area within 24 hours from the time the requisition was submitted. Aircraft engines and other large components may be retained in the work center when movement to an AWP holding area is impractical. MAF bags will not be used for uninstalled items (parts) that are easily crushed by other items.

6.7.3.4 Preservation and Packaging

IMAs will perform internal and external preservation (prior to packaging) of all components in the repair cycle. The P700-CNP website (https://tarp.navsup.navy.mil/) provides preservation and packaging requirements for specific repairable components. Requirements:

a. IMAs will adequately protect components for local routing the repairable to or among the various supply or I-level work centers. The packing and preservation section is responsible for final packing and preservation of components (less engines) prior to storage or shipment. Engines will be preserved and packaged by the IMA.

NOTES: 1. When it is positively known a component repaired by an IMA will be reissued to local operating units in a reasonably short time, it need only receive the minimum amount of preservation and packaging to ensure positive identification and short-time protection.

2. All solid-state electronic components and assemblies containing such components are considered ESDS items unless otherwise directed by higher authority. Refer to, paragraph 10.21, for guidance and direction for the identification, handling, and protection of ESDS components.

b. The IMA will track supply assets to ensure re-inspection or re-preservation is done per preservation or technical manuals.

6.8 Marine Corps Aviation Material Management

6.8.1 Policy

Marine Corps activities have the same material management responsibilities as Navy activities, with additional direction from Headquarters Marine Corps (HQMC). Marine Corps Order 4400.17 Aviation Supply Desk Top Procedures directs standardization of aviation Supply operations. Adherence to the MCO P4400.177 is mandatory for MALS. Because of unique local situations, there may be rare instances that require minor deviations from specific procedures delineated in MCO P4400.177. In those cases, the MALS must submit a written request to their MAW commander with information copies to the Fleet Marine Force (FMF) commander and Commandant of the Marine Corps (CMC) (Code ASL-33).

6.8.2 Marine Aircraft Wing (MAW) Supply Officer

MAW Supply Officer responsibilities include coordinating aviation materiel (such as inventory management, distribution, storage, and transportation), financial matters, training, and related programs in support of squadrons assigned within subordinate MAGs. The aviation supply officer and staff are the principal points of contact for coordinating aviation supply matters between the aircraft TYCOM; the MAW commander; and the assigned MAGs. The branch also:

a. Implements and coordinates aviation supply policy within the MAW.

b. Coordinates with the MAW comptroller on all matters concerning operations, maintenance, and Navy expenditures.

c. Conducts liaison with external agencies in support of aircraft readiness within supported MALS.

d. Coordinates aviation materiel support for ship and unit deployments.

c. Coordinates the assignment of personnel in the 6602, 6604, and 6672 MOSs.

d. Analyzes aviation supply and financial management performance.

e. Monitors weapon system materiel support transitioning from commercial supply to Navy supply.

f. Coordinates with the ALIMS branch on policy development input to HHQ for changes/updates to NTCSS and other aviation logistic information systems.

6.8.3 Marine Aviation Logistics Squadron (MALS) Aviation Supply Officer

The MALS Aviation Supply Officer (AVNSUPO) functions as a special staff officer for the MAG Commanding Officer (CO). General responsibilities:

a. Strict adherence to MCO P4400.177.

b. Manage and administer the MALS Supply Department.

c. Produce, receive, store, maintain, and issue aviation Marine Corps property within the MAG.

d. Monitor MALS Supply Department performance.

e. Advise the MAG and MALS CO's and their staff on Supply matters relating to readiness, effectiveness, and ongoing and planned projects within the MAG MALS Supply Department.

f. Liaison with supporting Supply activities and MAW staff to ensure MAG supply requirements are known and satisfied.

g. Liaison with each squadron within the MAG on supply support of squadron readiness.

6.9 Depot Level Repairable (DLR) Management

6.9.1 General DLR Policy and Processes

6.9.1.1 Repairable components represent the most significant dollar investment in the entire aeronautical item inventory. Improved management of these repairable components is essential to increase the readiness of the operating forces and reduce support costs.

6.9.1.2 Aviation equipment and systems are complex and their maintenance requires industrial capabilities not available at the O-level or I-level. As a result, increasing use is being made of DLR modular replacement components that are repaired at organic and commercial depot rework sites. These DLR components are removed and replaced at the O-level and I-level, either periodically or upon failure, and are economically restored to serviceable condition at specified depot-level designated repair points (DRP) when beyond intermediate-level capability. When failed DLRs are removed, serviceable components are requisitioned and the failed components are turned in to the supply system.

6.9.1.3 The decision that an item will be managed as a repairable component is made by COMNAVAIRSYSCOM during the provisioning process with the aid of the prime contractor and the inventory manager. COMNAVAIRSYSCOM assigns SM&R codes, including support level assignments, for each repairable component as part of the formal provisioning of aeronautical material based upon a maintenance plan. SM&R codes assign repair responsibilities to D-level maintenance according to their capabilities and capacities. If organic depot capability or capacity is insufficient, support can be used from inter-service or commercial contract sources either as an interim measure until the organic capability and capacity can be developed or permanently, depending on the economics, or operational essentiality involved.

6.9.1.4 Master Component Rework Control (MCRC) is a major segment of managing the DLR component rework schedule. MCRC maintains a central data bank containing rework requirements capability and production data for repairable aeronautical components, which provides all levels of management with comprehensive reporting on the range and depth of the

component rework program. Among other features, the MCRC system indicates which activities are DRPs for each repairable component line item and the capability of the DRPs.

6.9.1.5 The repairable designation is based on a determination that it costs less to rework existing components than to procure new components. Inventory economies can be achieved by having such components returned to service through rework by depots. Components designated as MTR must be turned in to the Supply System for rework at the DRP when beyond field (O-level and I-level) level capabilities.

6.9.1.6 The special management applied to DLR components includes a program (application operation B08) to improve the efforts of the naval aviation industrial establishment in scheduling the rework of components. The inventory manager at NAVSUP WSS will compute and transmit specific rework requirements to the DRPs. The program features a weekly automatic data processing generated component rework requirement computation that considers RFI, NRFI, and in-process assets as offsets to derive the net requirement for depot rework induction. The net requirements projections show an induction and production deficiency. The deficiency is scaled to portray the various levels of priorities to identify the criticality of the stock deficiency more precisely in descending induction priority sequence.

6.9.1.7 It is COMNAVAIRSYSCOM policy to use RFI D-level repairables to the maximum extent practicable, in lieu of concurrently reworking identical components incident to aircraft and power plant programs. To support that policy, NAVSUP WSS and the DRPs have negotiated retail allowances for non-concurrent rework, known as repairable support inventory (RSI). The RSI population includes all known requirements for exchange of DLRs, including those items determined by NAVSUP WSS to be in long supply in the Supply System. Prior to routing a component removed from an aircraft or engine for concurrent rework, the DRP must determine if that component is a member of the RSI population. If it is, the DRP must requisition a replacement unit on a "fill-or-kill" basis from its supporting DSP. If assets are available, the DSP must issue the material to the DRP; if no assets are available, the DSP will "kill" the requisition. If the DSP makes the issue, the DRP will turn in the removed component to the system, and will be billed the net price for the replacement by NAVSUP WSS. The only approved exceptions to DLR exchange in lieu of concurrent rework are:

a. DLRs that are not identified as RSI items.

b. RSI items that are not available for exchange, as evidenced by a "killed" requisition status from the DSP.

6.9.1.8 The Advanced Traceability and Control Retrograde Depot Level Repairables Program improves accountability, traceability, and customer billing accuracy in the DLR carcass tracking system. Under ATAC procedures, most retrograde DLRs are shipped via ATAC hubs that serve as centralized DLR processing facilities. Complete ATAC procedures, as well as exceptions to

the program, are in NAVSUP Publication 485, Volume I, Chapter 8, Part D and Electronic Retrograde Management System (eRMS) Desk Guide.

6.9.2 Commercial Depot Rework General Policy and Procedures

a. COMNAVAIRSYSCOM Sustainment Group determines commercial depot-level rework requirements when developing the maintenance plan for an aircraft, engine or equipment.

b. Commercial depot rework is managed by NAVSUP WSS .

c. NAVSUP WSS is responsible for contracting for and scheduling commercial rework of components, whereas contracting for the rework of aircraft and aircraft power plants is the responsibility of COMNAVAIRSYSCOM Sustainment Group. Paragraph 6.9.4 provides additional information on contracting for commercial rework.

d. The material support provided for each contract is generally limited to that direct material which becomes an integral part of the item being reworked. The primary exceptions include materials furnished by the government, for example, gases, liquids, greases and lubricants, oxygen, carbon dioxide, and paint. These types of material and all material furnished by the contractor must meet government specifications. Excess contractor furnished material does not become government material so it is not available for issue to any government activity.

e. Contractors that perform aircraft and engine rework are not required to have the capability to rework all components installed on the aircraft or power plant. Components that the contractor does not have rework capability for must be shipped to the designated DRP and replacement RFI components must be drawn from the supply system. Process:

(1) Depot Rotatable Pool. A small number of components are identified in the work specification as requiring rework when the aircraft and power plant are inducted into commercial rework. These types of items usually require more time to rework than do the aircraft or power plant of which they are a part. To avoid work stoppages, as well as to protect system assets for operating force use, a rotatable pool of these components is established at the contractor's plant. The size of the pool is determined at first by NAVSUP WSS upon contract award and is reviewed periodically as the availability of assets, piece part support, and contractor requirements change.

(2) Standby Pool. Major components, for example, helicopter rotor blades, propellers, gearboxes, and power plants, are not programmed to be reworked by the same contractor that reworks the aircraft. To provide the contractor with the assets to support the production schedule, a standby pool for these types of components is established which will ensure the contractor has at least one asset on hand at all times. As assets are drawn from the standby pool, the contractor is required to requisition replacement assets from the controlling government agency.

(3) Standby and rotatable pool quantities are kept to the absolute minimum needed to support the contractor. Pool assets normally will not be made available to any other activity because pool depletion would result in production delays, increased potential for substandard quality, and un-programmed contract cost increases.

f. Repairable components received at depots with shipping, packaging, or preservation discrepancies place an additional burden on supply assets by increasing turn-around time (TAT) or cause loss (survey) of the components due to lack of preservation or proper packaging. Additionally, components requiring data, such as SRC, ASR, EHR, MSR, and logbooks that are received for rework with missing or incorrect data cards, require expending additional hours to correct. Critical components, for example, aircraft tail hooks, launch bars, and tail hook trunnions, require penalizing when SRC data is incorrect or not available, thereby causing additional loss of usage. Packaging, preservation, technical data, and shipping discrepancies noted on receipt of repairable components must be reported as directed by NAVSUP Publication 723.

6.9.3 DLR Requisitioning

6.9.3.1 DLRs are requisitioned on a one-for-one exchange basis for fleet unit material requirement.

6.9.3.2 Stock replenishment requisitions are submitted only after turn-in (retrograde action) of an unserviceable item is cleared from the Completed Repair Action mailbox.

6.9.3.3 Most NRFI DLRs will be returned to the DRP or DSP via the ATAC hub.

6.9.4 Contracting for Commercial Rework of DLRs

6.9.4.1 Planning

The key to a good commercial contractor rework program is a well-written, detailed and administered contract. Coordination between the Procurement Contracting Officer (PCO) and the technical representatives is critical to ensuring the contract has adequate control of the contractor's effort. Work to write the contract should begin to ensure the specific actions shown in Commercial Rework Milestones for Existing Commercial Contracts (Figure 6-9) are accomplished. In addition to the lead time required to properly develop the contract, it is essential that the technical data and government furnished material needed to accomplish the rework be provided to the contractor to start the implementation of the contract and before the first item is inducted for rework. The production schedule should also provide the contractor with additional time on the first few production delivery dates for a training and experience learning curve.

6.9.4.2 Life of Rework Contracts

For cost effectiveness, rework contracts are developed to provide services in yearly increments of up to 5 years. The provisions of the contracts include the renewal of existing contracts by successive exercise of yearly options. These types of contracts provide for an additional 90-day option beyond the terminal date of the contract to cover the requirements generated during a new contract start-up period when awarding to a contractor other than the current contractor.

6.9.4.3 Constructive Change

a. A constructive change could put the government in violation of the Anti-Deficiency Act which says that the government does not obligate or create an obligation or make any expenditure in excess of an apportionment or an administrative subdivision of appropriated funds. No effort is to be contracted for unless there are funds available for that effort.

b. Constructive changes could increase the liability of the government to more than the funds available. Therefore, only the Procurement Contracting Officer (PCO) is authorized to change contract provisions unless this authority is specifically delegated by the PCO in writing.

NOTE: Conduct by government personnel in administering or managing the contract or contractor may be construed as amending the contract provisions by the contractor. This is known as "apparent authority." The doctrine of apparent authority is not applicable to government contracts and government representatives acting beyond their authority may cause an unauthorized commitment to occur requiring ratification (DOD FAR Supplement 1.670). If ratification is not possible, the government employee may be liable.

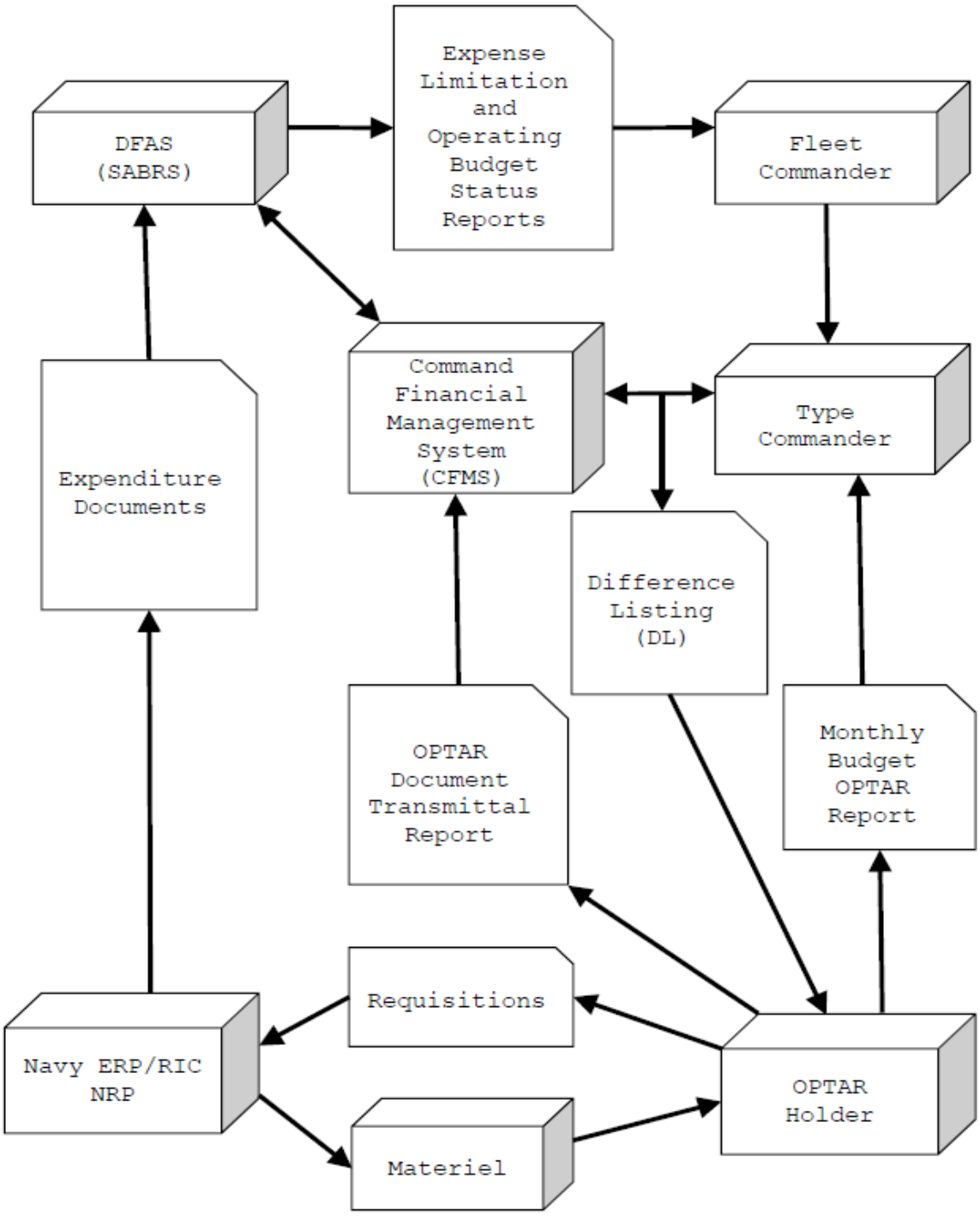
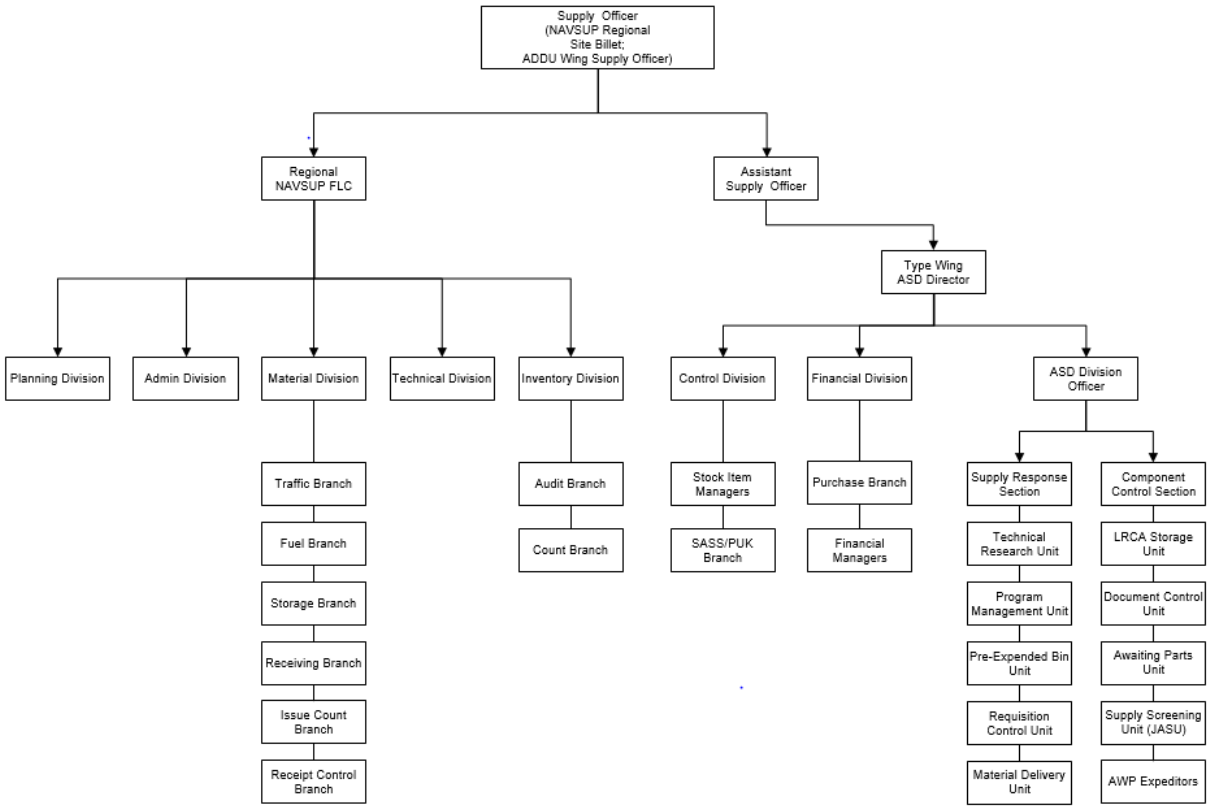


Figure 6-1: Flow of Accounting Data



NOTE: This chart depicts a typical Aviation Supply Department Ashore. Individual site may vary.

Figure 6-2: Supply Department Organization Ashore

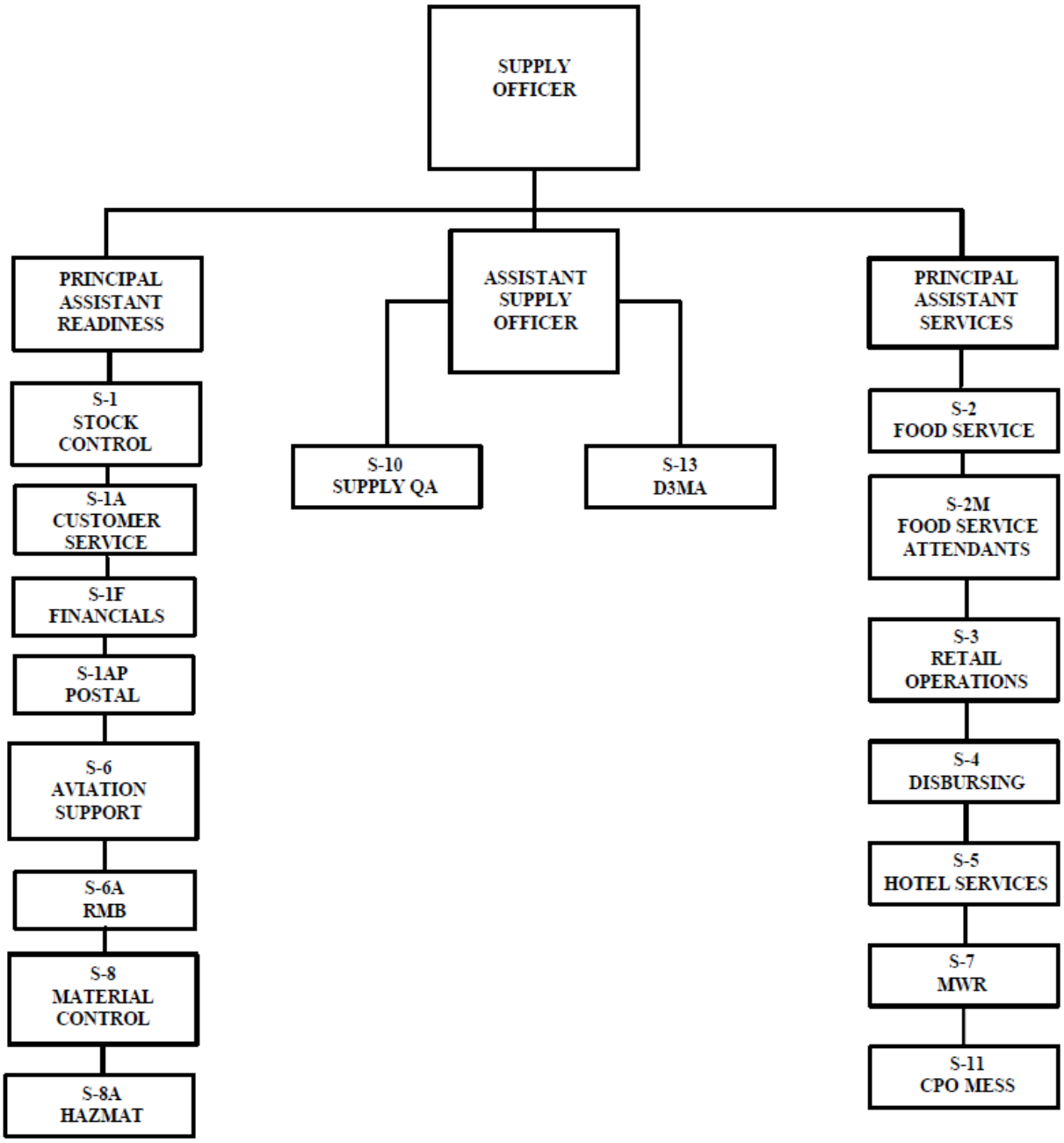


Figure 6-3: Supply Department Organization Afloat

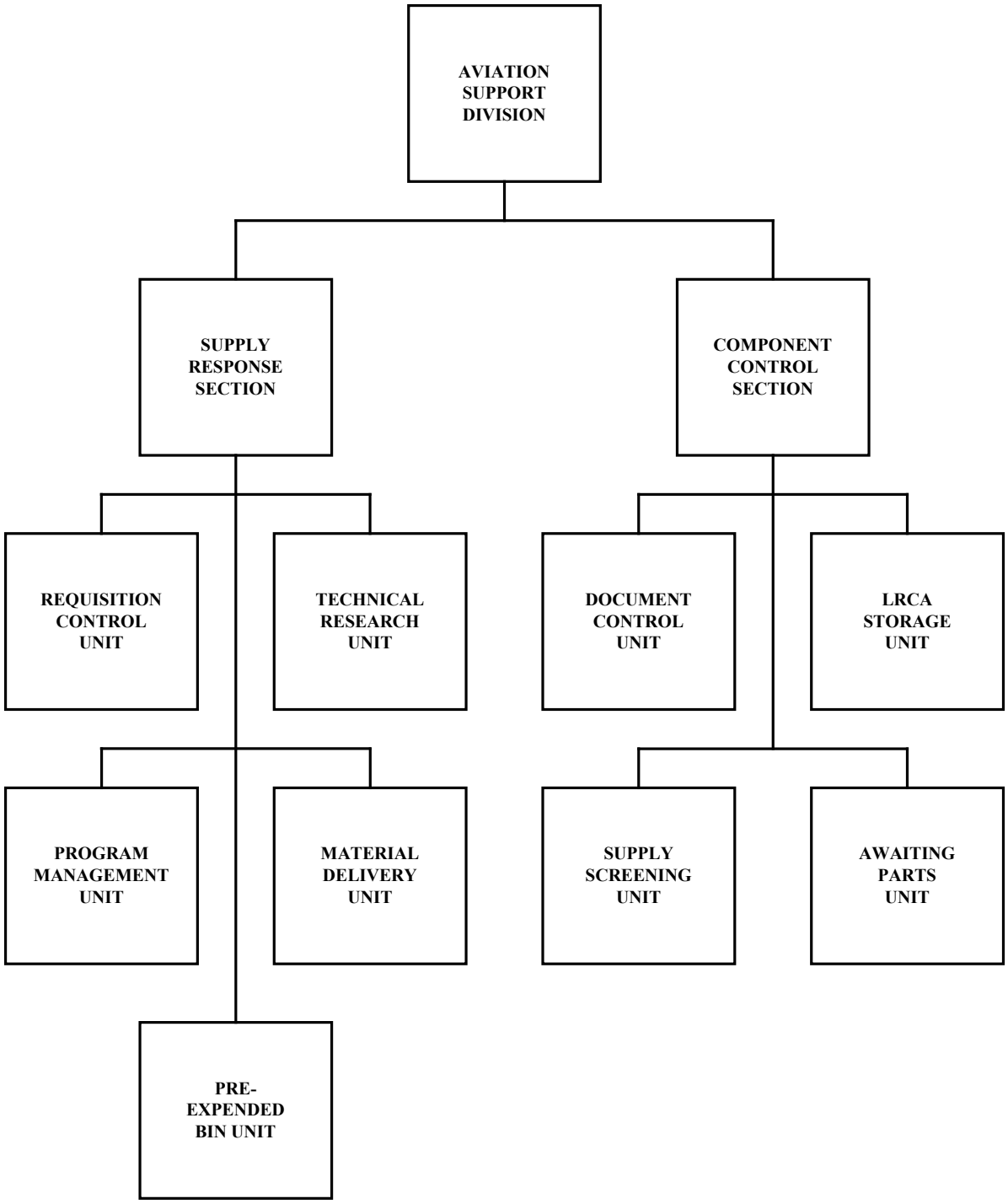
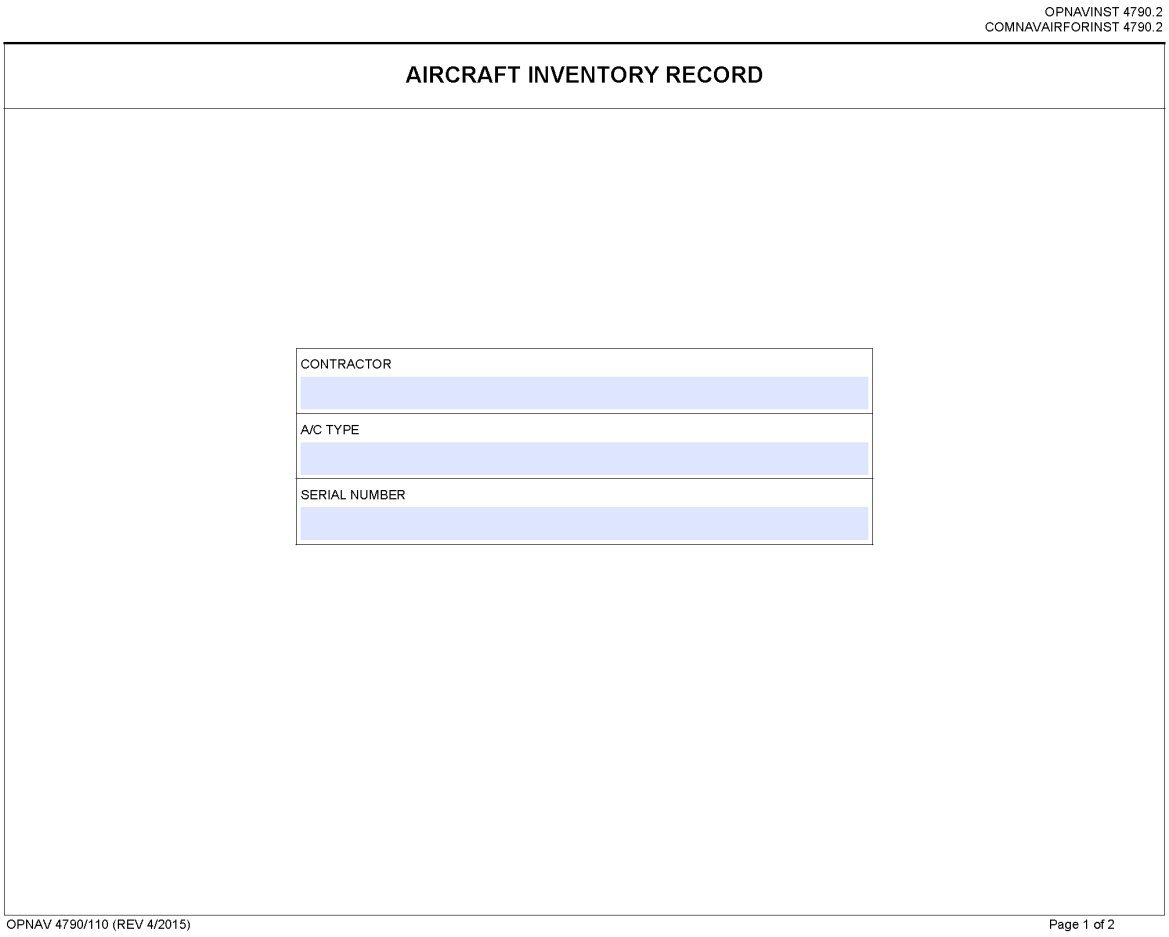


Figure 6-4: ASD Organization



OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

AIRCRAFT INVENTORY RECORD

CONTRACTOR

A/C TYPE

SERIAL NUMBER

OPNAV 4790/110 (REV 4/2015)

Page 1 of 2

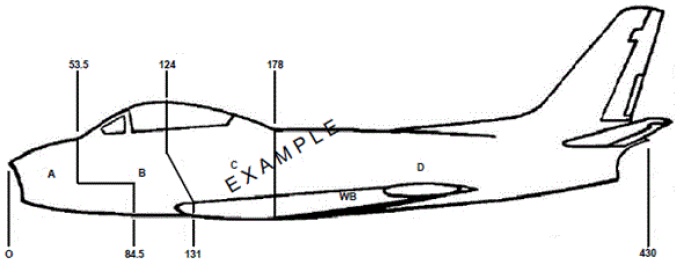
Figure 6-5: Aircraft Inventory Record (OPNAV 4790/110) (Front)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

AIRCRAFT TYPE	SERIAL NUMBER	CONTRACT NO.	PRIME CONTRACTOR	ACCEPTANCE DATE

EXPLANATION

SECTIONAL BREAKDOWN DIAGRAM



MISCELLANEOUS DATA

OPNAV 4790/110 (REV 4/2015) BACK

Page 2 of 2

Figure 6-5: Aircraft Inventory Record (OPNAV 4790/110) (Back)

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

AIRCRAFT INVENTORY RECORD EQUIPMENT LIST	SECTION	GOVERNMENT SERIAL NO.	AIRCRAFT TYPE

ITEM NO. A	NOMENCLATURE, TYPE AND MODEL B	REQUIRED HERE C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	LOCATION OR REMARKS E
			D																							

CHECK 1 BY	CHECK 7 BY	CHECK 13 BY	CHECK 19 BY
CHECK 2 BY	CHECK 8 BY	CHECK 14 BY	CHECK 20 BY
CHECK 3 BY	CHECK 9 BY	CHECK 15 BY	CHECK 21 BY
CHECK 4 BY	CHECK 10 BY	CHECK 16 BY	CHECK 22 BY
CHECK 5 BY	CHECK 11 BY	CHECK 17 BY	CHECK 23 BY
CHECK 6 BY	CHECK 12 BY	CHECK 18 BY	CHECK 24 BY

1. Verify each equipment check by entering the signature of the person performing the inventory

OPNAV 4790/111 (REV 4/2015)

Page 1 of 1

Figure 6-6: Aircraft Inventory Record Equipment List (OPNAV 4790/111)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

AIRCRAFT INVENTORY RECORD SHORTAGES	GOVERNMENT SERIAL NO.	AIRCRAFT TYPE

ITEM NO. A	NOMENCLATURE, TYPE AND MODEL B	QUANTITY SHORT C	AUTHORITY OR REASON FOR SHORTAGE D	REMARKS E

NAME OF TRANSFERRING/RECEIVING ACTIVITY	
EQUIPMENT CHECK #/CERTIFICATION #	
DATE:	
SIGNATURE OF TRANSFERRING ACTIVITY COMMANDING OFFICER OR A REPRESENTATIVE AUTHORIZED TO SIGN BY DIRECTION	

OPNAV 4790/112 (REV 4/2015)

Page 1 of 1

Figure 6-7: Aircraft Inventory Record Shortages (OPNAV 4790/112)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

AIRCRAFT INVENTORY RECORD CERTIFICATION AND RECORD OF TRANSFERS

1. NAME OF PRIME CONTRACTOR	2. GOVERNMENT SERIAL NO.	3. CONTRACT NUMBER	4. AIRCRAFT TYPE

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *DELIVERY*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

5. CERTIFICATE NUMBER	6. TRANSFERRED FROM	7. DATE TRANSFERRED	8. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *RECEIPT*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

9. CERTIFICATE NUMBER	10. RECEIVED BY	11. DATE RECEIVED	12. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *DELIVERY*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

13. CERTIFICATE NUMBER	14. TRANSFERRED FROM	15. DATE TRANSFERRED	16. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *RECEIPT*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

17. CERTIFICATE NUMBER	18 RECEIVED BY	19. DATE RECEIVED	20. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *DELIVERY*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

21. CERTIFICATE NUMBER	22 TRANSFERRED FROM	23. DATE TRANSFERRED	24. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *RECEIPT*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

25. CERTIFICATE NUMBER	26 RECEIVED BY	27. DATE RECEIVED	28. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *DELIVERY*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

29. CERTIFICATE NUMBER	30. TRANSFERRED FROM	31. DATE TRANSFERRED	32. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

I CERTIFY THAT THIS AIRCRAFT AT THE TIME OF *RECEIPT*, WAS INVENTORIED IN ACCORDANCE WITH THE CURRENT COMNAVAIRFORINST 4790.2 AND WAS EQUIPPED WITH ALL ITEMS REQUIRED TO CONSTITUTE A COMPLETE AIRCRAFT, WITH THE EXCEPTION OF THOSE ITEMS NOTED ON OPNAV 4790/112.

33. CERTIFICATE NUMBER	34 RECEIVED BY	35. DATE RECEIVED	36. SIGNATURE OF GOVERNMENT REP, OR AUTHORIZING AGENT, OFFICIAL TITLE AND ORGANIZATION

OPNAV 4790/104 (REV 4/2015)

Page 1 of 1

Figure 6-8: Aircraft Inventory Record Certification and Record of Transfers

(OPNAV 4790/104)

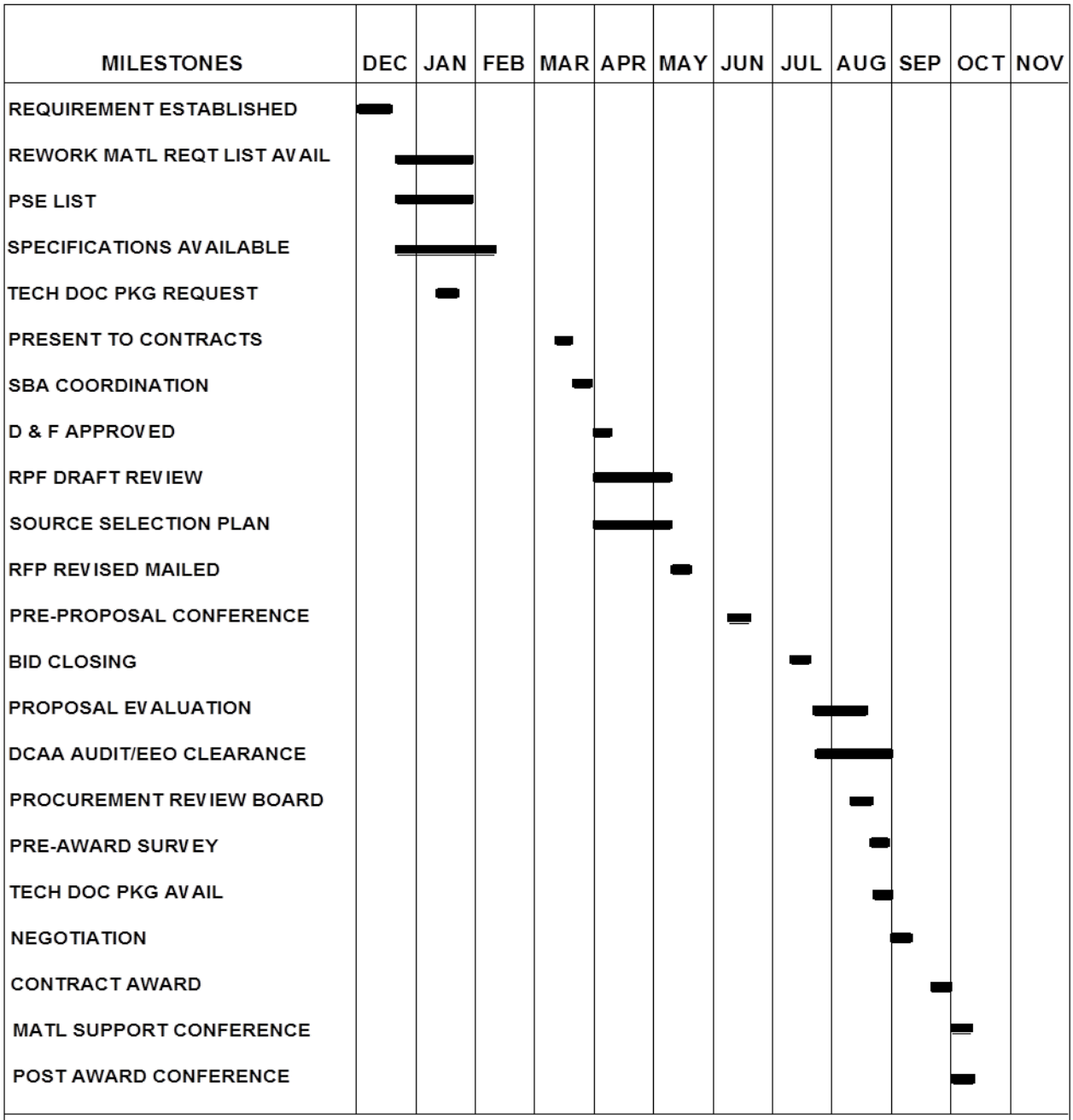


Figure 6-9: Commercial Rework Milestones For Existing Commercial Contracts

CHAPTER 7

Quality Assurance (QA)

Table of Contents

7.1 Introduction 1
7.1.1 Concept 1
7.1.2 Definitions 1
7.1.3 Functions of Quality Assurance 2
7.2 Quality Assurance Division Organization 3
7.3 Quality Assurance Personnel 4
7.3.1 Quality Assurance Representative (QAR) 4
7.3.2 Collateral Duty Quality Assurance Representative (CDQAR) 4
7.3.3 Collateral Duty Inspector (CDI) 5
7.3.4 Training 6
7.3.5 Designation 7
7.4 Quality Assurance Responsibilities 8
7.4.1 Commanding Officer 8
7.4.2 Maintenance Officer 9
7.4.3 Quality Assurance Officer 9
7.4.4 Quality Assurance Supervisor 9
7.4.5 Quality Assurance Representative 10
7.4.6 Collateral Duty Quality Assurance Representative 11
7.4.7 Collateral Duty Inspector 11
7.4.8 Technical Data Manager 11
7.4.9 Work Center Division Officers 11
7.5 QA Inspection and Certification 11
7.5.1 Inspection Requirements 11
7.5.2 Inspection Verification 13
7.5.2.1 General Verification Requirements 13
7.5.2.2 Certification for Work by D-Level Artisans Assigned to I-Level Activity 14

7.5.2.3 QA Requirements for Transient or In-Flight Maintenance 15

7.6 Quality Assurance Division Program Management 15

7.6.1 O-Level and I-Level Support Equipment (SE) Misuse/Abuse Reporting 15

7.6.2 Aircraft Confined Space Program (ACSP) 16

Figure 7-1: O-Level Maintenance Activity QA Organization 19

Figure 7-2: I-Level Maintenance Activity QA Organization 20

Figure 7-3: QA Organization for Operations Maintenance Department (OMD) and Permanent or Temporary Detachments with Four or Less Aircraft QA Organization 21

Figure 7-4: Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12) 22

Figure 7-5: Y-Code Process 23

Figure 7-6 (front): Support Equipment Misuse/Abuse (OPNAV 4790/108) 24

Figure 7-6 (back): Support Equipment Misuse/Abuse (OPNAV 4790/108) 25

CHAPTER 7
Quality Assurance (QA)

7.1 Introduction

Quality Assurance (QA) is a relatively small group of highly skilled personnel. The permanently assigned personnel under the QA Officer are responsible for conducting and managing the maintenance department's QA effort. The personnel assigned to QA are known as Quality Assurance Representatives (QAR). QARs are responsible for actively monitoring the quality of maintenance performed and effective program management applicable to the maintenance department. The number of personnel assigned to QA will vary among activities in relationship to the size of the unit and number of work shifts. However, sufficient personnel will be assigned to provide coverage of the billets as shown in the organizational charts listed in this chapter.

7.1.1 Concept

The QA concept is the prevention of the occurrence of defects. The concept embraces all scheduled and unscheduled events from the start of the maintenance operation to its completion and is the responsibility of all maintenance department personnel. The principle of prevention is to preclude maintenance failure. Prevention is about regulating events rather than being regulated by them. Prevention extends to safety of personnel, maintenance of aircraft, and equipment. QA provides a systematic and efficient method for actively monitoring, inspecting, analyzing, verifying, and maintaining standards for the quality characteristics of aircraft, engines, components, material, and equipment. Achievement of QA relies on qualified and trained personnel with situational awareness, knowledge, and special skills. The objective of QA is to readily pinpoint problem areas in which the maintenance department management can:

a. Improve the quality, uniformity, and reliability of aircraft and equipment

b. Improve the work environment, tools, and equipment used in the maintenance effort

c. Improve the quality of maintenance materials, technical data, and processes

d. Improve training, work habits, and procedures of maintenance personnel

e. Eliminate unnecessary man-hours and material expenditures

f. Effectively manage and disseminate technical data

NOTE: The Depot Quality Management System (QMS) is described in Chapter 12.

7.1.2 Definitions

The terms QA, Monitor, inspection, auditing, Collateral Duty Inspector (CDI) evaluation, and monitoring have distinct meanings as they apply to the NAMP.

a. QA is the planned and systematic pattern of actions taken to verify if an item conforms to specifications and will perform satisfactorily.

b. Monitor is a title used to define personnel who have been assigned to the QA division to perform observation of the duties on a specific program, area, or performance of a maintenance event.

c. Inspection is the physical examination and testing of aircraft, engines, equipment, components, parts, and materials to determine conformance to specifications.

(1) Final inspections are specific QA functions performed following the completion of a maintenance task when proper accomplishment of the task can be determined by visual inspection. Zonal inspections for obvious defects such as leaks or foreign objects in the immediate work area prior to closing a panel, and the verification of WO and MAF documentation are also part of the final inspection process.

(2) In-process inspections are required during the performance of maintenance where satisfactory accomplishment of the task cannot be determined by visual inspection after the task has been completed. Requirements for an in-process inspection include, but are not limited to, witnessing application of torque, functional testing, adjusting, assembly, servicing, and installation. When the notation "QA" appears on a Maintenance Requirement Card (MRC) it signifies a QA function is required as part of the maintenance task as per 7.5.1.3.

(3) Receipt or screening inspections apply to material, components, parts, equipment, logs, and records, Configuration Management Auto Log-sets (CM ALS), and documents. Receipt inspections are normally conducted to identify the material received, determine its condition and maintenance requirements, and verify the accuracy of accompanying records.

d. Auditing is the periodic or on-condition evaluation of compliance with specified policies and procedures. Examples of audits include QA program audits, Division Officer work center audits, and program manager audits. Refer to paragraph 10.7 for guidance on auditing.

e. CDI evaluations are the process of validating that CDIs have performed all required tasks as part of the inspection process utilizing the CSEC Program Area 5600.

f. Monitoring is the physical observance of a maintenance process to verify compliance with procedures. For example, a Quality Assurance Representative (QAR) watching an aircraft towing evolution or the Line Division Supervisor watching a fuel sample be taken to verify correct procedures are being adhered to and all safety precautions are being followed. Monitoring also includes routine collection and trending of performance data, for example, oil consumption and Foreign Object Damage (FOD) trends. Active monitoring of ongoing maintenance by supervisors, managers, and QA personnel is critical to the achievement of the QA concept.

7.1.3 Functions of Quality Assurance

7.1.3.1 QA is the responsibility of every individual involved with Naval Aviation maintenance. Although the QA Officer (QAO) is responsible for managing the overall quality assurance effort within the maintenance department, each Division Officer, Division Chief, Work Center Supervisor, and technician is equally responsible for maintenance quality within their areas of responsibility.

7.1.3.2 A proactive QA Division is an equal partner with Maintenance Control, Divisions, and Work Center Supervisors in ensuring high quality, and safe maintenance. QA's involvement is a critical element of Operational Risk Management (ORM) during high-risk operations ashore and afloat.

7.1.3.3 Quality Assurance will screen, review, determine applicability, and disseminate Technical Data to the maintenance department.

7.1.3.4 To provide a real-time maintenance in action approach to monitoring, QA personnel will be "out and about" preventing negative trends by physically observing ongoing maintenance for compliance with the NAMP, technical data management procedures, and safety precautions. As a part of the active monitoring, QA is responsible to perform CDI evaluations.

a. QA will utilize the CSEC Program Area 5600 to perform impromptu CDI evaluations throughout the year. For example, the QAR will identify personnel actively performing maintenance and trace back the process step by step utilizing the checklist to ensure compliance with policy and procedures.

NOTES: 1. Impromptu CDI evaluations allow for ample training time and remediation on unsatisfactory evaluations.

2. Members that possess CDI qualification in multiple work centers do not require a CDI evaluation per work center.

3. Personnel designated with QAR or CDQAR qualifications are not required to complete CDI evaluation requirements.

b. CDIs will not exceed a 12 month period in the performance of their duties without a CSEC evaluation being performed by a QAR or CDQAR NLT the last day of the initial qualification month and will be documented in writing by the Commanding Officer (CO) on Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12) (Figure 7-4) or in ASM per 10.1.2.9.

(1) Upon the completion of a satisfactory evaluation, a QAR will adjust the CDI's next evaluation due date in ASM to 12 months from the completion of the current evaluation.

(2) CDIs that receive an unsatisfactory evaluation are required to complete a satisfactory evaluation before exceeding a 12 month period.

(3) CDI evaluations will be graded in the CSEC Overview as Satisfactory, Unsatisfactory with Remediation, or Unsatisfactory based on the following criteria:

(a) Satisfactory. All requirements of the CSEC 5600 were met without error.

(b) Unsatisfactory with Remediation. CDI did not meet all CSEC 5600 requirements, but the errors were not egregious or safety related. The CDI can remain qualified, but requires a satisfactory evaluation prior to the 12 month due date.

(c) Unsatisfactory. CDI missed a safety related element of the CSEC 5600 or demonstrates a lack of knowledge with policy and procedures. This grade requires the QAS and QAO to make a recommendation on possible suspension or revocation of the member's qualification and routed to designation authority for disposition.

7.2 Quality Assurance Division Organization

At a minimum, one member will be assigned to QA Division to provide coverage for each of the billets specified in the applicable Quality Assurance Organizational Chart (Figure 7-1 through Figure 7-3), as applicable to the T/M/S aircraft maintained. The MO will determine the number of

additional QARs assigned to the QA Division, and the number of CDQAR and CDIs assigned to production work centers based on operational requirements, QA workload, and number of work shifts.

NOTES: 1. QA Supervisors may also be designated as QARs in their areas of technical expertise.

2. Squadrons that deploy with detachments may have CDQARs perform all QAR functions until return to home base or disestablishment of detachment.

7.3 Quality Assurance Personnel

Personnel assigned to QA duties are the direct representative of the Commanding Officer (CO) for ensuring the quality of aircraft, engines, components, and equipment, and must possess the highest standards of professional integrity. In addition to inspection duties, QARs, CDQARs, and CDIs serve as trainers and mentors in their areas of expertise.

7.3.1 Quality Assurance Representative (QAR)

QARs are permanently assigned to the Quality Assurance Division. QAR qualifications:

a. E-6 or above

b. (Navy) Fully qualified in the Qualified and Proficient Technician (QPT) syllabus in their technical field for the type/model/series (T/M/S) aircraft supported

c. (Marines) Fully qualified in the Aviation Maintenance Training and Readiness Program (AMTRP) syllabus in their technical field for the T/M/S aircraft supported

d. Complete the QAR training syllabus and personnel qualification standards (PQS) applicable to their billet assignment, and pass the written examination administered by QA

e. Complete the Naval Aviation Logistics Command Management Information System (NALCOMIS) (Optimized) Organizational Level Maintenance Activity (OMA) Naval Aviation Quality Assurance Administration Course (Course C-555-0046)

f. Skilled in researching, reading, and interpreting drawings, maintenance technical manuals, directives, and data

g. Fully knowledgeable in NALCOMIS documentation procedures and codes, and able to write with clarity and technical accuracy

7.3.2 Collateral Duty Quality Assurance Representative (CDQAR)

CDQARs are assigned to production work centers when needed to supplement the QA Division's capacity to perform QAR-level inspections. CDQARs are responsible to the QA Officer when performing QA functions. CDQAR qualifications:

a. E-5 or above

b. (Navy) Fully qualified in the Qualified and Proficient Technician (QPT) syllabus in their technical field for the type/model/series (T/M/S) aircraft supported

c. (Marines) Fully qualified in the Aviation Maintenance Training and Readiness Program (AMTRP) syllabus in their technical field for the T/M/S aircraft supported

d. Complete the same training and testing syllabus as QARs assigned to the commensurate QA Division rate or military occupational specialty (MOS) billet, with the exception of the NALCOMIS (Optimized) OMA Naval Aviation Quality Assurance Administration Course (C-555-0046)

e. Skilled in researching, reading, and interpreting drawings, maintenance technical manuals, directives, and data

f. Fully knowledgeable in NALCOMIS documentation procedures and codes, and able to write with clarity and technical accuracy

7.3.2.1 CDQARs may be assigned if the minimum QAR manning requirements (Figure 7-1 through Figure 7-3) for their rate or MOS billet have been met.

7.3.2.2 CDQARs may be temporarily assigned to the QA Division when there is a severe shortage of skill or to relieve QARs during short periods of absence, such as leave, temporarily assigned duty (TAD), or hospitalization.

7.3.2.3 Except where specifically stated in this instruction, CDQARs will not be assigned to perform non-inspection functions, such as QA audits, when a commensurate billet exists in the QA Division.

NOTE: OMDs and detachments that organize their QA Division per Figure 7-3 will use CDQARs to perform QAR administrative and auditing duties.

7.3.2.4 A CDQARs may perform initial qualification sign-offs, subsequent proficiency, and practical examinations specified to be performed by a QAR, unless specifically restricted by NAMPSOPs.

NOTE: Operations Maintenance Department (OMD) and detachments that organize their QA Division per Figure 7-3 will use CDQARs to perform QAR administrative and auditing duties. Additionally, they may perform initial qualification sign-offs, subsequent proficiency and practical examinations specified to be performed by a QAR.

7.3.3 Collateral Duty Inspector (CDI)

CDIs inspect all work and comply with the required QA inspections during all maintenance actions performed by their production work center. CDIs are responsible to the QA Officer when performing QA functions. CDI qualifications:

a. E-4 or above

b. (Navy) Fully qualified as a Qualified Proficient Apprentice and satisfactorily progressing in completion of the Qualified and Proficient Technician (QPT) syllabus in their technical field for the type/model/series (T/M/S) aircraft supported

c. (Marines) Satisfactorily progressing toward or be fully qualified in the Aviation Maintenance Training and Readiness Program (AMTRP) syllabus in their technical field for the T/M/S aircraft supported

d. Complete the CDI training syllabus applicable to their assignment, and pass the written examination administered by QA

e. Skilled in researching, reading, and interpreting drawings, maintenance technical manuals, directives, and data

f. Fully knowledgeable in NALCOMIS documentation procedures and codes, and able to write with clarity and technical accuracy

g. Upon receipt and transfer of aircraft, engines, components, SE, AWSE, and ALSS, perform a physical verification of the item for TD configuration and notify Logs and Records of current configuration per 10.10.4.13.c.

7.3.4 Training

7.3.4.1 Navy Type Wings must publish local command procedures (LCP) with separate training syllabi or Job Qualification Requirement (JQR) and written tests for a QAR and for a CDI for each Navy Enlisted Classification (NEC) or Marine MOS, for each T/M/S aircraft supported. The training syllabus and written test will cover the unique duties of each position. CDQARs will complete the same training and testing as QARs. I-Level activities must establish a QAR and CDI training syllabus or PQS, and written test requirements specific to the engines, components, and equipment they support. The training syllabus or JQR and the test-must cover the QA requirements for test, inspection, and administrative processes specific to the QAR or CDI assignment. Marine activities will use the training and testing syllabus developed by Marine Corps Training and Education Command (TECOM), per 10.1.4. Specific areas to be covered in the syllabus include:

a. QPT or AMTRP requirements.

b. Formal school requirements applicable to their QA billet.

c. Testing and inspection procedures, for example: bore scoping, measuring FOD damage, measuring tolerances, corrosion Focus Area List (FAL) inspection techniques, conditional inspection requirements, in-process and final QA witnessed requirements for torque, and functional testing.

d. Required reading, to include this chapter and all Naval Aviation Maintenance Program Standard Operating Procedures (NAMPSOPs) applicable to the QA billet.

e. WO or MAF sign-off and inspection certification procedures.

f. (QAR) T/M/S Functional Check Flight (FCF) requirements, to include annotating the checklist and how to brief an FCF.

g. (QAR) Data collection and monitoring procedures for areas applicable to the QA billet description.

h. (QAR) Auditing and monitoring techniques for the NAMP programs the billet is responsible for.

i. Written test, with questions on Chapter 7, applicable NAMPSOPs, and technical and administrative tasks applicable to the billet.

j. A practical examination to verify skill in the use of inspection equipment and QA procedures.

k. Topics for the oral interview by the QA Officer and QA Supervisor.

NOTE: In I-Level activities with D-Level artisans assigned for beyond capability of maintenance interdiction (BCMI), the IMA QA Officer will collaborate with the artisan's Depot FRC QA Officer on a joint LCP that specifies the training, tasks, certification procedures, and any other requirements for D-Level artisans to perform the BCMI inspection certification procedures of paragraph 7.5.2.2.

7.3.4.2 The QA Officer is responsible for ensuring QARs, CDQARs, and CDIs are trained and current in the QA processes per paragraph 7.3.1, 7.3.2, or 7.3.3 in relation to their QA billet and work center assignment prior to designation. If a QAR is assigned to perform inspections outside of their billet assignment, the QA Officer must verify they receive cross training in any QA functions they perform that are not in their NEC or MOS area of expertise. If applicable, cross training will include Center for Naval Aviation Technical Training Unit (CNATTU) training courses, On- Job Training, rotation of assignments, and task specific elements of the QAR training syllabus or PQS.

7.3.4.3 Cross-training is not permitted for QA functions related to egress systems or I-Level Aviation Life Support Systems (ALSS) maintenance. Only qualified egress systems technicians and I-Level ALSS technicians, qualified per the 10.40 ALSS and Egress Systems Maintenance NAMPSOP, are permitted to inspect the maintenance of personnel parachutes, drogue chutes (excluding drogue chutes in non-removable head boxes), seat survival kits, and inflatable survival equipment.

NOTES: 1. O-Level activities having no or only one PR assigned must designate a cross-trained QAR or CDQAR to inspect work performed on ALSS equipment. Cross-trained QARs or CDQARs will use NAVAIR 13-1-6 series manuals for technical guidance.

2. QARs, CDQARs, and CDIs inspecting ALSS or egress systems must be ordnance certified per OPNAVINST 8023.24 or MCO 8023.3.

7.3.5 Designation

7.3.5.1 Commanding Officers will designate QARs, CDQARs, and CDIs permanently attached or temporarily attached to the activity in writing via Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12) (Figure 7-4) or via ASM per 10.1.2.9.

7.3.5.2 Designated QARs, CDQARs, or CDIs that conduct a permanent change of station (PCS) to another activity operating or supporting the same T/M/S aircraft, with current qualifications, may be re-designated as a QAR, CDQAR, or CDI by the receiving unit's CO without re-completing QAR, CDQAR, or CDI training requirements per 7.3.4. Prior to designation, qualifications of the transferring QAR, CDQAR, or CDI candidate's record must be reviewed to verify training completion. Additionally, the candidate must be interviewed and endorsed for designation by the receiving unit's QAS, QAO, and MO.

NOTES: 1. Annual CDI CSEC 5600 evaluation will be completed NLT the last day of the CDI CSEC evaluation month and will be documented in writing by the Commanding Officer (CO) on Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12) (Figure 7-4) or via ASM per 10.1.2.9.

2. CDIs who PCS but have not completed a CDI CSEC 5600 evaluation prior to the last day of the annual CDI evaluation month must complete CDI training requirements per 7.3.4.

7.3.5.3 QARs, CDQARs, or CDIs that are TAD to another command operating or supporting the same T/M/S aircraft may be designated as a QAR, CDQAR, or CDI by the TAD unit CO without re-completing QAR, CDQAR, or CDI training. Prior to designation, the qualifications of the

temporarily assigned QAR, CDQAR, or CDI candidate must be reviewed and the candidate must be interviewed and endorsed for designation by the TAD unit QAS, QAO, and MO.

Note: ASM account must be transferred to receiving command.

7.3.5.4 QAR, CDQAR, and CDI designation will be suspended when personnel are TAD outside of the maintenance department. Designation may be reinstated upon return to the maintenance department without recompleting training or testing, if all other qualifications are current, as deemed by the QAO.

7.4 Quality Assurance Responsibilities

7.4.1 Commanding Officer

a. Designate QARs, CDQARs, and CDIs permanently attached or TAD to the activity in writing via Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12) (Figure 7-4) or via ASM per 10.1.2.9.

b. Delegate QAR, CDQAR, and CDI designation, suspension, and revocation authority to the Executive Officer or Maintenance Officer. Delegation must be made in writing by naval letter.

c. COs are authorized to grant or reinstate qualifications and designations for QARs, CDQARs, or CDIs that conduct a permanent change of station to another command operating or supporting the same T/M/S aircraft per 7.3.5.2.

d. COs are authorized to designate QARs, CDQARs and CDIs of lesser paygrade than specified, if deemed necessary due to manpower constraints for a period of 12 months. Prior to designation, personnel identified at the lesser paygrade will meet all requirements of paragraph 7.3 through 7.3.4. The CO must inform their ISIC (Type Wing, or MAG) by naval letter of each paygrade deviation. The letter must include the name, paygrade and designation (QAR, CDQAR or CDI) of each individual, the projected end date of the temporary assignment (not to exceed 12 months), and a detailed explanation for assigning someone of lesser paygrade, to include current and projected status of manning related to the billet.

NOTE: CO authority to approve deviations from QAR, CDQAR or CDI paygrade requirements cannot be delegated.

e. COs of O-Level activities with operational detachments may authorize detachment Officers in Charge (OIC) to designate QA personnel; provided the deployment period is in excess of 90 days and all procedures and requirements for designating QA personnel are accomplished by the detachment.

f. COs of O-Level and I-Level activities that have permanent detachments may authorize the detachment Officers in Charge (OIC) to designate QA personnel and request paygrade deviations, if all procedures and requirements for designating QA personnel are accomplished by the detachment.

g. The I-Level activity CO will designate Weapons Department personnel.

NOTE: Weapons Officer must designate personnel TAD or permanently attached to the Weapons Department or Navy Munitions Command detachment.

h. Fleet Replacement Squadron (FRS) COs and Center for Naval Aviation Technical Training Unit (CNATTU) OICs must co-sign a letter of agreement delineating each organization's responsibilities for Integrated or Consolidated Maintenance Training CDIs (if applicable). These

CDIs will be designated by the FRS CO and the "FOR" block on the OPNAV 4790/12 (Figure 7-4) and will read: "Integrated/Consolidated Maintenance Training CDI for Work Center ____."

7.4.2 Maintenance Officer

a. Endorse the QAR, CDQAR, and CDI recommendations, suspensions and revocations prior to forwarding to the CO for disposition.

b. Review CDI evaluations routed for disposition.

NOTE: Maintenance Officers that are delegated in writing via naval letter by the Commanding Officer are authorized to designate, suspend, or revoke QARs, CDQARs, and CDIs.

c. MOs are authorized to utilize QARs, CDQARs, or CDIs that are TAD from another command operating or supporting the same T/M/S aircraft without re-completing QAR, CDQAR, or CDI training per 7.3.5.3.

d. Designate the Quality Assurance Officer as the Technical Data Management Officer per 10.8.4.4.

e. (I-Level afloat) MOs are authorized to designate QARs, CDQARs and CDIs of lesser paygrade than specified, if deemed necessary due to manpower constraints for a period of 12 months. Prior to designation, personnel identified at the lesser paygrade will meet all requirements of paragraph 7.3 through 7.3.4. The MO must inform their ISIC by naval letter via email to namp_policy@us.navy.mil of each paygrade deviation. The letter must include the name, paygrade and designation (QAR, CDQAR or CDI) of each individual, the projected end date of the temporary assignment (not to exceed 12 months), and a detailed explanation for assigning someone of lesser paygrade, to include current and projected status of manning related to the billet.

7.4.3 Quality Assurance Officer

a. Ensure strict adherence to quality assurance and the policies of the NAMP.

b. Verify the qualifications of QAR, CDQAR, and CDI candidates, and conduct an oral board per the Type Wing or TECOM training syllabus, prior to endorsing the recommendation.

c. Publish a list of all currently designated QARs, CDQARs and CDIs for inclusion in the MPP no later than the 25th day of each month.

d. Perform the duties of the Technical Data Management Officer as outlined in 10.8.4.5.

7.4.4 Quality Assurance Supervisor

a. Verify the qualifications of QAR, CDQAR, and CDI candidates, and conduct an oral board per the Type Wing or TECOM training syllabus prior to endorsing the recommendation.

b. Trend and track CDI evaluation requirements to include due dates in ASM to ensure timely compliance.

c. Collect, trend, and analyze quality related data and take action to improve the quality of maintenance; for example, providing training on troubleshooting and repair procedures for components with recurring Action Taken Code "A" Malfunction Code "799" (No Defect) or When

Discovered Code "Y" (found defective upon receipt). Quality data will be tracked in spreadsheets or graphs. At a minimum, QA will track:

(1) (O-Level) Action Taken & Malfunction Code A-799: NO REPAIR REQUIRED - NO DEFECT. Track by part number (P/N), serial number (S/N), bureau number (BUNO) or equipment removed from, removing work center, technician, and CDI.

(2) (I-Level Activities) When Discovered Code "Y" (found defective upon receipt or withdrawal from Supply). Track by P/N, S/N, repairing work center technician, and CDI.

(3) (O-Level) FOD Rate. Track reportable FOD per flight hour.

(4) (O-Level) When Discovered Code "A" (Before Flight - Abort - Aircrew). Track by pilot, BUNO, and discrepancy.

(5) (O-Level) When Discovered Code C (In-Flight - Abort). Track by pilot, BUNO, and discrepancy.

d. (O-Level) For each BUNO assigned, maintain a trend binder with BUNO specific information not documented in NALCOMIS. As applicable, the binder will contain:

(1) Oil analysis results

(2) T/M/S specific out of limits conditions (oil consumption, vibrations, over temperature)

(3) Completed Material Condition Inspection (MCI) Checklists and Corrosion Maintenance Readiness Team (C-MRT) results

e. (O-Level) Prior to the 15th of each month, verify and reconcile with DBA to ensure only qualified personnel have SFF, QAR, CDQAR, CDI, or PC SMQ by reviewing ASM and user LOGIN IDs.

f. (I-Level) Prior to the 15th of each month, verify and reconcile with DBA to ensure only qualified personnel have QAR, CDQAR or CDI SMQs by reviewing ASM and user LOGIN IDs.

7.4.5 Quality Assurance Representative

a. Manage the programs and processes prescribed in paragraph 7.6.

b. Perform mandatory QA inspections as specified in maintenance technical manuals, technical directives, and other directives.

c. Provide active monitoring to inspections and tests of aircraft, engines, components, and equipment to verify product characteristics standards and correct procedures are being followed.

d. Perform random CDI evaluations utilizing the CSEC 5600 to ensure Collateral Duty Inspectors do not exceed a 12 month period in the performance of their duties without an evaluation being performed.

e. Brief FCF pilots and aircrew on the purpose and objectives of the FCF. After completion of the FCF, QA will debrief check pilots, aircrew, Maintenance Control, and work center representatives to determine compliance with the FCF objectives and review discrepancies found during the FCF.

NOTE: For FCF retention requirements refer to paragraph 5.1.7.2.b.

f. Lead Aircraft Ground Mishap inspections to assess damage, cost, and repairs per 5.3.9.3.

g. (I-Level Activities) Investigate the root cause of parts, components, and assemblies inducted with a When Discovered Code "Y" (found defective upon receipt). The investigation will be documented on the Y-Code Process Form (Figure 7-5). Completed forms will be kept for one year. QA will maintain an electronic or hardcopy log of Y-Code reports with the following information: report number by calendar year and sequential S/N (2016-001 followed by 2016-002, etc.), date initiated, QAR assigned, work center, P/N, and S/N.

NOTE: If a D-Level artisan participated in the repair of the discrepant equipment, the artisan will assist with the investigation.

7.4.6 Collateral Duty Quality Assurance Representative

a. Responsible to the QA Officer when performing QA functions.

b. Supplement QA when needed to perform QAR level inspections while being assigned to the production work centers.

c. Must be fully qualified in the respective area to perform initial qualification sign-offs, subsequent proficiencies and practical examinations specified to be performed by a QAR, unless specifically restricted by the NAMPSOPs.

NOTE: CDQARs will not be assigned to perform non-inspection functions, such as QA audits, when a commensurate billet exists in the QA Division.

7.4.7 Collateral Duty Inspector

a. Responsible to the QA Officer when performing QA functions.

b. Complete inspections in accordance with the inspection requirements per 7.5.1.

7.4.8 Technical Data Manager

Manage the Central Technical Publications Library (CTPL) per paragraph 10.8 and control classified technical publications for the department.

7.4.9 Work Center Division Officers

Review the qualifications for QAR, CDQAR, and CDI candidates and personally interview the candidate prior to endorsing the recommendation.

7.5 QA Inspection and Certification

7.5.1 Inspection Requirements

7.5.1.1 Only designated QA personnel (QARs, CDQARs, and CDIs) are authorized to perform specified QA inspections. When QARs, CDQARs, or CDIs sign an inspection report, they are verifying:

a. They personally inspected the work.

b. The work was completed in accordance with current technical manuals, instructions, directives, and trained and certified personnel.

c. The work is satisfactory in all respects.

d. Any parts or components removed were properly replaced and secured.

e. The item is in safe for flight condition, operation, or installation.

f. The WO or MAF documenting the maintenance that required QA verification is complete and accurate.

7.5.1.2 In-process and Final Inspections:

a. A QAR or CDQAR must perform the in-process and final inspections of any task that requires the aircraft to have an FCF per Chapter 5, regardless of whether or not an FCF is flown. For example, if a procedure requiring an FCF that has steps A through C, and step B drives the requirement for the FCF, a CDI may only witness steps A and C; a QAR or CDQAR must witness and make an in-process entry for step B and must sign the final inspection.

b. A QAR or CDQAR must conduct in-process and final inspections of maintenance performed on egress systems, personnel parachutes, and flotation devices when the affected mechanism or function of the equipment is not re-inspected or functionally tested before flight.

c. In-process inspections are required for major scheduled inspections or maintenance that exceeds more than one shift.

d. If all in-process inspections of a maintenance action are performed by a single QA inspector, the individual in-process inspections are not required to be documented on the WO or MAF. The Inspected By block on the WO or MAF indicates the inspector completed all required in-process inspections and the final inspection for the entire maintenance action.

e. If in-process inspections are performed by multiple QA inspectors, each QA inspector will document individually on the WO or MAF utilizing an in-process annotation listing all steps inspected, for example, “inspected in-process steps A, B, C, D and J”.

f. QARs, CDQARs, and CDIs will not perform QA inspections and verifications on their own work.

7.5.1.3 QA MRCs are provided for certain maintenance tasks that, if improperly performed, could cause equipment failure or jeopardize the safety of personnel. QA appearing on MRCs signifies a QA function is required.

a. Type Wings and MAWs will use the criteria of this chapter to determine and publish a list of required QA inspections and the level of QA verification required (QAR or CDI) for each T/M/S aircraft. Wing direction will include guidance on how affected cards will be annotated in the master and work center MRC decks.

b. IMAs will publish a list of required QA inspections and the level of QA verification required (QAR or CDI) for engines, components, and SE requiring QA in-process or final inspections.

c. An inspector level listing containing all cards with QAR or CDI inspection requirements must be signed by the MO and maintained with the applicable MRC deck or as an enclosure in the MMP.

(1) If paper MRCs are maintained, the inspector level listing will be located in or with the MRC deck.

(2) For electronic MRCs, to include those residing within an IETM, an electronic copy of the inspector level listing will be on each PEMA in a folder on the PEMA desktop.

NOTES: 1. The responsible aircraft or equipment Fleet Support Team (FST) will be consulted when there is a question of whether a QAR or CDI level inspection is required.

2. Squadrons that are unable to comply with marking requirements for electronic MRCs will annotate the required procedures in the MMP and will be signed by the MO.

7.5.2 Inspection Verification

7.5.2.1 General Verification Requirements

a. Completion of a QA inspection must be documented by a signature, stamp, or lead crimp.

b. QARs will document the accumulated AWM hours data field on work center 040 WO/MAFS. For inspections that do not require tools, their hours will be accounted for on the work order by selecting their name, enter "NTR", and their initials. Since the QAR is not assigned to a production work center, the hours for a qualified QAR performing inspection functions is not required to be accounted for on the production work center WO/MAF.

c. CDQARs and CDIs assigned to their respective production work centers will account for their expended man-hours on work orders while performing mandatory QA inspections; or in the research and ordering of parts as specified in maintenance technical manuals, technical directives and other directives. For inspections that do not require tools, their hours will be accounted for on the work order by selecting their name, entering "NTR" in the tool box, and initialing. The above process is not considered signing for your own tools, as no tools were required.

d. CDIs will verify correct Work Unit Code, Malfunction Description Code, Action Taken Code, Transaction Code, Type Maintenance code, Installed/New Item data, and an accurate and complete Corrective Action statement prior to signing the WO or MAF.

e. The Inspected By block on work orders (WO) and maintenance action forms (MAF) will only be signed or stamped by the QAR, CDQAR, or CDI that actually inspected the work.

f. The inspected By block on control WOs or MAFs will be signed by personnel with administrative verification authority.

NOTES: A control document is an administrative verification that all QA functions associated with the inspection were performed by designated QA inspectors and all necessary documentation was completed, for example, look and fix phase documents, were reviewed and accepted.

g. NALCOMIS activities must assign personal SMQ passwords to each individual designated as a QAR, CDQAR, or CDI.

h. QA stamps may be used on hardcopy documents in place of signatures and initials, where use of initials are specifically authorized. QA stamps must be closely controlled and securely stored by QA Division. QA Inspectors will be issued a stamp with a unique identifying number. QARs, CDQARs, or CDIs temporarily assigned to another unit will only use QA stamps issued by the TAD unit, if designated per paragraph 7.3.5.4.

NOTES: 1. A stamp may not be reassigned to another inspector within 90 days of last use.

2. Lead crimps used by inspectors to seal or secure inspected items must be issued and controlled in the same manner as QA stamps.

3. QA stamps are required for I-Level ALSS inspection records, calibration Metrology Equipment Recall (METER) cards, and all non-NALCOMIS maintenance documents; for example, hardcopy Visual Information Display System/Maintenance Action Forms (VIDS/MAF).

7.5.2.2 Certification for Work by D-Level Artisans Assigned to I-Level Activity

a. Depot artisans are authorized to self-certify their own work to the extent certified to do so by their parent D-Level FRC. Certification standards and procedures must be formally agreed on, in writing, by the CO of the D-Level activity and the CO of the supported I-Level activity. Artisans must certify any in-process inspections performed during a BCMI repair, and I-Level QA personnel must perform the final RFI verification for Type II (Temporary Mandatory) verifications when all of the following requirements are met:

(1) Type II requirements established by the Depot FRC are involved.

(2) The work performed is solely accomplished using an I-Level repair manual.

(3) The I-Level has agreed to accept the Type II verification for the D-Level repair.

NOTE: Type II (Temporary Mandatory). This category of verification temporarily imposes mandatory verification requirements and may be conducted on high failure rate items, items without objective evidence of good quality, instances where the quality level is suspect or inadequate, or while conducting audits. Temporary mandatory verification may also be imposed and conducted to obtain or verify statistical quality data. Temporary Mandatory verification must be terminated when the acceptable quality level or statistical quality data has been obtained.

b. Artisans assigned to I-Level activities will receive NALCOMIS training from the activity's NALCOMIS Data Base Administrator (DBA), and must use NALCOMIS Optimized to document and certify work accomplished at the I-Level activity. Procedures:

(1) The DBA will initiate a generic D-Level artisan logon for each artisan to populate the MAF Corrected By field.

(2) The I-Level activity's QA Officer must review the artisan's D-Level task certifications, and will authorize the DBA to grant the artisan the commensurate CDI and supervisor SMQ access.

NOTE: The artisan's D-Level supervisor must provide the I-Level activity QA Officer with the artisan's task certification records.

(3) MAFs with D-Level QA verification requirements will be checked "QA REQUIRED".

(4) Artisans will complete the Inspected By and Supervisor fields with their personal logon.

NOTES: 1. Signing the Inspected By field on the MAF signifies certification. Signing the Supervisor field indicates the MAF has been screened for accuracy and completeness and that QA and tool control requirements have been met.

2. In-process inspections that have multiple mandatory verification steps must be individually documented using the in-process inspection function of NALCOMIS.

The last verification step is certified complete when the Inspected By field is signed off.

c. If a D-Level artisan is required to certify documents with a stamp imprint, the I-Level activity will issue the stamp. Artisans temporarily assigned to an I-Level activity will use the certification stamp issued by their D-Level activity. Artisan stamps will be inventoried and accounted for in the same manner as I-Level activity stamps.

d. QA Officers at I-Level activities must verify BCM interdicted workload identified as having a Type I verification requirement is performed "only" by a Depot QA Specialist.

NOTE: Type I (Mandatory). This category is assigned to characteristics, which would be classified as critical, if found defective. Verification of this category is mandatory and must be accomplished by evaluating the product and work documentation. Sampling of mandatory characteristics is not permissible.

7.5.2.3 QA Requirements for Transient or In-Flight Maintenance

a. During transient or in-flight maintenance, the pilot in command or the senior aircrew maintenance person will inspect the work performed from a technical standpoint and sign for QA. The inspector will verify:

(1) Adequate maintenance was performed to correct the discrepancy

(2) Maintenance areas are free of foreign objects

(3) Opened panels or doors are correctly closed

(4) Tools are accounted for

(5) Documentation on the WO or VIDS MAF

b. If transient or in-flight maintenance involves flight safety, a QAR must re-inspect the repairs on return to home base.

7.6 Quality Assurance Division Program Management

O-Level and I-Level QA Divisions are responsible for managing the following processes:

a. NAMP Compliance Auditing per paragraph 10.7.

b. Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) per paragraph 10.9.

c. Technical Data Management per paragraph 10.8.

d. Maintenance Department Safety per 10.41.

e. (O-Level) Vibration Analysis per 10.46.10.

f. SE Misuse/Abuse Reporting per paragraph 7.6.1.

g. Aircraft Confined Space Program per paragraph 7.6.2.

7.6.1 O-Level and I-Level Support Equipment (SE) Misuse/Abuse Reporting

7.6.1.1 Support Equipment misuse/abuse is the negligent operation of SE, where it is utilized is a manner for other than its intended purpose, or improper upkeep of the equipment potentially leading

to or resulting in injury, ground mishaps, excessive repair and replacement costs, and reduced operational readiness.

7.6.1.2 Reporting SE misuse/abuse is an all hands responsibility. Anyone witnessing SE misuse/abuse will notify QA division of the command with reporting responsibility of the SE.

7.6.1.3 QA of the activity with custody of the SE as reported in SERMIS will:

a. Assign a control number consisting of the calendar year and a sequential number (2015-01, followed by 2015-02, etc.).

b. Conduct an investigation and complete the front page of the OPNAV 4790/108. The investigation must include an analysis of causal factors of the SE misuse/abuse, i.e., licensing, training, certification, maintenance procedures, safety precautions, manufacturer defects, and related trends as potential root causes. The Narrative Description section will contain a detailed report of the misuse/abuse that occurred, and the results of the investigation. If the misuse/abuse resulted in damage, the report will include an estimate of the repair or replacement cost from the designated repair activity for each item damaged. The QA investigation and the report will be completed within 2 working days after occurrence of the misuse/abuse.

c. When the investigation is complete, the QA Officer will sign as the Reporting Official on the front of the OPNAV 4790/108 and forward the report to the MO for review. If the offender is assigned to the command, the MO will direct whatever personnel action is deemed necessary, fill out the "Action Taken/Recommended" block on the back of the OPNAV 4790/108, and sign it. If the individual accused of misuse/abuse is assigned to another command, the MO will leave the back of the report blank and forward the report to the offender's command. If the SE or other items were damaged, a copy of the report must also be forwarded to the command with reporting custody of the damaged equipment.

d. Completed forms must be retained in electronic or hardcopy format for 2 years.

7.6.2 Aircraft Confined Space Program (ACSP)

7.6.2.1 The primary objective of the ACSP is to eliminate risks to the safety and health of personnel involved in working on aircraft fuel cells and tanks.

a. By verifying a safe working environment when performing maintenance on aircraft fuel cells and tanks; risk of damage to aircraft and equipment is also mitigated through an approved system of maintenance support from Intra-Wing or I-Level supporting activities, QA oversight, and a training and qualification curriculum.

b. To meet these critical safety and health requirements, all CNAF activities with aircraft confined space requirements per MIMs will either have a standing ACSP or a Memorandum of Agreement (MOA) with an O-Level or an I-Level support activity with a standing ACSP.

(1) A MOA with an O-Level or an I-Level alleviates the receiving Low Rate Unit (LRU) from maintaining a qualified Entrant Authority (EA). However, the LRU will adhere to remaining ACSP administrative requirements per NA 01-1A-35.

(2) LRUs will ensure program audits are performed per 10.7 for applicable sections of CSEC Program Area 1100.

NOTE: EA expertise is focused on procedures for ensuring aircraft confined spaces are void of dangerous vapors allowing fuel cell/tank maintenance to be safely performed. T/M/S fuel systems knowledge and expertise is the inherent responsibility of the unit receiving services.

c. At a minimum, the MOA will address:

(1) Determination for level of support required and expiration (frequency/type of support requirements and termination date of MOA)

(2) Limitations of support based on EA's certification and qualification (for example, on/off aircraft, hot work, etc.)

(3) QA responsibilities to brief external EA on safety precautions and point out the different characteristics of the fuel systems specific to T/M/S

NOTES: 1. I-Level activities with capability to repair or test Aircraft Confined Spaces (aircraft fuel cells and tanks) in the ICRL will maintain an ACSP. I-Level activities with no test or repair capability are not required to maintain a standing ACSP.

2. A naval letter MOA signed by both activity COs allows LRUs to utilize the supporting activity's Entrant Authority (EA) services, but does not relieve the receiving activity from the requirements to maintain personnel training and entry permits per NA 01-1A-35.

d. The QAO will designate a QAR as the ACSP Program Manager responsible for managing the activity's ACSP per NA 01-1A-35.

(1) LRUs with active MOA with a supporting activity will designate a QAR as the Record Keeping and Training Coordinator in lieu of an ACSPM per NA 01-1A-35.

(2) The QAO will ensure a QAR briefs external EAs per MOA.

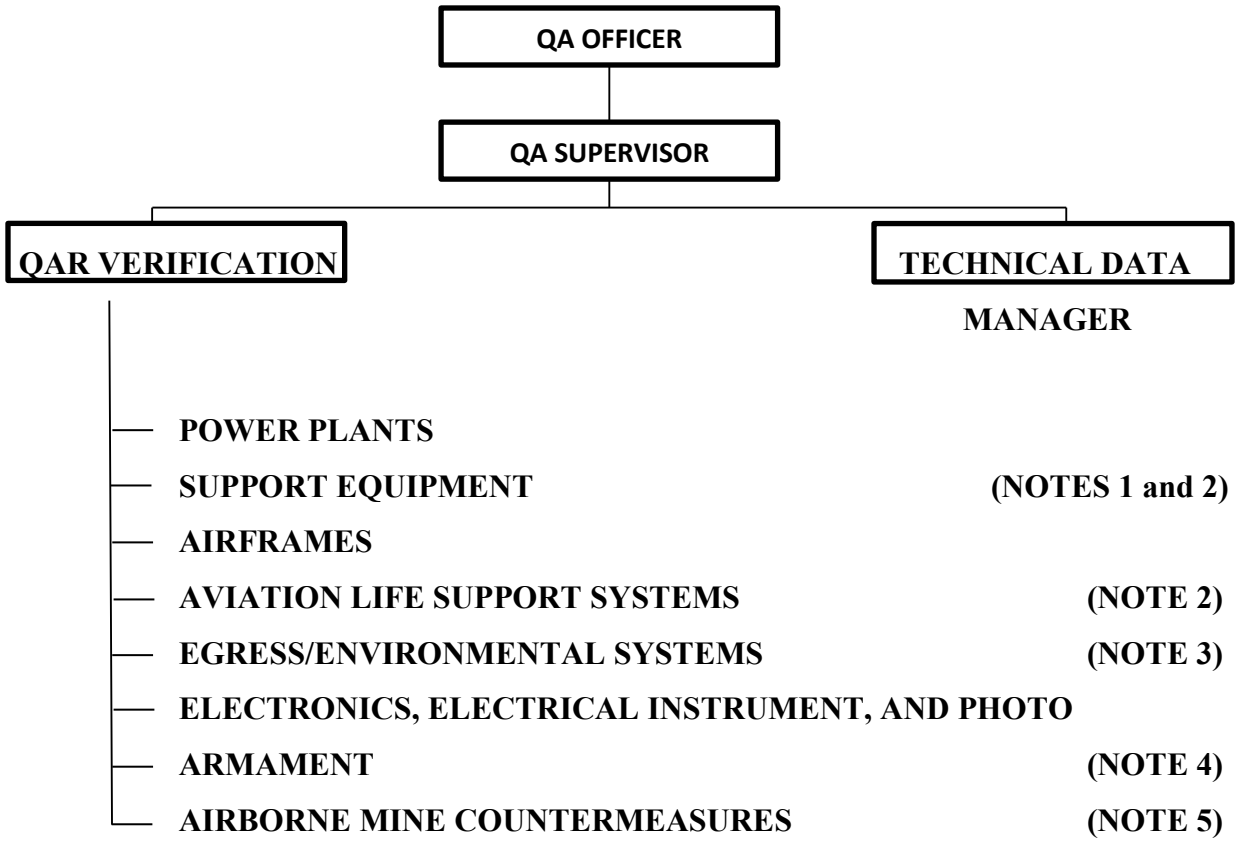
e. The Record and Training Coordinator is responsible for retaining the entry permits and completed safety briefs, record keeping and coordinating the training of Entry Supervisors, Entrants, and Safety Observers. This person may also act as Entry Supervisor, Entrant, or a Safety Observer if so trained. The actual training will be provided by a qualified EA or ACSPM.

7.6.2.2 Basic knowledge and good judgment are required of all personnel in order to deal with hazardous conditions involved with fuel cell maintenance. Proficiency gained through repetition of safety procedures, fuel cell and tank maintenance permissible exposure limits, and knowledge validated through testing are the minimum requirements necessary to ensure all personnel involved demonstrate conformity to the requirements of the Aircraft Confined Space Entry program per NA 01-1A-35.

NOTES: 1. Entrant Authorities may demonstrate initial and annual proficiency through issuance of five entry permits on installed or uninstalled aircraft fuel cells and tanks.

2. Training and qualification is most effective when I-Level Entrant Authorities complete a total of five entry permits on any of the different T/M/S aircraft or fuel components supported.

7.6.2.3 D-Level FRC activities will task the OSH office with ACSP program management responsibilities and may leverage resources towards better-suited program managers.



NOTES: 1. Required only if operating an SE Division.

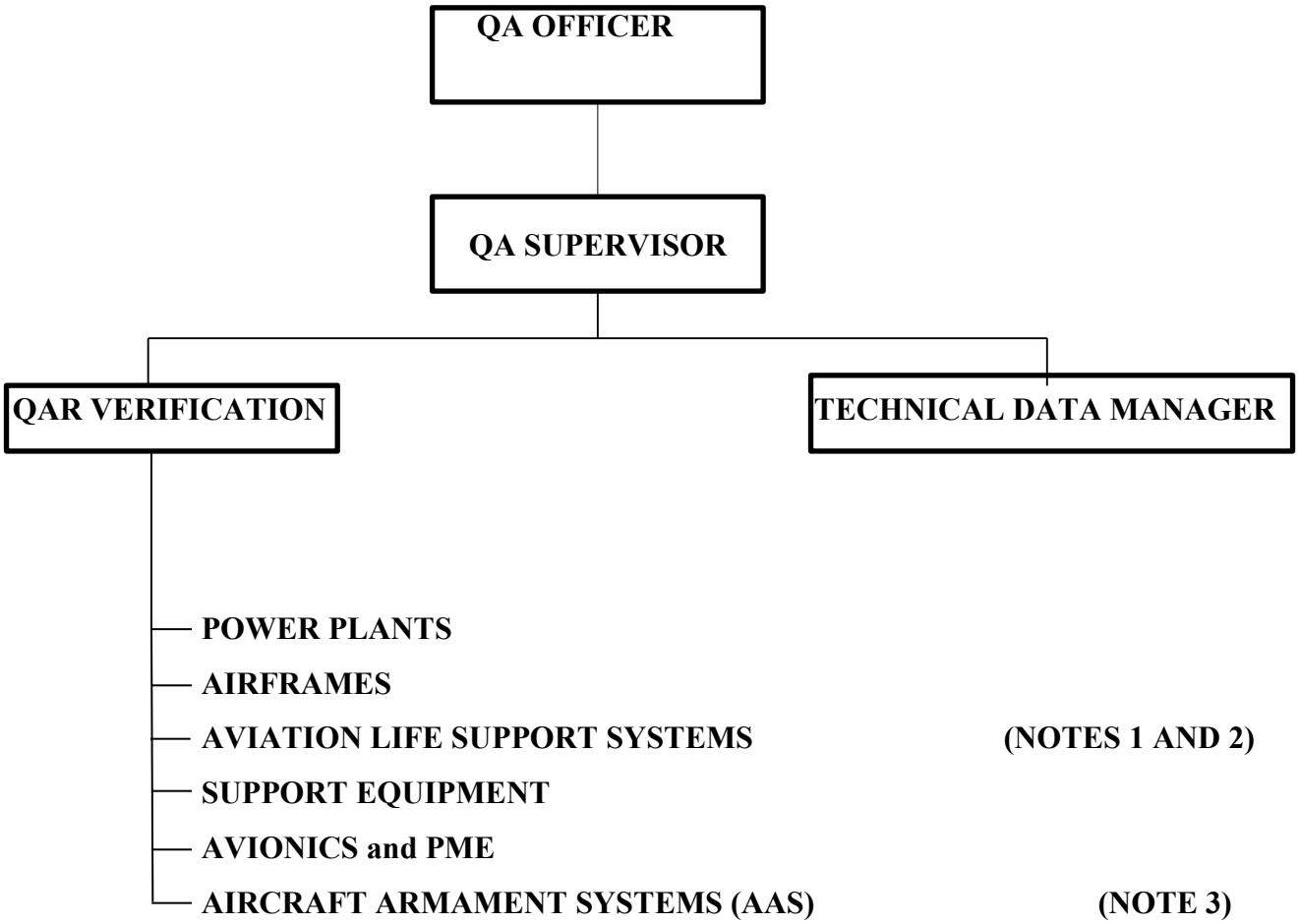
2. May be a CDQAR.

3. Required for ejection seat aircraft only.

4. O-Level activities with minimal ordnance delivery in assigned mission may designate a CDQAR.

5. Only in HM squadrons.

Figure 7-1: O-Level Maintenance Activity QA Organization

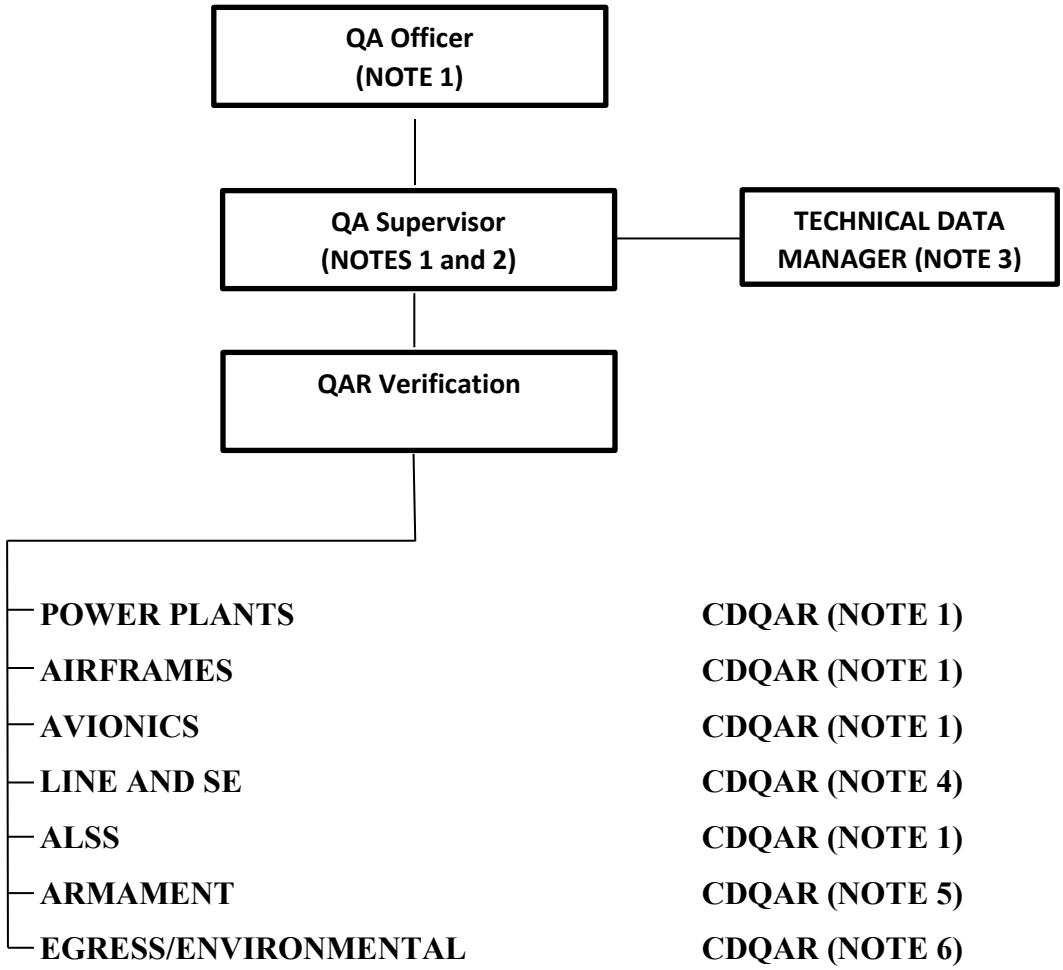


NOTES: **1. Oxygen and nitrogen generating facilities may designate a CDQAR for oxygen and nitrogen generating related QA functions.**

2. I-Level activities not supporting parachutes or oxygen systems may designate an ALSS CDQAR.

3. I-Level activities having minimal AAS workload in assigned mission may designate an AAS CDQAR.

Figure 7-2: I-Level Maintenance Activity QA Organization



NOTES: 1. Required assignments. The QA Officer and QA Supervisor will not be collateral duties assigned to other maintenance billets.

2. The QA Supervisor will be assigned as Maintenance Department Safety Coordinator.

3. Technical Data Manger functions may be performed by another division.

4. Not required if at least one CDQAR in another area is a qualified Plane Captain.

5. Required only for activities with mandatory QAR-level ordnance inspections.

6. Required only for activities with maintaining ejection seats or oxygen systems.

Figure 7-3: QA Organization for Operations Maintenance Department (OMD) and Permanent or Temporary Detachments with Four or Less Aircraft QA Organization

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

QUALITY ASSURANCE REPRESENTATIVE/INSPECTOR DESIGNATION

CANDIDATE NAME *(Last Name, First Name, Middle Initial)*:	RATE/GRADE:

I. DIVISION OFFICER RECOMMENDATION

In accordance with the current COMNAVAIRFORINST 4790.2 the above named person is recommended for:

☐ QAR ☐ CDQAR ☐ CDI

FOR *(Aircraft/System/Work Center/Etc.,)*:

DIVISION OFFICER TYPED NAME AND RANK:	SIGNATURE DATE:	DIVISION OFFICER SIGNATURE:

II. QUALITY ASSURANCE ANALYSIS OFFICER ENDORSEMENT

The candidate has been examined in accordance with the current COMNAVAIRFORINST 4790.2 and has passed all requirements satisfactorily. Recommend approval.

QA/A OFFICER TYPED NAME AND RANK:	SIGNATURE DATE:	QA/A OFFICER SIGNATURE:

III. MAINTENANCE OFFICER ENDORSMENT

Candidate is fully qualified in accordance with the requirements of COMNAVAIRFORINST 4790.2. Recommended for designation for the specified Quality Assurance Representative/Inspector position.

MAINTENANCE OFFICER TYPED NAME AND RANK:	SIGNATURE DATE:	MAINTENANCE OFFICER SIGNATURE:

IV. COMMANDING OFFICER ACTION

☐ DESIGNATED ☐ NOT DESIGNATED

COMMANDING OFFICER TYPED NAME AND RANK:	SIGNATURE DATE:	COMMANDING OFFICER SIGNATURE:

V. DESIGNEE ACKNOWLEDGEMENT

I UNDERSTAND MY RESPONSIBILITY AS SET FORTH HEREIN

"When performing inspection, I am considered to be the direct representative of the Commanding Officer for ensuring safety of flight of the item concerned. I will not permit factors, such as operational desires, maintenance consideration, personal relations or the approach of liberty to modify my judgment. By signing an inspection report. I am certifying upon my own individual responsibility that the work involved has been personally inspected by me; that it has been properly completed and is in accordance with current instructions and directives; that it is satisfactory; that any related parts or components whish may have been removed by the work are properly replaced and all parts are secure, and that the work has been performed in such a manner that the item is completely safe for flight or use"

CANDIDATE TYPED NAME AND RANK:	SIGNATURE DATE:	CANDIDATE SIGNATURE:	STAMP NO.:

OPNAV 4790/12 (REV 10/2016)

Original to: Individual
Copy to: Quality Assurance/Analysis Officer
Division Officer

Figure 7-4: Quality Assurance Representative/Inspector Recommendation/Designation (OPNAV 4790/12)

Y- Code Report Number: **Date:**

A. AMSU Action: Notify Quality Assurance and Production Control.

B. Quality Assurance Action: Screen component and documents, determine Y-Code validity, and assign report number.

Previous JCN: _____ Previous BUNO: _____ Previous Meter: _____

Previous Discrepancy: _____

_____

Previous Corrective Action: _____

_____

_____

Date Last RFI: _____ Previous CDI/CDQAR/QAR: _____

C. AMSU Action:

Work Center:

P/N: _____ S/N: _____ WUC: _____ Nomenclature: _____

BUNO: _____ Meter: _____

JCN: _____ MCN: _____ DDSN: _____

Discrepancy:

_____

D. Work Center Action:

Present Corrective Action (List specific details): _____

_____

_____

Technician: _____ CDI: _____ W/C Supervisor: _____

E. Quality Assurance Action: Retain this completed form for one year.

QA action taken to prevent reoccurrence: _____

_____

_____

QAR: _____ QA Officer: _____

F. Forward copy of completed form to inducting activity QA and last processing activity (if different).

Figure 7-5: Y-Code Process

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

SUPPORT EQUIPMENT MISUSE/ABUSE

CONTROL NO.:

FROM:

TO:

THE FOLLOWING INFORMATION IS SUBMITTED IN REGARDS TO A REPORT OF MISUSE/ABUSE:

PERSON WHO MISUSED/ABUSED EQUIPMENT

NAME:

RANK/RATE:

ORGANIZATION/UNIT:

SE LICENSE NO.:

GOVT OPERATOR LICENSE NO.:

LOCATION AND EQUIPMENT INVOLVED

LOCATION:

TYPE EQUIPMENT PN/FSN:

TIME:

DATE:

EQUIPMENT SERIAL NO.:

JCN:

NARRATIVE DESCRIPTION:

PERSON CITING MISUSE/ ABUSE

NAME:

RANK/RATE:

ORGANIZATION/UNIT:

WAS SE LICENSE CONFISCATED?
IF YES, LICENSE IS BEING HELD BY:

YES NO

REMARKS:

SIGNATURE AND TITLE OF REPORTING OFFICIAL:

DATE:

OPNAV 4790/108 (REV 5/2016)

Page 1 of 2

Figure 7-6 (front): Support Equipment Misuse/Abuse (OPNAV 4790/108)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

FIRST ENDORSEMENT	DATE

FROM:

TO:

VIA::

SUBJ: MISUSE/ABUSE

ACTION TAKEN / RECOMMENDATIONS:

SIGNATURE AND TITLE:

OPNAV 4790/108 (REV 5/2016) BACK

Page 2 of 2

Figure 7-6 (back): Support Equipment Misuse/Abuse (OPNAV 4790/108)

CHAPTER 8

Aircraft and Aeronautical Equipment Logbooks and Records

Table of Contents

8.1 Introduction 1
8.1.1 Scope 1
8.1.2 Background 1
8.2 General Responsibilities 1
8.2.1 Logbook and Record Initiation 1
8.2.1.1 Initial Department of the Navy (DON) Acceptance 1
8.2.1.2 New Record Requirements for In-service Equipment 2
8.2.2 Organizational Level (O-level) 2
8.2.3 Intermediate Level (I-level) 2
8.2.4 Depot Level (D-level) 2
8.2.5 Logbook Clerks and Configuration Management Auto-Log Set (CM ALS) Administrators 3
8.2.6 Signatures 4
8.2.7 Entries 5
8.2.8 Consolidation 6
8.2.9 Purging 6
8.2.10 Reconstruction 6
8.2.11 Transfer, Receipt, and Disposition 8
8.3 Aircraft Logbook 10
8.3.1 Purpose 10
8.3.2 Forms and Records 10
8.3.3 Aircraft Logbook Verification 12
8.3.3.1 Acceptance and Transfer Configuration Verification 12
8.3.3.2 CM ALS Verification 13
8.3.3.3 Periodic Aircraft Records Verification 13
8.4 Aeronautical Equipment Service Record (OPNAV 4790/29) 14
8.4.1 Purpose 14

8.4.2 Contents 14
8.4.3 Custody and Maintenance 16
8.5 OPNAV Records and Forms 16
8.5.1 Structural Life Limits (OPNAV 4790/142) 16
8.5.2 Monthly Flight Summary (OPNAV 4790/21A) 18
8.5.3 Inspection Record (OPNAV 4790/22A) 20
8.5.4 Repair/Rework Record (OPNAV 4790/23A) 22
8.5.5 Technical Directives (OPNAV 4790/24A) Record 23
8.5.6 Miscellaneous/History (OPNAV 4790/25A) 28
8.5.7 Preservation/Depreservation Record (OPNAV 4790/136A) 31
8.5.8 Installed Explosive Device Record (OPNAV 4790/26A) 32
8.5.9 Inventory Record (OPNAV 4790/27A) 34
8.5.10 Equipment Operating Record (OPNAV 4790/31A) 35
8.5.11 Module Service Record (OPNAV 4790/135) 37
8.5.12 Assembly Service Record (OPNAV 4790/106A) 44
8.5.13 Equipment History Record (EHR) Card (OPNAV 4790/113) 50
8.5.14 Scheduled Removal Component Card (OPNAV 4790/28A) 55
8.5.15 Aviation Life Support System (ALSS) Records. 60
8.5.15.1 Purpose 60
8.5.15.2 General Procedures 61
8.5.15.3 Parachute Record (OPNAV 4790/101) 61
8.5.15.4 Seat Survival Kit Record (OPNAV 4790/137) 64
8.5.15.5 Aircrew Systems Record (OPNAV 4790/138) 67
8.5.15.6 Aircrew Personal Equipment Record (OPNAV 4790/159) 70
8.5.16 Naval Aircraft Flight Record (OPNAV 3710/4) 72
8.5.17 Support Equipment History Record (OPNAV 4790/51) 73
8.5.18 Mobile Facility Logbook and Inventory Record 77
8.6 Configuration Management Auto Log-set (CM ALS) Records 78
8.6.1 Introduction 78
8.6.1.1 Purpose 78
8.6.1.2 Contents 79

8.6.1.3 CM Management Module 79
8.6.2 CM ALS Management 81
8.6.2.1 General Management 81
8.6.2.2 CM ALS Administrator 82
8.6.2.3 Aviation Life Support System (ALSS) Groups 83
8.6.2.4 D-Level Activity OOMA CM ALS Responsibilities 83
8.6.3 General Procedures 84
8.6.3.1 Signatures 84
8.6.3.2 Entries 85
8.6.3.3 CM ALS Back-up 85
8.6.3.4 Transfer and Receipt 86
8.6.3.5 Purging 87
8.6.4 CM ALS Logbook Records 87
8.6.4.1 Flight Summary Record 88
8.6.4.2 Inspection Record 88
8.6.4.3 Repair/Rework Record 88
8.6.4.4 Technical Directives (TD) Record 88
8.6.4.5 Miscellaneous History Record 88
8.6.4.6 Preservation/Depreservation Record 89
8.6.4.7 Explosive Record 89
8.6.4.8 Component Record 89
8.6.4.9 CM ALS Aeronautical Equipment Service Record (AESR) 89
8.6.4.10 Equipment Operating Record (EOR) 90
8.6.4.11 Module Service Record (MSR) 90
8.6.4.12 CM ALS Aircrew Equipment Record 91
8.6.4.13 Life-limited Component Record 91
8.6.4.14 Tracked Component Record 92
8.6.4.15 Untracked Record 92
8.6.5 Contingency Operations 92
Figure 8-1: Aeronautical Equipment Service Record (OPNAV 4790/29) 94
Figure 8-2: Non-Aircraft Equipment AESR Matrix 95

Figure 8-3: Structural Life Limits (OPNAV 4790/142) 96
Figure 8-4: Monthly Flight Summary (OPNAV 4790/21A) (Sample) 97
Figure 8-5: Inspection Record (OPNAV 4790/22A) 98
Figure 8-6: Repair/Rework Record (OPNAV 4790/23A) 99
Figure 8-7: Technical Directives (OPNAV 4790/24A) 100
Figure 8-8: Miscellaneous/History (OPNAV 4790/25A) 101
Figure 8-9: Preservation/Depreservation Record (OPNAV 4790/136A) 102
Figure 8-10: Installed Explosive Device Record (OPNAV 4790/26A) 103
Figure 8-11: Inventory Record (OPNAV 4790/27A) 104
Figure 8-12: Equipment Operating Record (OPNAV 4790/31A) 105
Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 1) 106
Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 2) 107
Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 3) 108
Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 4) 109
Figure 8-14: Assembly Service Record (OPNAV 4790/106A) (Front) 110
Figure 8-14: Assembly Service Record (OPNAV 4790/106A) (Back) 111
Figure 8-15: Assembly Service Record Entries (Example) 112
Figure 8-16: Equipment History Record (EHR) Card (OPNAV 4790/113) (Front) 113
Figure 8-16: Equipment History Record (EHR) Card (OPNAV 4790/113) (Back) 114
Figure 8-17: Scheduled Removal Component Card (OPNAV 4790/28A) (Front) 115
Figure 8-17: Scheduled Removal Component Card (OPNAV 4790/28A) (Back) 116
Figure 8-18: Parachute Record (OPNAV 4790/101) (Example) 117
Figure 8-19: Seat Survival Kit Record (OPNAV 4790/137) (Example) 118
Figure 8-20: Aircrew Systems Record (OPNAV 4790/138) (Example) 119
Figure 8-21: Aircrew Personal Equipment Record (OPNAV 4790/159) (Example) 120
Figure 8-22 (page 1): SE Custody and Maintenance History Record (4790/51) 121
Figure 8-22 (page 2): SE Custody and Maintenance History Record (4790/51) 122
Figure 8-22 (page 3): SE Custody and Maintenance History Record (4790/51) 123
Figure 8-22 (page 4): SE Custody and Maintenance History Record (4790/51) 124
Figure 8-24: Mobile Facility Logbook and Inventory Record - General Instructions (OPNAV 4790/62) 126

Figure 8-25 (page 1): Mobile Facility Major Related Equipment Records - Table of Contents (OPNAV 4790/63) 127
Figure 8-26: Mobile Facility Logbook and Inventory Record - Table of Contents (OPNAV 4790/73)..... 128
Figure 8-27: Mobile Facility Logbook and Inventory Records – Equipment List, Part II Instructions (OPNAV 4790/73A)..... 129
Figure 8-28: Mobile Facility Inventory Record - Equipment List Separator (OPNAV 4790/74) 130
Figure 8-29: Mobile Facility Inventory Record - Equipment List (OPNAV 4790/74A) 131
Figure 8-30: Mobile Facility Inventory Records – Record of Shortages Separator (OPNAV 4790/75)..... 132
Figure 8-31: Mobile Facility Record of Shortages (OPNAV 4790/75A)..... 133

Chapter 8

Aircraft and Aeronautical Equipment Logbooks and Records

8.1 Introduction

8.1.1 Scope

8.1.1.1 The logbook and records requirements in this chapter pertain to aircraft and certain items of aeronautical equipment and components installed on aircraft or used in the maintenance or operation of aircraft and aeronautical equipment.

8.1.1.2 This chapter covers logbook and records procedures for OPNAV forms and for records produced from NALCOMIS Optimized Organizational Maintenance Activity (OOMA) Configuration Management Auto Log-sets (ALS).

8.1.2 Background

8.1.2.1 OPNAV records and forms (8.5) are the basic building blocks for aircraft and aeronautical equipment records. The advent of OOMA and OIMA has transformed much of the data contained in OPNAV records into electronic Auto Log-set (ALS) data, for the efficient management, tracking and verification of aircraft, equipment and components. ALS significantly reduces the administrative workload of records maintenance and reduces errors that occur when data is manually transcribed from one record to another.

8.1.2.2 Appendix B provides information for obtaining logbook binders, forms and other records. OPNAV forms are available on-line at https://forms.documentservices.dla.mil/order/.

AMA 2024-04

8.1.2.3 When items are identified without a serial number the activity will assign one using their three digit ORG code and a three digit numerical number, for example, P9A319. A serialization log will be used to ensure unique serial numbers are created.

NOTE: Items received by the calibration lab without a serial number will follow the guidance of 10.18.3.

8.2 General Responsibilities

8.2.1 Logbook and Record Initiation

8.2.1.1 Initial Department of the Navy (DON) Acceptance

Initiation of logbooks and records is the responsibility of the activity originally accepting the item for the DON. When an aircraft, engine, engine module, equipment or component has been procured under a Department of Defense (DOD) contract and delivery is made to the DON at the contractor's plant, the cognizant contract administrator is considered to be the original accepting activity. If the plant does not have a resident inspector, or if the item has been procured for the DON under an Air Force or Army contract and delivery is not made directly to the DON representative at the contractor's, the DON representative at the delivery point is considered the original accepting activity. When an aircraft, previously operated by the Air Force or Army, is transferred to the DON, the DON representative at the delivery point is considered the original accepting activity. Additional requirements:

a. The original accepting activity for an aircraft must:

(1) Initiate the aircraft logbook and the individual records, and ensure the number of flights and flight hours since new, including those hours flown by the manufacturer, are entered on the Monthly Flight Summary page.

(2) Create the aircraft's Configuration Management auto log-set (CM ALS) records in the CM Inventory Explorer. The accepting activity will coordinate with the COMNAVAIRSYSCOM Baseline Manager to ensure all Technical Directive (TD) compliances are listed in the applicable TD record.

b. The original accepting activity for new engines, engine modules, equipment, and components must initiate the appropriate records. When initiation of the record is not included in the acquisition contract, the first activity requisitioning the item from the Navy supply system must initiate the record. The initiating activity must:

(1) Verify the engine, equipment, or component is in fact newly acquired by the DON.

(2) Verify the serial number for tracked equipment or components received.

(a) When items are received without a serial number, the original accepting activity will assign one using their three digit ORG code and a three digit numerical number, for example, P9A319.

(b) A serialization log will be used to ensure unique serial numbers are created.

(3) Initiate all required records prior to use or installation.

(4) Activities using Aircraft Component Tracking System (ACTS) records must also create the record in ACTS.

NOTE: Items received by the calibration lab without a serial number will follow the guidance of 10.18.3.

8.2.1.2 New Record Requirements for In-service Equipment

If COMNAVAIRSYSCOM determines the need for a record for an item already in service, the PMA or FST will issue implementation instructions via the respective ACC and revise the applicable Periodic Maintenance Information Card (PMIC). Activities in possession of the item will then initiate the record.

8.2.2 Organizational Level (O-level)

O-level activities are responsible for maintaining the logbooks and records for the aircraft, engines, engine modules, equipment, and components assigned to their custody.

8.2.3 Intermediate Level (I-level)

I-level maintenance activities (IMA) are responsible for maintaining the records for assigned equipment and for the engines, equipment, and components they inspect and repair.

8.2.4 Depot Level (D-level)

D-level activities are responsible for maintaining the logbooks and records in their possession for those aircraft, engines, engine modules, support equipment, and components inducted into the depot facility for rework, repair, or modification.

8.2.5 Logbook Clerks and Configuration Management Auto-Log Set (CM ALS) Administrators

8.2.5.1 Personnel designated as Logbook Clerks or CM ALS Administrators are directly responsible for making entries in logbooks and records. O-level and I-level personnel who maintain logbooks and records must complete the Logs and Records Configuration Management for Organizational and Intermediate Activities course (C-555-0059). Personnel responsible for aviation life support systems (ALSS) ALS records must complete the ALSS Configuration Management course (C-555-0056). Personnel responsible for support equipment ALS records must complete the SE Configuration Management course (C-555-0057). Depot activities will determine the training requirements for their logbooks and records personnel. General responsibilities:

a. Screen all maintenance records and documents and make the required logbook and records entries. When logbooks or related records specify a warranted item, ensure the Work Order (WO) or Maintenance Action Form (MAF) contains appropriate warranty information in the removed item and installed item time cycle fields.

b. Close out logbooks and records (as necessary).

c. Complete the Entries Required Signature blocks on the WO/MAF to certify appropriate logbook/records entries have been made or no entries are required.

d. Forward closed out records to Material Control to be matched with turn-in documents and the applicable component or equipment.

e. Initiate, maintain, close out, reinitiate and dispose of logbooks and records per this instruction.

f. Monitor forced removal items, such as life-limited components, and keep Maintenance/Production Control informed of service life used and time/cycles remaining.

g. (I-level) Enter the engine configuration base line requirements into NALCOMIS as part of the engine induction process.

h. Comply with the direction for logbook and record entries specified in TDs.

i. Make required NAVAIRINST 13920.1 logbook and records entries, for example, flight loads, launch, and landing data.

j. Update logbooks and records with Naval Aircraft Flight Record (OPNAV 3710/4) (NAVFLIR) flight information (aircraft hours, engine hours, landings, etc.). Once all entries have been made, NAVFLIR copy 3 will added to the current month's file and retained for a minimum of 3 months.

NOTE: If operating NALCOMIS OOMA, use automated NAVFLIRS data entry procedures and report to update logbooks and records as per 8.5.16.2 and 14.1.3.

k. Review logbooks and records each month and submit inputs to the Monthly Maintenance Plan (MMP) for forced removal items, TD compliance requirements, compass calibration due dates, scheduled inspection requirements, and any other maintenance information required by local instructions.

8.2.5.2 Refer to 8.6 for other CM ALS Administrator duties.

8.2.6 Signatures

8.2.6.1 The following personnel are authorized to sign logbooks and records by their positional authority:

a. CO

b. O-level MO

c. I-level MO

d. D-level Director of Operations or Production Officer

e. Operations Maintenance Division (OMD) Officer

NOTES: 1. Additional personnel may be authorized to sign logbooks and records if designated in writing to do so by the CO or MO. Designation will be made in writing by naval letter or in Advanced Skills Management (ASM), and will include name and rank or equivalent civilian paygrade.

2. For activities using the Aircraft Component Tracking System (ACTS), Common Access Card (CAC) enables users to digitally sign records. Personnel authorized to sign aircraft logbooks and records are authorized signature authority for ACTS records.

3. For activities using DECKETR, the DECKETR certifier will be designated in writing by naval letter, ASM or the SME listing, where applicable.

8.2.6.2 Rubber stamp signatures are not authorized. Depot Fleet Readiness Center (Depot FRC) artisan certification or verification device (as applicable) will satisfy the COs signature requirements on MSR, ASR, EHR and SRC cards only.

8.2.6.3 For depot repair, rework, or modification, signing the Repair/Rework Record is also certification that related entries on the Inspection and TD pages are complete and correct as of that date. A signature must also be placed in the Repair/Rework Record section of each record within the aircraft logbook or AESR as they are separate and complete items and the equipment may not be permanently associated with the same aircraft/equipment. When a contractor or Depot FRC field team performs repairs at the operating activity, and the field team supervisor is not authorized to sign logbooks and records, the reporting custodian must verify the work performed and sign the necessary entries.

8.2.6.4 Changes to existing record entries will be entered as separate line items and signed. If records must be transcribed and the original signer is not available to sign the transcribed entry, the original signer's name will be typed or printed onto the new page preceded with /s/ to indicate it was transcribed. Use the date(s) from the original entry.

8.2.6.5 Refer to 8.6.3.1 for CM ALS record signatures.

8.2.7 Entries

8.2.7.1 O-level and I-level logbook and record entries will only be made by personnel designated by the CO or MO. Designation will be made in writing by naval letter, Advanced Skills Management (ASM), or Monthly Personnel Plan (MPP) and will include name and rank or equivalent civilian paygrade. Depot entries will be made under the supervision of the individual responsible for logbook custody at the activity where the aircraft/equipment is undergoing rework. For aircraft supported under contractor maintenance, the onsite support center liaison officer will ensure verification of the logbook/records required per the User's Logistics Support Summary (ULSS) and the Contract Data Requirements List (DD 1423).

8.2.7.2 All non-electronic entries must be typewritten or plainly printed using a ball point pen with black ink. Markers that can easily smear, such as felt tip, rollerball and gel pens will not be used. Entries will be made in pencil only where specifically authorized in this instruction.

8.2.7.3 Dates will be entered in YYMMDD format. When a date entry is required and the only date available is year and month, enter the last day of the month for the DD portion of the date entry. The same date is used for all entries on the Inspection and TD pages and in the date completed column of the Repair/Rework Record.

8.2.7.4 Corrections to hardcopy records will be made by lining out the erroneous entry, or portion thereof, with a single line drawn through each line of type and the correct entry inserted above or below as space permits. Corrective tape and correction fluid are not authorized for use on logbooks or records. Each correction will be initialed by a person authorized to sign records.

8.2.7.5 When an aircraft undergoes depot rework, repair, or modification at the reporting custodian's operating site, the reporting custodian will make the required logbook/records entries per the following conditions:

a. The Depot FRC or contractor that performed the work must provide all information needed to make the entries. A copy of the work order and all pertinent data, such as wiring diagrams, will be placed in the manila envelope in the back of the aircraft logbook or in the appropriate aircraft or equipment historical file.

b. If a contractor field team performs a TD, the reporting custodian will submit the WO to document incorporation in the Technical Directive Reporting System (TDRS) refer to Chapter 15 and 16 for documentation.

c. When an aircraft is in offsite rework, the D-level facility having physical custody of the aircraft is responsible for the aircraft's logbook and records and making all required entries, including submission of TD compliance documentation for incorporation in the Technical Directive Reporting System (TDRS).

8.2.7.6 Refer to 8.6.3.2 for CM ALS record entry procedures.

8.2.8 Consolidation

Consolidation of record information will be performed per the procedures directed for the individual record. Refer to 8.5.

8.2.9 Purging

General responsibilities:

a. O-level activities are not authorized to purge information from logbooks or records.

b. I-level activities will purge information from paper logbooks and records only if authorized per the direction in 8.5 for the specific record.

c. Depot FRCs will purge paper logbooks and records during any depot repair or rework that requires them to take possession of the logbook or record. Purging will be performed per the direction in 8.5 for the specific record.

8.2.10 Reconstruction

8.2.10.1 Every effort will be made to reconstruct a lost, missing, destroyed, or damaged logbook or record.

NOTE: Failure of engines, equipment and components can have catastrophic consequences. Missing records of newly received engines, equipment, and components will be reconstructed prior to installation. Documented proof of serviceability, service life history and remaining service life is required for record reconstruction. If data is needed to determine the operational status of a service life-limited item and cannot be recovered, the cognizant COMNAVAIRSYSCOM Fleet Support Team (FST) has the responsibility to determine the required course of action.

8.2.10.2 Sources of information for reconstruction:

a. If a CM ALS record is missing or not received, contact the COMFRC FST HQ Logistics Group OOMA NALCOMIS Wholesale Foundation Tier OMAWHOLE (WHO, PAXRIVER) via email to OMAWHOLE.GM.fct@navy.mil for reconstruction of information/data.

b. OOMA Work Order (WO) and OIMA Maintenance Action Form (MAF).

c. Aircraft Discrepancy Book (ADB).

d. Technical Directive Reporting System (TDRS) Lists No. 01, 02, and 04 (aircraft and engines), NAT01, NAT02 (support equipment), NAT04 (aircrew equipment), Active TD Listing 500C, and REP07 (components with a serial number).

e. Aircraft Inventory and Readiness Reporting System (AIRRS) XRAY reports and Engine Transaction Reports (ETR).

f. Rework activity records.

g. Aircraft manufacturer records.

h. DECKPLATE.

i. Copies of Module Service Records (MSR), Assembly Service Records (ASR), and Scheduled Removal Component (SRC) cards can be obtained from the COMFRC Digital Group Configuration Management Information System (CMIS) Repository, which is a warehouse of various historical aircraft and equipment records. Records can be requested from CMIS by contacting the appropriate group below:

Fixed Wing aircraft records:

Email: CMIS.gm.fct@navy.mil

Or by letter mailed to:

COMMANDER, FLEET READINESS CENTERS
(ATTENTION CMIS REPOSITORY)
47038 MCLEOD RD, BLDG 447
PATUXENT RIVER MD 20670-1626

Rotary Wing/Tiltrotor aircraft records (by TMS):

TMS/Email/Phone

V22 V22@dycomtrak.com (252) 463-7919

AH1 Ah1@dycomtrak.com (252) 463-7938

UH1 Uh1@dycomtrak.com (252) 463-7938

H53 H53@dycomtrak.com (252) 463-7931

H60 H60@dycomtrak.com (252) 463-7943

MQ8 Mq8@dycomtrak.com (252) 463-7922

T64 T64@dycomtrak.com (252) 463-7916

T700 T700@dycomtrak.com (252) 463-7921

Or by letter mailed to:

SERCO INC
183 USA HIGHWAY 70 WEST
HAVELOCK NC 28532

To support record reconstruction, copies of paper MSR, ASR, and SRC records will be mailed to the CMIS Repository whenever:

(1) A new MSR, ASR or SRC is initiated for any reason.

(2) A MSR, ASR or SRC is reconstructed.

(3) An I-level activity consolidates and purges an engine AESR after first degree engine repair.

(4) A depot activity consolidates and purges an aircraft logbook, engine AESR, or MSR after rework or repair.

j. Copies of EHR cards can be obtained from the applicable FST with responsibility for the equipment. To support EHR reconstruction, copies of EHR cards will be sent to the applicable FST repository whenever one of the following occurs:

(1) A new EHR is initiated for any reason.

(2) An EHR is reconstructed.

(3) Upon completion of any depot maintenance or overhaul of a removed EHR card component. The original EHR card will be attached to the component prior to return to the supply system, or inserted in the aircraft logbook, AESR, or MSR, as applicable.

(4) When an EHR item is condemned (Action Taken (AT) code BCM 9).

(5) When notified that EHR cards are no longer required via official correspondence or change to the applicable PMIC. The custodian of the record will send the affected cards to the FST repository for purging of the master file. The authorization must be annotated on the EHR.

NOTE: Activities using ACTS do not have to send records to CMIS or to the FST repository. All historical information is retained in ACTS and available for electronic viewing and printing whenever necessary.

8.2.11 Transfer, Receipt, and Disposition

NOTE: 8.6.3.4 directs procedures for electronically transferring OOMA ALS.

8.2.11.1 Transfer. The transferring activity is responsible for ensuring logbooks and records are current at the time they transfer custody of aircraft, engines, engine modules, equipment or components. The following procedures will be followed to reduce the possibility of hardcopy records loss or damage to hardcopy records during shipment:

a. AESR, MSR, ASR, EHR, and SRC will be sealed in a plastic envelope if not installed in a logbook. Copies of other documents such as shipping forms, WOs, MAFs, and electronic media will be sealed in a separate plastic envelope.

b. Firmly attach the plastic envelopes to the item prior to packaging for shipment. If the shipping container has a designated holder for records, place the plastic envelopes in the holder. If the shipping container records holder is damaged or cannot properly close, attach the records to the item.

NOTE: Activities using ACTS must ensure ACTS record is in the proper status prior to transferring the component.

8.2.11.2 Receipt. Upon initial receipt of an engine, equipment, or component for operational use or for repair or rework, the receiving activity must screen applicable hardcopy and electronic ALS records to verify all records were received and the information is accurate and current. Administrative errors that can be verified by physical inspection of the item or reference documents, such as transposed numbers in a serial number or a part number, will be corrected. If information is missing or is suspected to be inaccurate and cannot be verified, the receiving

activity will contact the last custodian to determine the correct information. Other sources of information are described in 8.2.10. Items received from the supply system or a repair or rework activity without sufficient documentation will be returned to the providing activity.

NOTES: 1. Documented proof of serviceability is required if the item is being received for installation and operation. Visual appearance and satisfactory operation are not considered sufficient evidence of serviceability.

2. Activities with ACTS must ensure the ACTS record is in its proper status prior to placing the item in service.

8.2.11.3 Disposition. Logbooks and records for aircraft and life-limited equipment stricken from the Navy inventory are disposed of as follows:

a. Destroyed Aircraft and repairable life-limited equipment. The logbook and records of destroyed aircraft and life limited equipment are disposed of locally after necessary investigation and preparation of required reports, provided the aircraft is not sold or transferred (8.2.11.3.b) or is a special category aircraft (8.2.11.3.c). CM ALS for destroyed aircraft/equipment will be transferred electronically to the OMAWHOLE (WHO, PAXRIVER) folder in OOMA and COMFRC FST HQ Logistics Group via e-mail (OMAWHOLE.GM.fct@navy.mil) with an explanation of why the records are being sent to OMAWHOLE (WHO, PAXRIVER).

b. Sale or Transfer. When an aircraft or repairable life-limited equipment is stricken from the Navy inventory due to sale or transfer to other than Navy custody, the activity having custody of the aircraft/equipment at the time strike disposition is determined will transfer the logbooks and records as directed in the disposition instructions. The hardcopy logbooks and records and a printed copy of CM ALS records will accompany the aircraft/equipment unless otherwise directed by the ACC or TYCOM. Classified information will be removed from the records, unless cleared for release through the chain of command.

c. Special Categories. Hardcopy logbooks and records and a printed copy of CM ALS records of aircraft in the following categories will be transferred to the Washington National Records Center, Washington, DC:

(1) Records for experimental aircraft/equipment.

(2) Records considered to be of historical value.

(3) Records of aircraft/equipment lost in combat or that have been involved in a mishap resulting in death, missing in action, personal injury, or substantial damage to other than government property. These records will be retained by the operating activity for one year (for defense in cases of litigation action) before being sent to the Washington National Records Center.

NOTES: 1. Refer to SECNAV M-5210.1 for procedures for transferring records to the Washington National Records Center.

2. SECNAVINST 5510.30 provides guidance for shipping classified information.

3. Serviceable logbook binders for aircraft/equipment stricken from the inventory will be retained or disposed of locally.

4. CM ALS records for non-life limited components and non-repairable components will not be sent to the OMAWHOLE (WHO, PAXRIVER). ALS for these components will be deleted locally using the OOMA software inventory delete process.

8.3 Aircraft Logbook

8.3.1 Purpose

The Aircraft Logbook (OPNAV 4790/19) is a consolidated record of the configuration, maintenance, and operation of individual Bureau Number (BUNO) aircraft. Records within the logbook cover the aircraft's structure and installed engines, engine modules, aeronautical equipment, and components. The Aircraft Logbook (Binder) (OPNAV 4790/19) will be used for all naval aircraft. In certain instances, aircraft may require more than one binder to accommodate the required forms and records. When this is necessary, the binders are marked Volume I, Volume II, etc.

8.3.2 Forms and Records

8.3.2.1 The Aircraft Logbook (Binder) (OPNAV 4790/19) will contain the following records, in the sequence listed (Refer to 8.4 for direction individual forms.):

Structural Life Limits (Separator) (OPNAV 4790/142A)

Structural Life Limits (OPNAV 4790/142) **NOTE 1**

Monthly Flight Summary (Separator) (OPNAV 4790/21)

Monthly Flight Summary (OPNAV 4790/21A) **NOTE 1**

Inspection Record (Separator) (OPNAV 4790/22)

Inspection Record (OPNAV 4790/22A) **NOTE 1**

Repair/Rework Record (Separator) (OPNAV 4790/23)

Repair/Rework Record (OPNAV 4790/23A) **NOTE 1**

Technical Directives (Separator) (OPNAV 4790/24)

Technical Directives Reporting System LIST02

Technical Directives Reporting System LIST04

Technical Directives (OPNAV 4790/24A) **NOTE 1**

Miscellaneous/History (Separator) (OPNAV 4790/25)

Miscellaneous/History (OPNAV 4790/25A) **NOTE 1**

Preservation/Depreservation Record (Separator) (OPNAV 4790/136)

Preservation/Depreservation Record (OPNAV 4790/136A) **NOTE 1**

Explosive Devices (Separator) (OPNAV 4790/26) *

Installed Explosive Device Record (OPNAV 4790/26A) *

Inventory Record (Separator) (OPNAV 4790/27)

Inventory Record (OPNAV 4790/27A)

Assembly Service Record (OPNAV 4790/106A)* **NOTE 2**

Equipment History Record (EHR) Card (OPNAV 4790/113) * **NOTE 2**

Scheduled Removal Component Card (OPNAV 4790/28A) * **NOTE 2**

Aviation Life Support Systems Record (Separator) (OPNAV 4790/157) *

Parachute Record (OPNAV 4790/101) * **NOTE 3**

Seat Survival Kit Record (OPNAV 4790/137) * **NOTE 3**

Aircrew Systems Record (OPNAV 4790/138) * **NOTE 3**

Supplemental Records (Separator) (OPNAV 4790/134) *

Aeronautical Equipment Service Record (OPNAV 4790/29) * **NOTE 4**

***** If applicable to aircraft configuration.

NOTES: 1. The OPNAV paper form is no longer required for activities operating OOMA. The information is recorded in equivalent OOMA Configuration Management Auto Log-set (ALS) data.

2. The aircraft logbook will contain the Assembly Service Record (ASR), Equipment History Record (EHR), and Scheduled Removal Component (SRC) card for each installed component requiring these records. ASRs, EHRs, and SRCs will be placed in the order listed in the T/M/S aircraft PMIC.

3. The aircraft logbook contains a file of all aircraft installed ALSS records, excluding aircraft equipped with ejection seats. When an aircraft has an ejection seat, the records will be inserted into the appropriate ejection seat AESR.

4. The aircraft logbook will contain the Aeronautical Equipment Service Record (AESR) for each installed equipment with an AESR. The AESR may be placed within the aircraft logbook itself or maintained separately.

8.3.2.2 Logbook records will be documented and managed as specified in the applicable section in 8.4 and 8.5. Records or forms other than those described in this instruction will not be inserted, stapled, or otherwise attached to the logbook unless specifically directed by COMNAVAIRSYSCOM. Data without a designated place in the logbook will be placed in a manila envelope or plastic bag in the back of the logbook, or maintained in the aircraft's or equipment's historical file. Superseded forms will be closed out with the statement "NO FURTHER ENTRIES THIS PAGE" and a new form initiated. The superseded form will remain in the logbook in its proper section until purged, as required by this instruction.

8.3.3 Aircraft Logbook Verification

8.3.3.1 Acceptance and Transfer Configuration Verification

Per 5.4, operating activities must perform sight verification of the aircraft's physical configuration and a review of the aircraft's records at time of acceptance or transfer for permanent (reporting) custody or temporary (physical) custody, including off-site depot rework. Requirements:

a. Only those panels, doors, and areas opened for a Daily Inspection must be opened for the configuration verification. Components that are accessible during the acceptance inspection will be sight-verified for their commercial and government entity (CAGE) number, part number (PN), and serial number (SERNO) and compared to the applicable hardcopy and CM ALS aircraft records. If the sight-verification reveals significant mismatches with aircraft records, the Maintenance Officer will determine if additional panels need to be opened to verify the operational condition of flight-critical components.

NOTES: 1. Verified record errors found during acceptance inspection from a rework facility will be noted on the Aircraft Delivery Deficiency Report (ADDR) per 10.9.3.3.

2. Disassembly of an F-35 aircraft beyond the daily inspection requirements to perform configuration verification requires TYCOM approval.

b. All logbooks and records must be reviewed for complete and current data. AESR, ASR, EHR, MSR, SRC, and ALSS records will be verified for compliance with the applicable data elements specified in 8.4 and 8.5. Requirements:

(1) Emphasis will be placed on verifying that all scheduled or unscheduled maintenance requirements are not past due, and verifying the remaining service life of all components having an established finite service life or forced removal requirement listed in the applicable aircraft PMIC.

NOTE: Documented proof of remaining service life is required: Visual appearance and satisfactory operation are not considered sufficient evidences of remaining serviceability.

(2) Components that are accessible during the acceptance inspection will be sight-verified for their commercial and government entity (CAGE) number, part number (PN), and serial number (SERNO) and compared to the applicable hardcopy and CM ALS aircraft records. If the sight-verification reveals significant mismatches with aircraft records, the Maintenance Officer will determine if additional panels need to be opened to verify the operational condition of flight-critical components.

c. To ensure uniformity in execution, Type Wings and MAWs will issue an instruction on Acceptance and Transfer Inspection configuration verification requirements. If deemed necessary to determine the airworthiness of flight-critical components, the Wing direction will include mandatory opening of any panels or inspection of components beyond that accomplished during a Daily inspection, pre-flight, and aircraft ground operation prior to flight.

AMA 2024-04

8.3.3.2 CM ALS Verification

The following procedures apply to CM ALS:

a. Download and save the most recent copy on file for the following reports:

(1) ASR/SASR Component Removal Due

(2) Component Removal Due

(3) 100 % Life Remaining (Installed) reports.

b. Save the CM reports as:

(1) File name (example: BUNO 162501 or SERNO E325006)

(2) Change file as "CSV (*.csv)"

(3) Resave CSV file as an "Excel Workbook"

(4) Filter all columns

c. Verify the accuracy of all columns of the CM reports against the aircraft logbook and AESR.

(1) Task status code (tsk_sts_cd) should either be ACTV or PEND. If SUSPEND, research is required as to why the CM ALS task was suspended.

NOTES: 1. Exception from loading or activating any task not explicitly exempted by MRC must be approved by higher authority. A miscellaneous history entry will be made in the item's CM ALS citing the reason and authorization, signed by the MMCO or Production Control Officer.

2. Commands are required to load and activate all maintenance tasks for each item of SE in their custody, including temporary loan items.

3. All SE maintenance tasks must be either active or pending in OOMA, regardless of the maintenance level (O/I/D).

(2) Filter each individual Inventory Sub-classification Code (inv_subclass_cd) and account for each line item, for example, ALSS, ASR, EHR, etc.

(3) Verify each "inv subclass_cd" against other aircraft to ensure all installed components have removal tasks assigned. Extensive research and corrective action is required for any shortfalls.

AMA 2024-04

8.3.3.3 Periodic Aircraft Records Verification

On a periodic basis, aircraft components with an AESR, MSR, ASR, EHR, SRC, or ALSS record will be sight-verified for CAGE, PN, and SERNO and compared to the applicable hardcopy and CM ALS records for accuracy. Procedures:

a. Only those components that are accessible during O-level scheduled inspections (hourly or calendar-based) must be verified. All items must be verified by the completion of one complete major scheduled inspection cycle, for example within a complete Phase A/B/C/D cycle,

or within a complete 90/180/360/720 day inspection cycle. UAS Air Vehicle and Control Station records must be verified at least once every 12 months.

b. Components that cannot be sight-verified without disassembly of the aircraft, engine, assembly, or component beyond scheduled inspection requirements are exempt. For example, a component with an identification plate that is not visible without removing the item, and internal components that cannot be sighted without disassembling the item.

c. To ensure uniformity in execution, Type Wings and MAWs will issue a standardized Aircraft Records Verification checklist that includes all items with an AESR, MSR, ASR, EHR, SRC, or ALSS record, and all critical aircraft structures which may have life, time, or event limits imposed via service life bulletin (SLB). Items that cannot be sight-verified will be indicated on the checklist as "NOT REQUIRED".

8.4 Aeronautical Equipment Service Record (OPNAV 4790/29)

8.4.1 Purpose

The Aeronautical Equipment Service Record (AESR) (Figure 8-1) serves as the logbook for certain aircraft-installed equipment managed as end items. Aircraft engines, propellers, ejection seats, auxiliary power units, and guns are the most common items to have an AESR. The responsible COMNAVAIRSYSCOM program office determines which aircraft equipment will have an AESR. The following non-aircraft equipment require an AESR:

a. Expeditionary Airfield (EAF) systems (Marine Corps Expeditionary Arresting Gear System (MCEAGS), Fresnel Lens Optical Landing System (FLOLS), High Power Run Up (HPRU) systems, MOSLS, F-58, F-70, L-series lighting, L-95, radios and F-series packages).

b. Magnetic minesweeping gear (MK-105).

c. Support Equipment Gas Turbine Engine (SEGTE) listed in NAVAIR NOTE 4700.

d. Engine test systems.

e. AN/AWW-13 Control Monitor Set.

f. UAS Control Stations.

g. Gas turbine power plant (7LM 1500 PB-104).

NOTE: There is no requirement for to maintain an AESR for the Air Start Unit (MSU-200NAV). All documents, forms, and maintenance records will be maintained in the SE History Record per paragraph 8.5.17.

8.4.2 Contents

The following records must be maintained in the AESR, in the sequence listed:

NOTES: 1. Refer to Figure 8-2 for content requirements of non-aeronautical equipment AESRs.

2. Pages or forms, other than those described in this instruction (unless specifically directed by COMNAVAIRSYSCOM), will not be inserted, stapled, or otherwise attached to the AESR. Additional data without a designated place in the AESR will be maintained in the manila envelope in the back of the AESR. Superseded forms will be closed out with the statement "NO FURTHER ENTRIES THIS PAGE" and a new form initiated. The superseded form will remain in the AESR, in its proper section, until purged.

Equipment Operating Record (Separator) (OPNAV 4790/31)	
Equipment Operating Record (OPNAV 4790/31A)	**NOTES 1, 4**
Inspection Record (Separator) (OPNAV 4790/22)	
Inspection Record (OPNAV 4790/22A)	**NOTE 1**
Repair/Rework Record (Separator) (OPNAV 4790/23)	
Repair/Rework Record (OPNAV 4790/23A)	**NOTE 1**
Technical Directives (Separator) (OPNAV 4790/24)	
Technical Directives Reporting System LIST02	**NOTE 2**
Technical Directives Reporting System LIST04	**NOTE 2**
Technical Directives (OPNAV 4790/24A)	**NOTE 1**
Miscellaneous/History (Separator) (OPNAV 4790/25)	
Miscellaneous/History (OPNAV 4790/25A)	**NOTE 1**
Preservation/Depreservation Record (Separator) (OPNAV 4790/136)	
Preservation/Depreservation Record (OPNAV 4790/136A)	**NOTE 1**
Explosive Devices (Separator) (OPNAV 4790/26) *	
Installed Explosive Device Record (OPNAV 4790/26A) *	
Inventory Record (Separator) (OPNAV 4790/27)	
Inventory Record (OPNAV 4790/27A)	
Module Service Record (OPNAV 4790/135) *	
Assembly Service Record (OPNAV 4790/106A) *	**NOTE 3**
Equipment History Record (EHR) Card (OPNAV 4790/113) *	**NOTE 3**
Scheduled Removal Component Card (OPNAV 4790/28A) *	**NOTE 3**

* If applicable, per the equipment's Periodic Maintenance Information Card (PMIC).

NOTES: 1. OPNAV paper form no longer required if operating OOMA. Information is recorded in equivalent OOMA ALS.

2. Engine AESR, only.

3. The AESR will contain the Assembly Service Record (ASR), Equipment History Record (EHR), Module Service Record (MSR) and Scheduled Removal Component (SRC) card for each installed component requiring these records. ASRs, EHRs, MSRs and SRCs will be placed in the order listed in the equipment PMIC.

4. Paper EOR must be maintained in the AESR for F404/F414 engines.

8.4.3 Custody and Maintenance

8.4.3.1 When the equipment is installed on an aircraft, the AESR is maintained concurrently with and becomes part of the aircraft logbook. A two prong fastener will be used to bind the AESR together when it is transferred or shipped as a separate item. DO NOT USE STAPLES.

8.4.3.2 When an item with an AESR is inducted into an I-level or D-level activity for repair or rework, the activity performing the repair/rework is responsible for maintaining the AESR. Upon receipt, the entire AESR must be reviewed for information pertinent to the repair/rework, including a serial number verification. Upon completion of repair/rework, the activity will make the required entries on applicable AESR pages to document the work performed, and will purge the AESR per 8.2.9.

NOTE: To preclude extensive disassembly, only those accessories or components that are exposed during required maintenance need serial number verification. The inventory is performed using a locally prepared form containing a preprinted list of SRC, EHR, ASR, or CM ALS components with a column provided for recording the CAGE, serial numbers and part numbers of the installed items. OOMA activities use the Life Limited Component Report PART II to verify component CAGE, serial numbers, and part numbers.

8.4.3.3 Initiation. The AESR is initiated by the activity originally accepting the equipment for the Department of the Navy (DON).

8.4.3.4 Reconstruction. Refer to 8.2.10.

8.5 OPNAV Records and Forms

NOTE: Refer to 8.6.4 for CM ALS equivalents of OPNAV records.

8.5.1 Structural Life Limits (OPNAV 4790/142)

8.5.1.1 Purpose. The Structural Life Limits (OPNAV 4790/142) form (Figure 8-3) is used to monitor aircraft structural life-limited components designated for D-level replacement which do not require SRC or ASR documentation. In addition, this form also provides a means for documenting basic aircraft operational life limitations, for example, maximum flight hours, catapults, arrestments, and landings.

NOTE: Structural life limits must be strictly managed to ensure safety and structural integrity throughout the service life of the aircraft. Refer to 10.46.9 for information on the Structural Life Limits Program and other service life management procedures.

8.5.1.2 Fields

Block 1 - TYPE/MODEL/SERIES. Enter the applicable aircraft T/M/S.

Block 2 - BUNO/SERIAL NUMBER. Enter the aircraft BUNO.

SECTION I - BASIC LIFE LIMITS

Block 3 - REFERENCE. Enter the applicable directive from which the structural life limits were extracted.

Block 4 - REFERENCE DATE. Enter the date listed on the reference document.

Block 5 - PAGE INITIATION DATE. Enter the date the form was initiated.

Block 6 - DESCRIPTION. Enter the basic life limitations, for example, maximum airframe flight hours, catapult cycles, arrestment cycles, established for the T/M/S as listed in the applicable maintenance technical manual or NAVAIRINST.

Block 7 - NOTES. Enter the applicable NOTE(s) in the referenced directive in Block 3.

SECTION II - SERVICE LIFE LIMITS

Block 8 - FLIGHT HOURS/CALENDAR TIME. This block contains all components with life limits measured in flight hours or calendar time.

Block 8a - COMPLIANCE (HOURS/CAL). Enter the replacement due time based on total aircraft hours plus service life hours for the limited component. For example, if the aircraft has 8065 total flight hours at time of component installation and the component is allowed 2500 service life hours, the entry would be 10,565. For calendar time, enter the replacement due date for the component in YYMMDD format. If the specific day of the month cannot be determined, enter the last day of the month.

Block 8b - COMPONENT/AFC. Enter the applicable part number and AFC(s). After all flight hour limited items have been entered, skip one line and type "Calendar Time", then list all applicable calendar time limited items.

Block 9 - CATAPULT. This block contains all components and AFCs with life limits measured by number of CATs.

Block 9a - COMPLIANCE (CATS). Enter the replacement due based on total aircraft catapults plus service life catapults for the limited component.

Block 9b - COMPONENT/AFC. Enter the applicable part number, nomenclature and AFC(s).

Block 10 - ARREST/LANDINGS. This block contains all components with life limits measured in arrestments or landings.

Block 10a - COMPLIANCE (ARREST/LANDINGS). Enter the replacement due based on total aircraft arrestments or landings plus service life arrestments or landings for the limited component.

Block 10b - COMPONENT/AFC. Enter the part number, nomenclature and AFC(s). After all arrest limited items are listed, skip one line and type "Landing", then list all applicable landing limited items.

8.5.1.3 Purging. Purging is not authorized. The Structural Life Limits (OPNAV 4790/142) form is a permanent part of the aircraft logbook, unless operating OOMA.

8.5.2 Monthly Flight Summary (OPNAV 4790/21A)

8.5.2.1 Purpose. The Monthly Flight Summary (OPNAV 4790/21A) form (Figure 8-4) records the monthly compilation of significant flight operational data throughout the service life of an aircraft.

NOTES: 1. Reporting custodian maintains this record except during off-site depot rework, when it is maintained by the depot repair facility. Reporting custodians and depot activities will ensure all monthly totals have been entered on this form prior to a physical location change to or from the off-site depot facility. If the aircraft is ferried, the ferry pilot is responsible for providing aircraft flight data to the receiving activity.

2. Months will be accounted for in chronological order. D-level repair facilities are authorized to make a one line block entry in lieu of separate end of the month closeout entries provided there was no operating time during the inclusive months. For example, 940601-950131, could be entered in PART IV MONTHLY DATA, starting in block 1 of OPNAV 4790/21A, with 0.0 in block 3.A. Accumulated totals are brought forward as appropriate.

3. Initiate second and succeeding pages for the current period as follows: Part I, transcribe all information from the first page of the current period; Part II, transcribe the initial and last REV/ADJ entry from the preceding page; Part III, check appropriate extension block.

8.5.2.2 Fields

Block 1 - TYPE/MODEL/SERIES. Enter the aircraft T/M/S.

Block 2 - BUNO/SERIAL NUMBER. Enter the aircraft BUNO.

Block 3 - SERVICE PERIOD. Enter the current service period.

PART I - SERVICE PERIOD. Entries by NAVAIR FS activities only, upon receipt or transfer of aircraft.

Block 1 - DATE. Enter the YYMMDD of entry.

Block 2 - PERIOD NO. Enter the number of the current aircraft period, must be three digits, for example, 008.

Block 3 - OPSERMOS. Enter the number of OPSERMOS accumulated, must be three digits, for example, 165.

Block 4 - ACTIVITY. Enter the short title of the activity making entry, for example, FRC East.

PART II - TOUR / PERIOD REVISION / ADJUSTMENT. Entries by operating commands for the receipt, revision, or adjustment of a period. This field will be blank if there have been no Period End Date (PED) changes. PED adjustments will be made only if authorized per OPNAVINST 3110.11 procedures.

Block 1 - DATE. Enter the YYMMDD of action obtained from item C of the OPNAV XRAY report.

Block 2 - TOUR/PERIOD. Enter the YYMMDD of the computed PED obtained from item H of the OPNAV XRAY report.

Block 3 - OPSERMOS. Enter the total computed OPSERMOS obtained from item M of the OPNAV XRAY report. Must be three digits, for example, 198.

PART III - EXTENSIONS. Entries by reporting custodian. Numbered boxes 1 through 10. Check the appropriate numbered box to indicate current extension granted.

PART IV - MONTHLY DATA (applicable to all commands). End of month and transfer entries. All hour entries will include tenths. FCFs are entered prior to closing out the log for transfer. The flight summary form is closed out in pencil when the aircraft is transferred. When closing out the log enter in pencil on the line directly under the last dated entry "LAST ENTRY PRIOR TO CLOSE OUT." On the next line enter in pencil the flight time to date. The next line will be used by the ferry pilot to enter the ferry flight time in pencil. At the end of the month, the receiving custodian or rework activity compiles all penciled entries by the previous custodian, adds the ferry time and enters on one line the total flight data for that month. Flight time accumulated while in the physical custody of the rework activity is recorded against the ending tour. New operating service period flight time begins upon receipt by the receiving custodian (paragraph 5.3). Monthly entries are typed or printed in black ink. Operating hours are obtained from Record Type (RECTYP) 7B of the Naval Aircraft Flight Record (OPNAV 3710/4).

Block 1 - DATE. Enter the YYMMDD of the entry.

Block 2 - REPORTING CUSTODIAN. Enter the short title of the activity making the entry, for example, HS-5.

Block 3 - FLYING HOURS.

Block 3A - MO. Enter the accumulated flying hours for this month in hours and tenths, for example, 21.5.

Block 3B - PERIOD. Add "This Month" entry to last month's "In Service Period" total and enter the hours and tenths in this block. Verify on acceptance and transfer.

Block 3C - SINCE NEW. Add "This Month" entry to last month's "Since New" total and enter the hours and tenths in this block. Verify on acceptance and transfer.

Block 4 - LANDINGS. Select landing codes that are applicable to T/M/S and label heading blocks using the night codes. Day and night totals will be added together for each type landing to make monthly total.

NOTE: Refer to aircraft T/M/S NATOPS manual for landing codes.

Block 5 - MONTHLY TOTAL

Block 5A - LAND. Enter the total landings for the month.

Block 5B - A/R. Enter the total of arrested landings or RAST System recoveries for the month.

Block 5C - CATS. Enter the CATs for the month. For an aircraft that had a SAT during the month, the SAT will be logged in this block after monthly CATs, for example, 23/2.

Block 6 - ACCUMULATED TOTAL

Block 6A - LAND. Add this month's total landings to last month's accumulated landings and enter the new total in this block.

Block 6B - A/R. Add this month's total Arrests/RASTs to last month's accumulated Arrests/RASTs and enter the new total in this block.

Block 6C - CATS. Add this month's CATs to last month's accumulated CATs and enter the new total in this block. For those aircraft that have accumulated SATs, enter the total accumulated SATs in this block after CATs, for example, 123/5.

8.5.2.3 Purging. Purging is not authorized. The Monthly Flight Summary (OPNAV 4790/21A) form is a permanent part of the aircraft logbook.

8.5.3 Inspection Record (OPNAV 4790/22A)

8.5.3.1 Purpose. The Inspection Record (OPNAV 4790/22A) (Figure 8-5) provides a record of scheduled and conditional inspections performed during each period.

NOTE: Questionable or incomplete records require the receiving activity to assume non-compliance and perform the inspections, or refuse acceptance of the aircraft/equipment until corrective action has been taken.

8.5.3.2 Fields

PHASE_____ (Periodic or Conditional). Identify the type of inspection.

Block 1 - AIRCRAFT MODEL OR EQUIPMENT NAME. Enter aircraft T/M/S or the equipment nomenclature.

Block 2 - TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter T/M/S.

Block 3 - BUNO OR SERIAL NUMBER. Enter the BUNO of the aircraft or the equipment serial number.

Block 4 - TYPE OR DESCRIPTION OF INSPECTION. Describe the type inspection, enter title and flight hours at time of inspection, for example, Phase A/7003.2.

Block 5 - REFERENCE. The reference block of the form will identify the maintenance technical manual or directive describing the action taken.

Block 6 - DATE COMMENCE. Enter the YYMMDD the inspection began.

Block 7 - DATE COMPLETED. Enter the YYMMDD the inspection was completed.

Block 8 - ACTIVITY. Enter the short title of the activity accomplishing the inspection, for example, HS-5.

Block 9 - SIGNATURE. A person having logbook/records signature authority will sign this block.

8.5.3.3 Aircraft Logbook Inspection Record Requirements

a. All phase inspections, special inspections, conditional inspections, and major engine inspections (except fluid sampling, engine wash, recurring special engine inspections not requiring NDI or disassembly/reassembly, or servicing) require Inspection Record entries by the activity performing the inspection. This includes phase inspections certified by the depot as performed during standard rework and those engine inspections performed as a part of the aircraft phase inspection. Refer to 5.3 for additional information on inspections.

b. Phase inspection and conditional inspection records are maintained on separate pages.

Phase inspections are logged sequentially, for example, Phase A/(time), Phase B/(time). The sequence is not interrupted or re-sequenced by standard rework, unless the performance of a phase inspection is certified by the activity performing the standard rework. All phases performed on the aircraft during a period, and the flight hours on the aircraft are entered in the "Type or Description of Inspection" column. Phase inspection induction and completion dates are entered in the applicable columns of the inspection record.

c. All aircraft conditional inspections must be logged. Relief from repeated logging of conditional inspections may be requested from the cognizant Wing, CVW, or ACE Commander.

d. Aircraft acceptance and transfer inspections must be logged.

e. Inspections directed by higher authority, not directed by a TD, must be logged.

f. All MCAPPs, ASPA, and other depot aircraft service life evaluations must be logged.

g. The following inspections do not have to be logged on the Inspection Record:

(1) Routine turnaround, daily, special, servicing, engine wash, recurring special engine inspections not requiring NDI or disassembly/reassembly, recurring special engine inspections not requiring NDI or disassembly/reassembly and oil sampling are not logged in the Inspection Record.

(2) Conditional fluid sampling, such as an oil sample submitted for suspected oil contamination.

(3) Local inspections, for example, PQDR recommendations or MO orders, will be documented on the Miscellaneous/History page.

8.5.3.4 AESR Inspection Record Requirements

a. Engine AESR. All phase inspections, special inspections, conditional inspections, and major engine inspections (except fluid sampling, engine wash, recurring special engine inspections not requiring NDI or disassembly/reassembly, or servicing) must be logged by the activity performing the inspection. This includes those engine inspections performed as a part of the aircraft phase inspection. Phase and major engine inspections will be logged on one page. Special and conditional inspections will be logged on separate pages.

b. Equipment AESR. Only those inspections requiring NDI or disassembly/reassembly must be logged on an inspection record form titled "Special". In the case of Aircraft Phase MRCs, log the phase only if NDI or disassembly/reassembly is directed in a phase MRC. Routine servicing and oil sampling, turnaround inspections, and daily inspections are not logged.

NOTE: AESR equipment installed on an aircraft do not require entries for repetitive inspections based on less than 100 flight-hour intervals. When the aircraft is transferred or the equipment is removed and turned in or transferred to another activity, the most recent inspection of each type and interval must be logged prior to transfer.

8.5.3.5 Purging. D-level activities will purge the aircraft logbook and engine and equipment AESRs for all items inducted for rework. I-levels will purge engine AESRs whenever the engine undergoes first degree repair. The old AESR Inspection Record pages for recurring inspections will be purged and replaced with new pages containing the data necessary to determine when the next inspection is due. Conditional Inspection pages will be screened for items of historical or maintenance significance. A minimum of 2 years of conditional inspection data will be maintained in the inspection record.

8.5.4 Repair/Rework Record (OPNAV 4790/23A)

8.5.4.1 Purpose. The Repair/Rework Record (OPNAV 4790/23A) (Figure 8-6) is used in Aircraft Logbooks and in AESRs to record I-level or D-level standard rework, repair, conversion, modification, modernization, and reconditioning.

8.5.4.2 Fields

Block 1 - AIRCRAFT MODEL/EQUIPMENT NAME. Enter the aircraft T/M/S or the equipment nomenclature.

Block 2 - TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter the T/M/S.

Block 3 - BUNO OR SERIAL NUMBER. Enter the BUNO of the aircraft. If equipment, enter the serial number.

Block 4 - DATE INDUCTED. Enter the YYMMDD the aircraft or item was inducted for repair/rework.

Block 5 - DATE COMPLETED. Enter the YYMMDD the aircraft or item completed repair/rework.

Block 6 - DESCRIPTION OF WORK. Enter a brief description of the work accomplished. For engines and engine modules, include degree of maintenance.

Block 7 - REFERENCE. Identify the maintenance technical manual or directives requiring the work. When an In-Service job/work order is supplied, record the job order number.

Block 8 - ACTIVITY. Enter the short title of the activity accomplishing the work, for example, FRC East.

Block 9 - SIGNATURE. A person having logbook/records signature authority will sign this block.

8.5.4.3 Purging. None. This page is a permanent part of the logbook or AESR. Outdated forms will be transcribed to new forms at the time of rework.

8.5.5 Technical Directives (OPNAV 4790/24A) Record

NOTES: 1. TDRS LIST02 and LIST04 are used in place of the OPNAV 4790/24A form in Aircraft Logbooks and in Engine AESRs, only.

2. Care must be taken during verification reviews before destroying Technical Directives pages.

3. Production equivalents performed on the aircraft by the manufacturer are not presently covered by the TDRS Program and will not appear on the LIST02 and LIST04, therefore, any Technical Directives page with production equivalent entries must be maintained for historical reasons.

8.5.5.1 Purpose. The Technical Directives record (Figure 8-7) is used in Aircraft Logbooks and AESRs to record TDs on the aircraft structure or AESR basic equipment (engine, propeller, etc.) All applicable changes and bulletins, including revisions, are recorded in this section of the logbook or AESR with the NAVAIR 500C as the baseline. Refer to 10.10 TD Compliance Program for management procedures.

NOTE: Cancelled, completed, or superseded TDs will not be deleted from the Technical Directives record until the item to which the TD was incorporated has been replaced with a new part number or has been removed due to obsolescence.

8.5.5.2 General Procedures

a. Separate pages are required for each type of TD.

b. TDs that affect a component for which an MSR, ASR, EHR, or SRC card is required are also recorded in the TD part of that record as well as the Technical Directives record. In this instance, the TD identification is entered and a notation to refer to the applicable MSR, ASR, EHR, or SRC is entered in the Title/Remarks column, for example, “See (abbreviated component nomenclature) SRC.” No other information or signature is required. The complete information regarding the change is then entered, with authenticating signature, in the appropriate section of the MSR, ASR, EHR, or SRC card.

c. When documenting TDs on ASR, EHR, and SRC cards, only those TDs that apply to the respective component nomenclature are recorded, such as an accessory bulletin that applies to a

hydraulic pump need not be recorded on a generator SRC card. Likewise, a power plant change (PPC) that applies to an afterburner module need not be recorded on an accessory MSR. If the TD is applicable only to a specific part number or range of part numbers, enter the directive in the TD identification blocks, enter "NA" in the status block and the statement, "NA this PN," in the title/remarks block.

d. Engines and engine modules inducted for I-level or D-level maintenance will have the engine logbook screened for TD status per 10.10.3.5. Any required TD that is not incorporated during the repair action due to a waiver or other reasons must be noted per 10.10.3.4 procedures.

e. For airframe TDs requiring one time or continuing inspections, the initial, or one time inspection, is logged on the TD page of the logbook. Subsequent or continuing inspection requirements are added to the MRCs as required in the basic TD. When this action has been completed, no further entry in the Aircraft Logbook is required for that TD.

f. Production Equivalents, ECPs, and Prototype or Modification of Aircraft or Equipment. Comply with the documentation procedures in the TD correspondence. Logbook entries will be made as required on the appropriate TD page, Miscellaneous/History page or applicable record's TD section.

g. Block Entry Procedures. Block entries are authorized for use by the original accepting activity, rework activities, and I-level first-degree engine repair sites upon completion of first-degree engine repair. The use of this type of entry provides for a consolidated accounting of TDs when the equipment is new and upon completion of each standard rework or first-degree engine repair. Block entries may be used only for a series of consecutively numbered TDs having the same status code. This procedure is necessary so subsequent custodians can determine the configuration of the aircraft without being required to screen the entire file of TDs for applicability. Original accepting activities ensure each entry in this section is valid and is supported by an official TD. NAVAIR 00-500C is the TD accountability baseline. All previous TDs are part of current configuration. Block entries are authorized for use by all activities when consolidating ASRs, EHR, MSRs and SRC cards.

NOTE: Activities with ACTS must also document TDs on applicable ACTS component records.

8.5.5.3 Fields

Block 1 - TYPE DIRECTIVE. Enter the type of TD. Separate pages will be maintained for each type of TD to include separate pages titled Amendments and Revisions.

NOTE: Inserting OPNAV 4790/24A Technical Directives pages titled AFB and AFC TDs, including Amendments and Revisions, is no longer authorized. Tracking AFB and AFC TDs and related Amendments and Revisions will be accomplished directly on Lists Nos. 02 and 04.

Block 2 - AIRCRAFT MODEL/EQUIPMENT NAME. Enter the aircraft T/M/S. If equipment, enter the equipment name.

Block 3 - TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter T/M/S.

Block 4 - BUNO OR SERIAL NUMBER. Enter the aircraft BUNO or equipment serial number.

Block 5 - TECHNICAL DIRECTIVE IDENTIFICATION.

Block 5a - BASIC. Enter the basic number of the TD. All TDs are logged in numerical sequence except on the pages titled "Revisions and Amendments." These are logged in the order they are received. This includes numbered spaces for TDs not received.

Block 5b - INT. Interim TDs are recorded on the same sheet as formal TDs and are identified by an I in the INT Block. When cancellation instructions in an interim TD indicate a regular TD will supersede it, enter in pencil the regular TD number on the following line with a temporary status code NINC.

Block 5c - REV. Enter the letter to indicate revision. They are logged in the order they are received on the revisions and amendments page.

Block 5d - AM. Enter the number to indicate the amendment. A separate line is required for each amendment. When different amendments are to be incorporated by different levels of maintenance, a temporary code of NINC (in pencil) will be made for the applicable amendment.

NOTE: All applicable amendments will be logged with the exception of those listed on List Nos. 02 and 04.

Block 5e - PT. Multiple Part TD. Some TDs consist of several parts. Accounting for this type directive presents special problems when the separate parts are assigned different priorities or are to be accomplished at different times. If a part number appears in the title line of the TD, use that part number.

NOTE: To provide a standard recording procedure for this type of TD, logbook and AESR entries are made per the following: When a TD is composed of several parts, separate consecutive entries are made for each part indicating the priority and status of each. A multiple part TD is not included in a block entry unless all parts have been incorporated.

Block 5f - KIT. Enter kit number as identified in the TD; if none, enter 00. Use a separate line for each kit.

Block 5g - PRI. Enter I for Immediate, U for Urgent, R for Routine, or K for Record Purpose, as applicable. Category K must be used when a modification has been completely incorporated by the contractor in all accepted equipment prior to issuance of the TD and when retrofit of repairables in the Navy's possession is not required.

Block 6 - STATUS. Enter the appropriate status code per 8.5.5.4. No status codes other than those prescribed will be entered, nor is any code used to indicate other than its intended meaning. When documenting the removal and reinstallation of a TD on an item which has an MSR, ASR, EHR, or SRC card, see specific documentation for the applicable record.

Block 7 - TITLE/REMARKS. Enter the title of the TD and any necessary remarks. This need not be the complete subject title of the TD. Enter the purpose of the amendment for example: "Extends Target Completion Date" for amendment type TDs. For items, which have an MSR, ASR, EHR, or SRC card, a notation to refer to the applicable MSR, ASR, EHR, or SRC is entered in the Title/Remarks column, for example, "See (abbreviated component nomenclature) SRC." No other information or signature is required. The complete information regarding the change is then entered, with authenticating signature, in the appropriate section of the MSR, ASR, EHR, or SRC card. .

Block 8 - COMPLIANCE

Block 8a - BY (Activity). Enter the short title of the activity complying with the TD, for example, VF-1.

Block 8b - DATE. Enter the YYMMDD of the compliance.

Block 9 - SIGNATURE. A person having logbook and records signature authority will sign this block.

NOTE: When documenting TD amendments that involve only administrative actions (part number change, completion date, or BUNO) the following required entries must be made on the respective TD page, titled Revision and Amendments:

Block 5a - BASIC. Enter the basic number of the TD.

Block 5b - INT. Enter only if applicable.

Block 5c - REV. If applicable, enter the letter to indicate the revision.

Block 5d - AM. Enter the number to indicate the AM.

Block 5e - PT. Enter only if applicable.

Block 5f - KIT. Enter the kit number as identified in the TD; if none, enter 00.

Block 5g - PRI. As applicable, enter I for Immediate, U for Urgent, R for Routine, or K For Record Purpose. PRI must be the same as the basic or last revision issued.

Block 6 - STATUS. If the amendment is a cancellation to the basic TD or revision, enter CANX. If the amendment is not applicable, enter NA. For items having an MSR, ASR, EHR, AESR, SRC, or Aircrew Record, leave blank and enter appropriate record.

Block 7 - TITLE/REMARKS. Enter the purpose of the amendment (change completion date, add BUNO/SERIAL) for items having an MSR, ASR, EHR, AESR, SRC, or Aircrew Record, enter applicable notation, for example, "See GCU EHR".

Block 8a - BY (Activity). Enter the short title of the activity complying with the TD, for example, VAW-115. Leave blank for those items that are not an integral part of the airframe.

Block 8b - DATE. Leave blank.

Block 9 - SIGNATURE. A person having logbooks and records signature authority will sign this block. For items having an MSR, ASR, EHR, AESR, SRC, or Aircrew Record, leave blank and enter on appropriate record.

8.5.5.4 TD Status Codes

INC. Identifies a TD that has been completely incorporated. A complete entry is required. Use block entries when possible. Enter basic number, status, activity, date and signature. The date is considered the date of acceptance or the date of overhaul. Examples of INC block entries:

(1) When a change is incorporated during production and a TD is issued, the assigned TD number is entered as INC and the notation "Production Equivalents" is entered for a block of incorporated changes in the title/remarks column, for example, an entry may be 120-155 INC. If the production equivalent changes are included within this block, the title/remarks column might contain the notation "129, 139, 152, Production Equivalents." These changes often differ physically from changes issued to field and operating activities and require this notation to avoid confusion. A separate page will be used to log all ECPs. All incorporated ECPs must be entered numerically, using the block entry procedure and remain as a permanent logbook entry.

(2) When a series of incorporated TDs is entered in block form, the next line is used for listing subsequently issued, not incorporated revisions to TDs included within the entry. The notation "Revisions to above block entries" appears on this line and the listing of revisions will follow. Operating activities also use this line for listing revisions that are subsequently issued to TDs within the block entry. The actual records of status and compliance are entered on the pages designated revisions.

NINC. A temporary entry made in pencil to identify a TD that has been issued but not incorporated, including TDs that are only partially incorporated. It is not necessary to assign codes to denote reasons for non-incorporation.

PINC. Identifies TDs that were previously incorporated.

NA. Identifies a TD that does not apply to the particular aircraft, engine, or equipment. Enter TD identification, status code, activity and signature. A brief notation is made in the title/remarks column to indicate non-applicability, for example, previous models only or not this BUNO. Use block entries when possible. Only the TD identification, activity and signature are required. When a new version of the same model aircraft is produced, it is the responsibility of the original accepting activity to account for changes to the original model by making a logbook entry. For example, 1-155 NA, and the notation "PPCs 1-155 are now part of current configuration or apply to another T/M/S", in the title/remarks column. This entry ensures all TDs in the model series are accounted for and cites by number, either those TDs not applying to the new version, or those considered part of the current configuration. The entry is not to be construed as indicating the modifications prescribed by the TDs contained within the block entry may not have been included in the production models of the new version.

NIS. Identifies a TD that has not been issued, will not be issued, or have not been received. This entry is made in pencil unless it is determined the TD will not be issued, in which case a

permanent entry is made. Enter TD identification and status code. No other information or signature is required.

CANX. Identifies a TD that was issued, but was cancelled prior to incorporation. Enter TD identification, status code, activity, and signature. No title of the TD is required; however, the cancelling reference should be noted in the title block. When a TD has been incorporated and is later cancelled, the TD status code remains INC. Use block entries when possible. Only activity and signature are required.

Q. Identifies a TD that was removed after incorporation. Refer to 8.5.5.5.

8.5.5.5 Documenting TD Removal. TD removal will be documented in the same manner as TD incorporation. The TD page will be annotated in the following manner:

a. When documenting the removal and reinstallation of a TD on an item with an MSR, ASR, EHR, or SRC, a notation referring to the applicable TD section of that record.

b. Draw a single line through the TD status code (Block 6), enter TD Status Q in the same block, with initials of the person authorized in writing to sign logbooks and records.

c. Make an entry on the Miscellaneous/History page. Specify the reason for removal, authority, location of parts removed and other pertinent information.

d. When reinstalling a removed TD, document as a normal TD incorporation. Make a complete TD entry on the appropriate TD page. Reinstallation will not be logged in the Amendment or Revisions page.

8.5.5.6 Purging. The rework activity will purge and consolidate aircraft logbook TD record pages after completion of off-site standard rework. IMC/P and EPM aircraft logbooks will be purged once per FSP as directed by the T/M/S Program Manager.

8.5.6 Miscellaneous/History (OPNAV 4790/25A)

8.5.6.1 Purpose. The Miscellaneous/History Record (Figure 8-8) is used to record significant information for which there is no other section provided in the aircraft logbook or AESR. The aircraft logbook Miscellaneous History records significant information such as abnormal flight characteristics: peculiar troubles of an undetermined nature; damage to the aircraft; major structural component replacements not logged elsewhere in the logbook (control surfaces, tail sections, etc.); historical data; authorization for service period extension, PED and operational service months (OPSERMOS) adjustment; verification of flight hours in period and since new when the aircraft is accepted or transferred; and exposure to large quantities of salt water, fire extinguishing agents, or other corrosive elements. The Miscellaneous History form may also be used to record serial number information concerning research and development and bailment aircraft, for example, special modifications or special testing. The AESR Miscellaneous History records pertinent information affecting the equipment for which no other place has been provided within the AESR. Examples include: Special test data; abnormal characteristics; significant damage and repair; NOAP entries; authorization for extension of operating intervals; verification of operating hours when the equipment is accepted or transferred; and exposure to large quantities of salt water, fire extinguishing agents, or other corrosive elements.

NOTE: For items with ASRs and SRCs, Miscellaneous/History entries will be made in the Repair/Rework/Overhaul section. For items with EHRs, Miscellaneous/History entries will be made in the Maintenance Record section.

8.5.6.2 Fields

AIRCRAFT MODEL/EQUIPMENT NAME. Enter the aircraft T/M/S or the equipment nomenclature.

TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter the T/M/S.

BUNO OR SERIAL NUMBER. Enter the aircraft BUNO or equipment serial number.

DATE. Enter the YYMMDD of the occurrence.

REMARKS. Enter the required statement or enough detailed text to report occurrence. All entries on this form will require an authorizing signature and the short title of the activity making the entry, for example, LCDR W. E. HAVENS, HS-5.

8.5.6.3 Specific Entries. A Miscellaneous History entry must be made when any of the following situations occur.

a. The DOD activity originally accepting an aircraft for the Navy will make an entry in the Miscellaneous History stating: "DOD acceptance check flight completed this date."

b. A change in the authorized inspection interval of aircraft or equipment requires the following entry be made: "Effective this date (aircraft or equipment) was placed on (specified interval) per (authority); next inspection due (date or hours)."

c. A change in the inspection induction date or hourly sequence of aircraft or equipment requires the following entry be made: "Effective this date inspection induction date (or hours) was rescheduled from (old date or hours) to (new date or hours) as authorized by (reference)."

d. Compass calibration entries are specified in 10.28.3.4 and 10.28.3.5.

e. When the aircraft or equipment is exposed to large quantities of salt water, fire extinguishing agents, or other corrosive elements, the entry will include a description of the decontamination performed and the approximate time between exposure and completion of decontamination.

f. When dye is added directly to aircraft fuel tank(s) to determine the location of a leak.

g. When an aircraft's Communications Material Systems (CMS) is certified as follows:

(1) An entry must be made to record certification of incorporation of Mode S capability into the Identification, Friend, or Foe (IFF) system and the permanent Mode S address assigned to the specific BUNO.

(2) An entry must be made to document the incorporation of Mode 5 capability into the IFF system and the Mode 5 National Origin (NO) and Platform Identification Number (PIN) assigned to the specific BUNO.

NOTE: CMS certification Mode S address and Mode 5 NO and PIN assignments are a permanent part of the aircraft's logbook.

h. Whenever oil analysis indicates abnormal wear limits, amounts of metal, or other contamination. Refer to 10.3.3.2. for entry requirements.

i. When aircraft are accepted or transferred, activities performing an acceptance and transfer inspections on aircraft will make the following entry, "This date, the Monthly Flight Summary flight hours in period and since new were verified to be correct.." Activities transferring aircraft will also make the following entry, "Automated Log Set verified to be saved in PDF and OOMA data file format on (choose actual method in the entry)", on an approved GFE external hard drive, share drive, share portal, or by utilizing a CD-RW."

j. When equipment with an Equipment Operating Record (EOR) is received or transferred, activities receiving or transferring the equipment will make the following entry: "This date, the Equipment Operating Record accumulated operating hours were verified to be correct." Activities transferring equipment will also annotate the form with the date, reason for transfer, activity transferred to, JCN, shipping document number, star/status code (if applicable), and will make the following entry: "Automated Log Set verified to be saved in PDF format on an approved GFE external media source."

k. If, during depot rework, an inaccessible area is found to contain a foreign object that is not removed, and entry will be made to document the location and type of object.

l. If a tool is reported missing during D-level maintenance, all tool control procedures will be complied with in an attempt to recover the missing tool. If the tool is not found and it cannot be determined with certainty that it is not in the aircraft or equipment, the details will be entered in the applicable logbooks and records. The entry will include tool nomenclature, markings, location, search results, and any other pertinent comments.

m. When aircraft battle damage repair (ABDR) is performed. The entry will include details of the repair and any operating limitations and monitoring requirements imposed by the repair.

n. When a propeller is used on a ground test stand/engine test cell, the total accumulated ground test stand/engine test cell time must be recorded.

o. When equipment is NRFI due to an over-limit condition or found defective upon receipt. A simple entry such as "over-temp" is not sufficient. Include specific information on the degree of over-temp, length of over-temp, the circumstances under which it occurred (start, in-flight, shutdown and ground run-up) and any corrective measures taken. If found defective upon receipt, provide a detailed description of the defect.

p. If an engine is removed, an entry must be made in the engine AESR or CM ALS AESR stating the reasons for removal. If an IMA declares an engine to be BCM, an entry must be made in the engine AESR or CM ALS AESR stating the reason for BCM action, and identifying all known discrepancies. If an engine or accessories requiring engineering investigation (EI) are not preserved because such action would destroy or conceal the evidence required by the investigation. AESR or CM ALS AESR entries must be made to indicate the reason for not preserving the engine.

q. If directed to make a Miscellaneous/History entry for Production Equivalents, ECPs and Prototype, or Modification of Aircraft or Equipment. Comply with the documentation procedures in the TD correspondence.

r. Hydraulic fluid analysis and contamination entries must be made per 10.5.3.6.c.

s. When an aircraft exceeds 30 days without a flight, per 10.13.4.5.e a Miscellaneous/History entry will be made with the MO's determination of the appropriate level of preservation and criteria of 10.13.3.7.b.

8.5.6.4 Late Entries. When making late entries, enter the date of the entry in the Date block and the date of the event in the Remarks block.

8.5.6.5 Purging. The rework activity will purge the Miscellaneous History form at the completion of off-site rework. IMC/P and EPM aircraft logbooks will be purged once per Fixed Service Period (FSP) as directed by the T/M/S Program Manager. For items of historical or maintenance value, an identical entry will be transcribed to a new form. Engine AESR Miscellaneous History will be purged by I-level and D-level activities after completion of first-degree repair or rework. A minimum of 2 years data will be maintained at all times. Entries that could affect future rework, repair, or modifications, for example, major structure repairs and peculiar flight characteristics, must be retained indefinitely.

NOTE: O-level activities are not authorized to purge the Miscellaneous History.

8.5.7 Preservation/Depreservation Record (OPNAV 4790/136A)

8.5.7.1 Purpose. The Preservation/Depreservation Record (Figure 8-9) is used in aircraft logbooks, AESRs, and MSRs. An entry is required any time preservation, represervation, or depreservation is performed (aircraft or equipment).

8.5.7.2 Installed Equipment. Entries are required in the AESR or MSR if the applicable preservation MRCs or NAVAIR 15-01-500 specify a preservation requirement. No entry will be made if the equipment is not preserved as part of an aircraft preservation action.

8.5.7.3 Uninstalled Equipment. Entries are required in the AESR or MSR if the applicable maintenance manual specifies a preservation requirement.

8.5.7.4 Fields

NOTE: Aircraft preservation requirements (type and length) are contained in applicable preservation MRCs for selected aircraft. Otherwise, refer to NAVAIR 15-01-500.

Block 1 - AIRCRAFT MODEL OR EQUIPMENT NAME. Enter the aircraft T/M/S or the equipment nomenclature.

Block 2 - TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter the T/M/S.

Block 3 - BUNO OR SERIAL NUMBER. Enter the aircraft BUNO or the equipment serial number.

Block 4 - PRESERVATION

Block 4a - DATE. Enter the YYMMDD the preservation is accomplished.

Block 4b - BY (Activity). Enter the short title of the activity accomplishing the preservation, for example, HS-5.

Block 4c - TYPE PRESERVATION. Enter the type of preservation accomplished.

Block 4d - REFERENCE. Identify the COMNAVAIRSYSCOM or major command document directing the preservation.

Block 5 - REPRESERVE. Date Due. Indicate the YYMMDD the represervation is due. When represervation is not required, leave blank.

Block 5a - DATE DUE. Enter the YYMMDD the preservation is due.

Block 6 - DEPRESERVATION

Block 6a - DATE. Enter the YYMMDD the depreservation is accomplished.

Block 6b - BY (Activity). Enter the short title of the activity accomplishing the depreservation, for example, HS-5.

8.5.7.5 Purging. During off-site standard rework, the rework activity will initiate a new page for the aircraft logbook. The I-level activity doing first-degree repair or D-level activity doing rework will initiate a new page for the AESR. Old pages may be destroyed.

8.5.8 Installed Explosive Device Record (OPNAV 4790/26A)

NOTES: 1. The possibility of transferring certain equipment from one aircraft to another during standard rework and replacement during periods of scheduled maintenance emphasizes the necessity for careful and periodic checking of this record regarding the status of the explosive devices currently installed in the aircraft or equipment.

2. The Installed Explosives Report is used to view detailed information for multiple explosive devices installed on aircraft, equipment, and components. The report includes the following columns: DODIC, Location/Nomenclature, Location Code, Lot Number, P/N, SERNO, NHA P/N, NHA SERNO, Shelf-life months and Installed-life months.

8.5.8.1 Purpose . The Installed Explosive Device Record (Figure 8-10) is used in aircraft logbooks and AESRs as a record of all explosive devices. Explosive devices installed in the aircraft structure are recorded in the Installed Explosive Device Record section of the aircraft logbook. Explosive devices in aircraft-installed equipment requiring an AESR are recorded in the appropriate AESR. For example, explosive devices installed in ejection seats or in-flight refueling stores must be recorded in the Installed Explosive Device Record of the item's AESR. Explosive devices installed in personnel parachutes are recorded on the Parachute Record (OPNAV 4790/101). Explosive devices installed in other safety and survival equipment must be recorded on the Seat Survival Kit Record (OPNAV 4790/137) or Aircrew Systems Record (OPNAV 4790/138). Explosive cartridges and devices used to effect stores separation are not required to be documented in this record unless specifically directed for a particular application.

8.5.8.2 The VFS CADPAD, TRACE CADPAD module generated Installed Explosive Devices Record (OPNAV 4790/26A) is authorized for all activities having custody of or performing rework on the aircraft or equipment in which explosive devices are installed. The VFS CADPAD, TRACE CADPAD Module Installed Explosive Device Record must be maintained in a current status by all activities having custody of or performing rework on the aircraft or equipment in which explosive devices are installed. Records for installed devices will be kept in the aircraft logbook or AESR, as appropriate, and anywhere else the MO designates.

8.5.8.3 Fields

Aircraft or equipment identification:

Block A1 - TYPE AIRCRAFT. Enter the aircraft T/M/S.

Block A2 - BU/SERNO. Enter the aircraft BUNO or equipment serial number.

Block A3 - ASSEMBLY PART NUMBER. Enter the assembly part number for ejection seats, in-flight refueling stores, or other assemblies with installed explosive devices.

Block A4 - ASSEMBLY SERNO. Enter the serial number of the ejection seat, in-flight refueling store, or other assemblies with installed explosive devices.

Block A5 - ORG CODE. Enter the organization code of the command that has custody of the aircraft or assembly. Pencil may be used.

Explosive device identification:

NOTE: Blocks B1 through B10 require a single line entry for each installed explosive device.

Block B1 - DODIC. Select the DODIC or NALC for replacement/editing from the standardized explosive logbook configuration provided in VFS CADPAD, TRACE CADPAD Module database. DODICs are also listed in NAVSEA SW010-AF-ORD-010 and technical manuals mentioned in the details for Block B10.

Block B2 - NOMENCLATURE/LOCATION. The VFS CADPAD, TRACE CADPAD Module provides standardized explosive logbook configuration, based on specific location code for each T/M/S aircraft.

Block B3 - PART NUMBER. Provided in the VFS CADPAD, TRACE CADPAD Module for selecting specific part number installed.

Block B4 - LOT NUMBER. Enter the lot number of the device.

Block B5 - SERIAL. Enter the serial number of the device. For emergency stores release cartridges that are not normally serialized, enter NA.

Block B6 - ORG. Enter the organization code of the installing activity. For new aircraft, use the accepting ACO/site representative organization code.

Block B7 - MFG DATE. Date of Manufacture. The VFS CADPAD, TRACE CADPAD Module enters the year, month and last day of the month (YYMMDD) the device was

manufactured (derived from the lot number). If unable to derive appropriate manufactures date, the user will enter the date when requested by the program.

Block B8 - C/O DATE. Container Open Date. Enter the year, month and last day of the month (YYMMDD) the container was opened.

Block B9 - INST DATE. Enter the year, month and last day of the month (YYMMDD) the device was installed.

Block B10 - EXPIRE DATE. The VFS CADPAD, TRACE CADPAD Module computes year, month, and last day of the month (YYMMDD) of expiration, and is the preferable method for computing CADPAD expiration dates. Both the shelf life and installed life of the item are computed to determine the expiration date. Refer to the individual CAD or PAD data for each DODIC to determine the applicability of installed life to each device. Shelf life is the period of time, beginning from the date of manufacture that a CAD or PAD can remain in its environmentally sealed container and still be serviceable. The shelf life expiration date is computed from the date of manufacture as listed for the lot number for the assembled device. Installed life is the period of time a CAD or PAD can be used after its environmentally sealed container is opened; however, the installed life expiration date should not exceed the shelf life expiration date. The installed life expiration date is computed from the date the environmentally sealed container is opened and is always computed to the last day of the month involved.

NOTE: NAVAIR 11-100-1.1-CD directs the method for computing the expiration date of explosive devices and the number of months or years a specific device may remain in service. When installed explosive devices are granted an extension, the VFS CADPAD, TRACE CADPAD Module will be updated electronically and a new Installed Explosive Device Record (OPNAV/26A) must be generated. The authority granting the extension, for example, message originator and DTG or official service life extension number, will be posted electronically in the LOCAL USE block.

LOCAL USE. Any explosive device on an extension must be recorded in the Local Use block, including the authorization for the extension. This block is also used for any information in the device that is not recorded in other fields that the user feels is necessary to fully describe the condition or history of the item.

8.5.8.4 Removal or Replacement of Devices. When a device is removed and a like item is not reinstalled, a single red line will be drawn through the entire old device line entry and VFS CADPAD, TRACE CADPAD Module database updated to reflect changes (a new record will not be generated). When like items are reinstalled, the VFS CADPAD, TRACE CADPAD Module database must be updated to reflect changes and a new record must be generated.

8.5.8.5 Purging. The rework activity must verify all information during off-site standard rework of the aircraft or AESR equipment and generate a new record, if needed. Old pages may be destroyed locally when a new record is generated.

8.5.9 Inventory Record (OPNAV 4790/27A)

NOTE: Items that require an ASR, EHR, MSR, or SRC that are installed on an equipment, engine, or engine module will be inventoried in the applicable equipment/engine AESR Inventory Record, or MSR (Section II – Module Composition). If the equipment, engine, or engine module is installed on an aircraft, the item will not also be listed on the aircraft logbook Inventory Record.

8.5.9.1 Purpose. The Inventory Record (Figure 8-11) is used in aircraft logbooks and in AESRs as an inventory of all installed equipment, components, and assemblies requiring an ASR, EHR, SRC, or MSR listed in applicable T/M/S PMIC. A separate inventory record will be maintained in each aircraft logbook and AESR logbook. The following items are NOT listed in the aircraft logbook Inventory Record:

a. Mission configuration items, for example, multiple ejector racks and triple ejector racks.

b. Aircraft engines, propellers, APUs, ejection seats, and other major assemblies requiring an AESR.

8.5.9.2 Fields

Block 1 - AIRCRAFT MODEL/EQUIPMENT NAME. Enter the aircraft T/M/S or the equipment nomenclature.

Block 2 - TYPE/MODEL/SERIES. If aircraft, leave blank. If equipment, enter the T/M/S.

Block 3 - BUNO OR SERIAL NUMBER. Enter the aircraft BUNO or the equipment serial number.

Block 4 - NOMENCLATURE. Enter the nomenclature of the installed item.

Block 5 - PART NO. Enter the part number of the installed item.

Block 6 - SERIAL NO. Enter the serial number of the installed item.

Block 7 - DATE.

Block 7a - INSTALL. Enter the YYMMDD the item was installed.

Block 7b - REMOVE. Enter the YYMMDD the item was removed.

Blocks 8, 9, 10 and 11 - These blocks are a continuation of the form and are documented as above.

8.5.9.3 Purging. D-level rework activities will remove all the old inventory record forms from the aircraft logbook and insert new forms during off-site standard rework. I-level and D-level activities will purge engine AESRs during first-degree repair or rework. All items that remain installed and all newly installed items will be listed.

8.5.10 Equipment Operating Record (OPNAV 4790/31A)

8.5.10.1 Purpose. The Equipment Operating Record (Figure 8-12) is used with all aeronautical equipment requiring the monthly compilation of significant operating data. Reporting custodians will ensure that operating and monitoring system data is entered on this form monthly and upon transfer of the equipment.

8.5.10.2 Fields

Block 1 - EQUIPMENT. Enter the nomenclature of the equipment.

Block 2 - T/M/S. Enter the equipment T/M/S.

Block 3 - SERIAL NUMBER. Enter the serial number of the equipment.

Block 4 - DATE. Enter the YYMMDD for entry.

Block 5 - OPERATING HRS. An entry is made each month. A pen and ink or typed entry will be made to close out the form each time the aircraft or equipment changes custody. The transferring and the accepting activity will each make an entry. Pencil entries or consolidated monthly entries are not required.

Block 5a - THIS MONTH. Enter the operating hours and tenths for the current entry. Aircraft operating hours are obtained from the Naval Aircraft Flight Record (OPNAV 3710/4).

NOTES: 1. I-level and D-level repair facilities are authorized to make a one-line block entry in lieu of separate end of the month closeout entries. These block entries facilitate recording of non-operating hours for equipment, including uninstalled aircraft engines, while in the storage, off-site standard rework, or repair cycles. For example, 940601-950131 could be entered in block 4, 0.0 in block 5, and corresponding data in blocks 5b and 6 through 8 on the same line (as appropriate).

2. Ground test stand/engine test cell time is not required to be logged for aircraft engines tracked only by operating time, and is not used in calculating inspection intervals, removal intervals, or maximum operating time.

3. Ground test stand/engine test cell time is required to be logged for aircraft engines tracked by a combination of operating time and Life Usage Indices (LUI) or other life cycle count, for example, F414-GE-400 and F404-GE-400/402 engines. LUI or life cycle count will be calculated from the specified formula and entered in the monitoring system. LUI values entered must be carried out to the thousandth decimal.

4. Ground test stand/engine test cell time for propellers is required to be logged. Additionally, if a propeller is used on a ground test stand/engine test cell, the total accumulated ground test stand/engine test cell time for the propeller must be recorded in the Miscellaneous/History section of the propeller AESR. NAVAIR 03-20CBBK-1 contains maximum ground test stand/engine test cell time a propeller may accumulate.

Block 5b - ACCUM. Add the current entry hours and tenths to the last accumulated entry and enter the new total in this block. Verify on acceptance and transfer.

Block 6 - MONITORING SYSTEM DATA (e.g., TSR STARTS, COUNTS, ROUNDS). Uncaptioned columns are provided to be labeled as required, for example, starts, rounds

fired, LCF, or meter reading. If equipment is monitored by TSN or TSO, label the first column under monitoring system data as TSN or TSO (as appropriate). The cumulative column under operating hours will then display the TSN or TSO hours.

NOTE: Monthly usage will be recorded to the thousandths place for aircraft engines tracked by a combination of operating time and Life Usage Indices (LUI) or other life cycle count. F404-GE-400/402 and F414-GE-400 engines are examples. The cumulative column under operating hours will then display the TSN or TSO hours to the tenths or thousandths as applicable.

Block 7 - ACTIVITY. Enter the short title of the activity making the entry, for example, HMM-164.

Block 8 - REMARKS. This block is for logging additional information (as appropriate).

8.5.10.3 Purging. This record remains a permanent part of the AESR.

8.5.11 Module Service Record (OPNAV 4790/135)

8.5.11.1 Purpose. The Module Service Record (MSR) (Figure 8-13) is a four-page foldable record used with modular-constructed aircraft engines; for example: T56, T400, T700, F404, and F414 engines. Each module of the engine has a separate MSR. MSRs are logbook-type records comprised of the following individual OPNAV records:

Module Service Record (OPNAV 4790/135) (Figure 8-13)

Assembly Service Record (OPNAV 4790/106A) (Figures 8-14)

Equipment History Record (EHR) Card (OPNAV 4790/113) (Figure 8-16)

Scheduled Removal Component Card (OPNAV 4790/28A) (Figure 8-17)

8.5.11.2 General Procedures

a. If the module is installed, the MSR is maintained concurrently with and becomes part of the engine AESR. If the module is uninstalled, a paper copy of the MSR will be attached to and accompany the module whenever transferred.

NOTE: 1. Activities using ACTS will make all entries in ACTS (https://fleetmetrics.navair.navy.mil/ACTS/). Records will be printed from ACTS and placed into the paper aircraft logbook or equipment AESR. The serial number is now included on both sides of the printed record. Pen or pencil entries on hardcopy ACTS records are not required except for documenting "NINC" in Section V - Technical Directives.

2. When replacing a non-ACTS record with a newly printed record from ACTS, the replaced non-ACTS record will be mailed to the Repository that is listed in the applicable T/M/S aircraft or engine PMIC.

3. Activities with ACTS that accept new modules must also initiate the MSR record in ACTS. If a hardcopy OPNAV 4790/135 MSR was not received with the

new module, contact the FST for assistance by sending an email via the HELP menu.

b. Upon completion of repair or rework, a paper copy of the MSR will be attached to and accompany the module when shipped.

8.5.11.3 Fields

NOTE: Technical Directive forms (OPNAV 4790/24A) and Miscellaneous History forms (OPNAV 4790/25A) are authorized to be inserted in the MSR when sections V (Technical Directives) or X (Miscellaneous History) are full. Consolidation procedures of paragraph 8.5.13.4 will be followed when any other section of the MSR is full.

Page One

_____ MODULE SERVICE RECORD (title line). Enter the type of module, for example, fan, turbine, afterburner.

REPLACEMENT

COMPONENT/ASSEMBLY. Enter the nomenclature of the installed component/assembly that has the nearest forced removal time that will require the module to be removed from the propulsion system. This entry is made in pencil.

MODULE DUE. This entry is computed when the Module is built up RFI. The Module Due time should already be calculated and entered on the individual records for the components that are physically installed in the Module. Transcribe the replacement due time from the first component/assembly card that will require the module to be removed from the engine/propulsion system. This entry is made in pencil.

ENGINE/PROP SYSTEM DUE. This entry represents the operating time of the engine/propeller system at which the Module will have to be removed. ENG/PROP SYSTEM Due is calculated and entered at the time the module is installed on the engine or propeller system. ENG/PROP SYSTEM Due time equals Module Due time minus current Module hours or counts (SECTION III, Block E), plus engine/propulsion system hours or counts at time of install (SECTION III, Block D). For example, a module with a 4000 hour due time that has been operated for 3000 hours time since new, now has 1000 hours remaining before the module is due for maintenance. If the module is installed on an engine/propulsion system with 1795 total engine/propulsion system hours at time of installation, the ENG/PROP SYSTEM Due entry is 1795 ENG/PROP system hours + 1000 hours module hours = 2795 hours. This entry is made in pencil.

SECTION I - IDENTIFICATION DATA

Block A - PART NUMBER. Enter the part number of the module.

Block B - SERIAL NUMBER. Enter the serial number of the module.

Block C - TYPE/MODEL/SERIES. Enter the T/M/S of the module.

Block D - WORK UNIT CODE. Enter the WUC of the module.

Block E - CFA. Enter the FST for the module.

SECTION II - MODULE COMPOSITION. Enter only the subassemblies that require data tracking, for example, ASR, EHR, SRC card items.

Block A - NOMENCLATURE. Enter the nomenclature of the subassembly.

Block B - P/N. Enter the part number of the subassembly.

Block C - S/N. Enter the serial number of the subassembly.

Block D - DATE

INSTALL. Enter the YYMMDD date the item was installed.

REMOVE. Enter the YYMMDD date the item was removed.

Blocks E through H. Continuation of blocks A through D.

SECTION III - INSTALLATION DATA

Block A - DATE. Enter the YYMMDD date the module is installed in a propulsion system.

Block B - SERIAL NO. INSTALLED ON. Enter the serial number of the propulsion system on which the module is being installed.

Block C - BY (Activity). Enter the three position aviation 3M ORG code of the activity installing the module, for example, AC7.

Block D - TOTAL PROPULSION SYSTEM HOURS OR COUNTS. Enter hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the propulsion system on which the module is being installed. Uncaptioned columns are provided for propulsion systems that have monitoring systems installed and may be labeled as required, for example, LCF, ELCF, or EOT. Propulsion systems without monitoring systems will use the first column only. The TSN will be entered.

Block E - TOTAL MODULE HOURS OR COUNTS. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the module as appropriate. Uncaptioned columns have been provided in Block E for labeling the applicable information, for example, TSN, TSO, LCF, or EOT.

SECTION IV - REMOVAL DATA

Block A - DATE. Enter the YYMMDD date that the module is removed.

Block B - TOTAL PROPULSION SYSTEM HOURS OR COUNTS. Enter the hours or counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the propulsion system from which the module is removed. Uncaptioned columns are provided for propulsion systems that have monitoring systems installed and may be labeled as required, for example, LCF, ELCF, or EOT. Propulsion systems without monitoring systems will use the first column only. The TSN will be entered.

Block C - TOTAL MODULE HOURS OR COUNTS. Subtract total propulsion system hours or counts at installation from total propulsion system hours or counts at removal. Add

this figure to the total hours or counts on the module at installation and enter in the appropriate columns preceded by the appropriate time/cycle code. Label columns as required.

Block D - REASON FOR REMOVAL AND JOB CONTROL NUMBER. Enter the reason for removal and JCN from the MAF that documented the removal of the module from the propulsion system.

Page Two

SECTION V - TECHNICAL DIRECTIVES

Block A - TECHNICAL DIRECTIVE IDENTIFICATION

Block A (1) - CODE. Enter the TD code.

Block A (2) - BASIC. Enter the four digit TD basic number.

Block A (3) - INT. If an interim TD enter "I"; if not, leave blank.

Block A (4) - REV. Enter the revision letter (if applicable).

Block A (5) - AM. Enter the numeric amendment number (if applicable).

Block A (6) - PT. Enter the numeric TD part number, for example, part - 02 (if applicable).

Block A (7) - KIT. Enter the kit number; enter 00 if no kit is required.

Block A (8) - PRI. Enter I for Immediate, U for Urgent, R for Routine, or K for Record Purpose (as applicable).

NOTE: When entering TDs that are applicable to installed subcomponents, enter the TD basic numbers sequentially in Blocks A (2) through (8) , and enter a "REFER TO" entry in Block C , for example, "REFER TO COMP ROTOR ASR".

Block B - STATUS. Enter the code indicating the status of the TD. No status codes other than those prescribed will appear on the MSR nor will any code be used for other than its intended meaning. Code descriptions and instructions are in paragraph 8.5.5.4.

Block C - TITLE/REMARKS. Enter a brief description of the TD.

Block D - COMPLIANCE

Block D (1) - BY (Activity). Enter the three position aviation 3M ORG code of the activity completing the TD compliance, for example, AC7.

Block D (2) - DATE. Enter the YYMMDD date the TD was incorporated.

Block E - SIGNATURE. A person having logbooks/records signature authority will sign this block.

Page Three

SECTION VI - IDENTIFICATION DATA

Block A - PART NUMBER. Enter the part number of the module. (Same as Section I.)

Block B - SERIAL NUMBER. Enter the serial number of the module. (Same as Section I.)

Block C - TYPE / MODEL / SERIES. Enter the T/M/S of the module. (Same as Section I.)

SECTION VII - REPAIR / REWORK / EXCEEDANCE

Block A - DATE. Enter the YYMMDD date the repair, rework, or exceedance was accomplished.

Block B - ACTIVITY. Enter the three position aviation 3M ORG code of the activity accomplishing the repair, rework, or exceedance, for example, WC8. D-level include one of the following action taken codes that best describes the action that was taken:

A - Check/test

C - Repair/rework/SDLM/PDM

D - Modified

H - Overhaul

N - New

9 - Condemned

Block C - DESCRIPTION. Enter a concise narrative of the repair or rework action performed, for example “1000 operating hour rework” or “FOD repair”. For exceedance, enter the type of exceedance, for example “Over temp repair” and level along with any other appropriate additional information to describe the event.

Block D - SIGNATURE. A person having logbooks and records signature authority will sign this block. At D-level the certification or verification device, as applicable, will satisfy the COs signature requirement.

SECTION VIII - INSPECTION RECORD

Block A - TYPE AND DESCRIPTION OF INSPECTION. Enter the type and description of the inspection that affects the module.

Block B - REFERENCE. Identify the document directing the inspection, for example, message originator and DTG, MRCs.

Block C - DATE COMPLETED. Enter the YYMMDD date the inspection was completed.

Block D - ACTIVITY. Enter the three position aviation 3M ORG code of the activity performing the inspection, for example, WC8.

Block E - SIGNATURE. A person having logbook/records signature authority will sign this block. At D-level the certification or verification device, as applicable, will satisfy the COs signature requirement.

SECTION IX - PRESERVATION/DEPRESERVATION

Block A - DATE. Enter the YYMMDD date of the preservation.

Block B - ACTIVITY. Enter the three position aviation 3M ORG code of the activity performing the preservation, for example, WC8.

Block C - TYPE. Enter the type of preservation accomplished, for example, Level III.

Block D - REFERENCE. Identify the COMNAVAIRSYSCOM or major command document directing the preservation.

Block E - REPRESERVE DUE. Indicate the YYMMDD date the represervation is due. When represervation is not required, leave blank.

Block F - DATE. Enter the YYMMDD date the depreservation is accomplished.

Block G - ACTIVITY. Enter the three position aviation 3M ORG code of the activity performing the inspection, for example, WC8.

Page Four

SECTION X - MISCELLANEOUS/HISTORY

Block A - DATE. Enter the YYMMDD date of the entry.

Block B - REMARKS. This section is used to record pertinent information for which no other place has been provided. When equipment is exposed to large quantities of salt water, fire extinguishing agents, or other corrosive elements, an entry will be made on this form, including a description of the decontamination and approximate time between exposure and completion of decontamination. See paragraph 8.5.6 for additional situations that may require an MSR Miscellaneous/History entry.

NOTES: 1. When a module is NRFI due to an exceedance such as over-temp, include specific information on the degree of over-temp, length of over-temp, the circumstances under which it occurred (start, in-flight, shutdown and ground run-up) and any corrective measures taken.

2. Activities transferring modules that are not a part of a propulsion system will annotate this section with the YYMMDD, reason for transfer, activity transferred to, JCN, star/status code and (if applicable) the shipping document number.

3. All entries will require an authorized signature and the three position aviation 3M ORG code of the activity, for example, AC7.

8.5.11.4 Consolidation

a. An MSR may be consolidated at any maintenance level when no space is available for further entries within any one section. Minimum requirements for consolidating:

NOTE: Activities using ACTS are not authorized to consolidate entries. ACTS has no space limitations, and permits selection of entries to display on the printed record. All historical information will remain within ACTS and available for electronic viewing, whenever necessary.

SECTION I - IDENTIFICATION DATA. Complete all entries.

SECTION II - MODULE COMPOSITION. Transcribe all data reflecting the currently installed subcomponents. If subcomponents were changed during module repair or rework, enter the removal date for the removed subcomponents on the original card. Transcribe all data reflecting the currently installed subcomponents to the new MSR. Enter the installation information on the new MSR for the newly installed subcomponents.

SECTION III - INSTALLATION DATA and SECTION IV - REMOVAL DATA. Recalculate the existing entries to ensure correctness. If a correction is required, refer to paragraph 8.2.7.4 for correction procedures. If the component is installed at the time of consolidation, record the last installation action. No entry is required in the removal section. If the component is not installed at the time of consolidation, record the last installation and the corresponding removal action.

SECTION V - TECHNICAL DIRECTIVES. Use block entries to document applicable incorporated TDs. A separate block entry is required for each type of TD and status.

NOTES: 1. Block entries do not indicate the activity that actually incorporated the TDs. They signify the TDs had been consolidated from previous records. All applicable incorporated TD numbers must be listed in the TITLE/REMARKS block. A blanket statement indicating that all TDs up to a specific basic have been incorporated is not authorized.

2. TDs incorporated during the maintenance that necessitated consolidation will have a separate line entry on the consolidated form.

3. Applicable TDs that have not been incorporated or have been removed will have separate line entries.

Block A - TECHNICAL DIRECTIVE IDENTIFICATION

Block A (1) - CODE. Enter the TD code.

Blocks A (2) through (8) - For TDs that refer to installed subassembly cards, enter the REFER TO entry, for example, REFER TO COMP RTR ASR CARD.

Block B - STATUS. Enter PINC indicating previously incorporated, NA for not applicable TDs, or leave blank for REFER TO entries.

Block C - TITLE/REMARKS. Enter the basic numbers and associated revisions, amendments and parts.

Block D - COMPLIANCE. Enter the aviation 3M ORG code of the activity consolidating the MSR and the YYMMDD date the MSR was consolidated.

Block E - SIGNATURE. Enter the word "CONSOLIDATED" indicating this entry is a result of MSR consolidation.

SECTION VI - IDENTIFICATION DATA. Transcribe all data.

SECTION VII - REPAIR/REWORK/OVERHAUL/EXCEEDANCES

When the component is a life-limited item with no secondary time/cycle requirement, for example, C 6000-Retire, transcribe the last repair action.

When the component is a life-limited item and has a secondary time/cycle requirement, for example, T-700-Retire and T-100-NDT/I, transcribe the last secondary requirement action and the last repair action. This may be one entry if the last repair action was the secondary requirement action.

When the component has an overhaul with no secondary time/cycle requirement, for example, C-2000-Overhaul, transcribe the last overhaul and the last repair action. This may be one entry if the last repair action was an overhaul.

When the component has an overhaul and a secondary time/cycle requirement, for example, U-36-Overhaul and D-244-IMA Inspection, the last action for both requirements must be entered. If the last action is an overhaul, only the overhaul action need be entered.

b. Upon completion of MSR consolidation:

(1) Make an entry in the Repair/Rework/Overhaul/Exceedances Section with a YYMMDD date indicating the date of card consolidation, the aviation 3M ORG code of the activity consolidating the MSR and the statement, "MSR CONSOLIDATED, all entries are certified to be correct." This entry requires a signature.

(2) Make an entry in the Miscellaneous/History section with a YYMMDD date indicating the date of card consolidation, the aviation 3M ORG code of the activity consolidating the MSR and the statement, "MSR CONSOLIDATED, all entries are certified to be correct." This entry requires a signature.

8.5.11.5 Purging. The MSR will be purged whenever the engine or module undergoes first-degree repair or depot rework. A new MSR will be initiated if no additional space remains for entries. After purging, a copy of the new MSR will be sent to the CMIS Repository (8.2.10.2.i) .

8.5.12 Assembly Service Record (OPNAV 4790/106A)

8.5.12.1 Purpose. The Assembly Service Record (ASR) (Figure 8-14), is a two-page form to record data on assemblies with rework or overhaul life limits and subassemblies designated to be removed and discarded.

NOTE: 1. Activities using ACTS will make all entries using ACTS (https://fleetmetrics.navair.navy.mil/ACTS/). Records will be printed from ACTS and placed into the paper aircraft/equipment logbook. The serial number is now included on both sides of the printed record. Pen or pencil entries on hardcopy ACTS records are not required except for documenting "NINC" in Section V-Technical Directives.

2. When replacing a newly printed record from ACTS, the replaced non-ACTS record will be mailed to the Repository that is listed in the applicable T/M/S aircraft or engine PMIC.

8.5.12.2 General Procedures

a. Initiation. Initiation of an ASR for components installed on or delivered with aeronautical equipment, for example, components installed on aircraft and engines as part of a DOD contract, is the responsibility of the activity accepting the equipment for the DON. When components are delivered to the DON at the contractor's plant, the cognizant DON representative is considered to be the original accepting activity. Original accepting activities with ACTS will also initiate the ASR record in ACTS. However, ASR records that have not been created at the contractor facility or I-level command now requiring creation at an O-Level command will need to contact the FST by sending an email via the ACTS HELP menu.

NOTE: If a new component is delivered without an ASR, the requisitioning activity is responsible for initiating the ASR.

b. Reconstruction. If an ASR is lost or unreadable, contact the CMIS Repository (8.2.10.2.i).

c. When an ASR is no longer needed due to a change in the PMIC, reporting custodians will send the affected ASRs to the CMIS Repository (8.2.10.2.i) for purging of the master file. The PMIC change authorizing deletion must be annotated on the ASR in Section VI Repair, Rework, Overhaul, or Exceedances. Activities using ACTS do not have to forward a copy of ASR card to CMIS. The FST will update PMIC information within ACTS.

8.5.12.3 Fields

Page 1 (Front)

_____ ASSEMBLY SERVICE RECORD (title line) - Indicates the type of assembly, for example, “COMPRESSOR ROTOR ASSEMBLY SERVICE RECORD”, or “POWER TURBINE ASSEMBLY SERVICE RECORD.”

REPLACEMENT DUE, REPLACEMENT INTERVAL and TIME REMAINING - These blocks are used to record replacement due (equipment hours or counts at which the assembly must be removed from service for maintenance) or replacement interval as stipulated by the PMIC, and time remaining on the complete assembly. This information provides a reference for determining scheduled maintenance requirements. Figure 8-15 provides procedures for determining replacement due and time remaining entries. Replacement block entries will be made in pencil and must be updated each time the card is updated or the assembly is installed in an end item.

SECTION I - IDENTIFICATION DATA

Block A - PART NUMBER. Enter the part number of the complete assembly.

Block B - SERIAL NUMBER. Enter the serial number of the complete assembly.

Block C - WORK UNIT CODE. Enter the WUC of the complete assembly.

Block D - FST. Enter the FST responsible for the complete assembly.

Block E - CAGE. Enter the five digit CAGE code for the complete assembly.

SECTION II - COMPONENTS. This section lists each life-limited and forced removal subassembly. Maximum hours/counts expended on any subassembly is the controlling

factor for removing the assembly. Hours for engine discs or blades that have not been replaced since new or during the current rework will be determined by total accumulated engine time in Section IV. Hours for discs or blades replaced during a rework will be determined by computing actual operating hours expended since last replacement.

Block A - NOMENCLATURE. Enter the nomenclature of the subassembly.

Block B - P/N. Enter the part number of the subassembly.

Block C - S/N. Enter the serial number of the subassembly.

Block D - COMPONENT TIME OR COUNTS (TSN, METER, LCF). This block contains six columns used to record subassembly component installation and removal dates and information about the service life accumulated on the component. The first column of this block is labeled DATE INST (date the component was installed) and the sixth column is labeled DATE RMVD (date the component was removed). Use the standard date (YYMMDD) when completing the DATE INST and DATE RMVD columns.

The four center columns are used for data about the service life of the component. Columns for components with monitoring systems installed are labeled as required, for example, LCF1, LCF2 and TTI. For components without monitoring systems installed, label the second through fourth columns as follows: Assembly TSN; Component TSN; and Component TSO. Enter the hours or counts of the item (whole number only, do not round up or down), preceded by the appropriate time/cycle prefix code. If the TSN is unknown, enter the TSO and label the column.

Block E – COMPONENT INTERVAL/REPLACEMENT DUE. These blocks record the replacement interval and replacement due times stipulated by the PMIC. This information provides a reference for determining scheduled maintenance requirements. Figure 8-15 provides procedures for replacement due entries. Entries will be made in pencil and must be updated each time the component is installed.

NOTE: All Section II entries must be updated whenever the assembly is repaired or overhauled and when the card is consolidated. The date of install and all Section II assembly and subcomponent hours will be transcribed from the original installation data.

SECTION III - INSTALLATION DATA

Block A - DATE. Enter the YYMMDD date that the assembly was installed on an aircraft or equipment.

Block B - BUNO/SERIAL INSTALLED ON. Enter the BUNO of the aircraft, or the SERNO of the equipment on the assembly is installed on.

Block C - BY (Activity). Enter the three position aviation 3M ORG code of the activity installing the assembly, for example, AT1.

Block D - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter hours or counts (whole number only, do not round up or down) preceded by the appropriate

time/cycle code of the aircraft/equipment on which the assembly is being installed (TSN). Uncaptioned columns have been provided for aircraft or equipment that have monitoring systems installed and may be labeled as required; for example: ELCF, LCF, or EOT. Aircraft or equipment without monitoring systems will use first column only.

Block E - ASSEMBLY HOURS OR COUNTS. Enter hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code since new and overhauled/reworked. Uncaptioned columns have been provided and will be labeled with the appropriate information required; for example: TSN, TSO, LCF, or EOT. When entering data for new material, the entry in the TSO column will be NEW. When total hours or counts since new is unknown, the entry in the TSN column will be UNK.

Page 2 (Back)

SECTION IV - REMOVAL DATA

Block A - DATE. Enter the YYMMDD date that the assembly was removed.

Block B - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter the hours or counts (TSN) (whole number only, do not round up or down) of the aircraft or equipment the assembly was removed from. The TSN will be preceded by the appropriate time or cycle code listed in Appendix E. The four unlabeled columns are used for aircraft or equipment that have monitoring systems installed. The columns will be labeled as required per the PMIC, for example, LCF, ELCF, or EOT. Aircraft or equipment without monitoring systems will use the first column only.

Block C - ASSEMBLY HOURS OR COUNTS. Subtract the total aircraft/equipment hours or the counts at installation from total aircraft/equipment hours or counts at removal. Add to the total hours or the count on the assembly at installation and enter in the appropriate columns preceded by the appropriate time/cycle code. Label the columns as required.

Block D - REASON FOR REMOVAL AND JOB CONTROL NUMBER. Enter the reason for removal and JCN from the WO or MAF that documented the removal of the assembly from the aircraft or equipment.

SECTION V - TECHNICAL DIRECTIVES

Block A - TECHNICAL DIRECTIVE IDENTIFICATION

Block A (1) - CODE. Enter TD code.

Block A (2) - BASIC. Enter the TD basic number.

Block A (3) - INT. If an interim TD, enter "I"; if not, leave blank.

Block A (4) - REV. Enter the revision letter (if applicable).

Block A (5) - AM. Enter the numerical amendment number (if applicable).

Block A (6) - PT. Enter the numerical TD part number, for example, part-02 (if applicable).

Block A (7) - KIT. Enter the kit number. Enter 00 if no kit is required.

Block A (8) - PRI. Enter I for Immediate, U for Urgent, R for Routine, or K for Record Purpose (as applicable).

Block B - STATUS. Enter the code corresponding to the status of the TD. No status codes other than those prescribed will be entered on the ASR. Code descriptions and instructions are in paragraph 8.5.5.4.

Block C - TITLE/REMARKS. Enter the title and a brief description of the TD.

Block D - COMPLIANCE

Block D (1) - BY (Activity). Enter the three position aviation 3M ORG code of the activity complying with the TD, for example, AT1.

Block D (2) - DATE. Enter the YYMMDD date the TD was incorporated.

Block E - SIGNATURE. A person having logbook and records signature authority must review the entry and sign this block. For D-level the certification or verification device will satisfy the signature requirement.

SECTION VI - REPAIR/REWORK/OVERHAUL/EXCEEDANCES

Block A - DATE. Enter the YYMMDD date the repair/rework/overhaul was completed or exceedance occurred.

Block B - ACTIVITY. Enter the three position aviation 3M ORG code of the activity accomplishing the repair/rework/overhaul or exceedance, for example, D97. D-level activities must include one of the following codes that best describes the action taken:

A - Check/test

C - Repair/rework/SDLM/PDM

D - Modified

H - Overhaul

N - New

9 - Condemned

Block C - DESCRIPTION. Indicate whether the item has been repaired, reworked, or overhauled and a concise narrative of the maintenance performed. Exceedances of operational limitations must be logged. Enter the assembly TSN and TSO/TSR (if applicable).

Block D - SIGNATURE. A person having logbooks and records signature authority must review the entry and sign this block. For D-level, the certification or verification device will satisfy the signature requirement.

8.5.12.4 Consolidation

a. ASRs will be consolidated by the repairing activity upon completion of first degree repair (engines) or rework (any assembly). ASRs will also be consolidated at any maintenance level

when no space is available for further entries within any one section. The original ASR and a copy of the ASR will be sent to the CMIS Repository (8.2.10.2.i).

NOTE: Activities using ACTS are not authorized to consolidate entries. ACTS has no space limitations, and permits selection of entries to display on the printed record. All historical information will remain within ACTS and available for electronic viewing, whenever necessary.

b. Minimum requirements for consolidation:

SECTION I - IDENTIFICATION DATA. All entries are required.

SECTION II - COMPONENTS

Transcribe all data for subcomponents that were not changed during the repair process. Enter the removal date for any subcomponents changed during the repair process on the original ASR and enter the installation information for the newly installed subcomponents on the new ASR.

NOTE: When consolidating the ASR upon completion of first-degree repair (engines) or rework (any assembly), the date of install, TSN and Replacement Due times for subcomponents that were NOT replaced during repair/rework will be transcribed from the original ASR.

SECTION III - INSTALLATION DATA and SECTION IV - REMOVAL DATA

Recalculate the existing entries to verify they are correct. If a correction is required, refer to paragraph 8.2.7.4 for correction procedures.

If the assembly is installed in aircraft or equipment at the time of consolidation, record the last installation action. No entry is required in the removal section.

If the assembly is not installed in aircraft or equipment at the time of consolidation, record the last installation and the corresponding removal action.

SECTION V - TECHNICAL DIRECTIVES

Use block entries to document previously incorporated TDs, to include “not applicable” (NA) TDs. A separate block entry is required for each type of TD, (AVC, PPB, etc.) and status (PINC, NA, etc.). Block entries are recorded as follows:

Block A (1) - CODE. Enter the TD code. Example: 50 for AFC.

Block B - STATUS. Enter PINC (previously incorporated) or NA (not applicable).

Block C - TITLE/REMARKS. Enter the basic numbers and associated revisions, amendments and parts.

Block D - COMPLIANCE. Enter the aviation 3M ORG code of the activity consolidating the ASR and the YYMMDD date the ASR was consolidated.

Block E - SIGNATURE. Enter the word "CONSOLIDATED" indicating this entry is a result of ASR consolidation.

NOTES: 1. Block entries do not indicate the activity that actually incorporated the TDs. Block entries signify the TDs had been previously incorporated.

2. All incorporated TD numbers (001, 002, ….) must be listed in the TITLE/REMARKS block. A blanket statement that all TDs up to a specific basic have been incorporated is not authorized.

3. TDs incorporated during the maintenance that necessitated consolidation will have a separate line entry on the consolidated form, per paragraph 8.5.13.3 procedures.

SECTION VI - REPAIR/REWORK/OVERHAUL/EXCEEDANCES

If the component is life-limited with no secondary time/cycle requirement, for example, C-6000 -Retire, transcribe the last repair action.

If the component is life-limited and has a secondary time or cycle requirement, for example, T-700-Retire and T-100-NDT/I, transcribe the last secondary requirement action and the last repair action. This will be one entry if the last repair action was the secondary requirement action.

If the component has an overhaul with no secondary time or cycle requirement, for example, C-2000-Overhaul, transcribe the last overhaul and the last repair action. This will be one entry if the last repair action was an overhaul.

If the component has an overhaul and a secondary time or cycle requirement, for example, U-36-Overhaul and D-244-IMA Inspection, the last action for both requirements must be entered. If the last action is an overhaul, only the overhaul action will be entered.

c. Upon completion of consolidation, make an entry in the Repair/Rework/Overhaul/Exceedances Section stating "ASR CONSOLIDATED, all entries are certified to be correct" with the YYMMDD date of card consolidation and the aviation 3M ORG code of the activity consolidating the ASR. This entry requires a signature.

8.5.13 Equipment History Record (EHR) Card (OPNAV 4790/113)

8.5.13.1 Purpose. An EHR card (Figure 8-16) is a two-page form to record specific maintenance data on designated aeronautical components. EHR card items are designated by COMNAVAIRSYSCOM PMAs and FSTs when it is determined the item requires special emphasis in monitoring and trending of failure data. The list of items requiring an EHR card is published within the applicable PMIC. Loss of an EHR card does not render the item unusable.

NOTES: 1. Activities using ACTS will make all entries using ACTS (https://fleetmetrics.navair.navy.mil/ACTS/). Records will be printed from ACTS and placed into the paper aircraft/equipment logbook. The serial number is now included on both sides of the printed record. Pen or pencil entries on hardcopy ACTS records are not required except for documenting "NINC" in Section VI-Technical Directives.

2. When replacing a newly printed record from ACTS, the replaced non-ACTS record will be mailed to the Repository listed in the applicable T/M/S aircraft or engine PMIC.

8.5.13.2 General Procedures

a. An individual EHR card for each serialized item will be maintained in the aircraft logbook, AESR, or MSR while the component is installed. When the component is removed, the EHR card will be attached to and accompany the component whenever turned in for repair or rework.

b. EHR cards for items repetitively being removed and installed from aircraft or AESR equipment for the purpose of mission configuration, such as ejector racks and pods, may be maintained within the division having custody of the item. Installation and removal entries will be made on the card in pencil until time of transfer, at which time a permanent entry will be made and the card will be inserted in the applicable aircraft logbook or AESR.

8.5.13.3 Fields

(Front)

SECTION I - IDENTIFICATION DATA

Block A - NOMENCLATURE. Enter the nomenclature of the item.

Block B - WORK UNIT CODE. Enter the WUC of the item.

Block C - FSCM. Enter the five-digit CAGE code.

Block D - REPLACEMENT INTERVAL. Enter the hours, days, counts, etc., after which the component must be removed and replaced (if applicable); otherwise enter "ON-CONDITION." This entry is made in pencil.

Block E - MAINTENANCE DUE. This block is used to remind the custodian when the installed component removal is due per its time cycle requirement. The entry is computed when the component is installed and indicates the total count, hours, starts, rounds, or days that will be against the end item when the installed component reaches its interval requirements. For example, a component with a 200 hours interval installed on an aircraft with 1287 flight hours will have a 1487 flight hour entry in the block. Entries in this block are made in pencil.

Block F - PART NUMBER. Enter the part number of the item.

Block G - SERIAL NUMBER. Enter the serial number of the item.

Block H - FST. Enter the FST responsible for the item.

Block I - REFERENCE. Using a pencil, enter PMIC or technical manual that directs creation of the EHR for the item.

SECTION II - INSTALLATION DATA

Block A - DATE. Enter the YYMMDD date that the item is installed.

Block B - BUNO/SERNO INSTALLED ON. Enter the BUNO of the aircraft, or the SERNO of the equipment on which the item is being installed.

Block C - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the aircraft/equipment on which the item is being installed (TSN). Uncaptioned columns are provided for aircraft/equipment that have monitoring systems installed and may be labeled as required; for example: LCF, ELCF, EOT. Aircraft/equipment without monitoring systems will use the first column only.

Block D - TOTAL HOURS OR COUNTS ON ITEM. Enter the hours/(whole number only, do not round up or down) preceded by the appropriate time/cycle code since new and repaired/reworked. Uncaptioned columns have been provided and will be labeled with the appropriate information required; for example: TSN, TSO, TSR, LCF, or EOT. When entering data for new material, the entry in the TSO/TSR column will be NEW. When the total hours or counts since new is not known, the entry in the TSN column will be unknown (UNK).

SECTION III - REMOVAL DATA

Block A - DATE. Enter the YYMMDD date that the item is removed.

Block B - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the aircraft/equipment from which the item is being removed (TSN). Uncaptioned columns are provided for aircraft/equipment that have monitoring systems installed and may be labeled as required; for example: LCF, ELCF. Aircraft/equipment without monitoring systems will use the first column only.

Block C - TOTAL HOURS OR COUNTS ON ITEM. Subtract the total aircraft/equipment hours or counts at installation from the total aircraft/equipment hours or counts at removal. Add to the total count on the item at installation and enter in the appropriate columns preceded by the appropriate time/cycle code. Label columns as required.

Block D - REASON FOR REMOVAL AND JOB CONTROL NUMBER. Enter the reason for removal and JCN from the applicable WO or MAF.

NOTE: For condemned components (Action Taken (AT) code BCM 9), the EHR card will be annotated BCM 9 in the reason for removal column before forwarding the EHR card to the FST repository per (8.2.10.2.j).

SECTION IV - MAINTENANCE RECORD

Block A - DATE. Enter the YYMMDD date the maintenance is performed.

Block B - ACTIVITY. Enter the three position aviation 3M ORG code of the activity performing the maintenance, for example, WC8. D-level include one of the following codes that best describes the action that was taken:

A - Check/test

C - Repair/rework/SDLM/PDM

D - Modified

H - Overhaul

N - New

9 - Condemned

Block C - REMARKS AND MAJOR PARTS REPLACED. Detail the action and major parts replaced with reason for removal. Enter the items TSN and TSO/TSR (if applicable).

Block D - SIGNATURE. A person having logbooks/records signature authority will sign this block.

(Back)

SECTION V - INSPECTION RECORD

Block A - TYPE AND DESCRIPTION OF INSPECTION. Enter the type and description of the inspection that affects the equipment/component.

Block B - REFERENCE. Identify the document directing the inspection, for example, message originator and DTG or the IRAC and publication number.

Block C - DATE COMMENCED. Enter the YYMMDD date the inspection began.

Block D - DATE COMPLETED. Enter the YYMMDD date the inspection was completed.

Block E - ACTIVITY. Enter the three position aviation 3M ORG code of the activity performing the inspection, for example, AC7.

Block F - SIGNATURE. A person having logbook/records signature authority will sign this block. The certification or verification device (as applicable) will satisfy the signature requirement.

SECTION VI - TECHNICAL DIRECTIVES

Block A - TECHNICAL DIRECTIVE IDENTIFICATION

Block A (1) - CODE. Enter the TD code.

Block A (2) - BASIC. Enter the TD basic number.

Block A (3) - INT. If an interim TD, enter "I"; if not, leave blank.

Block A (4) - REV. Enter the revision letter (if applicable).

Block A (5) - AM. Enter the numerical amendment number (if applicable).

Block A (6) - PT. Enter the numerical TD part number, for example, part - 02 (if applicable).

Block A (7) - KIT. Enter the kit number, enter 00 if no kit is required.

Block A (8) - PRI. Enter I for Immediate, U for Urgent, R for Routine, or K for Record Purpose (as applicable).

Block B - STATUS. Enter the code indicating the status of the TD. No status codes other than those prescribed will appear on the EHR nor will any code be used for other than its intended meaning. Code descriptions and instructions are in paragraph 8.5.5.4.

Block C - TITLE/REMARKS. Enter the title and a brief description of the TD.

Block D - COMPLIANCE

Block D (1) - BY (Activity). Enter the three position aviation 3M ORG code of the activity complying with the TD, for example, P9A.

Block D (2) - DATE. Enter the YYMMDD date the TD was incorporated.

Block E - SIGNATURE. A person having logbook/records signature authority will sign this block. The certification or verification device, as applicable, will satisfy the signature requirement.

8.5.13.4 Consolidation. Cards may be consolidated at any maintenance level when no space is available for further entries within any one section. The following directions are the minimum requirements to be used when consolidating:

NOTES: 1. Activities using ACTS are not authorized to consolidate entries. ACTS has no space limitations, and permits selection of entries to display on the printed record. All historical information will remain within ACTS and available for electronic viewing, whenever necessary.

2. When replacing a newly printed record from ACTS, the replaced non-ACTS record will be mailed to the Repository listed in the applicable T/M/S aircraft or engine PMIC.

SECTION I - IDENTIFICATION DATA. All entries are to be completed.

SECTION II - INSTALLATION DATA and SECTION III - REMOVAL DATA

Recalculate the existing entries to ensure accuracy. If a correction is required, refer to paragraph 8.2.7.4 for correction procedures.

If the component is installed at the time of consolidation, record the last installation action on the new card. No entry is required in the removal section.

If the component is not installed at the time of consolidation, record the last installation and the corresponding removal action on the new card.

SECTION IV - MAINTENANCE RECORD. For on-condition EHRs, transcribe the last entry in the Maintenance Record section. Upon completion of card consolidation, make an entry in the Maintenance Record section with a YYMMDD date indicating the date of card consolidation, the aviation 3M ORG code of the activity consolidating the card, and the statement "CARD CONSOLIDATED, all entries are certified to be correct." This entry

requires a signature. The original EHR card and a copy of the new card will be sent to the FST.

SECTION V - INSPECTION RECORD. Transcribe the last inspection entry to the new card.

SECTION VI - TECHNICAL DIRECTIVES

Use block entries to document previously incorporated TDs, to include "not applicable" (NA) TDs. A separate block entry is required for each type of TD, (AVC, PPB, etc.) and status (PINC, NA, etc.). Block entries are recorded as follows:

Block A (1) - CODE. Enter the TD code.

Block B - STATUS. Enter PINC indicating previously incorporated or NA (not applicable).

Block C - TITLE/REMARKS. Enter the basic numbers and associated revisions, amendments and parts.

Block D - COMPLIANCE. Enter the aviation 3M ORG code of the activity consolidating the card and the YYMMDD date the card was consolidated.

Block E - SIGNATURE. Enter the word "CONSOLIDATED" indicating this entry is a result of card consolidation.

NOTES: 1. Block entries do not indicate the activity that actually incorporated the TDs. Block entries signify the TDs had been previously incorporated.

2. All incorporated TD numbers (001, 002, ….) must be listed in the TITLE/REMARKS block. A blanket statement that all TDs up to a specific basic have been incorporated is not authorized.

3. TDs incorporated during the maintenance that necessitated consolidation will have a separate line entry on the consolidated form, per paragraph 8.5.13.3 procedures.

8.5.13.5 Purging. Engine EHRs will be purged upon completion of first-degree repair or rework. A new EHR card will be initiated if no additional space remains for entries. A copy of the EHR card will be sent to the applicable FST repository.

8.5.14 Scheduled Removal Component Card (OPNAV 4790/28A)

8.5.14.1 Purpose. The SRC card (Figure 8-17) is a two page form used to record maintenance history, installation and usage data for components with a specified life-limit in the applicable PMIC.

8.5.14.2 General Procedures

a. An individual SRC card for each serialized item will be maintained in the aircraft logbook, AESR, or MSR while the component is installed. When the component is removed, the SRC card will be attached to and accompany the component whenever turned in for repair or rework.

NOTES: 1. Activities using ACTS will make all entries in ACTS (https://fleetmetrics.navair.navy.mil/ACTS/). Records will be printed from ACTS and placed into the paper aircraft logbook or equipment AESR. The serial number is now included on both sides of the printed record. Pen or pencil entries on hardcopy ACTS records are not required except for documenting "NINC" in Section VI - Technical Directives.

2. When replacing a non-ACTS record with a newly printed record from ACTS, the replaced non-ACTS record will be mailed to the Repository listed in the applicable T/M/S aircraft or engine PMIC.

b. Initiation. SRC card initiation for components installed on or delivered with major aeronautical equipment, for example, aircraft and engines as part of a DOD contract, is the responsibility of the activity accepting the equipment for the DON. When these components are delivered to the DON at the contractor's plant, the cognizant DON representative is considered to be the original accepting activity. When SRC card requirements are not included in the Navy contract, SRC card initiation for new components drawn from the Navy supply system will be the responsibility of the requisitioning activity. Activities with ACTS must create the initial SRC record in ACTS.

c. Loss of an SRC card can cause the loss of the assembly as an RFI asset. If an SRC card is lost or unreadable, the activity having custody of the item must initiate a new card with all available information. If an accurate history of the item cannot be established, the CMIS Repository (8.2.10.2.i) has the responsibility to determine the required course of action and provide guidance on disposition of the item.

8.5.14.3 Fields

SRC Card (Front)

SECTION I - IDENTIFICATION DATA

Block A - NOMENCLATURE. Enter the nomenclature of the item.

Block B - WORK UNIT CODE. Enter the WUC.

Block C - FSCM. Enter the five-digit CAGE code of the item.

Block D - REPLACEMENT INTERVAL. Enter the hours, days, counts, etc., interval after which the component must be removed and replaced. This entry is made in pencil.

Block E - REPLACEMENT DUE. This entry is computed when the item is installed. It reflects the total count (whole number only, do not round up or down), such as hours, starts, landings, engine monitoring system counts, on the aircraft or equipment, or the YYMMDD when it must be replaced. Replacement due equals total aircraft/equipment hours or counts plus replacement interval, minus hours or counts on the item at installation. For example, a 500 hour replacement interval item with 200 hours since overhaul installed on an aircraft with 795 hours (total aircraft hours), will have an entry of 1095 hours in the Replacement Due Block. This entry is made in pencil.

Block F - PART NUMBER. Enter the part number.

Block G - SERIAL NUMBER. Enter the serial number of the item.

Block H - FST. Enter the applicable FST.

SECTION II - INSTALLATION DATA

Block A - DATE. Enter the YYMMDD date the item is installed.

Block B - BUNO/SERNO INSTALLED ON. Enter the BUNO of the aircraft, or the SERNO of the equipment on which the item is being installed.

Block C - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the aircraft/equipment on which the item is being installed, TSN. Uncaptioned columns are provided for monitoring systems and may be labeled as required, for example, LCF, ELCF, EOT. Aircraft/equipment without monitoring systems will use the first column only.

Block D - TOTAL HOURS OR COUNTS ON ITEM. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code since new and overhauled/reworked.

Uncaptioned columns have been provided and will be labeled with the appropriate information required, for example, TSN or TSO. When entering data for new material, the entry in the TSO column will be NEW. When the total hours or counts since new is not known, the entry in the TSN column will be UNK.

SECTION III - REMOVAL DATA

Block A - DATE. Enter the YYMMDD date the item is removed.

Block B - TOTAL AIRCRAFT/EQUIPMENT HOURS OR COUNTS. Enter the hours/counts (whole number only, do not round up or down) preceded by the appropriate time/cycle code of the aircraft/equipment from which the item is being removed, TSN. Uncaptioned columns are provided for aircraft/equipment that have monitoring systems installed and may be labeled as required; for example: LCF, ELCF, EOT. Aircraft/equipment without monitoring systems will use the first column only.

Block C - TOTAL HOURS OR COUNTS ON ITEM. Subtract total aircraft/equipment hours or counts at installation from total aircraft/equipment hours or counts at removal. Add to total hours or count on item at installation and enter in the appropriate columns preceded by the appropriate time/cycle code. Label columns as required.

Block D - REASONS FOR REMOVAL AND JOB CONTROL NUMBER. Enter the reason for removal and JCN from the WO or MAF that documented the removal of the item.

NOTE: For condemned components (Action Taken (AT) code BCM 9), the SRC will be annotated BCM 9 in the reason for removal column before forwarding the card to the FST repository per 8.2.10.2.j.

SRC Card (Back)

SECTION IV - TECHNICAL DIRECTIVES

Block A - TECHNICAL DIRECTIVE IDENTIFICATION

Block A (1) - CODE. Enter the TD code.

Block A (2) - BASIC. Enter the TD basic number.

Block A (3) - INT. If an interim TD, enter "I"; if not, leave blank.

Block A (4) - REV. Enter the revision letter (if applicable).

Block A (5) - AM. Enter the numerical amendment number (if applicable).

Block A (6) - PT. Enter the numerical TD part number, for example, part - 02 (if applicable).

Block A (7) - KIT. Enter the kit number, enter 00 if no kit is required.

Block A (8) - PRI. Enter I for Immediate, U for Urgent, R for Routine, or K for Record Purpose (as applicable).

Block B - STATUS. Enter the code indicating the status of the TD. No status codes other than those prescribed will appear on the SRC nor will any code be used for other than its intended meaning. Code descriptions and instructions are in paragraph 8.5.5.4.

Block C - TITLE/REMARKS. Enter the title and a brief description of the TD.

Block D - COMPLIANCE

Block D (1) - BY (Activity). Enter the three position aviation 3M ORG code of the activity complying with the TD, for example, AC7.

Block D (2) - DATE. Enter the YYMMDD date the TD was incorporated.

Block E - SIGNATURE. A person having logbook/records signature authority will sign this block. The certification or verification device, as applicable, will satisfy the signature requirement.

SECTION V - REPAIR/REWORK/OVERHAUL

Block A - DATE. Enter the YYMMDD date the repair/rework/overhaul was accomplished.

Block B - ACTIVITY. Enter the three position aviation 3M ORG code of the activity accomplishing the repair/rework/overhaul, for example, D97. D-level include one of the following codes that best describes the action that was taken:

A - Check/test

C - Repair/rework/SDLM/PDM

D - Modified

H - Overhaul

N - New

9 - Condemned

Block C - DESCRIPTION. Indicate whether the item has been repaired/reworked/overhauled and a concise narrative of the maintenance performed. Enter a one word description of the action taken corresponding to the action taken code used in the Activity Block. Enter the TSN and the TSO/TSR (if applicable) of the item. Enter a concise narrative of the maintenance performed.

Block D - SIGNATURE. A person having logbook/records signature authority will sign this block. The certification or verification device (as applicable), will satisfy the signature requirement.

8.5.14.4 Consolidation. Cards may be consolidated at any maintenance level when no space is available for further entries within any one section. Minimum requirements:

NOTE: Activities using ACTS are not authorized to consolidate entries. ACTS has no space limitations, and permits selection of entries to display on the printed record. All historical information will remain within ACTS and available for electronic viewing, whenever necessary.

SECTION I - IDENTIFICATION DATA SECTION. All entries are to be completed.

SECTION II - INSTALLATION DATA and SECTION III - REMOVAL DATA

Recalculate the existing entries to ensure correctness. If a correction is required, refer to paragraph 8.2.7.4 for correction procedures.

If the component is installed at the time of consolidation, record the last installation action on the new card. No entry is required in the removal section.

If the component is not installed at the time of consolidation, record the last installation and the corresponding removal action on the new card.

SECTION IV - TECHNICAL DIRECTIVES

Use block entries to document previously incorporated TDs, to include "not applicable" (NA) TDs. A separate block entry is required for each type of TD, (AVC, PPB, etc.) and status (PINC, NA, etc.). Block entries are recorded as follows:

Block A (1) - CODE. Enter the TD code.

Block B - STATUS. Enter PINC indicating previously incorporated or NA (not applicable).

Block C - TITLE/REMARKS. Enter the basic numbers and associated revisions, amendments and parts.

Block D - COMPLIANCE. Enter the aviation 3M ORG code of the activity consolidating the card and the YYMMDD date the card was consolidated.

Block E - SIGNATURE. Enter the word "CONSOLIDATED" indicating this entry is a result of card consolidation.

NOTES: 1. Block entries do not indicate the activity that actually incorporated the TDs. Block entries signify the TDs had been previously incorporated.

2. All incorporated TD numbers (001, 002, etc.) must be listed in the TITLE/REMARKS block. A blanket statement that all TDs up to a specific basic have been incorporated is not authorized.

3. TDs incorporated during the maintenance that necessitated consolidation will have a separate line entry on the consolidated form, per paragraph 8.5.13.3 procedures.

SECTION V - REPAIR/REWORK/OVERHAUL

If the component is a life-limited item with no secondary time/cycle requirement, for example, C-6000-Retire, transcribe the last repair action.

If the component is a life-limited item and has a secondary time/cycle requirement, for example, T 700-Retire and T-100-NDT/I, transcribe the last secondary requirement action and the last repair action. This may be one entry if the last repair action was the secondary requirement action.

If the component has an overhaul with no secondary time/cycle requirement, for example, C-2000-Overhaul, transcribe the last overhaul and the last repair action. This may be one entry if the last repair action was an overhaul.

If the component has an overhaul and a secondary time/cycle requirement, for example, U-36-Overhaul and D-244-IMA Insp, the last action for both requirements must be entered. If the last action is an overhaul, only the overhaul action need be entered.

Upon completion of card consolidation, make an entry in the Repair/Rework/Overhaul Section with a YYMMDD date indicating the date of card consolidation, the aviation 3M ORG code of the activity consolidating the card, and the statement, "CARD CONSOLIDATED, all entries are certified to be correct. "This entry requires a signature.

8.5.14.5 Purging. Engine SRCs will be purged upon completion of first-degree repair or rework. A new SRC card will be initiated if no additional space remains for entries. After purging, a copy of the new SRC will be sent to the CMIS Repository (8.2.10.2.i.).

8.5.15 Aviation Life Support System (ALSS) Records.

8.5.15.1 Purpose

The Parachute Record (OPNAV 4790/101), Seat Survival Kit Record (OPNAV 4790/137), Aircrew Systems Record (OPNAV 4790/138), and Aircrew Personal Equipment Record (OPNAV 4790/159) are used to document information on ALSS equipment.

NOTE: ALSS items are identified by "YP" series Type Equipment Codes (TEC). Items with other than "YP" series TEC are not ALSS and do not require an Aircrew Equipment Record (AER), Non-"YP" series TEC items are considered aircraft inventory and only require ALS. Examples of non-"YP" series TEC items include fire extinguishers and panel mounted first aid kits.

8.5.15.2 General Procedures

The following general procedures apply to all of these records:

a. Activities operating NALCOMIS OOMA must use OOMA Aircrew Equipment Record (AER) auto log sets (ALS) to generate records for all ALSS assemblies and components. The Aircrew Equipment/Personal Record generated in NALCOMIS OOMA contains all pertinent information and meets all ALSS record requirements.

NOTE: NALCOMIS OOMA activities are not authorized to use Virtual Fleet Support (VFS) CADPAD and TRACE LIFE SUPPORT MODULE or SURVIVAL EQUIPMENT ASSET TRACKING SYSTEM (SEATS).

b. Non-OOMA sea going commands are authorized to use SEATS; non-OOMA shore commands are authorized to use the VFS CADPAD and TRACE LIFE SUPPORT MODULE for generating ALSS records.

c. Depots will use the VFS CADPAD, TRACE CADPAD and TRACE LIFE SUPPORT Modules. The use of VFS CADPAD, TRACE CADPAD and TRACE LIFE SUPPORT Modules are mandatory. Depot FRCs must update the VFS CADPAD, TRACE CADPAD, and TRACE LIFE SUPPORT Module data bases with all changes and electronically transfer custody to the receiving command upon completion or rework/repair cycle

d. When an ALSS item has been involved in an aircraft mishap, the current record for the item must be forwarded with the aircraft records, per OPNAVINST 3750.6 and NAVAIR 13-1-6.3.

8.5.15.3 Parachute Record (OPNAV 4790/101)

8.5.15.3.1 Purpose. The Parachute Record (Figure 8-18) contains information on the current configuration and inspection record of a parachute assembly and its components.

8.5.15.3.2 Initiation and Maintenance

a. The activity placing the parachute in service must initiate the record.

b. The record must be securely attached to the parachute assembly when issued. The activity receiving the parachute must review the record for complete and accurate information. All discrepancies must be resolved with the issuing activity prior to acceptance. Ensure electronic receipt of the associated NALCOMIS OOMA ALS, and verify the ALS is also complete and accurate.

c. Upon installation of the parachute assembly, the record must be forwarded to Logs and Records for insertion in the aircraft logbook or ejection seat AESR. In OOMA enter the aircraft BUNO/SERNO in the BUNO/SERNO field. This enables electronic transfer of the parachute record when the aircraft it is installed in is transferred to another command.

d. The record must accompany the parachute assembly any time it is removed and sent to the supporting I-level for inspection or maintenance.

e. The I-level activity must initiate a new record each time the parachute is inducted for repack or maintenance. Upon verification of the new record by the I-level QAR, CDQAR, or CDI, the old record may be destroyed.

f. Upon transfer of the parachute assembly, the record must be sent to the new custodian. Update ALS and the custody section of OOMA to electronically transfer the parachute assembly.

8.5.15.3.3 Fields

BASIC ASSEMBLY INFO

Block A1 - TYPE ASSEMBLY. Identifies the complete parachute assembly, for example, NES-14.

Block A2 - SERIAL NUMBER. The serial number of the parachute assembly. Use canopy serial number.

Block A3 - PART NUMBER. The part number of entire parachute assembly.

Block A4 - CONFIGURED FOR (TECS). Specific type of aircraft.

Block A5 - CUSTODIAN ORG CODE. Organization code of activity to which parachute assembly is issued.

Block A6 - BU/SER NUMBER. Bureau number of aircraft in which parachute assembly is installed; entered in pencil by the O-level. In the VFS CADPAD, TRACE LIFE SUPPORT MODULE enter the aircraft BU/SERNO in the BU/SER field. This enables electronic transfer of parachute assembly with assigned aircraft when transferred to another command.

Block A7 - RFI Date. Enter YYMMDD the parachute repack is completed.

Block A8 - RFI SHF CYC. Maximum period of time parachute assembly may remain on shelf before inspection cycle begins.

Block A9 - LATEST RFI. Latest date parachute assembly may be issued from RFI pool and still have a complete inspection cycle remaining. RFI date + RFI shelf cycle = latest RFI issue date (YYMMDD).

Block A10 - DATE ISSUED. Enter YYMMDD the parachute assembly was issued.

Block A11 - INSP CYCL. Inspection cycle specified by applicable aircraft PMIC deck and NAVAIR 13-1-6-2.

Block A12 - SCHD RMVL DATE. Date issued + inspection cycle = scheduled removal date (YYMMDD).

Block A13 - PACKED (NAME). Rate, first initial, and last name of the individual who packed the parachute assembly. The packer must sign the printed record.

Block A14 - INSPECTED (NAME & QA STAMP #). Rate, first initial, last name, and QA stamp number of the individual who inspected the assembly. The inspector must sign and stamp the printed record.

Block A15 - Org Code. Organization code of I-level where packing was performed.

SERVICE LIFE ITEMS

Block B1 - NOMENCLATURE. Nomenclature of shelf life or controlled items.

Block B2 - PART #. Part number of item.

Block B3 - CONT #/LOT #. Contract number or lot number of item.

Block B4 - SER #. Serial number of item (if applicable). NA if not.

Block B5 - MFG DATE. Date item was manufactured (YYMMDD).

Block B6 - INSTL DATE. Enter the year, month, and the day of the month (YYMMDD) the item was placed in service or installed.

Block B7 - EXP DATE. Enter computed year, month, and the day of the month (YYMMDD) of expiration.

CARTRIDGES AND CARTRIDGE ACTUATED DEVICES

Block C1 - NOMENCLATURE. Nomenclature of cartridge or CAD.

Block C2 - PART #. Part number of cartridge or CAD.

Block C3 - CONT #/LOT #. Contract number or lot number of cartridge or CAD. Always use lot number on cartridges.

Block C4 - DODIC. DODIC or NALC, for example, MW19.

Block C5 - SER #. Serial number of cartridge or CAD (if applicable). NA if not applicable.

Block C6 - MFG DATE. Enter the year, month, and the last day of the month (YYMMDD) the cartridge or CAD was manufactured.

Block C7 - C.O. DATE. Enter the year, month, and the last day of the month (YYMMDD) the cartridge or CAD container was opened (start of service life).

Block C8 - EXP DATE. Enter computed year, month, and last day of the month (YYMMDD) the cartridge or CAD will expire.

TECHNICAL DIRECTIVES

NOTES: 1. B coded (active) TDs on the NAT04 must be documented and not deleted from the record until removed from the NAT04 or until the item to which the TD was incorporated has been removed or replaced. Failure to maintain an accurate listing of active TDs invalidates the entire record.

2. Entries are not required for Aircrew System Change and Aircrew System Bulletin amendments that are administrative in nature and do not require additional work.

Block D1 - TYP. Type TD code, for example, 66 or 67.

Block D2 - NO. Basic number of TD.

Block D3 - REV. Revision letter of TD.

Block D4 - AM. Amendment number of TD.

Block D5 - QA. QA number of individual inspecting TD compliance.

Block D6 - ORG. Organization code of I-level completing TD.

Block D7 - DATE. TD compliance date (YYMMDD).

Block D8 - STAT. Status of TD.

LOCAL USE. This space is provided for documenting any other data that is required but not provided for in other blocks, for example, local inspection requirements and conditional inspections not requiring repack.

NOTE: NAVAIR 13-1-6.2 has additional information for parachute record documentation.

8.5.15.4 Seat Survival Kit Record (OPNAV 4790/137)

8.5.15.4.1 Purpose. The Seat Survival Kit Record (Figure 8-19) contains information on the configuration and inspection history of ejection seat survival kits (SSK).

8.5.15.4.2 Initiation and Maintenance

a. The activity placing the SSK in service must initiate the record.

b. The record must be securely attached to the SSK when issued. The activity receiving the SSK must review the record for complete and accurate information. All discrepancies must be resolved with the issuing activity prior to acceptance. Ensure electronic receipt of the associated NALCOMIS OOMA ALS and verify the ALS is also complete and accurate.

c. Upon installation, the record will be forwarded to Logs and Records for insertion in the aircraft logbook or ejection seat AESR. In OOMA, enter the aircraft BUNO/SERNO in the BUNO/SERNO field. This enables electronic transfer of the SSK record when the aircraft it is installed in is transferred to another command.

d. The record must accompany the SSK anytime it is removed and sent to the supporting I-level/D-level for inspection or maintenance.

e. The supporting I-level/D-level must initiate a new record each time the SSK is inducted for repack or maintenance. Upon verification of the new record by the I-level QAR, CDQAR, or CDI/D-level QA personnel, the old record may be destroyed.

f. Upon transfer of the SSK, the record must be sent to the new custodian. Update the custody section of OOMA electronically transfer the SSK when it transfers to another command.

8.5.15.4.3 Fields

BASIC ASSEMBLY INFORMATION

Block A1 - TYPE ASSEMBLY. Specific type seat kit assembly, for example, SKU-2/A.

Block A2 - SERIAL NUMBER. Serial number of seat kit assembly.

Block A3 - PART NUMBER. Part number of seat kit assembly.

Block A4 -FSCM. CAGE code for manufacturer of seat kit assembly.

Block A5 - CONFIGURED FOR (TECS). Specific TEC.

Block A6 - CUSTODIAN ORG CODE. Organization code of activity to which the seat kit is issued.

Block A7 - BU/SERNO. Bureau number of aircraft in which the seat kit is installed; entered in pencil by O-level.

Block A8 - RFI DATE. Enter the YYMMDD the seat kit repack is completed.

Block A9 - RFI SH CYC. Maximum period of time seat kit may remain on shelf before inspection cycle begins.

Block A10 - LATEST RFI. Latest date seat kit may be issued from RFI pool and still have a complete inspection cycle remaining. RFI date + RFI shelf cycle = latest RFI issue date (YYMMDD).

Block A11 - DATE ISSUED. Enter the YYMMDD the seat kit was issued.

Block A12 - INSP CYCL. Inspection cycle specified by applicable aircraft PMIC deck and NAVAIR 13-1-6-2.

Block A13 - SCHD RMVL DATE. Date issued + inspection cycle = scheduled removal date (YYMMDD).

Block A14 - PACKED (NAME). Rate, first initial and last name of the individual who packed the seat kit. The packer must sign the printed record.

Block A15 - INSPECTED BY (NAME & QA STAMP #). First initial, last name and QA stamp number of the individual who inspected the seat kit during repack. The inspector must sign and stamp the printed record.

Block A16 - ORG CODE. Organization code of I-level that inspected or packed seat kit.

SERVICE LIFE ITEMS

Block B1 - NOMENCLATURE. Nomenclature of service life items installed in seat kit.

Block B2 - PART #. Part number of item.

Block B3 - CONT #/LOT #. Contract or lot number of item.

Block B4 - SER #. Serial number of item (if applicable). NA if not applicable.

Block B5 - QTY. Quantity of item.

Block B6 - MFG DATE. Enter the year, month, and last day of the month (YYMMDD) the item was manufactured.

Block B7 - INSRV DATE. Enter the year, month, and last day of the month (YYMMDD) the item was placed in service or installed.

Block B8 - EXP DATE. Enter the computed year, month, and last day of the month (YYMMDD) the item will expire.

O2 SYS TEST (oxygen system test signatures).

Block C1 - COMPLETED (NAME). Rate, first initial, and last name, of individual who performed the oxygen system test.

Block C2 - INSPECTED (NAME & QA STAMP #). Rate, first initial, last name, and QA stamp number of individual who inspected the oxygen system test. The inspector must sign and stamp the printed record.

KIT TECHNICAL DIRECTIVES

NOTES: 1. B coded (active) TDs on the NAT04 must be documented and not deleted from the record until removed from the NAT04 or until the item to which the TD was incorporated has been removed or replaced. Failure to maintain an accurate listing of active TDs invalidates the entire record.

2. Entries are not required for Aircrew System Change and Aircrew System Bulletin amendments that are administrative in nature and do not require additional work.

Block D1 - TYP. Type of TD, for example, 66 or 67.

Block D2 - NO. Basic number of TD.

Block D3 - REV. Revision letter of TD.

Block D4 - AM. Amendment number of TD.

Block D5 - QA. QAR or CDQAR stamp number or initials of individual inspecting TD compliance.

Block D6 - ORG. Organization code of I-level/D-level completing TD.

Block D7 - DATE. TD compliance date (YYMMDD).

Block D8 - STAT. Status of TD.

LIFE RAFT HISTORY

Block E1 - TYPE ASSEMBLY. Type life raft assembly installed in seat kit.

Block E2 - PART #. Part number of life raft.

Block E3 - CONTRACT #. Contract number of life raft.

Block E4 - FSCM. CAGE code for manufacturer of life raft.

Block E5 - SER #. Serial number of life raft.

RAFT TEST RECORD

Block E6 - TEST CYCLE. Type of test performed on life raft. Document applicable cycle.

Block E7 - COMPLETED (NAME). Rate, first initial, and the last name, of the individual who completed the test on the life raft.

Block E8 - INSPECTED (NAME & QA STAMP #). Rate, first initial, last name, and QA stamp number of the individual who inspected the life raft test. The inspector must sign and stamp the printed record.

LIFE RAFT TECHNICAL DIRECTIVES

NOTES: 1. It is important to retain an accurate TD Compliance Record. B coded (active) TDs on the NAT04 must be documented and not deleted from the record until removed from the NAT04 or until the item to which the TD was incorporated has been removed or replaced. Failure to maintain an accurate listing of active TDs invalidates the entire record.

2. Entries are not required for Aircrew System Change and Aircrew System Bulletin amendments that are administrative in nature and do not require additional work.

Block F1 - TYP. Type of TD, for example, 66 or 67.

Block F2 - NO. Basic number of TD.

Block F3 - REV. Revision letter of TD.

Block F4 - AM. Amendment number of TD.

Block F5 - QA. QA number of individual inspecting TD compliance.

Block F6 - ORG. Organization code of I-level//D-level completing TD.

Block F7 - DATE. TD compliance date (YYMMDD).

Block F8 - STAT. Status of TD.

LOCAL USE. This space is provided for documenting any other data that is required but not provided for in other blocks, for example, local inspection requirements and conditional inspections not requiring repack.

NOTE: Additional documentation information for this record is in NAVAIR 13-1-6.3.

8.5.15.5 Aircrew Systems Record (OPNAV 4790/138)

8.5.15.5.1 Purpose. The Aircrew Systems Record (Figure 8-20) records current configuration and inspection history of ALSS components, kits, and assemblies.

NOTE: If the item is installed on an ejection seat, the Aircrew Systems Records will be inserted into the ejection seat AESR.

8.5.15.5.2 Initiation and Maintenance

a. The Aircrew Systems Record will be initiated by the activity placing the ALSS component, kit, or assembly into service. When a new record is initiated and all data is transcribed and verified, the old record may be destroyed. When a component, kit, or assembly

has been involved in an aircraft mishap, the record must be forwarded per OPNAVINST 3750.6 and 13-1-6 series manuals.

b. The record is maintained in the appropriate aircraft logbook or file.

c. The record must be securely attached to the equipment when issued. The activity receiving the equipment must review the record for complete and accurate information. All discrepancies must be resolved with the issuing activity prior to acceptance. Ensure electronic receipt of the associated NALCOMIS OOMA ALS and verify the ALS is also complete and accurate.

d. Upon installation, the record will be forwarded to Logs and Records for insertion in the aircraft logbook. In OOMA, enter the aircraft BUNO/SERNO in the BUNO/SERNO field. This enables electronic transfer of the record when the aircraft it is installed in is transferred to another command.

e. The record must accompany the component, kit, or assembly any time it is removed and sent to an I-level or D-level activity for inspection or maintenance.

f. Upon transfer of the component, kit, or assembly, the record must be sent to the new custodian. Update the OOMA ALS and custody section to electronically transfer the record to the receiving command.

8.5.15.5.3 Fields

Block A1 - TYPE ASSEMBLY. Identifies the complete assembly, for example, LPU-23.

Block A2 - SERIAL NUMBER. Serial number of assembly.

Block A3 - PART NUMBER. Part number of complete assembly.

Block A4 - FSCM. CAGE code for manufacturer of assembly.

Block A5 - CONT #. Contract number of basic assembly.

SERVICE LIFE ITEMS (within equipment)

Block B1 - NOMENCLATURE. Nomenclature of service life or controlled item.

Block B2 - PART #. Part number of service life or controlled item.

Block B3 - CONT #/LOT #. Contract number/lot number of service life or controlled items. Always use lot numbers for explosive devices.

Block B4 - DODIC. DODIC or NALC of installed explosive device.

Block B5 - SER #. Serial number of installed item (if applicable) or NA.

Block B6 - QTY. Quantity of item.

Block B7 - MFG DATE. Enter the year, month and the last day of the month (YYMMDD) the item was manufactured.

Block B8 - INSTL. Enter the year, month and the day of the month (YYMMDD) the item was installed or placed in service.

Block B9 - EXP DATE. Enter the year, month and the last day of the month (YYMMDD) the installed item service life will expire.

TECHNICAL DIRECTIVES

NOTES: 1. An accurate TD Compliance Record must be maintained at all times. B coded (active) TDs from NAT04 must be documented and not deleted from the record until removed from NAT04 or until the item to which the TD was incorporated has been removed or replaced. Failure to maintain an accurate listing of active TDs invalidates the entire record.

2. Entries are not required for Aircrew System Change and Aircrew System Bulletin amendments that are administrative in nature and do not require additional work.

Block C1 - TYP. Type TD code, for example, 66 or 67.

Block C2 - NO. Basic number of TD.

Block C3 - REV. Revision letter of TD.

Block C4 - AM. Amendment number of TD.

Block C5 - QA. QAR or CDQAR stamp number or initials of individual inspecting TD compliance.

Block C6 - ORG. Organization code of activity completing TD compliance.

Block C7 - DATE. TD compliance date (YYMMDD).

Block C8 - STAT. Status of TD.

LOCAL USE. This space is provided for documenting any other data that is required but not provided for in other blocks, for example, local inspection requirements and conditional inspections not requiring repack.

CURRENT INSPECTION DATA AND SIGNATURES

Block D1 - PACKED (NAME). Rate, first initial and the last name of individual who packed the equipment. The packer must sign the printed record.

Block D2 - INSPECTED (NAME & QA STAMP #). Rate, first initial, last name and QA stamp number of the individual who inspected equipment during repack. The inspector must sign and stamp the printed record.

Block D3 - TEST CYCLE. If applicable, enter the cycle of the inspection that was completed (F, 1, 2, or 3).

Block D4 - ORG CODE. Organization code of activity performing the inspection.

Block D5 - RFI DATE. Date equipment completed inspection and repack (YYMMDD).

Block D6 - RFI SHF CYC. Maximum period of time an item may remain on shelf before inspection cycle begins.

Block D7 - LATEST RFI. Latest date item may be issued from RFI pool and still have a complete inspection cycle remaining. RFI Date + RFI shelf cycle = latest RFI issue date (YYMMDD).

Block D8 - CUSTODIAN ORG CODE. Organization code of activity to which equipment is issued.

Block D9 - DATE ISSUED. Date equipment was issued (YYMMDD).

Block D10 - INSP CYCL. Inspection cycle specified by applicable aircraft PMIC and NAVAIR 13-1-6-2.

Block D11 - SCHD RMVL DATE. Date issued + inspection cycle = scheduled removal date (YYMMDD).

NOTE: NAVAIR 13-1-6 series manuals contain additional documentation information for this record.

8.5.15.6 Aircrew Personal Equipment Record (OPNAV 4790/159)

8.5.15.6.1 Purpose The Aircrew Personal Equipment Record (Figure 8-21) provides a record of the configuration of personal ALSS issued to individual aircrew that require O-level inspection, only.

NOTE: Aircrew personal equipment that requires inspection at the I-level must have a separate Aircrew Systems Record (OPNAV 4790/138), paragraph 8.5.15.5.

8.5.15.6.2 Initiation and Maintenance

a. The Aircrew Personal Equipment Record (OPNAV 4790/159) must be initiated by the custodian O-level activity upon initial issue of personal equipment to the aviator or aircrewman. On acceptance of an aviator or aircrewman, ensure electronic receipt of the Aircrew Personal Equipment Record in OOMA is accurate and complete. Update the custody section of OOMA to electronically transfer an aviator or aircrewman when they transfer to another command. If aircrew report with previously-issued personal equipment and associated Aircrew Personal Equipment Record, all data on the old record will be verified for accuracy and transcribed to a new record. Only the most current record is required to be kept on file, the old record may be destroyed.

b. The MO will designate where the Aircrew Personal Equipment Records and related files will be maintained.

c. Record Retention. Each aircrewman must have a separate file containing the Aircrew Personal Equipment Record (OPNAV 4790/159) and separate Aircrew Systems Records (OPNAV 4790/138) as needed. The aircrew flight equipment file will be constructed of a 9 x 12 folder with the Aircrew Personal Equipment Record (OPNAV 4790/159) firmly attached on the right side of the folder and all applicable Aircrew System Records (OPNAV 4790/138) placed on the left.

NOTE: If not operating NALCOMIS OOMA, all maintenance actions performed on aircrew personal equipment will be documented on a Visual Information Display

System Maintenance Action Form (VIDS/MAF) (OPNAV 4790/60) per Chapter 15. After normal processing of the completed VIDS/MAF, Copy 3 will be placed in the aircrewman's flight equipment file beneath the Aircrew Personnel Equipment Record (OPNAV 4790/159) until Copy 1 is received from the data services facility. Copy 3 can then be discarded. Copy 1 will be placed beneath the Aircrew Personal Equipment Record (OPNAV 4790/159) and retained for a minimum of 6 months or one complete inspection cycle, whichever is greater.

8.5.15.6.3 Fields

Block A1 - NAME. First initial and last name of the aircrew person.

Block A2 - RANK/RATE. Rank or rate.

Block A3 - FLT BILLET. Position aircrew normally fills; for example: pilot, aircrew, or SAR crew.

Block A4 - ORG. Organization code to which aircrew is permanently attached.

Block A5 - BU/SERNO. Serial number of aircrew (first and last initials of name and last four digits of the DOD ID Number).

RFI DATE. Date assembly completed inspection and repack (YYMMDD).

INSP CYC. Inspection cycle specified by.

DUE DATE. Date next scheduled periodic maintenance is due (YYMMDD).

AIRCREW EQUIPMENT LOG. The Aircrew Equipment Log will list all equipment issued to aircrew, such as torso harness, G-suit, survival vest, helmet, strobe light, SRU-31/P and compass. As an item is removed from service, it will be deleted from the record by drawing a single red line through all information pertaining to that item. Information pertaining to the removed items replacement will be annotated in the next available line below.

Block B1 - NOMENCLATURE. Nomenclature of equipment.

Block B2 - EQUIP. TYPE. Model number or part number of equipment. If model number is not available, use part number.

Block B3 - CONT #/LOT #. Contract number or lot number of equipment.

Block B4 - DODIC. DODIC or NALC number of CAD, cartridge, or flare.

Block B5 - SER #. Serial number of equipment (if available).

Block B6 - QTY. Quantity of equipment.

Block B7 - CYC. Inspection cycle of equipment.

Block B8 - MFG. Date of manufacture of equipment (YYMMDD).

Block B9 - INSTL. Date equipment was placed in service, issued, or installed (YYMMDD).

Block B10 - EXP DATE. Expiration date of item (YYMMDD).

TECHNICAL DIRECTIVES

NOTES: 1. It is important to retain an accurate TD Compliance Record. B coded (active) TDs from NAT04 must be documented and not deleted from the record until removed from NAT04 or until the item to which the TD was incorporated has been removed or replaced. Failure to maintain an accurate listing of active TDs invalidates the entire record.

2. Entries are not required for Aircrew System Change and Aircrew System Bulletin amendments that are administrative in nature and do not require additional work.

Block C1 - EQUIPMENT TYPE. Type equipment of item that the TD was performed on, for example, MA-2 and HGU-34/P.

Block C2 - SER #. Serial number of item.

Block C3 - TYP. Type TD code, for example, 66 or 67.

Block C4 - NO. Basic number of TD.

Block C5 - REV. Revision letter of TD.

Block C6 - AM. Amendment number of TD.

Block C7 - QA. QAR or CDQAR number or initials of individual inspecting TD compliance.

Block C8 - ORG. Organization code of activity completing TD.

Block C9 - DATE. TD compliance date (YYMMDD).

Block C10 - STAT. Status of TD.

8.5.16 Naval Aircraft Flight Record (OPNAV 3710/4)

8.5.16.1 Purpose. The Naval Aircraft Flight Record (NAVFLIR) (OPNAV 3710/4) provides a standardized DON flight activity data collection system. Procedures for filling out the form are outlined in CNAF M-3710.7.

8.5.16.2 Procedures. Navy and Marine Corps activity Maintenance Control will process completed NAVFLIRs as follows:

a. Navy Procedures. A NAVFLIR is required for each attempt at flight. The aircraft or mission commander's signature certifies completeness and accuracy of the form. Maintenance Control screens the NAVFLIR and transcribes applicable data into aircraft logbooks. Operations Department personnel will screen it and transcribe information into aviator logbooks. Ensuring the validity of NAVFLIR data requires complete coordination between the analyst, Maintenance Control, and the Operations Department.

b. Marine Corps Procedures. A NAVFLIR is required for each attempt at flight. The aircraft or mission commander submits NAVFLIR flight data into M-SHARP and ensures the transmission into OOMA is completed. The NAVFLIR is screened by Operations Department

personnel, who will transcribe information into aviator logbooks. MDS will perform the data save in OOMA NALCOMIS. Ensuring the validity of NAVFLIRS data requires complete coordination between the analyst, Maintenance Control, and the Operations Department.

8.5.17 Support Equipment History Record (OPNAV 4790/51)

8.5.17.1 Purpose. The Support Equipment History Record (Figure 8-22) documents specific maintenance history of aviation support equipment and associated equipment.

8.5.17.2 Fields:

NOTES: 1. Corrections will be made by drawing a single line through each erroneous entry and initialing next to the deleted line. The correct entry will be entered on the next available line. Corrective tape or fluid is not authorized.

2. Personnel signing entries or initialing corrections on 4790/51 records do not require logs and records signature authority.

EQUIPMENT IDENTIFICATION

Block 1. NOMENCLATURE: Name listed on the equipment's technical manual, for example, Mobile Electric Power Plant.

Block 2. MODEL/TYPE: Model/type of equipment, such as A/S32A-45.

Block 3. SERIAL NUMBER: Serial number of the equipment. If the record is for multiple items being managed as a lot (10.17.3.4.b), enter the word "LOT" and highlight it in yellow, followed by the serial number of the first item. Enter the remaining serial numbers in Column B (Remarks) of Section VI (Miscellaneous History). Serial numbers in Column B may be annotated in pencil to enable changes to the lot.

Block 4. MANUFACTURER: Manufacturer's code or name.

SECTION I - CUSTODY AND TRANSFER RECORD

Block A. DATE TRANSFERRED: YYMMDD equipment was transferred.

Block B. FROM: UIC and name of the transferring activity, for example, 22178/USS RONALD REAGAN.

Block C. TO: UIC and name of receiving activity.

Block D. AUTHORITY: List the reference directing the transfer. For example, the Transaction Report Authorization Number and DTG of the naval message directing transfer.

Block E. REMARKS: Clarifying comments by transferring or receiving activity. For example, "RFI" or "Missing cable P/N 123-4."

Block F. DATE RECEIVED: YYMMDD and signature of person making logbook/record entries.

SECTION II - RECORD OF REWORK (This section will be filled out by the rework activity, only.)

Block A. DATE INDUCTED: Enter date (YYMMDD) equipment was inducted into rework.

Block B. DATE COMPLETED: Enter date (YYMMDD) rework was completed.

Block C. DESCRIPTION OF WORK: Description of rework performed, such as "Complete rework" or "Inspect and Repair."

Block D. AUTHORIZATION: The reference authorizing the work, such as message DTG.

Block E. ACTIVITY: Rework activity that performed the work.

Block F. SIGNATURE: Signature of person making entries.

SECTION III - PRESERVATION/DE-PRESERVATION

Block A. DATE PRESV: YYMMDD equipment was preserved.

Block B. RE-PRESV DUE DATE: Pencil entries for due date of next preservation integrity check or re-preservation.

Block C. TYPE: Preservation category or level.

Block D. DATE DE-PRESV: YYMMDD equipment was depreserved.

Block E. DIRECTIVE COMPLIED WITH: Reference for preservation/depreservation action.

Block F. REASON FOR INACTIVE STATUS: Examples: "Awaiting parts" or "Infrequent use."

Block G. ACTIVITY: Three-position organization code of activity performing the action, for example, AT6.

Block H. SIGNATURE: Signature of person that made the record entries.

SECTION IV - TECHNICAL DIRECTIVES

Block A. TECHNICAL DIRECTIVE IDENTIFICATION.

Block (1) CODE: TD Code.

Block (2) BASIC: TD basic number.

Block (3) INT: If interim TD, enter "I." Otherwise, leave blank.

Block (4) REV: Revision letter (if applicable).

Block (5) AM: Amendment number (if applicable).

Block (6) PT: TD part number, for example, part 01, 02 (if applicable).

Block (7) KIT: Kit number. Enter 00 if no kit is required.

Block (8) PRI: Enter "I" for Immediate, "U" for Urgent, "R" for Routine, or "K" for Previously Incorporated (record purpose only).

Block B STATUS: Status of the TD. Authorized entries:

INC - Indicates TD has been completely incorporated.

PINC - Indicated TD has been previously incorporated.

NINC - This is a temporary entry made in pencil to indicate TDs that have been issued, but not incorporated and TDs that are only partially incorporated.

NA - TDs that do not apply to the particular T/M/S, serial number or part number.

NIS - This entry accounts for TDs that have not been issued. Only basic number and status code entries are required, no signature is required. Entries are made in numeric sequence and are normally made in pencil.

CANX - Enter the reference that cancelled the TD in Block C. TITLE/REMARKS section. No title is required.

NOTE: When an incorporated TD is canceled, the status code remains INC.

Q (TD Removal) - Used when an incorporated TD is removed. Do not make a separate entry to document removal of the TD. Draw a line through INC in the entry documenting incorporation and insert Q in the same block. Log the authority for removal in SECTION VI - MISCELLANEOUS HISTORY. If the TD is again incorporated, a new entry is required. The original entry with status code Q will remain.

Block C. TITLE/REMARKS: Enter the title and a brief description of the TD.

Block D. COMPLIANCE

Block (1) BY (Activity): Three-position organization code of activity incorporating TD, for example, AT6.

Block (2) DATE: The TD completion date (YYMMDD).

Block E. SIGNATURE: Signature of person that made the entries.

SECTION V - NDI and PROOFLOAD RECORD. This section records inspections involving NDI and proof load testing, only.

NOTE: A photocopy or picture of the proofload tag will be kept on file in the SE record.

Block A. TYPE INSPECTION: Type inspection performed, for example, “NDI” or “Proof Load Test.”

Block B. DATE COMPLETED: Date (YYMMDD) the maintenance action was completed.

Block C. NEXT DUE: Date (YYMMDD) the next like NDI or proof load test is due.

Block D. ACTIVITY: The activity that performed the NDI or proof load test.

Block E. SIGNATURE: Signature of person that made the entry.

SECTION VI - MISCELLANEOUS HISTORY RECORD. This section records significant information provided in no other space. Examples of entries include: TD verifications; start or hour meter change; modification of scheduled PM inspection base date; replacement of major

components; hydraulic contamination; hydrostatic test dates for nitrogen bottles; forced removal date for hoses or other components; and exposure to large quantities of salt water, fire extinguishing agents, or other corrosive agents.

Block A. DATE. Date (YYMMDD) the entry is made.

Block B. REMARKS. A short narrative of the history being recorded and short activity title name. Examples: "Verified TDRS NAT02 dated (YYMMDD), VFA-192." For equipment that includes cylinders, include the following statement, "Hydrostatic inspection performed. Date (YYMMDD). Serno 123456."

NOTE: If the record covers multiple items being managed as a lot, list the serial number of the first item in Block 3 and the remaining serial numbers in Column B of Section VI. Comments may be annotated in pencil to facilitate changes in serial numbers. If any item in the lot does not receive a documented action in Section IV or V of the OPNAV 4790/51 record, annotate (in pencil) the reason for non-compliance next to the items serial number. When the action is completed, erase reason for non-compliance and record item serial number in remarks column of Section IV or V (as applicable).

Block C. SIGNATURE: Signature of person that made the entry.

8.5.17.3 Consolidation. SE Custody and Maintenance History Records (OPNAV 4790/51) may be consolidated at any maintenance level when no space is available for further entries within any one section. All sections will be closed out on the old form by drawing a single diagonal line across the entire card. The word “Consolidated” and the signature of the person that consolidated the card will be entered on the diagonal line. Data will be transcribed to the new form using the following procedures:

EQUIPMENT IDENTIFICATION. Same as old record.

SECTION I - CUSTODY AND TRANSFER RECORD. Transcribe all information from the last entry on the old record. Instead of signing Block F, insert the word “CONSOLIDATED.”

SECTION II - RECORD OF REWORK. Transcribe all information from the last rework entry on the old record. Instead of signing Block F, insert the word “CONSOLIDATED.”

SECTION III - PRESERVATION/DE-PRESERVATION. If the item is NOT in preservation, no information will be transcribed. If the item is in preservation, transcribe all information from the last preservation entry. Instead of signing Block H, insert the word “CONSOLIDATED.”

SECTION IV - TECHNICAL DIRECTIVES

Block A(1). CODE. Transcribe.

Block B. STATUS. Transcribe.

Block C. TITLE/REMARKS. Transcribe.

Block D. COMPLIANCE. Enter the ORG code of the activity consolidating the SE Record and the date (YYMMDD) the record was consolidated.

Block E. SIGNATURE. Enter the word "CONSOLIDATED."

NOTE: A blanket statement that reads "All TDs up to a specific TD have been incorporated" is not authorized. Enter the basic numbers and associated revisions, amendments and parts associated with each Technical Directive Code (TDC) and status, i.e. PINC, NA etc. Applicable TDs that have not been incorporated or have been removed must have separate line entries. TDs incorporated, but not documented, on the original OPNAV 4790/51 must have a separate line entry on the consolidated form.

SECTION V - NDI and PROOFLOAD RECORD. Transcribe all information from the last entry for each type of NDI or proof load testing on the old record. Instead of signing Block E, insert the word "CONSOLIDATED."

SECTION VI - MISCELLANEOUS HISTORY RECORD. Transcribe Block A and B information for the last entry of each like event, for example, last hydrostatic test date with serial numbers, or last NAT02 verification. All entries will contain the original activity short title followed by the word "CONSOLIDATED." After consolidating all entries, insert a new entry in the MISCELLANEOUS HISTORY RECORD with the date (YYMMDD) the consolidation was completed in Block A. In Block B, enter the statement "CONSOLIDATED. All entries are certified to be correct." In Block C, enter the signature of the person that consolidated the record.

8.5.18 Mobile Facility Logbook and Inventory Record

8.5.18.1 Purpose. The Mobile Facility Logbook and Inventory Record (MF LIR) records configuration and maintenance history for aviation MFs and major related equipment. When implemented, the Electronic Logbook and Inventory Record (ELIR) is authorized in lieu of the hardcopy MF LIR.

NOTE: At minimum, records will be maintained for each Mobile Facility (MF), Environment Control Unit (ECU) and Power Distribution Box (PDB).

8.5.18.2 MF LIR Part I consists of the following forms and records, in the sequence listed:

a. Mobile Facility Logbook and Inventory Record - Table of Contents (OPNAV 4790/61) (Figure 8-23). Lists required forms and separators contained in the LIR.

b. Mobile Facility Logbook and Inventory Record - General Instructions (OPNAV 4790/62) (Figure 8-24). Provides instructions concerning the origination, custody, maintenance and disposition of the LIR.

c. Mobile Facility Major Related Equipment Records - Table of Contents (OPNAV 4790/63) (Figure 8-25). The Table of Contents provides instructions on LIR forms and documentation.

d. SE Custody and Maintenance History Record (OPNAV 4790/51) (Figure 8-22) . An SE Custody and Maintenance History Record must be maintained on each MF shell, running gear, air conditioner, Complexing/Decomplexing Tool (CDT), load bank, static mobile frequency converter and tactical quiet generator per the procedures of 8.5.17.

8.5.18.3 MF LIR Part II consists of the following forms and records, in the sequence listed:

a. Mobile Facility Logbook and Inventory Record - Table of Contents (OPNAV 4790/73) (Figure 8-26). This separator is maintained as a permanent part of the record and provides a list of separators and forms used in Part II of the LIR.

b. Mobile Facility Logbook and Inventory Record - Equipment List Part II Instructions (OPNAV 4790/73A) (Figure 8-27). Outlines inventory responsibilities and details how to address MF inventory shortages.

c. Inventory Equipment List Separator (OPNAV 4790/74) (Figure 8-28).

d. Inventory Record - Equipment List (OPNAV 4790/74A) (Figure 8-29). Provides an inventory record of equipment installed or in use and a list of inventory reports.

e. Inventory Record of Shortages Separator (OPNAV 4790/75) (Figure 8-30).

f. Inventory Record of Shortages Form (OPNAV 4790/75A) (Figure 8-31). This form provides a record of shortages authorized by the appropriate ACC or TYCOM/MARFOR prior to transfer or receipt.

NOTES: 1. Full identification data and SERNO are inserted on each page of the LIR to ensure the forms are not lost when the record is removed from the logbook.

2. All forms except the OPNAV 4790/51, OPNAV 4790/74A, OPNAV 4790/75A must be maintained as a permanent part of the record.

8.5.18.4 Initiation. The LIR is initiated when a MF is internally configured by the industrial activity. The LIR must accompany the MF at all times, and will be maintained by the activity having physical custody.

8.5.18.5 MF Auto Log Set (ALS) will be maintained per the procedures of 8.6.

8.6 Configuration Management Auto Log-set (CM ALS) Records

8.6.1 Introduction

Configuration Management Auto Logs-sets (CM ALS) are electronic records generated within NTCSS Optimized Organizational Maintenance Activity (OOMA).

8.6.1.1 Purpose

CM ALS provide a detailed history of completed inspection, maintenance, repair, rework, configuration, miscellaneous history, and usage of aircraft, engines, engine modules, and certain equipment.

NOTE: Paper OPNAV records must continue to be maintained for all records listed in paragraph 8.5, with the following exceptions:

Structural Life Limits (OPNAV 4790/142)

Monthly Flight Summary (CNAF 4790/21A)

Inspection Record (CNAF 4790/22A)

Repair/Rework Record (CNAF 4790/23A)

Technical Directives (OPNAV 4790/24A)

Miscellaneous History (CNAF 4790/25A)

Preservation/Depreservation Record (CNAF 4790/136A)

Equipment Operating Record (CNAF 4790/31A)

8.6.1.2 Contents

Each CM ALS must have the following:

a. Inventory list and details indicating aircraft, equipment, or component status.

b. Active and historical maintenance task list of special, phase, and conditional inspections; TDs; and scheduled removals.

c. Usage records and current usage for all parameters assigned.

NOTE: Data for which there is not a designated place in the CM ALS will be maintained in a general file for paper records, for example, FCF and engine test cell run sheets.

8.6.1.3 CM Management Module

The CM Management Module is a general-purpose life usage and serialized configuration tracking system for multiple weapon system types. The CM Module's baseline data is modifiable only by the baseline data owner. CM tracks usage parameters and TD compliance, schedules WOs, and provides the capability to have an owner that may be different than the user of an item. CM supports general classes of inventory using Assy Cd, WUC, and specific classes of inventory using CAGE, P/N, NIIN, and cost. CM is updated using the maintenance and flight module (MU, HUMS, SMART cards, etc.) (O-level only) in OOMA. Chapter 13 provides additional information on the following CM ALS Module features and functions:

a. WAN Explorer displays site database servers of Navy and Marine Corps sites. These sites are separated into two groups: East Coast and West Coast. TYCOM activities (AIMDs, squadrons, etc.) are tied together geographically.

b. Group Explorer is used to receive and transfer aircraft and equipment. It is divided into two areas: The left side consists of the Inbox, Outbox, Sent (Items) and the organization (Primary) and its detachments. The right side consists of tabs or data pages displaying information for the selected organization or group in the tree view.

c. Inventory Explorer provides the top to bottom breakdown of the aircraft, equipment and components. The Inventory Explorer has the following tabs:

(1) Inventory. Inventory Details indicate if an aircraft, equipment, or component is RFI, non-RFI, or BCM by showing a red icon for non-RFI and BCM or green icon for RFI. Inventory Subcomponents list all classes and subclasses of equipment and components details for a T/M/S.

(2) Task. Enables the user to establish, view, or modify the identity, definition and status of a selected task. This box has icons that allow the user to Create Tasks, View Task Properties, Determine Next Task Status, Suspend Task, Cancel Task, and Deconfigure Task (for completed TD tasks).

(3) Task Plans. Enables the user to enter changes to the Deadline Date and Scheduled Expenditure fields of a selected task plan. The top box has icons that allow the user to Create Task Plans, View Task Plan Properties, Cancel Task Plan, Activate Suspended Task Plan, Suspend Task Plan Step, and Complete Task Plan Step. The lower box has icons that allow the user to View Task Properties, Next Task Status, Defer Task, Suspend Task, and Cancel Task for a specific task.

(4) Usage Records. The Usage Records box provides the user a display list of usage records; for example: properties, delete and current usage.

d. Engine Configuration Baseline. Engine configuration baseline requirements are entered into OIMA as part of the engine induction process. The engine configuration baseline is populated in CM ALS when electronic records are transferred between OOMA sites. Both OOMA Engine CM and OIMA Engine CM must be maintained.

e. OOMA Flight Module. Applicable records and usage data are automatically updated upon saving a NAVFLIR flight document.

f. CM Module Right Click Functionality:

(1) Configuration Update Worksheet allows the user to update the P/N, SERNO and usage of inventory items.

(2) Logset Explorer displays historical information of an activity's aircraft and equipment.

(3) Relocate enables the user to relocate aircraft, assemblies, and components to an organization or detachment into the Outbox for transfer to another activity.

(4) Create Inventory allows the user to create aircraft and equipment inventory.

(5) Create Component allows the user to create a component to add a serialized component in the database for processing through a repair cycle.

(6) Delete Inventory allows the user to delete aircraft, equipment, and component inventories.

(7) Inventory Properties allows the user to view properties of inventory.

(8) Send Item to Button Laser allows the user to transfer historical information to a laser button attached to a component.

(9) Search Inventory allows the user to search for CAGE and P/N inventory items.

g. Drag and Drop. The drag and drop option allows removal and installation actions for assemblies and components. The following procedures must be complied with to ensure proper documentation is completed:

(1) I-level and D-level activities must use the drag and drop option as the primary means for updating assembly inventory trees on assemblies inducted for repair or rework such as engines and APUs. IMAs will ensure that a valid MAF documenting the removal/installation of components on an assembly has been completed within the NALCOMIS Optimized Intermediate Maintenance Activity (OIMA) system.

(2) O-level activities will only use Drag and Drop when a WO cannot be used, for example, administrative corrections for erroneously installed ALS by another command. Whenever Drag and Drop is utilized in place of a WO at the O-level, an entry must be made in the notes section of the ALS by personnel designated to sign logs and records.

NOTE: AMCM squadrons are authorized to use the drag and drop option to build AMCM weapons systems sets for initial configuration of uninstalled AMCM weapons systems. Installation of AMCM weapons systems on the aircraft will be documented on a WO per Chapter 15 procedures.

8.6.2 CM ALS Management

8.6.2.1 General Management

a. CM ALS will be the primary source of aircraft, engine, engine modules, equipment and component records for activities using OOMA or OIMA. Activities must maintain and update the CM ALS records of all naval aircraft, engines and equipment in their physical custody.

b. CM ALS will be maintained by Maintenance Control (O-level), Production Control (I-level) or Maintenance Administration Work Center (Marine Corps). O-level MMCOs or AAMO (Marine Corps) and I-level Production Control Officers are responsible for ensuring CM ALS is being properly documented. For contract maintenance, the on-site contract support liaison officer will ensure verification of CM ALS records per the User Logistic Support Summary (ULSS) and the Contract Data Requirements List (DD 1423).

c. When MIS abnormalities occur task forced completion will be used, but must be kept to a minimum. At no point will a task be forced completed if the task cannot be verified with a physical copy of the WO/MAF or a review of DECKPLATE. If a task is force completed, the following information must be entered into the notes section of the task:

(1) Date completed and JCN

(2) MCN (include if using WO/MAF)

(3) Organization that completed the maintenance or inspection

(4) Names of worker and CDI (stamp number if applicable) who performed the maintenance or inspection (if using WO/MAF)

(5) Reason for the force completion

d. For Technical Directive abnormalities in MIS, task force completion will be used to complete the task. With the verification of a Technical Directives Reporting System (TDRS) REP07 report or WO/MAF, the following information must be entered in the note section of the task:

(1) Date completed

(3) ORG of command that complied with the TD

(2) JCN of the WO/MAF

(4) Reason for force completion

NOTE: For standardization, all task force completions will only be completed by individuals who have completed Configuration Management courses per 8.2.5.

8.6.2.2 CM ALS Administrator

The CM ALS Administrator is the primary manager of CM ALS. The CM ALS Administrator must have an in-depth working knowledge of CM ALS procedures and baseline management. The CM ALS Administrator will be assigned to Maintenance Control, Production Control, or Maintenance Administration (Marine Corps). Commercial activities and Depot FRCs will assign the CM ALS Administrator as deemed most efficient to their operations. In addition to the basic logbook and record responsibilities of 8.2.5, CM ALS Administrators are responsible for the following CM ALS actions:

a. Perform CM ALS transfers and receipts per 8.6.3.4.

b. Ensure all engine CM ALS is accurate in the Engine Configuration Baseline.

c. Conduct verifications per 8.3.3 and resolve any discrepancies.

d. Monitor service life accumulations and keep Maintenance Control/Production Control informed of high time items using the CM Maintenance Near Due Removal/Component Report, CM Component Removal Due Report and CM Percent Life Remaining Report.

e. Submit Baseline Trouble Reports (BTR) per paragraph 10.9.

f. Process approved configuration baseline changes.

g. Screen WOs and MAFs and ensure CM ALS record entries are made.

h. Track warranty components in CM. Warranty information is located in the inventory properties of CM.

i. Screen, close out, and move ALS to the OUTBOX at time of aircraft, engine, equipment, or component transfer.

j. Provide Material Control with the nomenclature, PN, S/N and document number for any ALS transferred or received via external media, such as e-mail or CD.

k. Submit Aircraft Inventory Readiness Reporting System (AIRRS) XRAY reports and Engine Transaction Reports (ETR) per 9.1.4 and 9.1.3.3.

l. Perform administrative actions for aircraft acceptance and transfer per 5.4.

m. Each working day, screen all folders under Inventory Explorer for any non-life-limited or non-repairable item CM ALS that are no longer in the activity's custody and transfer them to the "NON-REPAIRABLE ALS (PENDING DELETIONS)" sub-folder. At least once per week, the

SA/A will screen the "NON-REPAIRABLE ALS (PENDING DELETIONS)" sub-folder and delete unnecessary CM ALS. I-level activities will delete CM ALS for non-life-limited/non-repairable items no longer in their custody.

n. I-level administrators must review the OIMA CM BCM folder and subfolders monthly and remove CM ALS no longer in the activity's custody. Only CM ALS records for life limited and repairable components, identified in the T/M/S PMIC, will be transferred to OMAWHOLE (WHO, PAXRIVER). All other CM ALS will be deleted using the OOMA software inventory delete process.

8.6.2.3 Aviation Life Support System (ALSS) Groups

IMA 800 Divisions will create an ALSS group in OOMA Group Explorer. Procedures:

a. At a minimum, the following groups will be created: ALSS (NRFI) an ALSS (RFI). Subgroups for IMA work centers or individual types of assets may be created based upon the organizational needs of the activity.

b. The ALS for assets inducted into the IMA for maintenance will be filed in the ALSS (NRFI) group. Once RFI, the ALS will be moved to the ALSS (RFI).

c. When an ALSS item is issued, the corresponding ALS will be transferred to the receiving activity OOMA database along with a hardcopy printout of the related Aircrew Equipment Record (AER) and completed OIMA MAF. The issuing IMA will sign and annotate the date issued and next scheduled removal date on the lower right side of the AER.

NOTE: If issuing an ALSS asset to an activity that does not operate OOMA, a subgroup will be created for the activity and the corresponding ALS will be moved to the receiving activity group in the issuing IMA's OOMA database. The ALS will be maintained in the squadron's subgroup until the next inspection comes due as tracked by issue date.

d. Squadrons will obtain an electronic copy of all ALSS ALS in the squadron's custody, including ALSS pool items issued for detachment/deployment. Upon reporting to the detachment/deployment site, the squadron will turn the ALS into the supporting IMA. The receiving IMA will upload the ALS into their database and place it in the appropriate group and subgroup. Upon return to homeport, the squadron will return the ALS for their squadron-owned assets and the ALSS pool assets to the homeport supporting IMA.

NOTES: 1. A print out of the RFI ALSS asset ALS and completed MAF/WO will be maintained with the RFI asset and issued with the gear to the receiving squadron.

2. Refer to the OOMA-SAG or OOMA-UM for procedures to build ALS.

8.6.2.4 D-Level Activity OOMA CM ALS Responsibilities

D-level activities have the following OOMA CM ALS responsibilities for aircraft, engines, engine modules, and equipment in their physical custody:

a. Use the OOMA drag and drop feature to manage assemblies and components within the aircraft/asset inventory tree.

b. Maintain OOMA CM ALS and ensure all life, time, or event limited structures and components are accurately maintained and updated to reflect maintenance performed.

c. Create CM ALS if an aircraft, engine, engine module, component, or assembly has no history of an existing CM ALS. If an aircraft, engine, component, or assembly is received without an OOMA CM ALS, every effort will be made to locate CM ALS by contacting the transferring activity or performing a search of the OMA wholesale server. If the appropriate CM ALS is not available, the D-level activity must create the OOMA CM ALS using paper records. At a minimum, all life-limited items listed in the PMIC must have an OOMA CM ALS created prior to a change in physical custody.

d. If a non-OOMA aircraft in rework is scheduled for post-rework delivery to a non-OOMA squadron, the D-level activity must maintain logbooks in the legacy format in which it was received.

e. If replacement items are received from a squadron, as part of the 7R Process (out of scope of D-level specifications being performed), the squadron is responsible for ensuring the correct CM ALS for the item is transferred to the D-level activity that will perform the installation.

f. Perform configuration verification of all life, time, or event limited structures and components, per the procedures of 8.3.3.

g. Ensure all TDs accomplished on life, time, or event limited structures and components are properly recorded in CM ALS.

h. Perform CM ALS updates, to include serial number and part number for any item which has been altered during a D-level event or maintenance to ensure proper aircraft, engine, engine module, component or assembly configuration is maintained, such as items modified, replaced, swapped or turned in to Supply for repair or replacement. This includes items which are not life-limited but designated as a TCR within OOMA, but which were received, installed on the aircraft, engine, component or assembly, with an associated CM ALS.

i. Upon induction of an aircraft for standard rework, the Depot FRC will:

(1) Perform an aircraft inventory and screen CM ALS for accuracy of entries relating to all life, time, or event limited structures and components, screen all entries related to the rework.

(2) Maintain the CM ALS during rework. All major repairs, inspections and flight and operational data will be recorded.

(3) When the aircraft is transferred, CM ALS will be transferred to the receiving activity and to COMFRC FST HQ Logistics Group OMAWHOLE (WHO, PAXRIVER) per 8.6.3.4.a.3.

j. The Depot flight line is responsible for complying with CM ALS requirements while the aircraft being prepared for post-rework FCF. The Depot flight line will use the AADB and CM ALS in OOMA for items required to be modified, replaced, swapped or turned in to Supply for repair or replacement as a result of FCF.

8.6.3 General Procedures

8.6.3.1 Signatures

a. In addition to the signature authorities specified in 8.2.6, Marine Maintenance Administration personnel (MOS 6046/6049) are authorized to sign CM ALS and records once they have obtained the T/M/S, MALS, CM ALS and records qualifications in ASM and are designated in ASM by one of the personnel listed in 8.2.6. This includes MOS 6046/6049 personnel assigned to MEU Composite Squadrons, joint units, D-level activities, and Weapons and Tactics Instructor screening teams.

b. In OOMA the signature certifying appropriate CM ALS record entries have been made or no entries are required is automatically accomplished via the WO with the exception of Miscellaneous, Repair/Rework, and Exceedance Record entries.

c. For I-level activities with CM ALS, all MAFs completed in OIMA must be screened and all CM ALS entries required in OOMA will have to be manually entered in CM. Refer to the OMA-UG for OIMA updating procedures.

d. For Miscellaneous History, Repair/Rework, and Exceedance record entries, the person making the CM ALS entry will have their name electronically entered in the "Entered By" block.

e. For I-level and D-level activities with CM ALS records, the signature is applied in the CM Inventory Explorer tasks (Create, Task Properties, Next Task Status, Suspend Task and Cancel Task). Refer to the Organizational Maintenance Activity User Guide (OMA-UG) for detailed information.

8.6.3.2 Entries

a. CM ALS entries will only be made by personnel designated by the MO (O and I-level), or under the direct supervision of the individual responsible for CM ALS (D-level).

b. CM ALS entries follow the same general rules as 8.2.7.

c. Corrections to CM ALS records will only be made by personnel with the appropriate Special Maintenance Qualification (SMQ). Procedures:

(1) Corrections to aircraft usage entries will be accomplished in the Flight Document prior to posting into history or manually done in CM task and usage modules.

(2) Corrections to Miscellaneous and Repair/Rework Record entries must be deleted prior to authorized signature being posted. If the authorized signature has been posted, a new corrected entry will be made. An entry will be made stating, "This is a corrected entry" with a reference made to the invalid entry.

(3) Corrections to Serial Numbers (SERNO require justification in the Note section of the inventory properties of CM for that component SERNO. (Example: CM SERNO 0934AB for Mission computer P/N 123456 was changed to 0634AB vice 0934AB. SERNO was verified to be correct and all maintenance usage and maintenance history is applicable to this changed SERNO. HSL-43 Maintenance Officer, LCDR MCFALLS.)

8.6.3.3 CM ALS Back-up

a. (O-Level) CM ALS for each BUNO aircraft and uninstalled Aeronautical Equipment Service Record (AESR) must be backed-up each week with a minimum of the last two weekly

back-ups kept on file. SE CM ALS will be saved annually in conjunction with the NALDA NAT02 verification. All back-ups or saves will be in PDF format on a GFE external media source, for example, on a NAE approved GFE external hard drive, share drive, or share portal. An instructional Power Point can be found at:

https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/ then from the Quick Links > AMAs MESMs > Sample Documents or at CNAF N422C Microsoft Team.

b. (I-Level) CM ALS for each AESR must be backed-up upon RFI. SE CM ALS will be saved annually in conjunction with the NALDA NAT02 verification. All back-ups or saves will be in PDF format on a GFE external media source, for example, approved GFE external hard drive, share drive, or share portal. An instructional Power Point can be found at:

https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/ then from the Quick Links > AMAs MESMs > Sample Documents or at CNAF N422C Microsoft Team.

8.6.3.4 Transfer and Receipt

a. CM ALS will be transferred via the CM Group Explorer at the time an aircraft, engine, equipment or component is physically transferred to another activity, per the following procedures:

(1) O-level will electronically transfer repairable ALS for aircraft, AESR equipment, and components to the receiving activity and will also transfer a CD copy of AESR ALS data with the item. The CD will be stored in the manila envelope for the aircraft logbook or AESR.

(2) I-level activities will electronically transfer CM ALS to the receiving activity.

(3) D-level activities will electronically transfer ALS to OMAWHOLE (WHO, PAXRIVER) prior to returning engines and components to the supply system.

NOTE: 1. OOMA-SAG, Appendix L, provides specific procedures for transferring ALS from one command to another. Contact Naval Information Warfare Center Fleet Support Center Help Desk at DSN 647-6373 / COMM 1-833-637-3669 or by submission of a trouble ticket via: https://nesd-dwp.onbmc.mil/.

2. Classified CM ALS information will be updated and transferred to OMAWHOLE (WHO, PAXRIVER) per applicable security regulations.

(4) ALS for non-life-limited or non-repairable items (including ALSS) will not be transferred to OMAWHOLE (WHO, PAXRIVER). O-level activities must create a sub-folder titled “NON-REPAIRABLE ALS (PENDING DELETIONS).” Refer to 8.6.2.2.m for additional procedures.

(5) When an OOMA activity transfers an aircraft or repairable life-limited item to an activity that does not support CM ALS, the transferring activity must forward the associated CM ALS record to the OMAWHOLE (WHO, PAXRIVER) via e-mail (OMAWHOLE.GM.fct@navy.mil), for storage.

b. CM ALS must be reviewed at the time an aircraft, engine, engine module, equipment, or component is received. Procedures:

(1) All discrepancies will be resolved prior to acceptance FCF (aircraft) or first operation (equipment and components). If information or data is missing, contact the OMAWHOLE office COMFRC FST HQ Logistics Group. If connectivity to OMAWHOLE (WHO, PAXRIVER) is not available, download CM ALS life-limited items via the OOMA item transfer function.

(2) An OOMA activity receiving an aircraft, engine, engine module, equipment, or repairable life-limited items from an activity that did not use OOMA CM ALS is responsible for updating all logbook historical data not previously entered on the CM ALS record. The activity will search OOMA Top Tier component search via the DECKPLATE website (https://deckplate.navair.navy.mil/#/) for existing records. Select the DECKPLATE Reports option and continue to the component search options by selecting Team content > Launch Shared User Reports > RS Functions and Examples > OOMA Top Tier INV Search, and use one of the search options. For CM ALS records located within the OOMA architecture, the receiving activity must contact the previous custodian to have the CM ALS record transferred.

NOTE: To prevent duplicate CM ALS records, new CM ALS records will not be created until contacting COMFRC FST HQ Logistics Group OMAWHOLE per 8.2.10.2.a.

c. Material Control/AMSU/JASU is responsible for the management and upkeep of the IN/OUT boxes in CM via Inventory and Group Explorer. Upon verification of the receipt of ALS PN and S/N in the INBOX, Material Control must relocate the ALS to the Primary folder within CM. Upon verification of ALS located in the OUTBOX against the Material Control register, Material Control will transmit the ALS to the appropriate receipt activity.

NOTES: 1. Material Control is responsible for contacting the transmitting activity if ALS is not received in the INBOX. If unable to obtain the ALS, Material control will contact Logs and Records for assistance.

2. Material Control must notify the IMRL manager when in receipt of ALS for any SE/IMRL item.

8.6.3.5 Purging

Purging CM ALS is defined as removing completed actions/tasks from a CM ALS. Procedures:

a. Only D-level activities and IMAs are authorized to purge or remove CM ALS data.

b. Aircraft and equipment CM ALS may be purged after two years from the completed action/entry date from the last recorded flight. This will permanently remain in the integrated data environment (IDE). The Miscellaneous History Record, Repair/Rework Record and TDs that are NINC, INC, and PINC, will remain for the life of the aircraft. The last complete phase and special inspection cycle will be maintained on the Inspection Record.

c. Component CM ALS records may be purged after two years from the completed action/entry date from the last recorded flight. This will permanently remain in the IDE. The Miscellaneous History Record, Repair/Rework Record and TDs that are NINC, INC and PINC, will remain for the life of the component/assemblies. The last complete phase and special inspection cycle will be maintained on the Inspection Record.

8.6.4 CM ALS Logbook Records

8.6.4.1 Flight Summary Record

The CM ALS Flight Summary Record is equivalent to the Monthly Flight Summary (OPNAV 4790/21A). Entry requirements are the same as directed in 8.5.2. The source for updating this ALS record is the Flight Module or CM Inventory Explorer usage record.

NOTE: Any components with a usage parameter other the flight hours will be entered at the end of each month via manual usage and upon transfer.

8.6.4.2 Inspection Record

The CM ALS Inspection Record is equivalent to the Inspection Record (OPNAV 4790/22A). Entry requirements are the same as directed in 8.5.3. The CM ALS Inspection Record includes the following tabs: Description, Completion Date, AFH/EFH, Activity, Reference, MCN, and the electronic signature of the CDI from the completed WO. Phase inspection, special inspection, and conditional inspection records are maintained on separate tabs. The source for updating the Inspection Record is the Maintenance Module via a WO or CM Inventory Explorer task and the CM Inventory Explorer task plans that are pushed down from the COMNAVAIRSYSCOM baseline.

NOTE: Inspections performed on equipment for which a CM ALS AESR is required are logged in the CM ALS AESR, per 8.6.4.9.

8.6.4.3 Repair/Rework Record

The CM ALS Repair/Rework record is equivalent to the Repair/Rework Record (OPNAV 4790/23A). Entry requirements are the same as directed in 8.5.4.

8.6.4.4 Technical Directives (TD) Record

The CM ALS Technical Directives Record is equivalent to the Technical Directives (OPNAV 4790/24A) Record. The CM ALS TD Record includes columns for TD Code, Number, Interim, Revision, Amendment, Part, Kit Priority, Issue Date, Title/Remarks, Maintenance Level, Man-hours, Target Completion Date, Status, Completion Date, Activity and Signature. Entry requirements are the same as directed in 8.5.5, with the following differences:

a. CM Inventory Explorer tasks provide a detailed listing of TD requirements pushed down from the COMNAVAIRSYSCOM baseline.

b. TD status code NA does not apply within CM ALS. CM ALS TDs are directly linked to applicable BUNO/SERNO and CAGE part/SERNO.

c. For airframe TDs requiring one time or continuing inspections, the initial, or one time inspection, is logged on the CM ALS TD section. When this action has been completed, no further CM ALS entry is required for that TD.

d. TDs requiring continuing inspections are logged on the CM ALS inspection record. Subsequent or continuing inspection requirements are pushed down from COMNAVAIRSYSCOM Baseline Managers as required in the basic TD.

8.6.4.5 Miscellaneous History Record

The CM ALS Miscellaneous History record is equivalent to the Miscellaneous/History (OPNAV 4790/25A). Entry requirements are the same as directed in 8.5.6.

8.6.4.6 Preservation/Depreservation Record

The CM ALS Preservation/Depreservation Record is equivalent to the Preservation/Depreservation Record (OPNAV 4790/136A). Entry requirements are the same as directed in 8.5.7. The record is electronically updated using the WO for O-level, or updated using CM tasks for I-level and D-level. This record includes the following columns: Description, Completion Date, AFH/EFH, Activity, Reference, MCN, and Signature of the CDI from the completed WO.

8.6.4.7 Explosive Record

The CM ALS Explosive Record is equivalent to the Installed Explosive Device Record (OPNAV 4790/26A. Entry requirements are the same as directed in 8.5.8. The CM ALS Explosive Record includes the following tabs: Identification, TD, Inst/Rem, Components, Explosive, and Inspection. All installed explosive devices are recorded and are electronically updated using the WO for O-level, or updated using CM tasks for I-level and D-level. CM ALSs for aircraft/ejection seat installed CADs must be deleted locally upon replacement of the CAD. The squadron/D-level CM ALS administrator must verify that all WOs are completed for replaced CADs prior to deleting the associated CM ALS.

NOTE: Do not transfer expired/replaced aircraft/ejection seat CAD CM ALSs to the local IMA. The IMA is responsible for managing explosive device CM ALSs installed in equipment inducted to the IMA for repair or inspection (such as parachutes and seat pans).

8.6.4.8 Component Record

The CM ALS Component Record is equivalent to the Inventory Record (OPNAV 4790/27A). Entry requirements are the same as directed in 8.5.9. The CM ALS Component Record lists all life-limited items installed on aircraft/equipment and includes the following columns: Nomenclature, CAGE, P/N, SERNO, Installation Date, WUC, and POS.

8.6.4.9 CM ALS Aeronautical Equipment Service Record (AESR)

The CM ALS AESR is equivalent to the Aeronautical Equipment Service Record (OPNAV 4790/29) described in paragraph 8.4. The CM ALS AESR is contained in the Identification record in the Logset Explorer, and includes the following tabs: Identification Data, TD, Components, Miscellaneous History, Repair/Rework, Preservation, Inspection, and Equipment Operating Record. Maintenance procedures:

a. The AESR has been replaced by the Identification record in the Logset Explorer. The Identification records are treated as equipment inventory and are viewed or updated by using the CM Inventory Explorer and updated in the Maintenance module using a WO to remove and replace the equipment.

b. The CM ALS AESR is maintained similarly to the aircraft CM ALS and accompanies the equipment at all times. When equipment is installed as part of the

aircraft, this record is maintained concurrently with and becomes part of the aircraft CM ALS. Details on records that are used in both the CM ALS AESR and the aircraft CM ALS are covered under the aircraft CM ALS section. The following records apply:

Inspection Record

Repair/Rework Record

Technical Directives Record

Miscellaneous History Record

Preservation/Depreservation Record

Explosive Devices Record (as applicable)

Component Record

c. Data for which there is not a designated place in the CM ALS AESR will be maintained in a general file for paper records, for example, engine set-up and engine test cell run sheets.

d. If a CM ALS AESR record is missing or required, contact COMFRC FST HQ Logistics Group OMAWHOLE per 8.2.10.2.a for reconstruction of information/data or to have the latest electronic record sent to your activity.

8.6.4.10 Equipment Operating Record (EOR)

The CM ALS Equipment Operating Record is equivalent to the Equipment Operating Record (OPNAV 4790/31A). Entry requirements are the same as directed in 8.5.10. This record includes the following columns: Date, Usage Parameters, Monthly Usage and Accumulative Usage. The source for updating the CM ALS Equipment Operating Record is the Flight document or CM Inventory Explorer usage record.

NOTE: Any components with a usage parameter other the flight hours will be entered at the end of each month via manual usage and upon transfer.

8.6.4.11 Module Service Record (MSR)

The CM ALS Module Service Record is equivalent to the Module Service Record (OPNAV 4790/135). Entry requirements are the same as directed in 8.5.11. The CM ALS Module Service Record includes the following tabs: Identification, TD, Components, Miscellaneous History, Repair/Rework, Exceedance, Preservation, Inspection, EOR, and Installed/Removed. The MSR is treated as engine equipment inventory and viewed or updated by using the CM Inventory Explorer or a WO to remove and replace the module. When the module is installed as part of an aircraft engine, the record is maintained concurrently with, and becomes part of, the aircraft engine CM ALS AESR. The OMA-UG/Online Help provides detailed information of the record and hot link definitions for functionality. Procedures:

a. A CM ALS MSR must be maintained for each module in a modular engine.

b. The CM ALS MSR will accompany the module at all times. If the module is removed from an engine, a paper copy of the MSR will be attached to the module and will accompany the

module to its final destination. The electronic CM ALS MSR record will be transferred to the receiving activity via CM Group Explorer.

c. If a CM ALS AESR record is missing or required, contact COMFRC FST HQ Logistics Group OMAWHOLE per 8.2.10.2.a for reconstruction of information/data.

8.6.4.12 CM ALS Aircrew Equipment Record

CM ALS Aircrew Equipment Record (AER) contains detailed information for aircraft-installed aircrew equipment and components. The CM ALS AER record is equivalent to the Aircrew Systems Record (OPNAV 4790/138) and the Aircrew Personal Equipment Record (OPNAV 4790/159) described in 8.15.5.5 and 8.5.15.6. Entries are the same as specified in the applicable record in 8.5.15.5 or 8.5.15.6. CM ALS AERs include the following tabs: Identification Data, TD, Repair/Rework, ALSS (shelf life and service life), Inspection, Components, Miscellaneous History, INST/REM, and Preservation. Procedures:

a. The CM ALS AER report includes the following three sections: Aircrew Equipment, TDs, and Inspections. All three sections of the report will be inserted in the appropriate aircrew file for personally-mounted equipment or the aircraft logbook for aircraft installed equipment.

b. The activity placing the aircrew equipment in service will initiate the CM ALS.

c. The CM ALS AERs contain detailed information for installed aircrew equipment or components. The reports include the following sections: Aircrew Equipment, TDs, and Inspections. All three reports will be inserted in the appropriate aircrew file for personal mounted equipment or the aircraft logbook for aircraft installed equipment.

d. Upon transfer of the aircrew equipment, the record must be forwarded to the new custodian. The receiving custodian will review the CM ALS to verify it is complete and accurate. All discrepancies in the record must be resolved with the issuing activity prior to acceptance of the aircrew equipment.

NOTE: Where authorized and appropriate, life-limited ALSS consumables will be managed IAW 6.5.8 and can be consolidated by nomenclature and grouped into lots based upon the Contract/Lot Number of the items, for example, if 50 installed bagged waters have two different Contract/Lot Numbers within the entire group, the 50 items can be consolidated into two different ALS vice 50 different ALS. Items grouped together by Contract/Lot Number with different removal dates will have the removal date for the entire lot based upon the item in the lot with the earliest removal due date.

8.6.4.13 Life-limited Component Record

The Life-limited Component Record is used to record maintenance history, installation and usage data for components with a defined operational life-limit for certain specified components. Depending on the component characteristics, the Life-limited Component Record is equivalent to the Scheduled Removal Component Card (OPNAV 4790/28A) (8.5.14), Assembly Service record (OPNAV 4790/106A), (8.5.12), or Modular Service Record (OPNAV 4790/135) (8.5.11). The record includes the following tabs: Identification, TD, Components, Miscellaneous History, Repair/Rework, INST/REM, Exceedance (as required), Inspection, and Preservation. When the

component is removed from the aircraft or equipment, the record accompanies the component. These records are treated as equipment inventory and are viewed or updated using the CM Inventory Explorer or a WO to remove and replace the component. The OMA-UG/Online Help provides detailed information of the record and hot link definitions for functionality.

NOTES: 1. A missing or incorrect Life-limited Component Record causes the item to be unusable. If the OMAWHOLE does not have the electronic record, contact the responsible FST for determination of serviceability. Refer to 8.2.10.2.a and 8.2.10.2.j.

2. For components with Action Taken (AT) Code BCM 9, annotate BCM 9 in the item's Miscellaneous History and transfer the record to OMAWHOLE (WHO, PAXRIVER).

8.6.4.14 Tracked Component Record

The Tracked Component Record (TCR) is used to record maintenance history for repairable components not designated as life-limited. The TCR is equivalent to the Equipment History Record (EHR) Card (OPNAV 4790/113) described in 8.5.13. The TCR includes the following tabs: Identification, TD, Repair/Rework, Preservation, INST/REM and Inspection. The record is maintained as part of the CM Inventory. The OMA-UG/Online Help provides detailed information of the record and hot link definitions for functionality.

NOTES: 1. Loss of a TCR does not render the item unusable. If a TCR is missing or not received, contact the OOMA Electronic Repository located at COMFRC FST HQ Logistics Group for reconstruction information/data or obtain the latest electronic record.

2. When notified that a TCR is no longer required, the Baseline Manager will change the record to untracked or delete the component from the baseline.

8.6.4.15 Untracked Record

The Untracked Record is used for identification of components that are designated in the CM baseline as untracked (UNTRK). The record includes the following tabs: Identification Data and Components.

8.6.5 Contingency Operations

In the event that OOMA or OIMA becomes inoperable, activities will operate under the following procedures:

a. Maintenance will be documented on a VIDS/MAF form (OPNAV 4790/60) or a blank paper copy of an OOMA WO (O-level) or OIMA MAF (I-level) per the applicable Chapter 15 or Chapter 16 procedures.

b. CM ALS for assemblies and parts received during contingency operations will be obtained and added to the Primary folder in CM Inventory Explorer prior to commencing the back fit of electronic A Sheets, WOs and flight documents.

NOTE: Activities receiving CM ALS from the OMAWHOLE are responsible for back fitting all logbook historical data not previously entered into the CM ALS module while the aircraft/asset was in the custody of a non-NTCSS Optimized OMA NALCOMIS activity.

c. Any hard copy logbook or OPNAV record entries made while OOMA or OIMA were unavailable must be back fitted into the applicable CM ALS in chronological order as soon as possible after connectivity is reestablished.

d. Flight or attempted flight hours will be documented on a Flight Naval Aircraft Flight Record (NAVFLIR) (OPNAV 3710/4). NAVFLIR provides a standardized DON flight activity data collection system, which consist of an original and two color-coded copies of no carbon required (NCR) paper. All three copies contain identical information. Procedures for filling out the form are outlined in CNAF M-3710.7. Maintenance control will process completed NAVFLIRS as follows:

(1) The aircraft or mission commander's signature certifies completeness and accuracy of the form. Maintenance Control or MDS screens the NAVFLIR, separates the two color-coded pages, and transcribes applicable data into aircraft logbooks. A copy of the NAVFLIR will be retained by Maintenance Control in the ADB for 10 flights.

(2) The top copy of the NAVFLIR will be sent to the operations duty officer who will screen the NAVFLIR for completeness and accuracy. The operations duty officer will pass it on to the operations department personnel. The form is screened by the operations personnel, who will screen it, and transcribe information into the aviator logbooks.

NOTE: Upon restoration of OOMA NAVFLIRS are required to be transcribed electronically into the OOMA data base.

e. Upon completion of the back fitting process, a verification of the Flight module, the Maintenance module and the ALS CM Inventory Explorer must be performed for the affected aircraft, assemblies, or tracked assets.

f. In the event the system is unrecoverable, perform disaster recovery per the OMA-SAG and contact the Naval Information Warfare Center Fleet Support Center at DSN 647-6373 / COMM 1-833-637-3669 or by submission of a trouble ticket via: https://nesd-dwp.onbmc.mil for a data recovery push.

AERONAUTICAL EQUIPMENT SERVICE RECORD

NOMENCLATURE OF EQUIPMENT		REPLACEMENT	
		Interval	Due
TYPE	MODEL	SER NO. *(Hub if prop)*	

INSTALLED ON --

MODEL	BUNO/SERIAL NO	DATE	BY *(Activity)*

CURRENT ENGINE OR PROPELLER POSITION NO .

DEPARTMENT OF THE NAVY , CHIEF OF NAVAL OPERATIONS

OPNAV4790/29 (1-84)

NOTE : DO NOT ROLL OR BEND . When removed from the log book for separate shipment , this record must be secured with a suitable fastener (e.g., a metal file fastener) at the points indicated . **DO NOT USE STAPLES** .

Figure 8-1: Aeronautical Equipment Service Record (OPNAV 4790/29)

AESR	4790/ 31A	4790/ 22A	4790/ 23A	4790/ 24A	4790/ 25A	4790/ 136A	4790/ 26A	4790/ 27A	4790/ 101	4790/ 137	4790/ 138
Expeditionary Airfield System	M	M	M	M	M	M	*	*	*	*	*
Magnetic Minesweeping Gear	M	M	M	M	M	M	*	*	*	*	*
SE Gas Turbine Engine	M	M	M	M	M	M	*	*	*	*	*
Engine Test Cell	M	M	M	M	M	M	*	*	*	*	*
AN/AWW-13 Control Monitor Set	M	M	M	M	M	*	*	*	*	*	*
UAS Ground Control Systems	M	M	M	M	M	M		M			

NOTE

M - Indicates a mandatory form.
* - Indicates the form is to be used if applicable.

Figure 8-2: Non-Aircraft Equipment AESR Matrix

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

STRUCTURAL LIFE LIMITS	1. TYPE/MODEL/SERIES:	2. BUNO/SERIAL NUMBER:
SECTION I - BASIC LIFE LIMITS		
3. REFERENCE:	4. REFERENCE DATE:	5. PAGE INITIATION DATE:
6. DESCRIPTON:		
7. NOTES:		

SECTION II - SERVICE LIFE LIMITS					
8. FLIGHT HOURS/CALENDAR TIME		9. CATAPULT		10. ARREST/LANDINGS	
a. COMPLIANCE (HOURS/CAL)	b. COMPONENT/AFC	a. COMPLIANCE (CATS)	b. COMPONENT/AFC	a. COMPLIANCE (ARREST LANDINGS)	b. COMPONENT/AFC

OPNAV 4790/142 (Rev May 2016) PERMANENT RECORD

Figure 8-3: Structural Life Limits (OPNAV 4790/142)

PERMANENT RECORD

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MONTHLY FLIGHT SUMMARY	1. TYPE/MODEL/SERIES:	2. BUNO/SERIAL NUMBER:	3. SERVICE PERIOD

PART 1 - SERVICE PERIOD

(NAVAIR FS ACTIVITES)

1. DATE	2. PERIOD NO:	3. OPSERMOS	4. ACTIVITY

PART II - TOUR/PERIOD REVISION/ADJUSTMENT

(OPERATING COMMANDS)

	1. DATE	2. TOUR PERIOD	3. OPSERMOS
INITIAL			
REV./ADJ. 1			
REV./ADJ. 2			
REV./ADJ. 3			
REV./ADJ. 4			
REV./ADJ. 5			
REV./ADJ. 6			
REV./ADJ. 7			
REV./ADJ. 8			
REV./ADJ. 9			
REV./ADJ. 10			

PART III - EXTENSIONS

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

PART IV - MONTHLY DATA

1. DATE	2. REPORTING CUSTODIAN	3. FLYING HOURS			4. LANDINGS					5. MONTHLY TOTALS			5. ACCUMULATED TOTAL		
		A. MO	B. PERIOD	C. SINCE NEW						A. LAND	B. A/R	C. CATS	A. LAND	B. A/R	C. CATS

OPNAV 4790/21A (REV 12/2014)

PERMANENT RECORD

Page of

Figure 8-4: Monthly Flight Summary (OPNAV 4790/21A) (Sample)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

_____ (Periodical or Conditional)

INSPECTION RECORD

1. AIRCRAFT MODEL OR EQUIPMENT NAME:	2. TYPE/MODEL SERIES:	3. BUNO OR SERIAL NUMBER:

4. TYPE OR DESCRIPTION OF INSPECTION:	5. REFERENCE:	6. DATE COMMENCED:	7. DATE COMPLETED:	8. ACTIVITY:	9. Signature

OPNAV 4790/22a (REV 12/2014)

Figure 8-5: Inspection Record (OPNAV 4790/22A)

PERMANENT RECORD

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

REPAIR/REWORK RECORD

1. AIRCRAFT MODEL OR EQUIPMENT NAME:	2. TYPE/MODEL SERIES:	3. BUNO OR SERIAL NUMBER:

4. DATE INDUCTED:	5. DATE COMPLETED:	6. DESCRIPTION OF WORK:	7. REFERENCE:	8. ACTIVITY:	9. Signature

OPNAV 4790/23A (REV 12/2014)

PERMANENT RECORD

Figure 8-6: Repair/Rework Record (OPNAV 4790/23A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M8000.16

TECHNICAL DIRECTIVES											1. TYPE DIRECTIVE		
2. AIRCRAFT MODEL/EQUIPMENT NAME:							3. TYPE/MODEL/SERIES:				4. BUNO OR SERIAL NUMBER:		
5. TECHNICAL DIRECTIVE INDENTIFCATION							6. STATUS	7. TITLE/REMARKS	8. COMPLIANCE		9. SIGNATURE
A. BASIC	B. INT	C. REV	D. AM	E. PT	F. KIT	G. PRI			A. BY (Activity):	B. DATE	

OPNAV 4790/24A (REV 12/2014)

Page 1 of 1

Figure 8-7: Technical Directives (OPNAV 4790/24A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M8000.16

MISCELLANEOUS/HISTORY

1. AIRCRAT MODEL/EQUIPMENT NAME:	2. TYPE/MODEL/SERIES:	3. BUNO OR SERIAL NUMBER:

DATE	REMARKS

OPNAV 4790/25A (REV 02/2015)

Figure 8-8: Miscellaneous/History (OPNAV 4790/25A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16 Volume III

PRESERVATION / DEPRESERVATION RECORD

1. AIRCRAFT MODEL OR EQUIPMENT NAME	2. TYPE / MODEL / SERIES	3. BUNO OR SERIAL NUMBER

4. PRESERVATION				5. REPRESERVE	6. DEPRESERVATION	
a. DATE	b. BY (Activity)	c. TYPE PRESERVATION	d. REFERENCE	a. DATE DUE	a. DATE	b. BY (Activity)

OPNAV 4790/136A (REV 5/2015)

Page 1 of 1

Figure 8-9: Preservation/Depreservation Record (OPNAV 4790/136A)

OPNAVINST 4790.2E

INSTALLED EXPLOSIVE DEVICE RECORD	A1. TYPE AIRCRAFT	A2. BU/SER#	A3. ASSEMBLY PART NUMBER	A4. ASSEMBLY S/N	A5. ORG CODE

SERVICE LIFE ITEMS

B1. DODIC	B2. NOMENCLATURE/LOCATION	B3. PART NUMBER	B4. LOT NUMBER	B5. SERIAL	B6. ORG	B7. MFG DATE	B8. C/O DATE	B9. INSTL DATE	B10. EXPIRE DATE

LOCAL USE

OPNAV 4790/26A (Rev. 10-92)

Figure 8-10: Installed Explosive Device Record (OPNAV 4790/26A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

INVENTORY RECORD

1. AIRCRAFT MODEL/EQUIPMENT NAME:	2. TYPE/MODEL/SERIES:	3. BUNO OR SERIAL NUMBER:

4. NOMENCLATURE	5. PART NO:	6. SERIAL NO:	7. DATE:		8. NOMENCLATURE	9. PART NO:	10. SERIAL No	11. DATE:	
			A. INSTALL:	B. REMOVE:				A. INSTALL:	B. REMOVE:

OPNAV 4790/27A (REV 11/2016)

Figure 8-11: Inventory Record (OPNAV 4790/27A)

EQUIPMENT OPERATING RECORD

Entry required at end of month and upon transfer

1. EQUIPMENT											2. T / M / S	3. SERIAL NUMBER
4. MONTH AND YEAR	5. OPERATING HRS		6. MONITORING SYSTEM DATA (e.g., TSR, STARTS, COUNTS, ROUNDS)								7.	8.
	a. THIS MONTH	b. ACCUM	a.		b.		c.		d.			
			(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM	ACTIVITY	REMARKS

OPNAV 4790/31A (1-15)

PERMANENT RECORD

Figure 8-12: Equipment Operating Record (OPNAV 4790/31A)

OPNAVINST 4790.2(Series)
COMNAVAIRINST 4790.2 (Series)

MODULE SERVICE RECORD	REPLACEMENT COMPONENT/ASSEMBLY	
	MODULE DUE	ENG/PROP SYSTEM DUE

SECTION I - IDENTIFICATION DATA

A. PART NUMBER	B. SERIAL NUMBER	C. TYPE/MODEL/SERIES	D. WORK UNIT CODE	E. CFA

SECTION II - MODULE COMPOSITION

A. NOMENCLATURE	B. P/N	C. S/N	D. DATE		E. NOMENCLATURE	F. P/N	G. S/N	H. DATE	
			INSTALL	REMOVE				INSTALL	REMOVE

SECTION III - INSTALLATION DATA

A. DATE	B. SERIAL NO. INSTALLED ON	C.BY (Activity)	D. TOTAL PROPULSION SYSTEM HOURS OR COUNTS					E. TOTAL MODULE HOURS OR COUNTS				

SECTION IV - REMOVAL DATA

A. DATE	B. TOTAL PROPULSION SYSTEM HOURS OR COUNTS					C. TOTAL MODULE HOURS OR COUNTS					D. REASON FOR REMOVAL & JOB CONTROL NUMBER

OPNAV 4790/135 (REV. 08/2016) PERMANENT RECORD Page 1 of 4

Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 1)

OPNAVINST 4790.2(Series)
COMNAVAIRINST 4790.2 (Series)

SECTION V - TECHNICAL DIRECTIVES

A. TECHNICAL DIRECTIVE IDENTIFICATION								B. STATUS	C. TITLE/REMARKS	D. COMPLIANCE		E. SIGNATURE
(1) CODE	(2) BASIC	(3) INT	(4) REV	(5) AM	(6) PT	(7) KIT	(8) PRI			(1) BY (Activity)	(2) DATE	

OPNAV 4790/135 (REV. 08/2016) PERMANENT RECORD Page 2 of 4

Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 2)

OPNAVINST 4790.2(Series)
COMNAVAIRINST 4790.2 (Series)

SECTION VI - IDENTIFICATION DATA		
A. PART NUMBER	B. SERIAL NUMBER	C. TYPE/MODEL/SERIES

SECTION VII - REPAIR/REWORK/EXCEEDANCE			
A. DATE	B. ACTIVITY	C. DESCRIPTION	D. SIGNATURE

SECTION VIII - INSPECTION RECORD				
A. TYPE AND DESCRIPTION OF INSPECTION	B. REFERENCE	C. DATE COMPLETED	D. ACTIVITY	E. SIGNATURE

SECTION IX - PRESERVATION/DEPRESERVATION						
A. DATE	B. ACTIVITY	C. TYPE	D. REFERENCE	E. REPRESERVE DUE	F. DATE	G. ACTIVITY

OPNAV 4790/135 (REV. 08/2016) PERMANENT RECORD Page 3 of 4

Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 3)

OPNAVINST 4790.2(Series)
COMNAVAIRINST 4790.2 (Series)

SECTION X - MISCELLANEOUS / HISTORY	
A. DATE	B. REMARKS

OPNAV 4790/135 (REV. 08/2016) PERMANENT RECORD Page 4 of 4

Figure 8-13: Module Service Record (OPNAV 4790/135) (Page 4)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

	ASSEMBLY SERVICE RECORD	1. REPLACEMENT DUE	2. REPLACEMENT INTERVAL	3. TIME REMAINING

SECTION I - IDENTIFICATION DATA

A. PART NUMBER	B. SERIAL NUMBER	C. WORK UNIT CODE	D. FST	E. CAGE

SECTION II - COMPONENTS

A. NOMENCLATURE	B. P/N	C. S/N	D. COMPONENT TIME OR COUNTS						E. REPLACEMENT DATA	
			DATE INST					DATE RMVD	INTERVAL	REPLACEMENT DUE

SECTION III - INSTALLATION DATA

A. DATE	B. BUNO/SERIAL NO. INSTALLED ON	C. BY (Activity)	D. TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				E. ASSEMBLY HOURS OR COUNTS			

OPNAV 4790/106A (REV 02/2017)

Page 1 of 2

Figure 8-14: Assembly Service Record (OPNAV 4790/106A) (Front)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

SECTION IV - REMOVAL DATA									
A. DATE	B. TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				C. ASSEMBLY HOURS OR COUNTS				D. REASON FOR REMOVAL AND JOB CONTROL NUMBER

SECTION V - TECHNICAL DIRECTIVES												
A. TECHNICAL DIRECTIVE IDENTIFICATION								B. STATUS	C. TITLE/REMARKS	D. COMPLIANCE		E. SIGNATURE
(1) CODE	(2) BASIC	(3) INT	(4) REV	(5) AM	(6) PT	(7) KIT	(8) PRI			(1) BY (Activity)	(2) DATE	

SECTION VI - REPAIR / REWORK / OVERHAUL / EXCEEDANCES			
A. DATE	B. ACTIVITY	C. DESCRIPTION	D. SIGNATURE

OPNAV 4790/106A (REV 02/2017)

Page 2 of 2

Figure 8-14: Assembly Service Record (OPNAV 4790/106A) (Back)

Sample Periodic Maintenance Information Card Entries

NOMENCLATURE	PART/MODEL NUMBER	DISPOSITION	REMOVAL INTERVAL	JUSTIFICATION/ REMARKS
Servocylinder	X2330-10	Overhaul	1800 hrs	Note 1
Trunnion Assembly	X2450-15	Overhaul	4200 hrs	Note 2
Housing Assembly	X2550-20	Retire	5700 hrs	Note 2

Notes: 1. Assembly Service Record, OPNAV 4790/106A, applies.
2. Subassembly of Assembly Service Record item.

Procedures for Determining Replacement Due and Time Remaining Entries:

1. Screen the Section II, III, IV and VI entries to determine which component has the least amount of operating time remaining.

a. Trunnion assembly is authorized 4200 hours operating time between overhaul and currently has 0 hours operating time since overhaul; therefore, it can be operated for 4200 hours.

b. Housing assembly is authorized a total service life of 5700 hours before it must be retired and currently has 4000 hours time since new accumulated; therefore, it can be operated for 1700 hours.

c. Servocylinder assembly is authorized 1800 hours operating time between overhauls and currently has 0 operating time since overhaul; therefore, it can be operated 1800 hours.

2. In this example, the housing assembly becomes the limiting factor when determining the replacement due time for the assembly. The replacement due for the assembly is based on the 1700 hours of operating time remaining for the housing assembly, which is added to the aircraft time since new at time of assembly installation. 8975 + 1700 = Replacement Due at 10,675.

SERVOCYLINDER ASSEMBLY SERVICE RECORD	REPLACEMENT DUE	REPLACEMENT INTERVAL	TIME REMAINING
	10,675	1800	1700

SECTION II - COMPONENTS

A. NOMENCLATURE	B. P/N	C. S/N	D. COMPONENT TIME OR COUNTS (TSN, TSR, METER, LCF)						E. REPLACEMENT DATA	
			DATE INST	ASSY TSN	COMP TSN	COMP TSO		DATE RMVD	INTVL	DUE
TRUNNION ASSY	X2450-15	A151	970312	C3245	C3850	C0000				
HOUSING ASSY	X2550-20	A256	970312	C3245	C4000	NEW				

SECTION III - INSTALLATION DATA

A. DATE	B. SERIAL NO. INSTALLED ON	C.BY (Activity)	D. TOTAL PROPULSION SYSTEM HOURS OR COUNTS				E. ASSEMBLY HOURS OR COUNTS			
			A/C TSN				ASSY TSN	ASSY TSO		
970330	149725	AN1	A8975				C3245	C0000		

SECTION VI - REPAIR / REWORK / OVERHAUL / EXCEEDANCES

A. DATE	B. ACTIVITY	C. DESCRIPTION	D. SIGNATURE
970312	WCS - H	OVERHAULED IN ACCORDANCE WITH NA 03-15BAK-3	WCS - 19

Figure 8-15: Assembly Service Record Entries (Example)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16 Volume III

EQUIPMENT HISTORY RECORD (EHR) CARD

SECTION I - IDENTIFICATION DATA

A. NOMENCLATURE	B. WORK UNIT CODE	C. FSCM	D. REPLACEMENT INTERVAL	E. MAINTENANCE DUE

F. PART NUMBER	G. SERIAL NUMBER	H. FST	I. REFERENCE

SECTION II - INSTALLATION DATA

A. DATE	B. BUNO / SERNO INSTALLED ON	C. TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				D. TOTAL HOURS OR COUNTS ON ITEM			

SECTION III - REMOVAL DATA

A. DATE	B. TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				C. TOTAL HOURS OR COUNTS ON ITEM				D. REASONS FOR REMOVAL AND JOB CONTROL NUMBER

SECTION IV - MAINTENANCE RECORD

A. DATE	B. ACTIVITY	C. REMARKS AND MAJOR PARTS REPLACED	D. SIGNATURE

OPNAV 4790/113 (REV 5/2015)

Page 1 of 2
PERMANENT RECORD

Figure 8-16: Equipment History Record (EHR) Card (OPNAV 4790/113) (Front)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16 Volume III

SECTION V - INSPECTION RECORD					
A. TYPE AND DESCRIPTION OF INSPECTION	B. REFERENCE	C. DATE COMMENCED	D. DATE COMPLETED	E. ACTIVITY	F. SIGNATURE

SECTION VI - TECHNICAL DIRECTIVES											
A. TECHNICAL DIRECTIVE IDENTIFICATION								B. STATUS	C. TITLE/REMARKS	D. COMPLIANCE		E. SIGNATURE
(1) CODE	(2) BASIC	(3) INT	(4) REV	(5) AM	(6) PT	(7) KIT	(8) PRI			(1) BY (Activity)	(2) DATE	

OPNAV 4790/113 (REV 5/2015) BACK

Figure 8-16: Equipment History Record (EHR) Card (OPNAV 4790/113) (Back)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

SCHEDULED REMOVAL COMPONENT CARD

SECTION I - IDENTIFICATION DATA

A. NOMENCLATURE	B. WORK UNIT CODE	C. FSCM	D. REPLACEMENT INTERVAL	E. REPLACEMENT DUE

F. PART NUMBER	G. SERIAL NUMBER	H. FST

SECTION II - INSTALLATION DATA

A. DATE	B. BUNO / SERNO INSTALLED ON	C. TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				D. TOTAL HOURS OR COUNTS ON ITEM			

SECTION III - REMOVAL DATA

A. DATE	B TOTAL AIRCRAFT / EQUIPMENT HOURS OR COUNTS				C. TOTAL HOURS OR COUNTS ON ITEM				D. REASONS FOR REMOVAL AND JOB CONTROL NUMBER

OPNAV 4790/28A (REV 1/2015)

Figure 8-17: Scheduled Removal Component Card (OPNAV 4790/28A) (Front)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

SECTION IV - TECHNICAL DIRECTIVES												
A. TECHNICAL DIRECTIVE IDENTIFICATION								B. STATUS	C. TITLE/REMARKS	D. COMPLIANCE		E. SIGNATURE
(1) CODE	(2) BASIC	(3) INT	(4) REV	(5) AM	(6) PT	(7) KIT	(8) PRI			(1) BY (Activity)	(2) DATE	

SECTION V - REPAIR / REWORK / OVERHAUL			
A. DATE	B. ACTIVITY	C. DESCRIPTION	D. SIGNATURE

OPNAV 4790/28A (REV 1/2015)

Figure 8-17: Scheduled Removal Component Card (OPNAV 4790/28A) (Back)

PARACHUTE RECORD

BASIC ASSEMBLY INFO	A1. TYPE ASSEMBLY A/P28S-32(V)4	A2. SERIAL NUMBER MB0600	A3. PART NUMBER MBEU147713	A9. LATEST RFI 920608	A12. SCHD RMVL DATE 980309
	A4. CONFIGURED FOR (TECS) AFWE	A5. CUSTODIAN ORG CODE GB8	A6. BU/SER NUMBER 159633	A8. RFI SHF CYC 90	A11. INSP CYCL 2190

SIGNATURES	A13. PACKED (NAME) PR2 R. JOHNSON	A14. INSPECTED (NAME & QA STAMP #) PR1 D. HEARN M13	A15 ORG CODE W5F	A7. RFI DATE 920310	A10. DATE ISSUED 920310

SERVICE LIFE ITEMS

B1. NOMENCLATURE	B2. PART #	B3. CONT #/LOT #	B4. SER #	B5. MFG DATE	B6. INSTL DATE	B7. EXP DATE
CANOPY PARA ASSY	MBEU147610	N0019-85-C-0143	UNK	910731	920301	040331
RISERS ASSY	MBEU147689	N0019-85-C-0143	UNK	910531	920301	040331
WITHDRAWAL LINE	MBEU147607	N0019-85-C-0143	UNK	911101	920301	040331
SLEEVE DEPL ASSY	MBEU147716	N0019-85-C-0143	UNK	910831	920301	040331
STRAP CROSS CNTR	MBEU141488	N0019-85-C-0143	UNK	910731	920301	040331
ELECT PACK ASSY	852AS101	CAX91L004-052	29665	911130	940216	991130
ELECT PACK ASSY	852AS101	CAX91L004-052	29666	911130	940216	991130
BATTERY	852AS102	CAX94A002-041	0126	940131	940216	980131
BATTERY	852AS102	CAX94A002-041	0127	940131	940216	980131

CARTRIDGES AND CARTRIDGE ACTUATED DEVICES

C1. NOMENCLATURE	C2. PART #	C3. CONT #/LOT #	C4. DODIC	C5. SER #	C6. MFG DATE	C7. C.O. DATE	C8. EXP DATE
IMPULSE CARY	851AS275	HCX93L003006	MW19	6979	931130	940216	990228
IMPULSE CARY	851AS275	HCX93L003006	MW19	6978	931130	940216	920228

TECHNICAL DIRECTIVES

D1. TYP	D2. NO.	D3. REV	D4. AM	D5. QA	D6. ORG	D7. DATE	D8. STAT	D1. TYP	D2. NO.	D3. REV	D4. AM	D5. QA	D6. ORG	D7. DATE	D8. STAT	D1. TYP	D2. NO.	D3. REV	D4. AM	D5. QA	D6. ORG	D7. DATE	D8. STAT

LOCAL USE

OPNAV 4790/101 PAGE 01 OF 01

Figure 8-18: Parachute Record (OPNAV 4790/101) (Example)

SEAT SURVIVAL KIT RECORD

	A1. TYPE ASSEMBLY	A2. SERIAL NUMBER	A3. PART NUMBER	A4. FSCM	A10. LATEST RFI	A13. SCHD RMVL DATE
BASIC ASSEMBLY INFO	SKU-2	1370	221J100-1	30941	970304	980227
	A5. CONFIGURED FOR (TECS)	A6. CUSTODIAN ORG CODE	A7. BU/SER NUMBER		A9. RFI SHF CYC	A12. INSP CYCL
	AAED	GB8	156479		90	448

SIGNATURES	A14. PACKED (NAME)	A15. INSPECTED (NAME & QA STAMP #)	A16 ORG CODE	A8. RFI DATE	A11. DATE ISSUED
	PR3 J. JONES	PR1 R. JOHNSON 478	W5F	991204	961206

SERVICE LIFE ITEMS

B1. NOMENCLATURE	B2. PART #	B3. CONT #/LOT #	B4. SER #	B5. QTY	B6. MFG DATE	B7. INSRV DATE	B8. EXP DATE
BEACON URT-33A	7037618-10	N00383-95-C-5513	001001	1	960601	961203	
BATTERY	7747390-10	F41608-92-D-3079	001211	1	961001	961201	991031
ASPIRIN	51079 005 22	7L398	NA	10	941101	961203	991130
EYE OINTMENT	0168-0079-038	6041	NA	1	941001	961203	991031
IMODIUM	50458-400-01	95B100	NA	10	950201	961203	000228
SIGNAL SMOKE	712793	ATV94L005008	NA	2	941130	961204	InDefinite
BAGGED WATER	MIL-W-44126	088-2	NA	3	931201	961203	981231

02. SYS TEST:	C1. COMPLETED (NAME)	C2.. INSPECTED (NAME & QA STAMP #)
	PR3 B. BROWN	PR1 R. SMITH 81B

KIT TECHNICAL DIRECTIVES

LIFE RAFT HISTORY	E1. TYPE ASSY	E2.. PART #	E3. CONTRACT #	E4. FSCM	E5. SER #
	LR-1	MIL-L-81542A9AS0	N00383-92-C-4639	30003	876

D1. TYP	D2. NO.	D3. REV	D4. AM	D5. QA	D6. ORG	D7. DATE	D8. STAT
66	0468			81B	W5F	920801	INC
67	0556	C	1	81B	W5F	920801	INC
67	0684			81G	W5F	931015	INC
67	0721			81J	W5F	940927	INC
67	0684	A		81H	W5F	961204	INC

RAFT TEST RECORD	E6. TEST CYCLE: 1	E7. COMPLETED (NAME)	E8. INSPECTED (NAME & QA STAMP #)
		PR3 J. JONES	PR1 R. JOHNSON 47B

RAFT TECHNICAL DIRECTIVES

F1. TYP	F2. NO.	F3. REV	F4. AM	F5. QA	F6. ORG	F7. DATE	F8. STAT	F1. TYP	F2. NO.	F3. REV	F4. AM	F5. QA	F6. ORG	F7. DATE	F8. STAT

LOCAL USE

OPNAV 4790/137

PAGE 01 OF 01

Figure 8-19: Seat Survival Kit Record (OPNAV 4790/137) (Example)

AIRCREW SYSTEMS RECORD

A1. TYPE ASSEMBLY	A2. SERIAL NUMBER	A3. PART NUMBER	A4. FSCM	A5. CONT #
SKU-2	156	63A80H1-601	30003	N00383-94-C-045P

SERVICE LIFE ITEMS

B1. NOMENCLATURE	B2. PART #	B3. CONT #/LOT #	B4. DODIC	B5. SER #	B6. QTY	B7. MFG DATE	B8. INSTL	B9. EXP DATE
RADIO SET PRT-5	10800000	N00383-91-C-9259		02005	1	910331	961216	
BATTERY PACK	10800100	451-95-M-M534		0114	1	951231	961216	980430
RADIO PRC-90-2	A3-01-0307	FA1608-88-C-3889		25771	1	920228	961216	
BATTERY BA1568U	BA-1568U	DAAB07-95-D-1023		114	1	950430	961216	980430
BAGGED WATER	MIL-W-44126	L523		NA	17	940531	961216	990531
BAGGED WATER	GC536W1	01		NA	15	930630	961216	980630
FOOD PACKETS	MIL-F-15381	UNK		NA	20	930228	961216	
EYE OINTMENT	0168-0079-38	CON 87-002		NA	2	950131	961216	980131
SIGNAL KIT	2112952	SGK92L002003	L258	NA	2	921130	961216	InDefinite
MAR SMOKE ILL	3139734	MEI93B001018	L283	NA	6	930228	961216	InDefinite
POVIDONE IODINE	NDC0034-2100-02	2K53		NA	2	940430	961216	970930
STROBE LT SDU-5E	MIL-L-38217	UNK		12200	1	900731	961216	
BATTERY	BA1574U	DAAB07-95-F-0027		UNK	1	950731	961216	980731
MAR SMOKE ILL	3139734	MEI94L002021	L283	NA	4	941130	961216	InDefinite

TECHNICAL DIRECTIVES

C1. TYP	C2. NO.	C3. REV	C4. AM	C5. QA	C6. ORG	C7. DATE	C8. STAT	C1. TYP	C2. NO.	C3. REV	C4. AM	C5. QA	C6. ORG	C7. DATE	C8. STAT	C1. TYP	C2. NO.	C3. REV	C4. AM	C5. QA	C6. ORG	C7. DATE	D8. STAT
67	0684	A		45B	W5F	960512	INC																
67	0808			45B	W5F	960512	INC																
67	0805			45B	W5F	960512	INC																
67	0657	A		45B	W5F	960512	INC																

LOCAL USE

CURRENT INSPECTION DATA AND SIGNATURES

D1. PACKED (NAME)	D2.. INSPECTED (NAME & QA STAMP #)	D3. TEST CYCLE	D4. ORG CODE
PR3 B. BROWN	SGT R. YANEZ 75B	1	W5F

D5. RFI DATE	D6. RFI SHF CYC	D7. LATEST RFI	D8. CUSTODIAN ORG CODE	D9. DATE ISSUED	D10. INSP CYCL	D11. SCHD RMVL DATE
961217	90	970317	GB8	961218	224	970730

OPNAV 4790/138

PAGE 01 OF 01

Figure 8-20: Aircrew Systems Record (OPNAV 4790/138) (Example)

AIRCREW PERSONAL EQUIPMENT RECORD	A1. NAME	A2. RANK/RATE	A3. FLT BILLET	A4. ORG	A5. BU/SER	RFI DATE	INSP CYC	DUE DATE
	R. BOYLES	LTCOL	PILOT	GB6	RB1486	961220	30	970119

AIRCREW EQUIPMENT LOG

B1. NOMENCLATURE	B2. EQUIP. TYPE	B3. CONT #/LOT #	B4. DODIC	B5. SER #	B6. QTY	B7. CYC	B8. MFG	B9. INSTL	B10. EXP DATE
COVERALLS FLYER R	8415010438387	DLA100-92-C-0443		RB1486	3	360	920331	940115	
FLYER JACKET IN	MIL-J-7823	DLA100-91-F-EC85		RB1486	1	360	910131	920512	
FLYER GLOVES	MIL-G-81188	DLA100-90-D-4010		NA	1	360	950228	961127	
HELMET HGU-85P	89D7981-7	N00383-92-G-K500		07511	1	90	940531	961127	
MASK MBU-16V1P	G012-1050-01	UNK		188	1	30	890331	961127	
ANTI-G CSU-13P	MIL-A-83406B	F41608-89-D-2035		007320	1	180	890430	921015	
HARN ASSY PCU33P	829AS100-7	N00383-83-C-1611		0045	1	90	840331	930105	990331
SURV VEST SV-2B	67A100D2-401	DLA100-90-C-0551		00147	1	90	950331	950823	
SURVIVAL KNIFE	MIL-K-8662	N00077-92-D-4410		RB1486	1	90	920430	920512	
STROBE LT SD-5E	MIL-L-38217	DLA400-87-F-2352		122259	1	90	890630	950823	
BATTERY	BA1574U	DAAB02-95-F-0027		0129	1	90	950731	950823	950731
FLASHLIGHT	MX-991U	UNK		RB1486	1	90		950823	
SNAP HOOK KNIFE	MIL-K-25594	N00383-90-C-8967		NA	1	90	910531	950823	
WRIST COMPASS	WCC100	N00383-85-C-4188		NA	1	90	940228	950823	
SIGNAL MIRROR	MIL-M-18371-E	DLA400-86-C-5285		NA	1	90	860331	950823	
MAR SMOKE & ILL	3139734	MEI93B001018	L283	UNK	1	90	930228	950823	InDefinite
SIGNAL KIT	2150423	SGK88H001011	L118	UNK	1	90	880831	950823	InDefinite
FLIGHT BOOTS	MIL-B-24911	DLA100-90-C-4307		NA	1	360	910630	961006	
BATTERY	BA1574U	DAAB02-95-F-0027		0129	1	90	950731	950823	980731

TECHNICAL DIRECTIVES

C1. EQUIPMENT TYPE	C2. SER #	C3. TYP	C4. NO.	C5. REV	C6. AM	C7. QA	C8. ORG	C9. DATE	C10. STAT	C1. EQUIPMENT TYPE	C2. SER #	C3. TYP	C4. NO.	C5. REV	C6. AM	C7. QA	C8. ORG	C9. DATE	
MBU-16V1P MASK	188	66	560			47	GB8	950808	INC	MAR SMOKE & ILL	UNK	67	684	A		47	GB8	950808	INC
SIGNAL KIT	UNK	67	657	A		47	GB8	950808	INC	HGU-85 HELMET	07511	66	499			47	GB8	950808	INC
SV-2B SURV VEST	00147	66	569		1	47	GB8	950808	INC	SV-2B SURV VEST	00147	67	820			24	GB8	950821	INC
SV-2B SURV VEST	00147	66	599	A		24	GB8	950821	INC	SV-2B SURV VEST	00147	66	436	A		47	GB8	950808	INC

OPNAV 4790/159

PAGE 01 OF 01

Figure 8-21: Aircrew Personal Equipment Record (OPNAV 4790/159) (Example)

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)
OPNAV M-8000.16 Volume III

SE CUSTODY AND MAINTENANCE HISTORY RECORD

1. NOMENCLATURE	2. MODEL / TYPE	3. SERIAL NUMBER	4. MANUFACTURER

SECTION I - CUSTODY AND TRANSFER RECORD

A. DATE TRANSFERRED	B. FROM	C. TO	D. AUTHORITY	E. REMARKS	F. DATE RECEIVED

SECTION II - RECORD OF REWORK

A. DATE INDUCTED	B. DATE COMPLETED	C. DESCRIPTION OF WORK	D. AUTHORIZATION	E. ACTIVITY	F. SIGNATURE

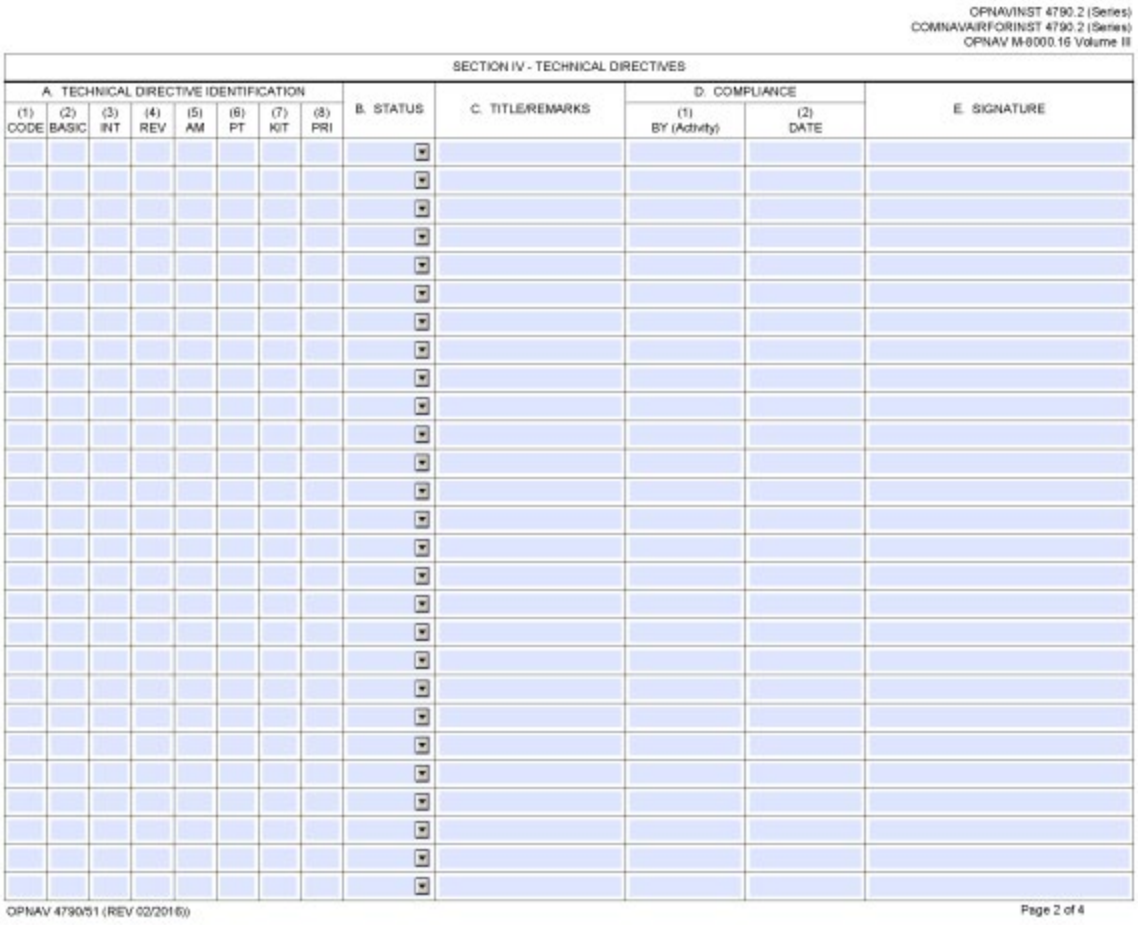
SECTION III - PRESERVATION / DE-PRESERVATION

A. DATE PRESV.	B. RE-PRESV. DUE DATE	C. TYPE	D. DATE DE-PRESV.	E. DIRECTIVE COMPLIED WITH	F. REASON FOR INACTIVE STATUS	G. ACTIVITY	H. SIGNATURE

OPNAV 4790/51 (REV 02/2016)

Page 1 of 4

Figure 8-22 (page 1): SE Custody and Maintenance History Record (4790/51)



OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)
OPNAV M-8000.16 Volume III

SECTION IV - TECHNICAL DIRECTIVES

A. TECHNICAL DIRECTIVE IDENTIFICATION								B. STATUS	C. TITLE/REMARKS	D. COMPLIANCE		E. SIGNATURE
(1) CODE	(2) BASIC	(3) INT	(4) REV	(5) AM	(6) PT	(7) KIT	(8) PRI			(1) BY (Activity)	(2) DATE	

OPNAV 4790/51 (REV 02/2016)

Page 2 of 4

Figure 8-22 (page 2): SE Custody and Maintenance History Record (4790/51)



OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)
OPNAV M-8000.16 Volume III

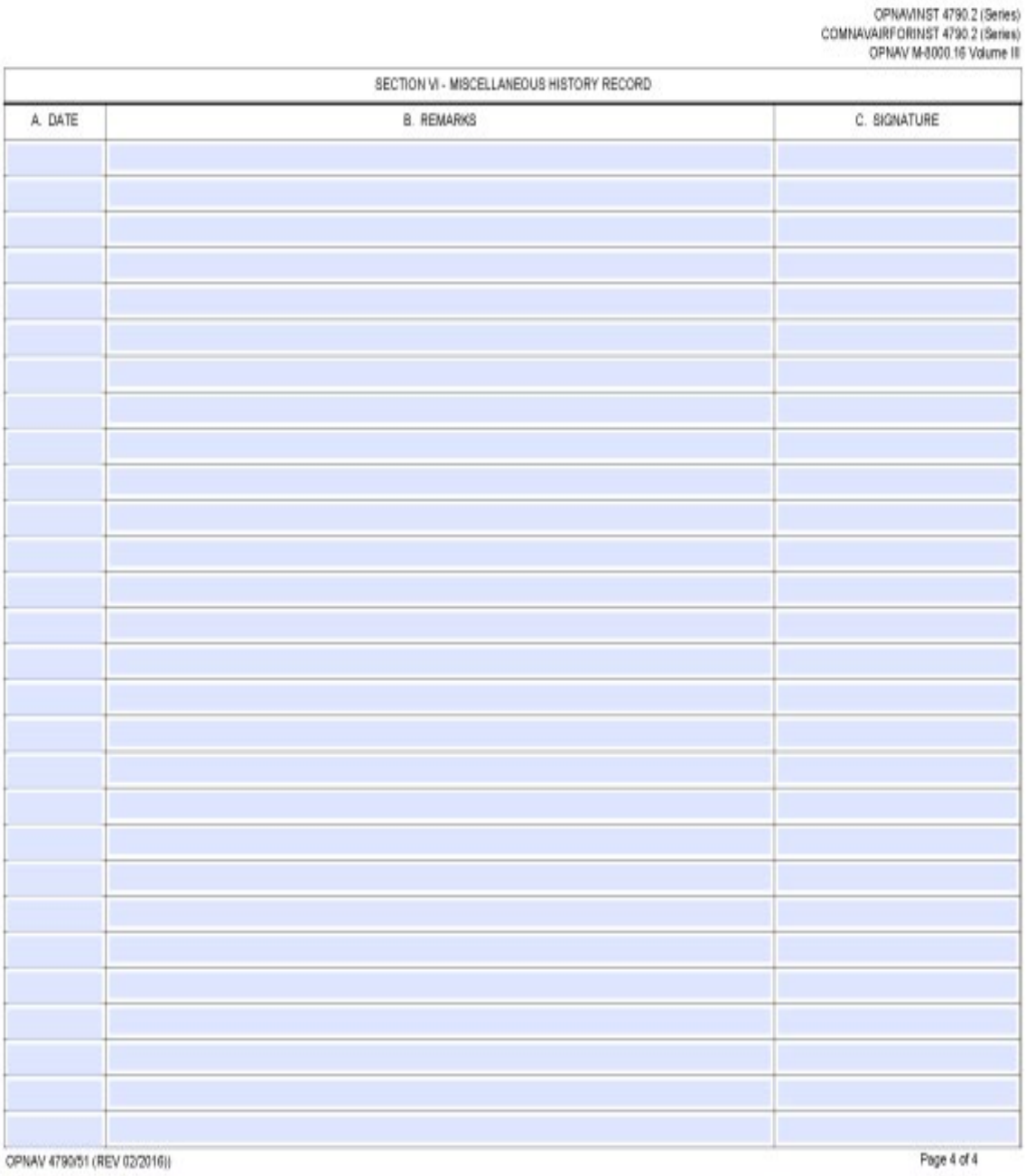
SECTION V - NDI AND PROOF LOAD RECORD

A. TYPE INSPECTION	B. DATE COMPLETED	C. NEXT DUE	D. ACTIVITY	E. SIGNATURE

OPNAV 4790/51 (REV 02/2016))

Page 3 of 4

Figure 8-22 (page 3): SE Custody and Maintenance History Record (4790/51)



OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)
OPNAV M-8000.16 Volume III

SECTION VI - MISCELLANEOUS HISTORY RECORD		
A. DATE	B. REMARKS	C. SIGNATURE

OPNAV 4790/51 (REV 02/2016))

Page 4 of 4

Figure 8-22 (page 4): SE Custody and Maintenance History Record (4790/51)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
LOGBOOK AND INVENTORY RECORD

TABLE OF CONTENTS

MAJOR RELATED EQUIPMENT RECORDS
OPNAV Form No.

Title	OPNAV Form No.
Inventory Records - Equipment List and Part II Instructions	4790/73A
Inventory Record and Equipment List Separator	4790/74
Inventory Record and Equipment List Form	4790/74A
Inventory Record of Shortages Separator	4790/75
Inventory Record of Shortages Form	4790/75A

PART II
INVENTORY

NOTE: OPNAV 4790/74A containing inventory of furnished materials, equipment and OPNAV 4790/75A containing authorized shortages are filed in this section. These forms are to me maintained for mobile facility(s) and major related equipment.

OPNAV 4790/61 (REV 08/2016)

Figure 8-23: Mobile Facility Logbook and Inventory Record - Table of Contents (OPNAV 4790/61)

MOBILE FACTILITY
LOGBOOK AND INVENTORY RECORD

GENERAL INSTRUCTIONS

1. **ORIGIN.** Logbook and Inventory Records shall be initiated by the configuration activity. OPNAV Form 4790/51 shall be initiated and placed in Part I for the MF shell, air conditioner, frequency converter, and generators if shipped with the MF or MF complex.

2. **CUSTODY.** The MF Logbook and Inventory Record shall accompany the MF or be maintained in a central library at all times and shall be continuously maintained and updated. Any classified information shall be safeguarded in accordance with applicable security regulations. When an MF is transferred, the Logbook and Inventory Record shall be transferred with the MF.

3. **MAINTENANCE.** The Logbook and Inventory Record is maintained similar to an Aircraft Logbook and is in loose-leaf form. The full identification data and serial number shall be inserted on each form in the spaces provided to ensure ready identification when pages are removed for entries or any other reason.

The Logbook and Inventory Record is arranged in two parts. OPNAV 4750/51 is filed in Part I. This form must be maintained for the MF shell, running gear, air conditioner, frequency converter, and generator. The Logbook and Inventory shall be kept neat and clean; all necessary entries shall be made under the supervision of the cognizant Maintenance Officer. Entries shall be printed in ink or typewritten, except where penciled entries are authorized.

The depot level maintenance activity shall, upon induction of the MF, screen the entire Logbook and Inventory Record for information pertinent to rework or rehabilitation and shall purge all entries not required as a permanent record.

4. **DISPOSITION.** The Logbook and Inventory Record for MF's stricken from the NAVY/MARINE CORPS list shall be disposed of in accordance with the following procedures:

a. DESTROYED MF - The Logbook and Inventory Record shall be disposed of locally after necessary investigation and preparation of required reports.

b. Logs and records of MF's and/or equipment which have been involved in an accident(s) resulting in death and/or injury to any person; and/or substantial damage to other than Government property, shall be retained for a period of one year by the operating activity (for defense to litigation action) and then forwarded to the Director, Washington National Records Center, General Services Administration, Washington, D.C. 20409.

5. **SIGNATURES**. All signatures required in the MF Logbook and Inventory Record and in associated forms and records shall be the personal signature of the person designated by cognizant Commanding Officers for this purpose. All signatures shall be written. Rubber stamp signatures are not authorized. This requirement is waived when a new MF Logbook and Inventory Record is initiated, or when old MF Logbooks and Inventory Records are consolidated.

OPNAV 4790/62 (REV 8/2016)

Figure 8-24: Mobile Facility Logbook and Inventory Record - General Instructions (OPNAV 4790/62)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
MAJOR RELATED EQUIPMENT RECORDS

PART I

TABLE OF CONTENTS

Title	Form No.
1. Support Equipment Custody and Maintenance History Record (Mobile Facility)	OPNAV 4790/51
2. MF Scheduled Maintenance MAFs.	
3. MF Unscheduled Maintenance MAFs	
4. MF Preservation/Depreservation documentation	
5. MF Mobile Facility Program Acceptance/Transfer Checklist (MF).	
6. MF Technical Directives documentation for MF.	
7. Equipment Inspection Maintenance Worksheet.	DA 2404
8. Support Equipment Custody and Maintenance History Record (ECU).	OPNAV 4790/51
9. ECU Sceduled Maintenance MAFs.	
10. ECU Unscheduled Maintenance MAFs.	
11. ECU Preservation/Depreservation documentation.	
12. ECU Acceptance/Transfer Checklist (ECU).	
13. ECU Technical Directives documentation for ECU.	

PART I
MF RECORDS

NOTES: 1. This section will contain the above information and forms filed in the order listed. These forms are to be maintained for MFs and major related equipment.
2. OPNAV Form 4790/51 has replaced CNAF 4790/51

OPNAV 4790/63 (REV 5/2016)

Figure 8-25 (page 1): Mobile Facility Major Related Equipment Records - Table of Contents (OPNAV 4790/63)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
LOGBOOK AND INVENTORY RECORD

PART II

TABLE OF CONTENTS

Title	OPNAV Form No.
Inventory Records - Equipment List and Part II Instructions	4790/73A
Inventory Record and Equipment List Separator	4790/74
Inventory Record and Equipment List Form	4790/74A
Inventory Record of Shortages Separator	4790/75
Inventory Record of Shortages Form	4790/75A

PART II
INVENTORY

NOTE: OPNAV 4790/74A containing inventory of furnished materials, equipment and OPNAV 4790/75A containing authorized shortages are filed in this section. These forms are to be maintained for mobile facility(s) and major related equipment.

OPNAV 4790/73 (REV 08/2016)

Figure 8-26: Mobile Facility Logbook and Inventory Record - Table of Contents (OPNAV 4790/73)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
INVENTORY RECORDS

PART II
INVENTORY

INSTRUCTIONS

1. INVENTORY RESPONSIBILITY. The transferring activity is responsible for a complete inventory of the Mobile Facility and for furnished material equipment shortage prior to transfer. To maintain a continuous chain of custodial responsibility, the MF Logbook and Inventory Record is used as the instrument of transfer. MF's are transferred or accepted only with an MF Logbook and Inventory Record. There may be remote exceptions to this requirement, such as MFs procured for research and development only. Inventories for MF's at the time of transfer are completed to the mutual satisfaction of both the transferring and accepting activities. In all other instances when an MF is transferred, an inventory of the MF is accomplished based on the items of equipment and material listed in the applicable log and record Logbook and Inventory Record.

2. SHORTAGES. No MF will be transferred with inventory shortage unless approved by the appropriate ACC/TYCOM/MARFOR. The transferring activity makes every effort to locate missing items or procure and install the replacement items necessary to complete the inventory. If the transferring activity is unable to locate or supply missing items, an entry for the missing items is made in the Inventory Record of Shortages. An explanatory statement signed by the transferring activities designated representative is added to this form to indicate authorization by appropriate ACC/TYCOM/ MARFOR for shortages. All authorized shortages documented in the LIR will be reported on the transfer naval message to the receiving activity authority.

3. SECURITY CLASSIFICATION. It is desired that the MF Inventory Records be unclassified. However, when classified equipment is installed in the MF and listed in the record LIR, the Security Classification, SECRET, or CONFIDENTIAL, is indicated in capital letters immediately following the identifying nomenclature or title. In addition, an asterisk (*) with a footnote nomenclature and title unclassified is also indicated if applicable.

The listing of the classification involved does not normally require classifying the MF Inventory Records LIR. In lieu of this, when the nomenclature or title is classified or the installation of the classified or unclassified equipment is of a SECRET or CONFIDENTIAL nature, the equipment is not listed in the record with other equipment. Such listing is entered on a separate supplemental page with a notation on the Inventory Record and Equipment List Form. To prevent possible security violations, no attempt is made to define the location of the equipment referenced on the Inventory Record and Equipment List Form.

If circumstances are encountered that would cause the classified supplemental pages to not be used, the basic record is given a classification commensurate with the highest classification of equipment installed in the MF. Handling of the classified supplemental pages and/or the basic record when classified is per current classification guides.

4. INVENTORY ITEMS. The following governs the determination of items to be listed in the MF Inventory Record without regard to whether they are contractor or Government furnished:

a. Equipment that are rigidly fixed and considered to be a basic integral part of the MF, such as air conditioners, test panels, test benches, and power rectifiers.

b. Special equipment items essential to the safety of personnel, such as fire extinguishers, fire axes, and battle lanterns.

c. Loose equipment delivered with the MF, such as jacks, butting kits, ramps, walkways, hoist, lifting slings, power cables publications, and wiring diagrams.

d. Items subject to pilferage or readily convertible to personal use, such as typewriters, clocks, intercoms, test equipment, desk lights, and vacuum cleaners.

e. Replacement of MF furnished materials and equipment can typically be accomplished by ordering replacement items through the normal supply channels. Certain items, such as countertops, cabinets, and associated hardware installed at MF configuration sites are not always procurable through normal supply channels. Therefore it is recommend to procure those items in good reusable condition from survey approved MFs prior to disposal to fill configuration shortages.

f. Fleet activities may contact the configuration site liaisons for questions or guidance regarding LIR inventory items or MF drawings.

OPNAV 4790/73A (REV 08/2016)

Figure 8-27: Mobile Facility Logbook and Inventory Records – Equipment List, Part II Instructions (OPNAV 4790/73A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
INVENTORY RECORDS

INVENTORY EQUIPMENT LIST

INVENTORY
EQUIP. LIST

NOTES: MF customer furnished equipment inventory is filed in this section. Inventory will account for test benches, test sets, tools, tool kits, etc...

OPNAV 4790/74 (REV 4/2015)

Figure 8-28: Mobile Facility Inventory Record - Equipment List Separator (OPNAV 4790/74)

MOBILE FACILITY

INVENTORY RECORD - EQUIPMENT LIST

PAGE____OF____PAGES

MF SERIAL NO	MMF MODEL/TYPE

ITEM NO.	EQUIPMENT NOMENCLATURE, MODEL AND TYPE	SERIAL NO.	EQUIPMENT CHECKOFF* 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	LOCATION OR REMARKS

CHECK 1 BY	CHECK 5 BY	CHECK 9 BY	CHECK 13 BY
CHECK 2 BY	CHECK 6 BY	CHECK 10 BY	CHECK 14 BY
CHECK 3 BY	CHECK 7 BY	CHECK 11 BY	CHECK 15 BY
CHECK 4 BY	CHECK 8 BY	CHECK 12 BY	CHECK 16 BY

OPNAV 4790/74A (08-16)

* VERIFY EACH EQUIPMENT CHECKOFF BY SIGNATURE OF PERSON PERFORMING INVENTORY.

Figure 8-29: Mobile Facility Inventory Record - Equipment List (OPNAV 4790/74A)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
INVENTORY RECORDS

SHORTAGES

NOTES: 1. If transferring activity is unable to locate or supply missing items, the notation, "Missing items not available" is entered in the Inventory Record of Shortages.
2. An explanatory statement signed by the transferring designated representative is added to this form to indicate authority for shortages.
3. Receiving activity fills shortages through normal supply channels.

SHORTAGES

OPNAV 4790/75 (REV 4/2015)

Figure 8-30: Mobile Facility Inventory Records – Record of Shortages Separator (OPNAV 4790/75)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

MOBILE FACILITY
RECORD OF SHORTAGES

MF SERIAL NO.			MF MODEL/TYPE	
ITEM NO.	EQUIPMENT NOMENCLATURE, MODEL AND TYPE	SERIAL NO.	AUTHORITY OR REASON FOR SHORTAGE	REMARKS

OPNAV 4790/75A (REV 4/2015)

Page 1 of 1

Figure 8-31: Mobile Facility Record of Shortages (OPNAV 4790/75A)

CHAPTER 9

Aircraft Inventory Management and Material Condition Reporting

Table of Contents

9.1 DECKPLATE AIRCRAFT INVENTORY AND READINESS REPORTING SYSTEM (DECKPLATE-AIRRS) 1

9.1.1 Purpose 1

9.1.2 Management 1

9.1.2.1 OPNAV (N98) 1

9.1.2.2 COMNAVAIRSYSCOM 1

9.1.2.3 Aircraft Controlling Custodians (ACC) 2

9.1.2.4 Type Wings and Marine Air Wings (MAW) 4

9.1.2.5 Reporting Custodians 4

9.1.3 DECKPLATE-AIRRS Reporting 5

9.1.3.1 General Requirements 5

9.1.3.2 Aircraft Accounting Audit Report (AAAR). The AAAR is a physical inventory and location survey report used to improve accountable property record accuracy. Requirements: 7

9.1.3.3 DECKPLATE Engine Transaction Reporting 8

9.1.3.4 Aircraft Flight and Summary Reporting 11

9.1.4 XRAY Reports 12

9.1.4.1 XRAY Data Fields 13

9.1.5 Aircraft Inventory Status Codes 19

9.1.5.1 Aircraft Operational Status Codes 20

9.1.5.2 Loaned/Lease Aircraft Inventory Codes 21

9.1.5.3 Drone Aircraft 21

9.1.5.4 Pre-Accepted Aircraft Inventory Requiring Accountability 21

9.1.5.5 Aircraft Stored in Reserve/Retention Inventory 21

9.1.6 Common XRAYs 22

9.1.6.1 Organization Status (Part 1) Change of Location XRAY 22

9.1.6.2 Custody Change (Receipt) XRAY 22

9.1.6.3 Depot Rework XRAY 23
9.1.6.4 New aircraft in process of first delivery (for NAVAIR ACC use only) 25
9.1.7 Strike from Inventory Procedures 25
9.1.7.1 Authorization 25
9.1.7.2 Strike at Aerospace Maintenance and Regeneration Group (AMARG) 25
9.1.7.3 General Strike Procedures 25
9.1.7.4 Category 1 Strike Damage Procedures 28
9.1.7.5 Category 2 (Depreciation) Strike Procedures 28
9.1.7.6. Category 3 (Administrative) Strike Procedures 29
9.1.7.7 Category 4 (Completed Service Life) Strike Procedures 29
9.2 SUBSYSTEM CAPABILITY AND IMPACT REPORTING (SCIR) SYSTEM 29
9.2.1 Purpose 29
9.2.2 Definitions 29
9.2.3 SCIR Documentation 31
9.2.4 SCIR Data Binning 33
9.3 MISSION CAPABLE RATE COMPUTATION 34
9.3.1 Definitions 34
9.3.2 MC and FMC Rate Computation 35
9.4 MISSION-ESSENTIAL SUBSYSTEMS MATRIX (MESM) 36
9.4.1 Purpose 36
9.4.2 Equipment Operational Capability (EOC) Codes 36
9.4.3 New MESM Development 37
9.4.4 MESM Changes 39
9.5 RESPONSIBILITY FOR ACCURATELY REPORTING AIRCRAFT STATUS 39
9.5.1 General responsibility 39
9.5.2 Maintenance Officer (MO) 39
9.5.3 Maintenance Material Control Officer (MMCO) 39
9.5.4 Maintenance Master Chief Petty Officer (MMCPO) 40
9.5.5 Maintenance Control 40
9.5.6 Work Center Supervisor 40
Figure 9-1: Aircraft Summary Data Message Format 41

Figure 9-2: Aircraft Summary Data Correction Message Format 42
Figure 9-3: Flight Data Submission Message Format 43
Figure 9-4: Aircraft Arrival Message Format 44
Figure 9-5: T/M/S Aircraft Mission-Essential Subsystems Matrix (MESM) (Example) 45
Figure 9-6: MESM Functional Matrix (Example) 46
Figure 9-7: MESM Change Recommendation Routing (Navy) 47
Figure 9-9: NALCOMIS Work Center Workload Report (Sample) 49
Figure 9-10: EOC Code Error Rate Trend Chart (Example) 50

CHAPTER 9

Aircraft Inventory Management and Material Condition Reporting

9.1 DECKPLATE Aircraft Inventory and Readiness Reporting System (DECKPLATE-AIRRS)

9.1.1 Purpose

DECKPLATE-AIRRS is the Navy's official program of record for inventory accounting of Navy and Marine Corps aircraft. Aircraft are subject to DECKPLATE-AIRRS reporting from the time of initial procurement and throughout their service life until final disposition (removal) from the naval aircraft inventory. The importance of complete, accurate and timely DECKPLATE-AIRRS reporting cannot be overemphasized. DECKPLATE-AIRRS provides the Offices of the Secretary of Defense, the Department of the Navy (DON) and subordinate commands with comprehensive current and historical data on the Navy and Marine Corps aircraft inventory's location, status, and service in sufficient depth to serve as a basis for naval aviation inventory management, planning and budgeting processes at all command echelons.

9.1.2 Management

9.1.2.1 OPNAV (N98)

Directs policy and procedures for the management of active and inactive aircraft inventories in SECNAVINST 5442.3, which relies on DECKPLATE-AIRRS as the primary means of inventory accounting. OPNAV (N98) DECKPLATE-AIRRS responsibilities:

a. Direct and fund the management of DECKPLATE-AIRRS website and database.

b. Chair the semi-annual aircraft strike board. NAVSUP WSS will host. Prior to commencement of the board meeting, OPNAV N98 will solicit aircraft strike recommendations and dispositions from the ACCs. OPNAV N98 will consolidate the strike recommendations and provide a list of proposed dispositions. The strike board will review the list, make adjustments as necessary, and submit a proposed strike list with recommended disposition to OPNAV N98. OPNAV N98 and NAVSUP WSS must agree to all aircraft strike dispositions.

c. Approve and release all strike authorizations, disposition changes and strike revocation messages, except when an aircraft is to be stricken from the inventory due to loss or damage to the extent that restoration is uneconomical or militarily impractical. In these cases, the designated Aircraft Controlling Custodian (ACC) may authorize the aircraft to be stricken.

d. Issue BUNOs for newly acquired aircraft as requested by NAVAIR ACC.

9.1.2.2 COMNAVAIRSYSCOM

a. NAVAIR Logistics Information Technology (LOG IT) is responsible for managing the DECKPLATE-AIRRS database.

b. NAVAIR ACC is responsible for:

(1) Requesting OPNAV N98 issue BUNOs for newly acquired aircraft. For new production aircraft, NAVAIR ACC will request OPNAV N98 issue consecutive BUNOs for assignment to contracts, and pass the BUNOs via the Program Manager to the activity accepting the aircraft for the Navy. Aircraft acquired from other than new production will also have a BUNO assigned. Preliminary negotiations for addition of the aircraft to the Naval inventory will include assignment of a BUNO by CNO (N980L). The Program Office involved in acquiring the aircraft will provide the original delivery date of the aircraft to OPNAV (N980L). Aircraft procured by the Navy for other U.S. Government agencies or MAP/FMS agreements generally do not enter the Navy inventory. If required, BUNOs are assigned for production control purposes only.

(2) Verifying the service age of aircraft that are accepted into the DON inventory from Non-DOD activities, and ensuring the service age of the aircraft is entered into AIRRS. The service age is established by the date of the aircraft's initial acceptance into the naval inventory as listed on the Material Inspection and Receiving Report (DD Form 250).

(3) Submitting the Action Code – A (Acceptance) XRAY for all new production aircraft entering the naval aircraft inventory.

(4) Submitting the Action Code – Y (Reinstatement) XRAY for:

(a) Reinstatement of any previously stricken aircraft.

(b) Addition of a used (not new production) aircraft being accepted into the Navy inventory from another Service or Organization.

(c) Aircraft that have been pre-accepted using Action Code P.

(5) Acting as the Reporting Custodian for aircraft loaned to non-DON activities. When physical transfer actually occurs, the receiving non-DON activity will inform NAVAIR ACC by naval letter listing the date of transfer, model, BUNO, and name and address of recipient. The letter must provide references to all authorizing directives and include copies of the contractual agreement. Upon receipt of the letter, NAVAIR ACC will submit an XRAY receiving the aircraft into NASC FS controlling custody in the appropriate loan status code.

NOTE: ACCs and reporting custodians will not enter into aircraft loan agreements to non-DON activities without CNO (N980L) authorization.

9.1.2.3 Aircraft Controlling Custodians (ACC)

a. ACCs are the primary managers of the naval aircraft inventory. The following matrix lists the ACCs for purposes of aircraft inventory reporting within DECKPLATE-AIRRS, only, and in no way alters naval administrative or command relationships. Table 1 lists the ACCs and their DECKPLATE-AIRRS title.

Table 1: AIRCRAFT CONTROLLING CUSTODIANS

DECKPLATE-AIRRS AIRCRAFT CONTROLLING CUSTODIAN	TITLE
Commander Naval Air Forces	CNAF
Commander Naval Air Force Reserve	CNAFR
Chief of Naval Air Training	CNATRA
COMNAVAIRSYSCOM -NAVAIRSYSCOM Test and Evaluation -NAVAIRSYSCOM Fleet Support	NAVAIRSYSCOM NASC TE NASC FS
NOTE: NASC FS is the responsible ACC for pre-accepted aircraft (aircraft that have not been brought into the AIRRS inventory database, but are supporting a Navy acquisition plan or program), and miscellaneous aircraft, such as aircraft operated by contractors for testing and developmental prior to the final DD-250 and Navy acceptance. These aircraft will not be included in the active inventory, but they will be tracked under NAVAIR FS custody command code 72 for automated inventory tracking/visibility.	

b. ACC Command Codes

LANT NAVY	10	NASC TE	50
LANT MARINE	11	NASC TE (UAS)	51
PAC NAVY	20	NASC FS	70
PAC MARINE	21	NASC FS (UAS)	71
CNAFR NAVY	30	NASC Pre-Accepted	72
CNAFR MARINE	31	MISCELLANEOUS	90
CNATRA	40		

c. ACCs will:

(1) Monitor Reporting Custodians for compliance with the reporting requirements of this chapter and OPNAVINST 3110.11.

(2) Issue instruction(s) Aircraft Transfer Order (ATO) procedures for permanent or temporary transfer of aircraft custody.

(3) Issue instructions on aircraft readiness reporting procedures to provide full visibility of aircraft material condition and factors that impact aircraft operational readiness.

(4) Monitor and verify the accuracy of aircraft operational status reporting.

(5) Obtain prior authorization from CNO (N980L) for aircraft transferring to and from COMNAVAIRSYSCOM.

(6) Comply with DOD Directive 1225.06 for the transfer of aircraft from Reserve component to Active component.

(7) Publish procedures for Type Wings and MAWs to authorize temporary transfers of aircraft between reporting custodians within the wing, via Aircraft Transfer Letter (ATL).

(8) Monitor XRAY reports for reporting custodians under their cognizance.

(9) Inspect Work Orders (WO) for correct Up/Down/Partial (U/P/D) indication and correct Equipment Operational Capability (EOC) coding during squadron Aviation Maintenance Inspections (AMI).

9.1.2.4 Type Wings and Marine Air Wings (MAW)

a. Coordinate aircraft transfers with COMNAVAIRFOR Aircraft Class Desks.

b. Monitor squadron XRAYs and direct corrective action for discrepancies.

c. Provide training to activities on DECKPLATE-AIRRS reporting procedures, as needed.

d. Ensure squadrons submit accurate Aircraft Material Condition Reports (AMCR).

e. Inspect WOs for correct aircraft Up/Partial/Down (U/P/D) indication and correct EOC coding during squadron Maintenance Program Assessments (MPA).

9.1.2.5 Reporting Custodians

Units designated as aircraft reporting custodians are the initial source of all data required by this instruction. Reporting custodians are those Navy, Marine Corps and commercial contractors assigned custody of aircraft for purposes of flight, repair/rework or storage. From initial acceptance to final disposition, each aircraft is simultaneously in the custody of one reporting custodian and one ACC. Reporting custodians are established or disestablished at the direction of the ACC. The ACC requests an Organization Code (ORG) and a Permanent Unit Code (PUC) as part of unit activation preparations. Once assigned, regardless of any changes in the Reporting Custodian's mission, location, or administrative affiliation, the PUC will never change. CNO (N98) manages PUC assignments and COMNAVAIRFOR assigns ORG codes upon ACC request. A squadron detachment becomes a Reporting Custodian when directed by the ACC and assigned a different PUC and ORG Code from the parent squadron.

NOTE: Defense Contract Management Activity (DCMA) is the Reporting Custodian for all pre-accepted new production aircraft.

9.1.3 DECKPLATE-AIRRS Reporting

9.1.3.1 General Requirements

a. DECKPLATE-AIRRS reports are required for all fixed wing and rotary wing aircraft, and Unmanned Aircraft Systems (UAS) Groups 3 through 5. Aircraft become subject to DECKPLATE-AIRRS reporting upon acceptance or reinstatement by the Department of the Navy, and remain so until stricken, transferred to non-DON agencies, sold or disposed of.

NOTES: 1. Group 1 and 2 UAS are exempt from DECKPLATE AIRRS reporting. Refer to COMNAVAIRFORINST 3710.9 for reporting requirements.

2. Group 3 UAS required to operate IAW CNAF M-3710.7 (i.e. not waived to operate as a Group 1 or 2 UAS IAW CNAFINST 3710.9 are subject to DECKPLATE-AIRRS reporting. Group 3 UAS assigned a System BUNO vice an unmanned air vehicle (UAV) BUNO will be tracked by System BUNO in DECKPLATE-AIRRS. All Ground Stations (GCS) for these Groups 3 and above UAS will have a BUNO issued by OPNAV N98.

3. DECKPLATE-AIRRS reports are treated as UNCLASSIFIED data, For Official Use Only (FOUO).

b. Reporting custodians must submit XRAYs whenever there is a change in aircraft custody or status, regardless of physical location of the aircraft.

NOTE: In-service XRAY reporting situations occur when an aircraft is in the physical custody of an activity that is not the reporting custodian of the aircraft. In this situation, the in-service (physical) custodian is responsible to submit all required XRAYs on those aircraft. The most common situations occur when aircraft and its records are in the physical custody of the depot while undergoing standard or special rework.

c. All XRAY transactions, including corrections, occurring between 0001 and 2400 hours on a given day must be reported prior to 1600 hours the next working day.

NOTE: Category 1 strike XRAYs for lost (not recovered) or destroyed aircraft must be submitted NLT 2400 on the day of occurrence.

d. Aircraft XRAYs must be submitted via NALCOMIS Optimized Organizational Maintenance Activity (OOMA). If OOMA is not available, XRAYs will be submitted via DECKPLATE-AIRRS web online. If neither OOMA or DECKPLATE-AIRRS connectivity is available, activities must phone or e-mail XRAY information to their Type Wing or MAW to submit the XRAY via DECKPLATE-AIRRS. Once OOMA is available, all XRAYs submitted only in DECKPLATE-AIRRS must be resubmitted in OOMA to enable replication. All reporting custodians will dual report XRAY submissions in OOMA and DECKPLATE-AIRRS

for acceptance, reinstatement or final approval received to strike aircraft from the naval inventory by the Department of the Navy (DON). XRAY codes subject to duel reporting are:

(1) Acceptance of aircraft (Action Code: A) by DCMA or NAVAIR only.

(2) Reinstatement of aircraft (Action Code: Y) by NAVAIR ACC only and/or, if applicable, by reporting custodians when reinstating Navy aircraft previously stricken in OOMA.

(3) Stricken aircraft (strike XRAY must have an XRAY Status Code of "posted" for an aircraft to be deemed stricken)(Action Code: S and applicable aircraft status code).

(4) Navy aircraft on loan from the Navy, aircraft under lease from the Navy, or aircraft that have contractor held RDT&E or contractor held Fleet Support (FS) custody (Action Code: R or X and aircraft Status Code: TJ0, TK0, TR0, TV0, U00 and U10).

(5) Non-Navy aircraft on loan to DON are excluded from dual reporting (OOMA XRAY submission required) (Action Code: R with aircraft Status Codes: A50, A51, A52, U50, U60).

NOTES: 1. The F-35 aircraft Autonomic Logistics Information System (ALIS) does not provide XRAY functionality. All XRAYs for F-35 aircraft will be submitted via DECKPLATE-AIRRS.

2. Due to delays with OOMA replication, "R" action XRAYs must be submitted in OOMA and in DECKPLATE-AIRRS to ensure action dates and time match. If the aircraft was received with engines installed, the date on the Engine Transaction Report (ETR) must match the "R" action XRAY.

e. The DECKPLATE-AIRRS daily status report will be reviewed within 5 working days of XRAY submission to verify XRAYs have replicated and are in the correct status in DECKPLATE-AIRRS. If an XRAY has not replicated in DECKPLATE-AIRRS after 5 days, submit the XRAY via DECKPLATE-AIRRS with the same action date/time of the original OOMA XRAY.

f. Aircraft will be held in a given status code only as long as the situation defined by the status code exists. Status changes must be reported by XRAY regardless of how briefly the status exists, including multiple changes in a single day.

g. To correct erroneous data, a correction XRAY will be submitted within 24 hours of discovery.

NOTE: An XRAY can be modified in OOMA within 45 days from date and time of creation. After 45 days, the XRAY is locked and "locked" will appear in the Update Indicator box located at the bottom of the report. If a locked XRAY requires correction, the OOMA Systems Administrator (SA) must consult the OOMA SA User's Manual for direction.

9.1.3.2 Aircraft Accounting Audit Report (AAAR).

The AAAR is a physical inventory and location survey report used to improve accountable property record accuracy. Requirements:

a. Each Reporting Custodian (including detachments) must submit an AAAR. AAARs are also required from activities having custody of aircraft held under NASC T&E cognizance. NASC FS activities do not have to submit AAARs unless specifically requested by OPNAV N980L.

b. An AAAR must be submitted each quarter. All aircraft, including in-service aircraft, in reporting custody of the unit at 2400 hours on the reporting date (30 September, 31 December, 31 March, and 30 June) will be included on the report. The AAAR will be submitted via the DECKPLATE-AIRRS website (https://deckplate.navair.navy.mil/AIRRS/) by the 5th working day of the month following the reporting date; i.e., no later than the 5th working day of October, January, April, and July). Prior to input of AAAR, ensure all XRAYs with an Action Code of 'A', 'P', 'R' or 'Y' and the Action Date is equal or prior to the reporting quarter is valid. The following data items are required for each aircraft reported:

Org Code
Org Name
Report Date
PUC
BUNO
TMS
TSN/Flying Hours In Life
TSN Difference
Unposted XRAYs
NAVFLIR Hours
Last Quarter Reported End Date
Last Quarter Reported TSN

NOTES: 1. All AAAR data is pre-filled when submitted via DECKPLATE-AIRRS website.

2. DECKPLATE-AIRRS does not allow for corrections to the AAAR after the quarterly has been closed. If you find a need to correct hours from a previous quarter, contact your ACC/OPNAV N98 for assistance.

c. ACCs will run the AAAR Non-reporting units query report and notify those reporting custodians who are delinquent by the 15th of the month following the reporting date. The reporting custodians should report their AAAR hours NLT two business days after notification. For units needing assistance, contact your Wing/ACC. Reporting custodians that have not reported in two consecutive cycles must send a message to OPNAV N98/ACC explaining why they have not submitted the AAARs.

9.1.3.3 DECKPLATE Engine Transaction Reporting

9.1.3.3.1 Purpose. DECKPLATE provides all command echelons with current and historical information about the location, operational status, condition, and usage of aircraft engines/propulsion systems modules (EPSM), and components throughout the asset's life cycle. This data is used for logistics management, reporting, and analysis purposes. DECKPLATE engine management engine transaction reporting (DECKETR) supports proper financial reporting of uninstalled engines. Archival data is maintained on all EPSM reporting from acceptance into inventory through disposal, to include rented, leased, loaned or otherwise transferred to other agencies. Accuracy of this data is paramount in providing financial accountability for EPSM reporting. DECKETR is the front end application located on the DECKPLATE website that allows the submission of Engine Transaction Report (ETR) throughout an aircraft engine or engine module transaction artifact may include, but is not limited to, DD Form 200, DD Form 250, DD Form 1149, DD Form 1348, and strike message.

9.1.3.3.2 Management. DECKETR is a web-based application providing users the ability to enter EPSM data and perform all functions as required by NAVAIRINST 13700.15, NAVAIR M-13700.15 and the DECKPLATE EPSM procedures reference guide (PRG). DECKETR is accessed by choosing the engine management application from the menu on the DECKPLATE homepage, located at https://deckplate.navair.navy.mil. The authorizing official for granting the standard user least privileged role for civilian and military users is the end user's supervisor, contract users require Contracting Officer's Representative (COR) for approval. The authorizing official for elevated access to the system resides with COMNAVAIRFORPAC. Applicants should complete and submit registration forms from the NAVAIR Logistics User Registration web site: https://deckplate.navair.navy.mil/nlur. DECKETR access is limited to reporting and controlling custodians. Maintenance, admin, NAVSUP, PMA/APML, museum, strike admin and OPNAV roles require elevated access. For DECKETR questions or issues, contact the NAVAIR National Help Desk anytime day or night. CONUS toll-free: 1-888-292-5919 or 301-342-3104, email request: nav_helpdesk.fct@navy.mil or NAVAIR National Help Desk website: https://nhdsm.navair.navy.mil. The NAVAIR National Help Desk routes the issue to the DECKPLATE customer support team.

9.1.3.3.3 General Requirements. DECKPLATE provides accurate and timely data on EPSM status, location, and condition to all echelons of management within the Navy. Data provided through DECKPLATE is the basis to support fleet engine and module requirement computations, provides the supporting data for auditability to meet the financial audit requirements and to support budget requests for all engines and their components. NAVAIRINST 13700.15, NAVAIR M-13700.15 and the PRG provide guidance for all reporting and certification procedures. The PRG provides guidance to enable users to submit engine transaction data into the DECKETR application or when necessary via naval message. The formatted document guides DECKPLATE users through a logical process to successfully develop and enter an ETR, and describes procedures and codes to assist DECKETR users with entering ETR data from an engine or module's acceptance to disposal. The PRG also describes procedures and codes for entering end of quarter (EOQ) data.

a. Reporting custodians are responsible for submitting ETRs on all engines and engine modules in their custody no later than 2400 the first working day following the day the engine/module status, location or condition change occurs. All activities with installed engines in their custody will submit EOQ reports as of the last day of March, June, September and December. Reports will be submitted NLT than the seventh day of the month following the reporting period.

b. Reporting custodians operating with different organizational codes (ORG code) will transfer the aircraft in DECKETR to the detachment ORG code and upon return of aircraft to parent organizational code. DECKETR will auto-generate ETRs and will be populated to detachment ORG code account for the change in ORG code. Receiving detachment ORG code will enter a receipt ETR.

c. No engines will be stricken without being authorized by NAVSUP WSS. The date of the strike on ETR will be subsequent to the date of the NAVSUP WSS strike authorization message or as directed by NAVSUP WSS. The date of the strike on ETRs will be subsequent to the date of the NAVSUP WSS strike authorization message or as directed by NAVSUP WSS.

NOTE: Strike/disposal ETR dates must be subsequent to the NAVSUP WSS strike authorization message Date-Time-Group.

9.1.3.3.4 Responsibilities and Procedures.

a. Aircraft Controlling Custodian (ACC) is responsible for ensuring subordinate reporting custodians submit ETRs as changes in status, location and condition occur. When reporting custodians are delinquent or submit erroneous data, ACC will notify via naval message the cognizant Type Wing/MALS/MAG/MAW to ensure correction actions or delinquent reports are submitted in a timely manner.

b. Reporting custodians are responsible for the accuracy and timely submission and certification of ETRs for all EPSM in their custody. DECKETR certifiers must be separate from the submitter, and will be designated per 8.2.6.1. The activity DECKETR certifier will be designated in writing via ASM, the MPP, or the SME listing, and will certify all ETRs, which includes the completion of the physical maintenance on the EPSM, as well as the closeout of logbooks and records.

c. ETRs will be submitted NLT 2400 the first working day following the day the engine/module status, location, or condition change occurs utilizing ST-ST codes in PRG section 7.1. An EPSM will be reported in DECKETR any time a change in its status, location or condition occurs. ACC requires accountability for assets. All late ETR submissions will be provide in the remarks section “late due to” and a brief reason why the ETR was submitted late. Actions which impact accountability of assets include but are not limited to:

(1) An installed EPSM is transferred to or received from another activity. For activities with different ORG codes, transfer of aircraft in DECKETR will auto-generate transfer ETRs. The detachment ORG code receiving the aircraft is required to enter a receipt ETR.

(2) An uninstalled EPSM is transferred to or received from another activity.

(3) An EPSM is installed into an aircraft.

(4) Change of an EPSM position on an aircraft.

(5) An EPSM is moved from one aircraft to another (cannibalization).

(6) When reporting EOQ flight hours on installed EPSM.

(7) An EPSM is removed for other than O-level actions, I.E. for repair, modification, cannibalization action or major engine inspection.

(8) An EPSM is inducted for repair or modification.

(9) A module is removed from or installed on a propulsion system.

(10) An EPSM undergoing repair is delayed and is awaiting parts.

(11) An EPSM undergoing repair is awaiting maintenance.

(12) An EPSM completes the repair process or modification.

(13) An EPSM series change occurs.

(14) The completion of a quick engine change assembly buildup or attachment of modules to create a propulsion system.

(15) An EPSM is declared Beyond Capability of Maintenance (BCM) at any of the following:

(a) A Fleet Readiness Center (FRC) I-level site.

(b) Outside the continental United States Aircraft Intermediate Maintenance Department (AIMD).

(c) Afloat AIMD.

(d) Marine Aviation Logistics Squadron, then transferred to an FRC Depot site for repair or to the appropriate supply center to await repair at the designated repair point.

NOTE: BCM actions will be documented in the remarks/miscellaneous section of the ETR.

(16) An EPSM is allocated for repair at the designated repair point (DRP).

(17) An EPSM is downgraded to not ready-for-issue or unserviceable.

(18) When an EPSM discrepancy cannot be duplicated or be repaired by replacement of accessories and then it has been determined ready for issue.

(19) An EPSM is bailed, loaned, stricken, or disposed of from the inventory.

(20) An EPSM is designated as a test cell correlation EPSM.

(21) When disposition instructions have been requested from NAVSUP WSS by the Controlling Custodian for an EPSM, which has been determined to be in excess of fleet requirements. Fleet and program/project management, AIR (PMA) representatives are responsible for entry and documentation of ETR transactions as described in PRG section 11. PMA will upload naval strike message within DECKETR Engine Information Module (EIM)

when permission to strike a serial number (SERNO) is attained or when entering a SERNO into strike status.

(22) Upload DD Form 250/Receipt Artifact within DECKETR EIM when entering a new SERNO into DECKETR.

(23) Upload disposal artifacts within DECKETR EIM when entering a SERNO into disposed status.

d. ETR corrections improve the accuracy of SERNO specific information and will be submitted as soon as the inaccuracy is identified. Corrected ETRs will not retain the original date of entry, rather will be recorded as the date entered into DECKPLATE, engine management via system date stamp. Corrected ETRs will be considered timely for financial reporting and auditing purposes.

e. Reporting custodians will enter ETR information into DECKETR via computer systems with internet access. Reporting activities not having access to the internet will submit ETRs to their Controlling Custodian/Type Wing by priority naval message per PRG section 11. DECKETR auto generates the DECKPLATE ETR worksheet and Program Office Certification Worksheet (POCW) as ETRs are generated. The reporting custodian DECKETR certifier will certify the DECKPLATE ETR worksheet NLT 2400 local time on the second working day following the day the ETR was submitted. The POCW will be certified no later than midnight, local time, on the fifth working day following the day the ETR was submitted. Hardcopies of all ETRs and certification worksheets performed during periods of no connectivity with the DECKETR website must be electronically submitted upon restoration of connectivity with the DECKETR website. Maintain all hardcopies for a period of 2 years for auditing purposes as referenced in the PRG.

f. DECKPLATE EOQ worksheet templates are used to report all EOQ transactions. Reporting activities not having access to the internet will submit EOQs to the Controlling Custodian/Type Wing/MALS/MAG/MAW by priority naval message. The Controlling/Type Wing/MALS/MAG/MAW may also submit EOQ data for a reporting activity by priority naval message. Retention of EOQ worksheets on file will be per direction of the Type Wing/MALS/MAG/MAW.

9.1.3.4 Aircraft Flight and Summary Reporting

9.1.3.4.1 The aircraft reporting custodian and the Type Wing or MAW are jointly responsible for accurate and timely submission of RECTYP 79 (MAINT-2 Report) aircraft summary data.

9.1.3.4.2 All aircraft reporting custodians must send RECTYP 79 data via email to cnap-av_3m@us.navy.mil not later than 2400 on the tenth calendar day of the month following the report month. If email is not possible, the report must be submitted via Aircraft Summary Data Message (Figure 9-1) to reach the ACC not later than 2400 hours on the tenth calendar day of the month following the report month.

a. All aircraft reporting custodians must send RECTYP 79 data prior to transfer of aircraft under the following circumstances:

(1) Between squadrons.

(2) Between home guard and different ORG DET servers.

(3) To a depot facility (regardless if facility resides on same base).

b. For RECTYP 79 data not downloaded prior to an aircraft transfer, a squadron will submit the number of flights and flight hours for the period each BUNO was affected. This is the time from last RECTYP 79 report on the old server to the transfer of data to the new server.

NOTE: Maint-2 reports not received by the tenth day of the month, reporting custodians will, verify local records and submit available flight and Equipment In Service (EIS) and Equipment Out of Service (EOS) data to the cognizant ACC via Aircraft Summary Data Message (Figure 9-1). When corrections to the MAINT-2 report are made, resubmit the Maint-2 via email to cnap-av_3m@us.navy.mil by the third working day after corrections. If email is not possible, the report must be submitted via Aircraft Summary Data Correction Message (Figure 9-2).

9.1.3.4.3 Aircraft detachments operating away from their parent command without an OOMA Systems Administrator/Analyst (SA/A) must:

a. Forward all completed aviation 3M source documents, WOs or MAFs, and Naval Aircraft Flight Records (OPNAV 3710/4) to the parent command SA/A. The parent command SA/A will process the detachment documents and review and correct daily audit reports. Detachment source documents not received in time for processing prior to monthly closeout will be processed separately.

b. Submit a monthly Flight Data Submission Message (Figure 9-3) to the parent command SA/A on the first working day following the end of each reporting period. If required, the parent command will submit corrections to the RECTYP 79 data for the detachment.

9.1.3.4.4 When an aircraft is in the reporting custody of more than one activity during a report month, the last receiving aircraft reporting custodian is responsible for ensuring the total EIS and EOS hours reported by each activity for that BUNO balance and do not exceed the total hours in the report period. When physical custody changes at the location of the receiving unit, the receiving unit must provide detailed flight and mission capability data in the aircraft arrival message in the format specified in Figure 9-4. The transferring activity will use this information to complete documents.

9.1.3.4.5 Disestablishing units must submit a final Aircraft Summary Data Message (Figure 9-1) with the flight data occurring within the last month of operation. The message subject will state: "Final report. Unit disestablished on (date)." The message must be submitted to the ACC within 24 hours of unit disestablishment.

9.1.4 XRAY Reports

XRAYs record aircraft custody, status, and service life factor changes, and serve as the activation or deactivation of Subsystem Capability Impact Reporting (SCIR) data accumulation.

Timely and accurate XRAY data is essential to effective management of the naval aircraft inventory.

9.1.4.1 XRAY Data Fields

BUNO – The six-digit Bureau Number of the aircraft being reported.

ORG Code – Required on all XRAYs. Use the reporting custodian's organization code associated to the PUC having aircraft custody.

PUC – Permanent Unit Code of the Reporting Custodian. Required only on XRAYs that report the receipt of aircraft (Action Codes R or Y). For aircraft assigned to detachments, if the aircraft logsets were offloaded from the home guard server and uploaded on a different server, the aircraft will be reported as a "Detachment" not a "Same Org Det" and must use a Det Org and Det PUC. Same ORG Det are temporary detachments deployed by the O-level for less than 30 days.

ACTION DATE/TIME - The actual date and time of the transaction being reported.

NOTE: The action date reported on the XRAY will be the date the transaction occurred, regardless of the date the XRAY report is actually transmitted.

ACTION CODE – The reason for submitting the XRAY.

A - Acceptance. Documents the date and time the Navy accepted a new production aircraft, as recorded on the Material Inspection and Receiving Report (DD-250). COMNAVAIRSYSCOM is the only activity authorized to submit XRAYS with Action Code – A, Acceptance. The DD250 or the Pre-acceptance dates are used to calculate the chronological age of the aircraft. NAVAIR ACC will report the Action Date/Time the Navy originally accepted the aircraft. The acceptance date for new production aircraft is recorded on the Material Inspection and Receiving Report (DD-250) or, for aircraft which have been in service, the Aircraft Inventory Logbook. Typically, the acceptance date is recorded as the first entry with signature on the Aircraft Inventory Record or the Aircraft Inventory Record Certification and Record of Transfer.

L – Change of Location. Reports a change in location of an aircraft when deploying or detaching away from home station for 30 days or more. (Action code L is a PART II XRAY).

NOTE: An Action Code – L XRAY (Part II) is required for each aircraft the reporting custodian takes on detachment/deployment when an Organization Status (Part I) Change of Location XRAY is submitted. Refer to 9.1.6.1.

M – Model designation change. Reports a change in model designation when an aircraft begins conversion. Enter the new model designation on the first and subsequent XRAYs reporting the aircraft entering the conversion process. If the model designation change is directed by administrative action (no depot rework involved), retain in the status code previously reported.

P - Pre-Acceptance. Reports the Action Date/time the Navy gained custody of the aircraft. In the DECKPLATE-AIRRS database this date will become the Pre-Acceptance Date and this is the date that will be used to calculate the chronological age of the aircraft.

NOTES: 1. NAVAIR ACC is the controlling custodian for pre-accepted aircraft and aircraft required to perform Contractor Testing (CT) and Developmental Testing (DT) prior to the final DD-250 and Navy acceptance. These aircraft will not be included in the active inventory, and will be tracked under NAVAIR FS Custody Command Code 72.

2. NAVAIR ACC will manage the pre-accepted aircraft inventory, and is the point of entry for all pre-accepted XRAYS.

R - Receipt. Reports Reporting Custodian receipt of an aircraft from another Reporting Custodian. An R-action XRAY constitutes official change in Reporting Custodian responsibilities.

S – Strike. Strikes aircraft from the naval aircraft inventory. Refer to 9.1.7.3 for Strike XRAY direction.

X – Other. Used when no other action code applies. Action code X is used by all reporting custodians.

Y - Reinstatement. Used only when reporting one of the following actions:

(a) Reinstatement of a previously stricken aircraft.

(b) Addition of a used (not new production) aircraft to the naval inventory (see NOTE 1).

(c) Aircraft previously reported as having been pre-accepted using Action Code P.

(d) Aircraft loaned to the DON (see NOTE 2).

NOTES: 1. For aircraft acquired from other than new production, the Program Office or ACC involved in acquiring the aircraft will provide the original delivery date of the aircraft to CNO (N980L). Acceptance date is the original date of delivery, regardless of service or organization. It is not the date of acceptance into the Navy inventory. CNO (N980L) will ensure the accuracy of this date when manually entered into DECKPLATE-AIRRS for accurate accounting of aircraft age.

2. Assignment of a BUNO and a reinstatement action Y XRAY add a loaned aircraft to the DON inventory. The aircraft will be reported in status code U00, U10, U50, U60 or U70, as appropriate. No other XRAY reports are required until termination of the loan agreement, and the aircraft is stricken from the DON inventory and returned to the loaning organization.

STATUS CODE - The complete three-digit status code that best describes the aircraft status, per 9.1.5.

TYPE MODEL SERIES DESIGNATION - The complete model designation, including the dash, of the aircraft being reported, for example, FA-18C, EA-6B, MH-60S. Do not add slashes or plus signs to TMS designations, for example, F/A-18D will be reported as FA-18D.

FIXED INDUCTION DATE (FID)/PLANNED INDUCTION DATE (PID) – The date of the next scheduled depot standard rework. Refer to OPNAVINST 3110.11 to determine which aircraft have calendar-based or flight hour-base (block scheduling induction) D-Level maintenance schedules. If FID/PID is unknown, contact your Type Wing to get this information. For XRAYs submitted in OOMA, report as MMMYYYY. For XRAYs submitted via the DECKPLATE-AIRRS website, report as MM/YYYY.

NOTE: Upon completion of the depot standard rework event, report the next scheduled FID/PID as provided by the TYPE WING T/M/S Program Manager.

STRIKE/DAMAGE CODE – The Strike/Damage code that best describes the strike or damage situation, per 9.1.7.3.h. and Table 3.

ACCEPTANCE DATE - There are three dates that track an aircraft's entrance into the inventory:

DD250 Date

Pre-acceptance Date

Navy Inventory Date

The DD250 or the Pre-Acceptance Dates are used to calculate the chronological age of the aircraft. DECKPLATE-AIRRS for Action Code – A, Acceptance. Report the Action Date/time the Navy originally accepted the aircraft. The acceptance date for new production aircraft is recorded on the Material Inspection and Receiving Report (DD-250) or, for aircraft which have been in service, the Aircraft Inventory Logbook. Typically, the acceptance date is recorded as the first entry with signature on the Aircraft Inventory Record or the Aircraft Inventory Record Certification and Record of Transfer.

ESTIMATED REWORK COMPLETION DATE – The depot's estimated date for completion of rework. Required only for XRAYs reporting standard or special rework. Report this date within DECKPLATE-AIRRS and OOMA.

NOTE: An XRAY must be submitted whenever the estimated completion date is extended by 2 or more days from the last reported date.

PUC OF IN-SERVICE ACTIVITY – The PUC of the activity having physical custody of the aircraft. Only required if the physical custodian is different than the Reporting Custodian.

PUC RECEIVED FROM/COMMAND CODE - Used only on XRAYs reporting receipt of aircraft (action codes R or Y). Report the PUC of the unit received from.

SUPPLY ORGANIZATION CODE – Reported only on Organization Status Change of Location (Part 1) XRAYs (9.1.6.1), detachment activation/deactivation location change, and XRAYs for operational status category code change, or fleet assigned code change.

OPERATIONAL STATUS CATEGORY - The operational status category of the unit submitting the XRAY. Reported on Change of Location (Action Code L) and Receipt (Action Code R) XRAYs. Codes:

Operational Status Category A - Deployed Units. Effective upon embarkation for deployment aboard ship or to a station or facility outside CONUS, including Hawaii.

Operational Status Category B - Work Up/Ready Duty/Surge Capable Units. Effective 90 days prior to embarkation for a deployment either aboard ship or to a station or facility outside CONUS, including Hawaii, or upon attainment of surge capability, to include post deployment surge requirements.

Operational Status Category C - Deployable Units. Effective upon completion of deployment or surge requirements and not yet within 90 days of the next deployment.

Operational Status Category D - Fleet Readiness Squadrons (FRS), only.

Operational Status Category E - Non-deployable units.

NOTE: Reporting custodians anticipating changes of operational status category or fleet assigned will get concurrence from their Type Wing or MAW (while non-deployed), or from their CVW or MAG (while deployed) prior to submitting changes.

FLEET ASSIGNED CODE - Reported on Change of Location (Action Code L) XRAYs. Select the Fleet Assigned Code from the list to report an aircraft's fleet assignment for 30 days or more. Do not report transits through a fleet, report only the destination fleet where the assignment is for 30 days or more. Codes:

Fleet Assigned Code 2. Reporting custodians aboard ship for deployment or major exercises (30 days or greater) under Second Fleet OPCON. Reporting custodians on deployment or major exercises (30 days or greater) geographically located in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea.

Fleet Assigned Code 3. Reporting custodians aboard ship for deployment or major exercises (greater than 30 days) under Third Fleet OPCON. Reporting custodians on deployment or major exercises (greater than 30 days) geographically located in Eastern or Northern Pacific, including Hawaii.

Fleet Assigned Code 4. Reporting custodians aboard ship for deployment or major exercises (greater than 30 days) under Fourth Fleet OPCON. Geographically located in South America.

Fleet Assigned Code 5. Reporting custodians aboard ship for deployment or major exercises (greater than 30 days) under Fifth Fleet OPCON. Geographically located in the Middle East.

Fleet Assigned Code 6. Reporting custodians aboard ship under Sixth Fleet OPCON. Reporting custodians on extended deployment (greater than 30 days) geographically located in the Mediterranean or North Atlantic theaters, excluding forward deployed (homeported) units.

Fleet Assigned Code 7. Reporting custodians aboard ship under Seventh Fleet OPCON. Reporting custodians on extended deployment (greater than 30 days) geographically located in the Western Pacific or Indian Ocean theaters, excluding forward-deployed (homeported) units.

Fleet Assigned Code A. Reporting custodians under USFF OPCON to include units not deployed and forward deployed (homeported) in the Atlantic area, excludes reporting custodians under Fleet Assigned Codes 2, 3, 4, 5, 6, or 7.

Fleet Assigned Code P. Reporting custodians under COMPACFLT OPCON to include units not deployed and forward deployed (homeported) in the Pacific area. Excludes reporting custodians under fleet assigned codes 2, 3, 4, 5, 6 or 7.

REINSTATEMENT TYPE - Used only on XRAYs reporting receipt of aircraft that have been pre-accepted, aircraft being received from non-navy organizations and aircraft returning from a stricken status.

AIRCRAFT LOCATION - Name of the ship, station, or facility the aircraft is assigned to, such USS THEODORE ROOSEVELT, or NAS Lemoore CA. If outside CONUS and not at an established Navy or Marine Corps facility, report the city and country, for example, Sangin Afghanistan. Required on every XRAY.

NOTES: 1. Deployed Units that are restricted from reporting their geographic locations will report the location as "Deployed". Do not use "Unknown" for location.

2. For aircraft in transit by flight/airlift, enter the name of the destination ship, station, or facility. For aircraft in transit by sea/surface lift transport report the name of the ship when aboard ship or the destination if transport is by truck. If aircraft transit is delayed for 48 hours or more, report the aircraft's physical location and reason for delay.

3. For aircraft that are lost due to mishap, report location of the mishap; e.g., Pinehurst NC or USS GEORGE WASHINGTON.

REMARKS - Additional information or details to further explain the XRAY. Do not report as Unknown or leave blank. The date time group (DTG) of the authorization message is required for aircraft approved to be placed in out of reporting status while undergoing repair or modifications on-site, placing an aircraft in Reconstitution Reserve (RR0) status, and placing an aircraft in Y00 status. Detailed remarks are required for aircraft undergoing Phased Depot Maintenance (D4_ status), Depot Repair (G3_ status), or Modernization/Modification (G4_ status). Examples:

D40 – Aircraft inducted into FRC Southwest for PMI 2.

D41 – Aircraft commenced PMI 1 on-site.

G30 - Aircraft inducted into FRC East for crash damage repair.

G31 – Aircraft commenced on-site depot repair for cracked and buckled web, P/N 65201-05003-103, FS 462, WL 92, BL 20L. Approval to take aircraft out of reporting status provided by COMNAVAIRLANT message DTG 080026Z MAR 20.

G41 – Aircraft inducted into FRC Southeast for MOD, H-60 Airframe Change (AFC) NR 372, TD CODE 50, incorporation of improved pilot and co-pilot seat cushions (RAMEC CHPT-95-10).

OPERATING SERVICE MONTHS – The number of months that have elapsed in operating service life.

NOTE: 1. For aircraft that have a FID/PID, the OSM is calculated by DECKPLATE-AIRRS as the difference in months between the FID/PID and the Acceptance/Pre-acceptance Date.

2. The OP Status Category Code and Fleet Assigned code is required in the remarks section of all receipt xrays.

9.1.4.2 XRAY Report Data Field Matrix. Table 2 shows the required XRAY data fields for each Action Code.

Table 2: XRAY ACTION CODE MATRIX

DATA FIELD	XRAY ACTION CODE								
	Change in Reporting Custodian				No Change in Reporting Custodian				
	A	P	R	Y	L	M	S	X	Part I
BUNO	R	R	R	R	R	R	R	R	
Org Code	R	R	R	R	R	R	R	R	R
PUC	R	R	R	R	R	R	R	R	R

Action Date /Time	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Action Code	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	
Status Code	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	
Type Model Series Designation	**R**	**R**	**R**	**R**		**R**	**R**	**R**	
FID/PID			**1**	**2 or 3**			**R**	**1 or 2**	
Strike/Damage Code			**2**				**R**	**1 or 2**	
Acceptance Date									
Estimated Rework Completion Date			**2**			**1 or 2**		**1 or 2**	
PUC of the In-service Activity						**2**		**1 or 2**	
PUC Received From/Command Code				**R**					
Supply Org Code			**R**		**R**			**1 or 2**	**R**
Operational Status Category			**R**		**R**	**R**		**1 or 2**	**R**
Fleet Assigned Code			**R**		**R**	**R**		**1 or 2**	**R**
Reinstatement Type				**R**					
Aircraft Location	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Remarks	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**

Legend:
R – Required
1 – Report only when item content is different than information previously reported
2 – Required if applicable when status code dictates
3 – Required only on reinstatement to restore appropriate information that existed prior to strike action
Blank – Not Reported

NOTE: OOMA automatically selects XRAY data fields based on Action Code.

9.1.5 Aircraft Inventory Status Codes

Aircraft status codes are used to describe the use of the aircraft and certain operational conditions. Aircraft can be in only one AIRRS status code at any given time. XRAYs must be submitted by reporting custodians to document status changes, such as acceptance into the naval inventory, transfer of custody, changes of location, rework, damage or strike from the inventory, and other situations. Status changes must be reported by XRAY, regardless of how brief the situation exists.

NOTE: Aircraft in "A" status codes are in material condition reporting status (IN-MCRS) for Subsystem Capability Impact Reporting (SCIR). Aircraft in any other status

code but "A" are out of reporting for MCRS (OUT-MCRS) for SCIR. Refer to 9.2 for SCIR procedures.

9.1.5.1 Aircraft Operational Status Codes

"A" status codes identify aircraft in the operational inventory, by their assigned primary use, as determined by the mission of the reporting custodian of the aircraft. Aircraft in A_0 status are not awaiting or undergoing any depot rework or strike action.

Assigned Primary Use	Code
Combat	A10
Combat Support	A20
Undergraduate Aircrew Training	A30
Reserve Aircrew Training	A40
On Loan to Navy for Training	A50
FRS Aircrew Training	A60
Operational Test and Evaluation	A70
Logistic Support	A80
Advanced Aircrew Training (FITWEPSCOL, NSAWC, TPS, Adversary, FTRG)	A90
Developmental Test and Evaluation	AJ0
Test Support Aircraft	AK0
Search and Rescue	AL0
Executive Transport	AM0
Flight Demonstration Squadron	AN0
Other (Oceanographic/Antarctic Research)	AR0
Strategic Forces (TACAMO)	AS0

NOTES: 1. NASC FS reporting custodians are not authorized to use A status codes.

2. If undergoing depot in service repair (ISR), depot modernization or modification at the reporting custodian's site, the third position of status code "A" will be changed from "0" to "1" for ISR or "2" for modernization or modification. Aircraft undergoing ISR, modernization or modification at depot facilities are not authorized to use the third position of status code "1" or "2" regardless if depot facilities resides on the same base. Examples:

A11 - Combat aircraft undergoing depot in-service repair (ISR) at the reporting custodian's site.

A12 - Combat aircraft undergoing depot modernization or modification at the reporting custodian's site.

A61 – FRS Aircrew Training aircraft undergoing depot ISR at the reporting custodian's site.

A62 - FRS Aircrew Training aircraft undergoing depot modernization or modification at the reporting custodian's site.

3. For operational aircraft in-transit via surface (ship, truck, train) or airlift, use status codes KGK and KLK in the following sequence:

KGK - Waiting transport, undamaged, or non-flyable, ninety-six hours prior to scheduled lift, aircraft are permitted to be placed in KGK awaiting transport.

KLK - In transport (air or surface), undamaged or non-flyable.

KGK - Post transport reassembly, not to exceed 96 hours upon arrival at final destination.

9.1.5.2 Loaned/Lease Aircraft Inventory Codes

Status	**Code**
Contractor Held RDTE Custody Test Aircraft	TJ0
Contractor Held RDTE Custody Test Support	TK0
Contractor Held RDTE Custody Contractor Pending	TR0
Contractor Held RDTE Custody Other	TT0
Contractor Held FS Custody Other	TV0
On Loan from Navy FS Custody	U00
Under Lease from the Navy	U10
On Loan to the Navy RDTE Custody Other	U50
On Loan to the Navy RDTE Custody Test Aircraft	U60

9.1.5.3 Drone Aircraft (Operating, In Rework or Stored)	**Code**
	Q00

9.1.5.4 Pre-Accepted Aircraft Inventory Requiring Accountability	**Code**
	U70

NOTE: For NAVAIR ACC use, only. Used to account for certain aircraft involved in combined Contractor and Developmental flight testing prior to final DD-250 and Navy acceptance.

9.1.5.5 Aircraft Stored in Reserve/Retention Inventory

a. **Service Life Not Complete - Standard Rework Not Required**

Condition of Aircraft	In Transit By Flight, Airlift or Surface	Inactive Reserve	Mobilization Reserve
Undamaged	J10	M10	N10
Foreign Mil Sales	J11	M12	N11
Reconstitution Reserve			RR0 **(NOTE)**

b. **Service Life Not Complete - Standard Rework Required**

Condition of Aircraft	In Transit By Flight, Airlift or Surface	Inactive Reserve	Mobilization Reserve

Undamaged	J10	M30	N30
Damaged	J10	M40	N40
Foreign Military Sales	J11	M31	N31

c. **Service Life Complete**

Condition of Aircraft	In Transit By Flight, Airlift or Surface	Inactive Reserve	Mobilization Reserve
Navy Use	J20	WA0	WE0
Foreign Military Sales	J21	WA1	WE1

NOTE: All stored aircraft must be placed in NASC FS custody unless authorized by CNO (N98) to remain in ACC custody in Reconstitution Reserve (RR0) status. Reconstitution Reserve is short-term storage (1 year or less) when long-term storage is impractical. Aircraft placed in RR0 status must be in flyable (MC) condition unless exempted by CNO (N98). Cannibalization or other non-preservation related work is not authorized while in RR0 status. All aircraft in ACC custody that are in dehumidification preservation must be placed in RR0 status. Requests to place ACC aircraft in RR0 status will be submitted by naval message or letter from the responsible Type Wing or MAW to the applicable ACC aircraft class desk, who will coordinate with CNO (N98) for approval/disapproval.

9.1.6 Common XRAYs

9.1.6.1 Organization Status (Part 1) Change of Location XRAY

Reporting Custodians must submit an Organization Status (Part 1) Change of Location XRAY when the squadron moves from one location to another (shore to ship, ship to shore, ship to ship, or one shore location to another) for a period of 30 days or more. Organization Status (Part 1) Change of Location XRAYs are entered via DECKPLATE-AIRRS web. Refer to 9.1.4.2 for required data fields.

NOTE: In addition to the Organization Status (Part 1) Change of Location XRAY, an individual Action Code - L – Change of Location XRAY is required for each aircraft that deploys or detaches away from home station for 30 days or more.

9.1.6.2 Custody Change (Receipt) XRAY

Reporting custodians must submit a Receipt (Action Code -R) XRAY upon receipt of an aircraft from another reporting custodian. The receiving activity must submit a Receipt XRAY, regardless of receipt of logsets or the completion of the acceptance inspection. Refer to the XRAY Report Data Field Matrix, 9.1.4.2, for required data fields.

NOTES: 1. XRAY Action Codes A, P, R and Y result in a change in Reporting Custodian. Action codes L, M, P, S, and X do not result in a change in Reporting Custodian.

2. The transferring activity must check DECKPLATE-AIRRS to verify a Receipt XRAY was submitted by the receiving activity. If the Receipt XRAY has not

been entered within 48 hours of transfer, the transferring activity must contact the receiving activity for information.

3. If the transferring activity ferries the aircraft to the receiving activity, custody change occurs at the destination. If the receiving activity ferries the aircraft, custody change occurs at point of origin. For aircraft shipped via surface or airlift shipment, custody change occurs upon time of arrival at the receiving custodian's site.

4. If an aircraft is received with engines installed, the date of the AIRRS XRAY and the date of the associated DECKPLATE Engine Transaction Report (DECKETR) must match. Refer to NAVAIRINST 13700.15 and the Procedure Reference Guide (PRG) for ETR procedures.

9.1.6.3 Depot Rework XRAY

a. Reporting custodians must submit and Other (Action Code – X) XRAY when aircraft status is reported on Planner and Estimator (P&E) services request as non-flyable and is awaiting or undergoing depot In-Service Repair (ISR) or Modification (MOD) at the reporting custodian's operating site. Status code A_1 will be used for depot in-service repair, and status code A_2 will be used for depot modification. Examples: A11 will be used for a combat category aircraft undergoing depot ISR at the reporting custodian's site, and A12 will be used for a combat category aircraft undergoing depot MOD or MOD at the reporting custodian's site. Non Mission Capable Depot (NMCD) time starts when aircraft is reported non-flyable on the P&E request or undergoing depot ISR or MOD at the reporting custodian's operating site. ACC T/M/S aircraft class desks will consider requests to take aircraft Out of Mission Capable Reporting Status (OUT-MCRS) while aircraft are undergoing on-site depot ISR or MOD when the ISR or MOD is expected to exceed 120 days. Request will be submitted by naval message to the ACC T/M/S aircraft class desk with the following minimum information:

(1) Each BUNO a deviation is requested for.

(2) Status requested.

(3) Justification for placing the aircraft OUT-MCRS.

(4) Plan and timeline for returning the aircraft to IN-MCRS.

b. Reporting Custodians must submit an Other (Action Code – X) XRAY to report an aircraft that is awaiting, in route to, or undergoing rework at the depot; i.e., whenever the aircraft and its records will be transferred to depot physical custody. The most appropriate depot rework code will be used from the following list:

Standard Rework	In Transit By		Awaiting Rework		In Rework
	Flight/Airlift	Surface	Flyable	Not Flyable	
IMC/P	F40	FD0	E4_	ED_	D4_ (NOTE 1, 2)

AWI	F50	FE0	E5_	EE_	D50

Special Rework	**In Transit By**		**Awaiting Rework**		**In Rework**
	Flight/Airlift	Surface	Flyable	Not Flyable	
Conversion	I10	IA0	H10	HA0	G10

Special Rework	**In Transit By**		**Awaiting Rework**		**In Rework**
	Flight/Airlift	Surface	Flyable	Not Flyable	
Repair/Crash Damage	I30	IC0	H3_	HC_	G3_ (NOTE 2)
Modernization/Modification	I40	ID0	H4_	HD_	G4_ (NOTE 2)
NAVAIR TE Project Install/Removal					G6_ (NOTE 2)

NOTES: 1. Scheduled depot maintenance with a fixed and operational service period based on calendar, condition, or block concept (flight hours or combination of both calendar and flight hours) interval, i.e. PMI, ACI, Age exploration program depot, EPM, SDLM, ASPA, C-Checks (FAA approved fixed maintenance plan, which incorporates commercial maintenance practices).

2. The third position of the status codes with _ in the third position will be reported as "0" if aircraft is located at a Depot or commercial rework site. The third position will be reported as "1" if the aircraft is located at the custodian's operating site.

Aircraft located at a NASC FS depot, after rework is complete

Awaiting Movement by Reporting Custodian (RFI)	BY1
Awaiting Movement by Reporting Custodian (NRFI)	BY3
In Transit to Reporting Custodian by Flight/Airlift	C10

In Transit to Reporting Custodian by Ship/Truck	CA0

c. Reporting custodians will follow T/M/S MESM to determine if aircraft condition prevents the aircraft from being flyable prior to submitting an P&E services request for ISR or MOD. Non-Mission Capable Depot (NMCD) does not start until the aircraft is reported non-flyable or undergoing depot ISR or MOD at the reporting custodian's site.

9.1.6.4 New aircraft in process of first delivery (for NAVAIR ACC use only)

Regular Acceptance	BX0
Awaiting Movement (NRFI)	BA0
Provisional/Conditional Acceptance	VF0

9.1.7 Strike from Inventory Procedures

9.1.7.1 Authorization

Aircraft will not be stricken without the direct authorization of CNO (N98). CNO (N98) will semiannually approve a list of aircraft approved for strike and direct their disposition.

NOTES: 1. Aircraft lost or destroyed through accident may be stricken by the reporting custodian without prior OPNAV authority. Refer to NAVAIRINST 13700.15 for engine disposition instructions.

2. Special strike requests may be submitted to CNO (N98) on a case-by-case basis.

9.1.7.2 Strike at Aerospace Maintenance and Regeneration Group (AMARG)

a. Aircraft ferried to AMARG for strike will be received and stricken by the Navy Fleet Support Office assigned to AMARG, not the ferrying activity. Reporting Custodians transferring aircraft to AMARG will not submit a strike XRAY. AMARG will submit a receipt XRAY upon arrival and a separate strike XRAY upon completion of strike actions.

b. Aircraft stricken at AMARG or due to unrecoverable crash or loss will follow the same procedures prescribed for transferring aircraft and NALCOMIS OOMA Logsets to another reporting custodian, per Chapter 8, paragraph 8.6.3.4. The NALCOMIS OOMA Logsets will be transferred to the OMAWHOLE server for archive storage. In the event online transfer is not available, send OOMA logset to OMAWHOLE.GM.fct@navy.mil via encrypted email or DoD SAFE. AMARG personnel will manage stricken aircraft Logsets on the OMAWHOLE server with the assistance of NAVAIR Logistics Information Technology (LOG-IT) personnel.

9.1.7.3 General Strike Procedures

a. Aircraft approved for strike will be ferried or moved to the site of final disposition prior to strike.

b. Reporting custodians will request ACC approval to place an aircraft in awaiting strike status. When ACC authorization is received, the reporting custodian will submit an XRAY to

report the aircraft in the appropriate awaiting strike status code. The strike XRAY will not be submitted until approval to strike the aircraft is received from CNO (N98). Strike XRAYs must reference the CNO (N98) authority in the remarks section. If CNO (N98) authorization to strike is not granted and an aircraft is to be retained in the inventory, the reporting custodian must reverse the strike action by submitting a "Y" action XRAY placing the aircraft in the appropriate status code.

NOTE: A strike XRAY is used only when reporting XRAY status codes; 1S0, 2S0, 3S0, and 4S0. The FID/PID will be adjusted to match the month and year reported in the strike.

c. Reinstatement of previously stricken aircraft is accomplished by a "Y" action XRAY.

d. Aircraft in any of the strike status codes (except 1S0, 2S0, 3S0, 4S0) are considered retired.

e. Stricken aircraft are no longer subject to NAMP reporting requirements.

f. NAVSUP WSS, National Naval Aviation Museum, and National Museum of the Marine Corps are responsible for uploading all formal documentation into the Stricken Aircraft Management module for each strike aircraft they receive.

g. Reporting Custodians must submit a Strike (Action Code - S) XRAY whenever aircraft have been directed to be stricken or are awaiting decision to strike, except for those aircraft that will be stricken at AMARG per 9.1.7.2. Strike XRAYS must be reported via the DECKPLATE-AIRRS website (https://deckplate.navair.navy.mil/AIRRS/) and must also be entered in OOMA. The strike XRAY must be entered in OOMA prior to moving the log set to the outbox.

h. Strike XRAYs will use the most appropriate code from the following list:

	Awaiting Decision	Awaiting Strike		
Category	**To Strike**	**Not MAP/FMS**	**For MAP/FMS**	**Stricken**
1 - Damage	Y00			1S0
2 - Depreciation	PB0	S20	R00	2S0
3 - Administrative	PC0	S30	R00	3S0
4 - Service Life Complete	PD0	S40	R00	4S0

Table 3: STRIKE/DAMAGE CODE MATRIX

CATEGORY (First Position)	1 Category 1 **Strike Due Damage**	2 Category 2 **Strike Due Depreciation**	3 Category 3 **Strike Due Admin reasons**	4 Category 4 **Strike Due Completion of Service Life**	5 Category 5 **Damage (A/C repairable)**

CATEGORY (Second Position)	IN FLIGHT	NOT IN FLIGHT
	A - UNIT TRAINING J - FERRY K - EXPERIMENT DEVELOPMENT, EVALUATION L - FLIGHT TEST M - UTILITY P - SEARCH AND RESCUE R - TRANSPORT S - ATTACK U - ANTI-AIR WARFARE V - RECONNAISSANCE W - AIR DEFENSE	1 - PARKED ASHORE 4 - IN TOW OR NON-FLIGHT TAXI 5 - ABOARD SHIP 7 - LOADING OR UNLOADING 8 - UNDERGOING REWORK 9 - IN STORAGE

CAUSE (Third Position)	NOT ENEMY ACTION	ENEMY ACTION
	INCIDENT TO FLIGHT: A - AIRCRAFT ACCIDENT OR INCIDENT B - EXCEPT WHEREVER D,E,F, BELOW ARE APPLICABLE D - GUN, ROCKET, OR MISSILE FIRE FROM DRONE EXPENDITURE (SEE F BELOW) E - MISSING; CAUSE UNKNOWN F - TARGET DRONE EXPENDITURE **NOT INCIDENT TO FLIGHT:** H - STORM (INCLUDING RESULTANT FIRES, COLLAPSE OR DAMAGE OF FACILITIES, ETC.) I - ACCIDENTAL DAMAGE BY OWN FORCES ORDNANCE (INCLUDING RESULTANT FIRES, ETC.) J - FIRE OR EXPLOSION (OTHER THAN H OR I ABOVE) K - DAMAGE FROM OTHER SURFACE INCIDENT (E.G., TOWING OR NON-FLIGHT TAXI ACCIDENT) L - AIRCRAFT ON LOAN TO NAVY RETURNED O - STANDARD SERVICE LIFE COMPLETE P - EXCESS TO INVENTORY REQUIREMENTS Q - OBSOLETE R - ADMINISTRATIVE ACTION, NOT ELSEWHERE CLASSIFIED 2 - ORDNANCE FROM ENEMY SURFACE WEAPONS 5 - SABOTAGE, CAUSING LOSS 6 - SEIZURE OF BASE BY ENEMY	**INCIDENT TO FLIGHT:** S - ENEMY ORDNANCE V - MISSING; CAUSE UNKNOWN Y - LANDING OR TAKE OFF MISHAP DUE TO ENEMY INFLICTED DAMAGE Z – SABOTAGE, CAUSING LOSS **NOT INCIDENT TO FLIGHT:** 1 – ATTACK BY ENEMY AIRCRAFT 2 – ORDNANCE FROM ENEMY SURFACE WEAPONS 5 – SABOTAGE, CAUSING LOSS 6 – SEIZURE OF BASE BY ENEMY 7 – IMMINENT OR PROBABLE CAPTURE BY ENEMY

APPLICABLE TO STRICKEN AIRCRAFT

DISPOSITION (Fourth Position)		
	1 – ROUTINE SALVAGE OR SARDIP FOR PARTS AND SCRAP 2 – MISSING, OR COMPLETELY DESTROYED, OR ECONOMICALLY INACCESSIBLE 3- JETTISONED OR ABANDONED IN OPERATIONAL OR REPAIRABLE CONDITION, AS MILITARILY ADVANTAGEOUS TO DO SO 4 – INTENTIONALLY DESTROYED TO NULLIFY ITS CAPTURE OR INTERNMENT	5 – CANNIBALIZED, WHILE OTHERWISE IN OPERATIONAL OR REPAIRABLE CONDITION, AS AN OPERATIONAL REQUIREMENT TO OBTAIN PARTS FOR OTHER AIRCRAFT 6 – INTERNED BY FOREIGN POWER 7 – CAPTURED BY ENEMY 8 - TRANSFERRED TO NON NAVY RECIPIENT 9 – DIVERTED TO GROUND TRAINING OR TECHNICAL USES WITHIN THE NAVY 0 – DISPOSITION INSTRUCTIONS UNKNOWN

APPLICABLE TO DAMAGED AIRCRAFT

A – TO BE RESTORED BY ORGANIZATIONAL MAINTENANCE ACTIVITY B – TO BE RESTORED BY INTERMEDIATE MAINTENANCE ACTIVITY C – TO BE RESTORED BY DEPOT LEVEL MAINTENANCE FACILITY

9.1.7.4 Category 1 Strike Damage Procedures

a. The reporting custodian will immediately report a Category 1 (Strike Damage) XRAY when an aircraft is lost (not recovered) or destroyed.

NOTE: If the damage incurred is of a lesser degree, but still such that the reporting custodian believes the aircraft is eligible for Category 1 strike, the reporting custodian will notify the ACC and request disposition.

b. The ACC has the authority to declare an aircraft eligible for Category 1 strike and may request depot Planner and Estimator (P&E) evaluation for confirmation. A determination of eligibility constitutes both the authority and direction to strike the aircraft.

c. Reporting custodians will make logbook entries prior to transferring a damaged aircraft to NASC FS custody. The logbook entries will provide sufficient information for NASC FS to report the aircraft stricken should the decision be made to strike the aircraft. For disposition of installed engines refer to NAVAIRINST 13700.15.

d. Category 1 Strike XRAY will use Action Code - S, Status Code 1S0, and the most appropriate code from the Strike/Damage Code Table. The FID/PID will reflect month and year of strike. If P&E evaluation has been requested, the aircraft will be reported using Action Code - X (Other) and status Y00 (Awaiting Decision to Strike). An aircraft reported in Y00 status also requires that a tentative strike/damage code be entered in the aircraft logbook miscellaneous history section. If the P&E evaluation results in a decision to restore the aircraft, the reporting custodian will submit an XRAY report in the appropriate status. If the P&E evaluation results in a decision to strike the aircraft, the strike date will be as of the date of the completion of the P&E evaluation. Strike XRAYs for aircraft lost or destroyed will include this instruction in the remarks section of the report as authority. All other Category 1 strike actions will reference the specific authorizing directive.

NOTE: For aircraft sustaining lesser damage than strike, yet requiring depot rework or repair, report the appropriate damage code. Include the damage code on all XRAY's reporting the aircraft in the appropriate Depot Special Rework Repair status code (I30, IC0, H3_, HC_, or G3_) per 9.1.6.3.b.

9.1.7.5 Category 2 (Depreciation) Strike Procedures

a. When an aircraft materially depreciates to the extent that it might be strike eligible, the reporting custodian will request a P&E evaluation for Category 2 strike. The P&E will report the results of the evaluation to the cognizant ACC. Requests for Category 2 strike will be submitted via the chain of command to CNO (N98) for approval.

b. Aircraft awaiting a Category 2 strike decision will be reported using an Action Code - X (Other) XRAY and status code PB0. When the P&E evaluation is completed and strike is recommended, use S20. When authorization is granted, the Category 2 strike action is reported as Action Code – S, status code 2S0, with the appropriate code from the Strike/Damage Code Table.

9.1.7.6. Category 3 (Administrative) Strike Procedures

a. Category 3 (Administrative) strike is authorized for reasons not related to damage, depreciation, or completion of service life. Category 3 strikes cover obsolete or excess aircraft; aircraft intentionally destroyed (including drones) in test, training or battle; aircraft removed from the inventory for use in ground training; aircraft transferred to foreign governments via foreign military sales (FMS) or transferred to other non-Navy recipients; and aircraft stricken due to Master Aviation Plan (MAP) decisions.

b. With the exception of aircraft intentionally destroyed in battle, only CNO (N98) can authorize Category 3 strike.

c. When Category 3 strike does not involve FMS or MAP, the aircraft will be stricken at the disposal site.

d. Category 3 strike XRAYs will contain Action Code – S, Status Code 3S0, and the appropriate code from the Strike/Damage Code Table.

9.1.7.7 Category 4 (Completed Service Life) Strike Procedures

Category 4 (Completed Service Life) strikes cover those aircraft that have reached the end of their operational service life due to hours or Fatigue Life Expended (FLE) limits. Upon direction by the ACC, the reporting custodian will submit a Category 4 strike XRAY with Action Code – S, Status Code 4S0, and the appropriate code from the Strike/Damage Code Table.

9.2 Subsystem Capability and Impact Reporting (SCIR) System

9.2.1 Purpose

SCIR is the data system used to monitor mission capability and identify discrepant aircraft systems and subsystems listed in the T/M/S aircraft Mission Essential Subsystem Matrix (MESM). SCIR provides managers with information on discrepant systems that cause mission impairment, the degree of mission impairment (Partial Mission Capable (PMC) or Non-Mission Capable (NMC), the length of time mission capability was reduced, and related maintenance and supply factors.

9.2.2 Definitions

a. **NMCD -** Not Mission Capable due to Depot-level maintenance.

b. **NMCS -** Not Mission Capable due to Awaiting Parts (AWP).

c. **NMCM-U** - Not Mission Capable due to Unscheduled maintenance.

d. **NMCM-S -** Not Mission Capable due to Scheduled maintenance. An aircraft is NMCM-S during all periods of time it is not available for a mission because of scheduled maintenance. Conditions:

(1) NMCM-S does not apply to administrative WOs, daily or turnaround inspections, or corrosion prevention that does not impair mission capability.

(2) NMCM-S does not apply if the scheduled inspection does not require disassembling the aircraft beyond the point re-assembly can be completed within 2 hours. If the scheduled inspection does require disassembly to the point the aircraft cannot be re-assembled within 2 hours, the inspection is considered to impact mission capability and the appropriate EOC code will be applied to the associated look-phase inspection WOs. Regardless of the extent of disassembly, NMCM-S applies upon reaching the maximum operational limit allowed between scheduled maintenance intervals.

e. **PMCS** - Partial Mission Capable due to Awaiting Parts (AWP).

f. **PMCM** - Partial Mission Capable due to Maintenance.

g. **FMC** - Fully Mission Capable. No NMCD, NMCS, NMCM-U, NMCM-S, PMCS, or PMCM discrepancies.

h. **EMT** - This time is spent actually working on the end item and is always documented as maintenance time, even though parts may be on order from supply. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although EMT is directly related to job man-hours, it is not to be confused with total man-hours required to complete a job.

i. **AWM** - This time is when no work is being performed on the end item and no parts are on order from supply. Even though work is stopped for a lack of parts, it is considered AWM until the demand is placed on the supply department.

j. **Maintenance Time** - The sum of AWM and EMT.

k. **AWP** - Awaiting parts. AWP time starts when a requisition is placed on the supply system for a required item. AWP time stops when the required item is received by the maintenance activity. Parts are not considered to be on order (AWP) until demand has been forwarded to the Supply Response Section (SRS) of the Supply Department.

l. **SCIR Gripe Life** - The total length of time a discrepancy is SCIR related. As a formula, SCIR GRIPE LIFE = AWP + EMT + AWM. (This formula is not applicable to inspection control documents.)

m. **Computer Generated AWM (AWM 0)** - Using the SCIR gripe life formula above, the computer will account for every hour of gripe life. Time which has not been accounted for as supply, EMT, or documented AWM will be categorized as AWM and assigned a reason code of 0. Computer generated AWM will never be documented on the WO.

9.2.3 SCIR Documentation

NOTE: Refer to Chapter 15 for additional procedures on documenting SCIR on OOMA work orders.

9.2.3.1 SCIR accounts for the total length of time an aircraft's mission capability is impaired, while the aircraft is IN-MCRS and an aircraft system or subsystem listed in the T/M/S Mission Essential Subsystem Matrix (MESM) (9.4) is discrepant or failed (not including administrative actions), preventing the aircraft from performing one or more of its missions. SCIR is not documented when the maintenance action is administrative, only (for example, removal of an RFI component to Facilitate Other Maintenance (FOM)) or the discrepancy does not impair mission capability. SCIR is applicable when mission capability is impaired while:

a. Repairing an end item.

b. Phase inspection, conditional inspection (9.2.3.3) or calibrating an end item.

c. Installing a TD on an end item.

NOTE: A system or subsystem is considered nonfunctional even though the final disposition may be no defect (A-799). In these cases, mission capability is considered impacted from the time the discrepancy was reported.

9.2.3.2 SCIR is automatically calculated based on IN-MCRS, Type WO code and Up/Down status. The appropriate EOC code (9.4) is applied to the WO related to the discrepancy that is degrading mission capability. The EOC code is linked to the system/subsystem WUC/UNS in the T/M/S aircraft CM baseline in OOMA and is prefilled on the WO based on the Up/Partial/Down (U/P/D) indicator and WUC/UNS selection. Only one EOC can be documented on a WO. For inspections, the EOC is documented on the Single Work Center Inspection WO or the Look Phase WOs for inspections requiring more than one work center.

9.2.3.3 SCIR must be documented for all inspections that require disassembly of the aircraft or installed equipment to the point the aircraft cannot be reassembled within 2 hours.

a. If an aircraft is downed for a phase inspection, SCIR will be documented on the look phase WOs during the down portion of the inspection once Maintenance Control SCIR Impacts the inspection by selecting the SCIR Impacted Insp option from the Aircraft VED. Any fix phase discrepancies (Type WO code PF), discovered during the phase inspection will be SCIR related, if they affect mission capability per the T/M/S aircraft MESM.

b. SCIR is documented for a conditional inspection only if:

(1) An overlimit condition exists, for example, hard landing, bolter, overspeed, or overtemp, that restricts the aircraft from further flight until the inspection is completed; or

(2) Higher authority directs a one-time inspection, not ordered in a TD, that restricts the aircraft from flight. Aircraft undergoing conditional inspections to determine equipment condition, for example, pre-carrier, pre-deployment, aircraft ferry, acceptance, transfer, and

routine events that do not exceed an over-limit condition, for example, inspections caused by flying various mission sets in harsh or salt laden environments, will remain in MC status during the complete inspection unless panels and equipment removed to conduct the inspection cannot be replaced within a 2-hour period.

NOTES: 1. SCIR will only be impacted when aircraft are IN-MCRS. EOC code "A" will be used while aircraft are OUT-MCRS (non-SCIR impact). Upon submission of an XRAY in OOMA to place an aircraft in OUT-MCRS status, all inspection WOs will be automatically changed to EOC "A". When aircraft status returns to IN-MCRS, the OOMA XRAY will initiate an automatic update of all SCIR impacted inspection WOs back to EOC "Z". Refer to 9.4.2.

2. EOC code "A" is not active until an impending NALCOMIS software change is complete.

c. If an inspection is initiated in an Up status and then reaches its maximum allowable deviation (drop dead date), NALCOMIS has an auto-down program that will automatically change the status of applicable inspection WOs to a Down status. Until such time as Maintenance Control decides to SCIR Impact the inspection by selecting the SCIR Impacted Insp option from the Aircraft VED, the aircraft inspection WOs will not have an EOC displayed. Once SCIR Impacted, an EOC "Y" is placed on the Control WO, and EOC of "Z" is placed on the Look Phase WOs. This action cannot be reversed. The EOC Start Date and Time field will be displayed on the Job Status/Worker Hours screen with the Date and Time of when the SCIR Impact option was initiated, and will display EOC "Z". This field will be used to start the SCIR clock, and the MAINT-1, MAINT-2, and MAINT-3 reports will calculate the aircraft readiness using this field.

9.2.3.4 Work Order EOC codes and Up/Partial/Down (U/P/D) categorization on WOs can be corrected using the following procedures:

a. Maintenance Control must approve changes to EOC codes and U/P/D status.

b. EOC codes and U/P/D status are changed by using the OOMA SCIR change function. The SCIR change function is used for non-SCIR discrepancies that increase in severity or to start/stop SCIR impact accumulation when going from IN-MCRS/OUT-MCRS status. When executing the SCIR Change Option, the computer will close out the original WO and create a new WO with the appropriate EOC code. The original WO must contain sufficient information to pass the OOMA on-line validations prior to the SCIR change. The new WO will have the same JCN as the original WO, but it will have a new MCN along with the new EOC code. The Date and Time received will be computer generated at the time of the SCIR change and is not modifiable. This option will be used to change a discrepancy from Up to Partial or Down, and to change Partial to Down. This feature is not used to change the SCIR status for Look Phase Inspection WOs.

NOTE: SCIR corrections change the status beginning from the received Date and Time of the new WO.

c. A SCIR correction to a DOWN status is prohibited if an M7 job status exists or if the aircraft has flown since the received Date and Time.

d. If the WO is being corrected to an UP or PARTIAL status and parts have been ordered, the user is stopped if the project code is not valid for the new status.

e. If the WO is corrected to PARTIAL status, the WUC/UNS must be selected from the MESM table. If there is more than one EOC Code for that WUC/UNS, the user is prompted to select one.

f. Inspection WOs cannot be changed from DOWN to UP status. Look phase inspection WOs cannot be changed from an UP to DOWN status (it must be done on the inspection control WO).

9.2.4 SCIR Data Binning

9.2.4.1 Data binning reduces overall aircraft status into 15-minute increments of the highest degraded priority per the following process:

a. One 15-minute bin is used for each 15 minutes of the month (2976 bins for a 31-day month, 2880 bins for a 30-day month, 2784 bins for a 29-day February, and 2688 bins for a 28-day February), numbered sequentially. Example: The bins are numbered 1 through 2976 for a 31-day month.

b. Each bin is evaluated to determine the highest impact to aircraft status during that respective bin time. In descending order of hierarchy, each bin is assigned as:

(1) NMCD (Highest priority)

(2) NMCS

(3) NMCM-U

(4) NMCM-S

(5) PMCS

(6) PMCM (Lowest priority)

NOTE: With no NMC or PMC of any type, the bin is empty (FMC status).

c. Time allotment:

(1) Not Mission Capable Depot (NMCD) time supersedes Not Mission Capable Supply (NMCS) time which supersedes Not Mission Capable Maintenance time. If there is any NMCD time in the bin, NMCD will claim 100% of that 15-minute bin. In the absence of NMCD, NMCS will claim 100% of that 15-minute bin. In the absence of both NMCD and NMCS, NMCM will claim 100% of that 15-minute bin.

(2) In the absence of any NMC time, PMCS will claim 100% of that 15-minute bin. In the absence of any NMC time and any PMCS time, PMCM will receive 100% of the bin.

(3) In the absence of any NMC or PMC time, the bin status is empty. No SCIR time is accounted for and the aircraft is FMC.

d. The bins are aggregated over time to determine MC/FMC rate for a particular period, for example, the Maint 2 report provides a monthly summary of MC/FMC readiness and time spent in each category (NMCD, NMCS, NMCM-U, NMCM-S, PMCS, PMCM or FMC).

9.2.4.2 Binning does not start until a Receipt XRAY is completed, which begins the reporting process. Thereafter, if there are no SCIR impacted work orders to populate bins the aircraft is FMC, a Partial or Downing Maintenance Event occurring will supersede the FMC, the event with the highest letter Equipment Operational Capability (EOC) code with time elapsed within a bin takes precedence, and supersedes any lower priority EOC code. NMC Work Orders begin with NMCM, and PMC Work Orders begin with PMCM. When a part is ordered against a work order and the Job Status changes from in work to a supply status, then the bin will carry a status of NMCS or PMCS. Once the part is issued or the work order is moved to an awaiting maintenance or in work job status, the NMCS or PMCS clock stops and NMCM or PMCM time resumes until the work order is completed. When more than one or many work orders with NMC or PMC status exist, the single status with the highest precedence is collected for that bin time.

9.2.4.3 Monthly summary reporting (and binning) stops when an aircraft is closed out and removed from OOMA, which typically happens when the aircraft will be transferred to another activity and a subsequent Receipt XRAY will begin reporting in that activity. Aircraft Strike will also stop monthly summary aircraft reporting.

9.3 Mission Capable Rate Computation

SCIR data permits computing the percentage of time an aircraft is mission capable, commonly referred to as the MC/FMC rate.

9.3.1 Definitions

a. **MC -** The aircraft can perform at least one of its missions.

b. **FMC -** The aircraft has no outstanding NMCS or PMCS requisitions, no outstanding NMCM or PMCM maintenance actions, no down WOs, and no EOCs.

c. **PMC -** The aircraft has one or more outstanding PMCS requisitions or PMCM maintenance actions with an EOC alpha character of C through L, no outstanding NMCS requisitions, no outstanding NMCM maintenance actions, no Down WOs, and no EOC alpha character Z discrepancies. The aircraft is safely flyable and can perform one or more, but not all missions listed in the applicable MESM.

d. **NMC -** The aircraft has one or more outstanding NMCM maintenance actions or NMCS requisitions. The aircraft is not safely flyable and cannot perform any mission listed in the applicable MESM.

NOTE: Aircraft that are not in "A" operating status in AIRRS are considered NMC and will not be flown, except for those aircraft being flown (ferried) to or from depot rework or AMARG storage, or flown for functional check flight while undergoing a depot event.

9.3.2 MC and FMC Rate Computation

9.3.2.1 MC and FMC rates are computed only for the time aircraft are in "A" operating status in the Aircraft Inventory Readiness and Reporting System (AIRRS), 9.1. Aircraft reported in AIRRS in "A" operating status are in mission capability reporting status (IN-MCRS) and accumulate Equipment In Service (EIS) hours for the computation of MC and FMC. Aircraft reported in AIRRS in any other operating status than "A" are out of MCRS (OUT-MCRS) and do not accumulate EIS hours.

9.3.2.2 The MC and FMC percentage rate is computed using accumulated EIS hours, Equipment Out of Service (EOS) hours, and SCIR data during a reporting period. Formulas:

MC Percentage. MC percentage reflects the percentage of all aircraft assigned to a unit that were in MCRS, based on total accumulated Equipment In Service (EIS) hours during a reporting period, which were capable of performing at least one, but not all missions.

$$\frac{\text{TOTAL EIS HOURS} - (\text{NMCD+NMCS+NMCM}) \text{ HOURS}}{\text{TOTAL EIS HOURS}} \text{ X } 100$$

FMC Percentage. FMC percentage reflects the percentage of all aircraft assigned to a unit that were in MCRS, based on total accumulated EIS hours during a reporting period, which were capable of performing all missions.

$$\frac{\text{TOTAL EIS HOURS} - (\text{NMCD+NMCS+NMCM+PMCS+PMCM}) \text{ HOURS}}{\text{TOTAL EIS HOURS}} \textit{ X 100}$$

NMC Percentage. NMC percentage reflects the percentage of all aircraft assigned to a unit that were in MCRS, based on total accumulated EIS hours during a reporting period, which were not capable of performing any mission.

$$\frac{\text{TOTAL NMC HOURS}}{\text{TOTAL EIS HOURS}} \text{ X } 100$$

PMC percentage. PMC percentage reflects the percentage of all aircraft assigned to a unit that were in MCRS, based on total accumulated EIS hours during a reporting period, which were capable of performing at least one, but not all missions, due to maintenance.

$$\frac{\text{TOTAL PMC HOURS}}{\text{TOTAL EIS HOURS}} \text{ X } 100$$

Example: A unit assigned 12 aircraft during the month of April. Their total possible EIS hours is computed as 24 hours per day X 30 days X 12 aircraft = 8640 total possible EIS hours. The squadron has 2 aircraft OUT-MCRS for 20 days (960 EOS Hours). Therefore, total EIS hours = 8640 - 960 = 7680 hours. Per SCIR data, hours were distributed as follows: NMCD = 24, NMCS = 1250 and NMCM = 1600 for a total of 2874 NMC hours; PMCS = 2000 and PMCM = 500 for a total of 2500 PMC hours. 2874 NMC hours + 2500 PMC hours = 5374 non-FMC hours. Mission capability percentages:

$$\text{MC \%} = \frac{7680 - 2874}{7680} \text{ X } 100 = 62.5\% \text{ MC}$$

$$\text{FMC \%} = \frac{7680 - 5374}{7680} \text{ X } 100 = 30.0\% \text{ FMC}$$

$$\text{NMC \%} = \frac{2874}{7680} \text{ X } 100 = 37.5\% \text{ NMC}$$

$$\text{PMC \%} = \frac{2500}{7680} \text{ X } 100 = 32.5\% \text{ PMC}$$

9.4 Mission-Essential Subsystems Matrix (MESM)

9.4.1 Purpose. A MESM provides guidance for determining subsystem, capability, function, and mode interrelationships as they relate to aircraft mission capability. Each T/M/S aircraft and UAS has a MESM that lists the aircraft's SCIR-related subsystems and associated Equipment Operational Capability (EOC) code. Figure 9-5 is an example of a T/M/S MESM.

9.4.2 Equipment Operational Capability (EOC) Codes. EOC codes relate a particular system/subsystem to a specific mission listed in the T/M/S MESM. An EOC code is a three-character alphanumeric code that identifies the degree of degradation to mission capability and the system responsible for the degradation. The first character (alpha) is documented in NALCOMIS OOMA. The second and third characters (numeric) are computer generated from the first two positions of the WUC/UNS. EOC alpha codes:

EOC code A. (Not for use in MESMs. Currently inactive, pending NALCOMIS software change). EOC code A is automatically applied to WOs whenever an OOMA XRAY is submitted that changes the aircraft status from IN-MCRS to OUT-MCRS. WOs initiated while aircraft are OUT-MCRS will default to EOC "A". Upon submission of the OOMA XRAY changing the aircraft back to IN-MCRS, all work orders will automatically be updated back to the applicable SCIR impacted EOC code.

NOTE: XRAYs submitted in DECKPLATE-AIRRS will not replicate to OOMA. XRAYs must be submitted in OOMA to enable applicable automated SCIR changes.

EOC codes C through K are used for inoperative subsystems, capabilities, functions, or modes that degrade the aircraft from FMC to PMC, thus preventing a specific mission, as defined in the T/M/S MESM.

EOC code L is used for inoperative subsystems, capabilities, functions, or modes that prevent Instrument Meteorological Conditions (IMC) flight missions.

EOC code M. (Not for use in MESMs.) EOC code M is applied as system default to WOs when an Aircraft is undergoing a Depot Modernization / Technical Directive Modification (Depot MOD) and work center X45 is utilized. Accurate accounting for Non-Mission Capable Depot (NMCD) time requires correctly coding the WO and providing detailed descriptions in the Discrepancy and Corrective Action Blocks. Refer to paragraph 15.5.12 Depot TD Modification documentation.

EOC code P. (Not for use in MESMs) EOC code P is applied as a system default to WOs when aircraft is undergoing standard rework and work center X41, X42, or X43 is utilized. Accurate accounting for Non-mission Capable Depot (NMCD) time requires correctly coding the WO and providing detailed descriptions in the discrepancy and corrective action blocks. Refer to paragraph 15.5.45 Standard Rework Look Phase documentation and paragraph 15.5.46 Standard Rework Fix Phase documentation.

EOC code R. (Not for use in MESMs.) EOC code R is applied as system default to WOs when an aircraft is undergoing a Depot In-Service Repair (ISR) and work center X44 is utilized. Accurate accounting for Non-Mission Capable Depot (NMCD) time requires correctly coding the WO and providing detailed descriptions in the Discrepancy and Corrective Action Blocks. Refer to 15.5.11 In-Service Repair documentation.

EOC code Y. (Not for use in MESMs.) EOC code Y is applied as a system default to Assist maintenance actions when the Control WO is SCIR impacted. In addition, when Phase and Inspection Control WOs are SCIR impacted, an EOC of "Y" is placed on the Control WO, and an EOC of "Z" is placed on the Look Phase WOs.

EOC code Z is used for subsystems, capabilities, functions, or modes that degrade the aircraft to NMC. Major systems, subsystems, or equipment, for example, engines, electrical systems, and flight controls, that are not listed in the MESM, but preclude safe flight when inoperative, are assigned EOC code Z.

9.4.3 New MESM Development. The COMNAVAIRSYSCOM T/M/S aircraft Program Manager is responsible for developing the initial MESM for new T/M/S aircraft. The initial MESM must be published prior to commencement of development test flight operations. Prior to commencement of Fleet squadron flight operations, the Program Manager will coordinate with the ACC T/M/S Aircraft Class Desk to develop the final MESM. Procedures:

NOTE: Notes in Mission Essential Subsystems Matrix (MESM) will clearly direct when EOC "Z" is applicable. General notes stating "Special Inspection, Conditional Inspection, or Technical Directive" are no longer valid.

a. T/M/S missions must be determined prior to construction of a new MESM. The missions defined in T/M/S operational requirement documents will be used as a general guide. Tactical manual definitions will be used to provide additional detail to mission descriptions, if required to more accurately describe a mission.

b. After mission descriptions are developed, Program Office design and engineering personnel will determine which subsystems, capabilities, functions, and modes are required to perform each mission. Aircraft, manuals, such as IPBs, MIMs, and NATOPS for similar aircraft may be used as secondary information sources.

c. The Program Office will construct a Mission Essential Equipment Functional Matrix with vertical columns identifying each specific mission in descending order (FMC followed by PMC followed by NMC), ranging left to right, as depicted in Figure 9-6. Procedures:

(1) Unclassified descriptive names are used to identify each mission.

(2) The subsystems, capabilities, functions, or modes are listed horizontally under the MISSION ESSENTIAL EQUIPMENT column with an "X" placed in each of the mission columns for which the equipment is required. Holes may appear in the matrix, for example, EQUIPMENT 1 in Figure 9-6, which indicates the equipment does not affect any mission of the aircraft regardless of whether or not EQUIPMENT 1 is installed or functioning. When this occurs, it is necessary to re-evaluate the impact of the equipment on that specific mission and decide if the hole should be ignored or if the equipment to mission correlation in the matrix should be rearranged.

(3) The appropriate EOC code per 9.4.2 direction is applied to each subsystem. The appropriate EOC code is determined by identifying the last subsystem, capability, function, or mode displaying an "X" in the mission category. For example, Figure 9-6 lists all equipment required to make the aircraft FMC. If EQUIPMENT 2 is inoperative, the EOC code assigned is C, indicating that without EQUIPMENT 2 the aircraft is only capable of missions less than FMC.

(4) When, subsystems, capabilities, functions, or modes are identified for each mission, it may be discovered that only some modes of operation are required to perform that particular mission, which must be indicated the example of EQUIPMENT 3 as it relates to EOC code C in Figure 9-6.

(5) Redundant subsystems, for example, primary and backup, are grouped together and the MESM needs to specify the number or positions required to perform the mission, per the examples of EQUIPMENT 4 and EQUIPMENT 5 as they relate to EOC code D in Figure 9-6.

(6) Any comment required to provide amplifying information about a system should be included as a NOTE per the example of EQUIPMENT 7 in Figure 9-6.

(7) When a particular subsystem, capability, function, or mode is listed in the MESM with more than one EOC code, it must be explained as indicated by the example of EQUIPMENT 3 as it relates to EOC code C and EOC code K in Figure 9-6.

(8) Mission Mounted Equipment (MME) is equipment required for special missions, for example, tanker packages, defensive electronic countermeasures, chaff dispensers, and Sidewinder missile systems. When MME is installed, the complete system is reported. If MME is not installed and the necessary wiring and plumbing are permanently installed, only the wiring and plumbing is reported. A NOTE to this effect must be included for each MME in the MESM.

d. When the Mission Essential Equipment Functional Matrix is complete, the actual MESM is constructed.

9.4.4 MESM Changes. MESM change recommendations will be routed per the process illustrated in Figure 9-7 (Navy) and Figure 9-8 (Marine Corps).

9.5 Responsibility for Accurately Reporting Aircraft Status

9.5.1 General responsibility. All Navy and Marine Corps activities that operate aircraft are responsible for the accuracy of aircraft status in DECKPLATE-AIRRS and SCIR.

9.5.2 Maintenance Officer (MO). With assistance from the MMCO and SA/A, the MO will perform DECKPLATE-AIRRS and SCIR reviews each month, as follows:

a. Review a hardcopy of the current NALCOMIS Work Center Workload Report (Figure 9-9) to verify work orders are being coded with the correct EOC codes, WUC/UNS, and U/P/D indication, per the T/M/S aircraft MESM. Procedure:

(1) Compare the discrepancy noted in the System Reason block to the Aircraft/Equipment Status block for correct U/P/D status.

(2) Review the EOC block to verify correct code per the T/M/S aircraft MESM, and correct correlation to the U/P/D status.

(3) Review the Project Code for correct correlation to the U/P/D status and EOC code.

(4) Annotate the report with any discrepancies noted, sign the report, and give it to the MMCO for action.

b. Review a hardcopy of the DECKPLATE-AIRRS “Latest Aircraft Daily Information” data to verify the aircraft status code is correct per 9.1.5 for each BUNO assigned. The MO will annotate the report with any discrepancies noted, sign and date the report, and give it to the MMCO for action.

9.5.3 Maintenance Material Control Officer (MMCO). O-level MMCOs are responsible for timely and accurate DECKPLATE-AIRRS reports and work order SCIR documentation. The MMCO must:

a. Review the accuracy of all fields and authorize the release of AIRRS XRAY reports submitted via OOMA, DECKPLATE-AIRRS, or naval message. The MMCO will sign and maintain a hardcopy of each XRAY for at least 12 months after date of release.

b. Review the DECKPLATE-AIRRS "Latest Aircraft Daily Information" data each week to verify XRAY reports have processed.

c. Review the NALCOMIS Work Center Workload Report (Figure 9-9) each week for accuracy of U/P/D indication, EOC coding, and WUC/UNS, per the procedures of 9.5.2.a.

d. Review the System Administrator/Analyst (SA/A) trend chart of SCIR data errors (Figure 9-10) each month and direct actions to improve accuracy, such as additional training for work center or Maintenance Control personnel.

e. Note corrective actions taken on monthly Maintenance Officer SCIR and AIRRS reviews, and maintain on file for 12 months from date of completion.

9.5.4 Maintenance Master Chief Petty Officer (MMCPO). The MMCPO (Navy) or Aircraft Maintenance Chief (Marine Corps) will monitor Maintenance Control for accurate SCIR documentation by performing a daily review of the NALCOMIS Work Center Workload Report (Figure 9-9) for correct U/P/D indication, EOC coding, and WUC/UNS, per the procedures of 9.5.2.a.

9.5.5 Maintenance Control. Prior to approving the WO for entry into the automated aircraft discrepancy book (AADB), Maintenance Control must review the WO for correct EOC coding per the T/M/S MESM, WUC/UNS, and the correct U/P/D indication.

9.5.6 Work Center Supervisor. Work Center supervisors are responsible for the accuracy of work orders generated by their work center. At the beginning and end of the work shift, Work Center supervisors will review the NALCOMIS Work Center Workload Report (Figure 9-9) for correct EOC and WUC/UNS coding per the procedures of 9.5.2.a., and ensure errors are corrected.

FROM (ACTIVITY)
TO (APPROPRIATE CONTROLLING CUSTODIAN)
INFO (FUNCTIONAL COMMANDER, OR AS APPROPRIATE)
UNCLAS //N04790//
MSGID/GENADMIN/-//
SUBJ/MONTHLY AIRCRAFT SUMMARY DATA REPORT//
REF/A/DOC/COMNAVAIRFOR/01FEB05//
AMPN/COMNAVAIRFORINST 4790.2//
POC/AZ1 BULLOCK/DSN 363-5961//
RMKS/1. (UNIT DESIGNATION) (ORGANIZATION CODE) (PERMANENT UNIT CODE)
(MONTH AND YEAR OF REPORT).
2.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
155514	AFPH	029	100	200	020	010	000	000	720	000	A	000	000	001531	A8D

Note 1. Columns are identified as follows:

A. BUNO
B. Type Equipment Code (TEC)
C. Not Mission Capable Maint - Scheduled (NMCM-S)
D. Not Mission Capable Maint - Unscheduled (NMCM-U)
E. Not Mission Capable Supply (NMCS)
F. Total Flight Hours (FH)
G. Total Number Of Flights (FLT)
H. Ship Operation Flight Hours (SHOP FH)
I. Ship Operation Flights (SHOP FLT)
J. Equipment In Service Hours (EIS)
K. Equipment Out Service Hours (EOS)
L. Inventory Code (IC)
M. Partial Mission Capable Maintenance (PMCM) Hours
N. Partial Mission Capable Supply (PMCS) Hours
O. SCIR Hours (SCIR HRS)
P. Data Processing Code (DP CODE)

Note 2. All data elements in the format must be reported. If there is no data to report, fill the fields with zeros. Report items C thru K, M and N in three digits rounded off to nearest whole hour. Precede with zeros if required. Item O must be reported as six digits rounded off to the nearest whole hour. Precede with zeros if required. Item L is reported as one digit using appropriate inventory code per the E-00 Report, as updated to reflect aircraft status as of 2400 last day of report period.

Note 3. Use only this format. This format enables direct key entry for further processing

Figure 9-1: Aircraft Summary Data Message Format

FROM (ACTIVITY)
TO (APPROPRIATE CONTROLLING CUSTODIAN)
INFO (FUNCTIONAL COMMANDER, OR AS APPROPRIATE)
UNCLAS //N04790//
MSGID/GENADMIN/-//
SUBJ/MONTHLY AIRCRAFT SUMMARY DATA CORRECTION REPORT//
REF/A/DOC/COMNAVAIRFOR/01FEB05//
AMPN/COMNAVAIRFORINST 4790.2
POC/AZCS LINTHICUM/QACPO/DSN 326-7910/COMM (301) 826-7910//
RMKS/1. (UNIT DESIGNATION) (ORGANIZATION CODE) (PERMANENT UNIT CODE)
(MONTH AND YEAR OF REPORT)
2.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
155514	AFPH	029	100	200	020	010	000	000	720	000	A	000	000	001531
155514	AFPH	029	100	200	021	011	000	000	720	000	A	000	000	001531

P	Q
1	A8D
2	A8D

Note 1. Columns are identified as follows:

A. BUNO
B. Type Equipment Code (TEC)
C. Not Mission Capable Maint – Scheduled (NMCM-S)
D. Not Mission Capable Maint – Unscheduled (NMCM-U)
E. Not Mission Capable Supply (NMCS)
F. Total Flight Hours (FH)
G. Total Number Flights (FLT)
H. Ship Operation Flight Hours (SHOP FH)
I. Ship Operation Flights (SHOP FLT)
J. Equipment In Service Hours (EIS)
K. Equipment Out Service Hours (EOS)
L. Inventory Code (IC)
M. Partial Mission Capable Maintenance (PMCM) Hours
N. Partial Mission Capable Supply (PMCS) Hours
O. SCIR Hours
P. Correction Code (CC)
Q Data Processing Code (DP CODE)

Note 2. All data elements in the format must be reported. If there is no data to report, fill the field with zeros. Report items C thru K, M and N in three digits Item O must be reported as six digits rounded off to the nearest whole hour. Precede with zeros if required. Item L is reported as one digit using appropriate inventory code per the E-00 report, as updated to reflect aircraft status as of 2400 last day of report period

Note 3. List only those bureau numbers previously submitted in error. Use two lines for each correction. The first line will list the incorrect data, exactly as submitted, with the correction code indicator, 1, in column R. The second line will list the correct data with the correction indicator, 2, in column R.

Note 4. Use only this format. This format enables direct key entry for further processing

Figure 9-2: Aircraft Summary Data Correction Message Format

FROM (ACTIVITY OF DEPLOYED AIRCRAFT OR NEAREST COMMUNICATION FACILITY)

TO (REPORTING CUSTODIAN OF THE DEPLOYED AIRCRAFT)

INFO (AIRCRAFT CONTROLLING CUSTODIAN)

UNCLAS//N04790//

MSGID/GENADMIN/-//

SUBJ/MONTHLY FLIGHT DATA REPORT//

REF/A/DOC/COMNAVAIRFORINST 4790.2/01 JAN 2020//

AMPN/REF A IS THE NAMP.//

RMKS/

A. ACFT BUNO

B. TYPE EQUIP CODE

C. ORG CODE

D. PERM UNIT CODE

E. REPORT PERIOD (MO/YR)

F. NUMBER FLYING HOURS ACCUMULATED DURING REPORT PERIOD

G. NUMBER FLTS ACCUMULATED DURING REPORT PERIOD

H. NUMBER SHIP OPS FLYING HOURS ACCUMULATED DURING REPORT PERIOD

I. NUMBER SHIP OPS FLTS ACCUMULATED DURING REPORT PERIOD

J. EQUIPMENT IN SERVICE HOURS

K. EQUIPMENT OUT SERVICE HOURS

L. INVENTORY CODE//

Figure 9-3: Flight Data Submission Message Format

FROM (RECEIVING REPORTING CUSTODIAN)

TO (TRANSFERRING REPORTING CUSTODIAN)

INFO (CONTROLLING CUSTODIAN and ANY APPROPRIATE ADDRESSEES IF APPLICABLE
DEPARTURE AND DOWN MECH MESSAGES)

UNCLAS//N03710//

MSGID/GENADMIN/-//

SUBJ/ACFT ACCEPTANCE ARRIVAL//

REF/A/DOC/-/-//

AMPN/REF A IS THE FERRY MOVEMENT DIRECTIVE MESSAGE//

RMKS/1. (AIRCRAFT MODEL) (BUNO) (RANK) (NAME) (TANGO NUMBER) (ACTIVITY) ACPT (DATE) FERTIME (HOURS) PT (TENTHS) LDGS (TOTAL LANDINGS). FLYING HOUR COST (TOTAL ALL STUBS) DOLS.

2. FLT DATA. ALL TIMES ZULU. READ ACROSS.

DEP	DTG	ARR	DTG	HRS	LDGS	TMR
NGU	162100	NCO	162240	1.7	1N	2J1
NCO	170040	NAS	170240	2.0	1N	2J2

3. SCIR DATA. ALL TIMES ZULU. READ ACROSS.

	WUC	AT	MAL	WD	RCVD DATE/TIME/EOC	INWK DATE/TIME/EOC
A.	7236100R		383	D	8016/2240/D	8016/2240/D
B.	7325410R		382	D	8016/2240/Z	8016/2240/Z

	COMPDATE/TIME	JS/DATE/TIME/EOC	JS/DATE/TIME/EOC	JCN
A.	8016/2340	S/8016/2300/Z	M/8016/2330/Z	AB8015001
B.	8016/2352	S/8016/2300/Z	M/8016/2330/Z	AB8015002

4. TIME OF PHYSICAL CUSTODY CHANGE (ZULU TIME)

5. (REMARKS AS APPLICABLE)//

Figure 9-4: Aircraft Arrival Message Format

F/A-18E/F

TYPE EQUIPMENT CODES: AMAH/AMAJ

Do not assign an EOC code if all equipment is operational. The aircraft is FMC.

Assign EOC code (C) when the following systems are inoperative degrading the capability of high threat combat operations. The aircraft is not capable of deploying an RF decoy and the Dry Bay Fire Suppressant System is not functional. The aircraft is PMC.

LIST SYSTEMS HERE (NOTE 1)

Assign EOC code (D) when the following system(s) are inoperative preventing the basic strike fighter mission. The aircraft is not capable of conducting air / maritime interdiction, mining, reconnaissance, close air support, forward air control airborne, offensive / defensive counter air, alert launched intercept, basic fighter maneuvering, or war-at-sea missions using all weapons and delivery modes regardless of terrain, weather, or enemy defenses. The aircraft is PMC.

LIST SYSTEMS HERE (NOTE 2)

Assign EOC code (E) when the following system(s) are inoperative preventing the expanded mobility mission. The aircraft is not capable of safe movement on and off ships during day, night and inclement weather conditions, conducting independent navigation. The aircraft is PMC.

LIST SYSTEMS HERE (NOTE 3)

Assign EOC code (L) when the following systems are inoperative preventing the IMC flight mission. The aircraft is not capable of day or night IMC field flight operations with necessary communication, navigation, IFF, flight, and safety systems required by applicable NATOPS and FAA regulations. The aircraft is PMC.

.

LIST SYSTEMS HERE (NOTE 4)

Assign EOC code (Z) when the following systems(s)/conditions(s) prevent the aircraft from being safely flyable. The aircraft is not capable of day VMC field flight operations with two-way radio communication and necessary aircraft and crew safety provisions. **The aircraft is NMC.**

LIST SYSTEMS HERE

NOTES:

1. (Any condition for applying the specified code.)

2. (Any condition for applying the specified code.)

3. (Any condition for applying the specified code.)

4. (Any condition for applying the specified code.)

GENERAL NOTES: (NOTES of a general nature not applicable to any particular code or equipment.)

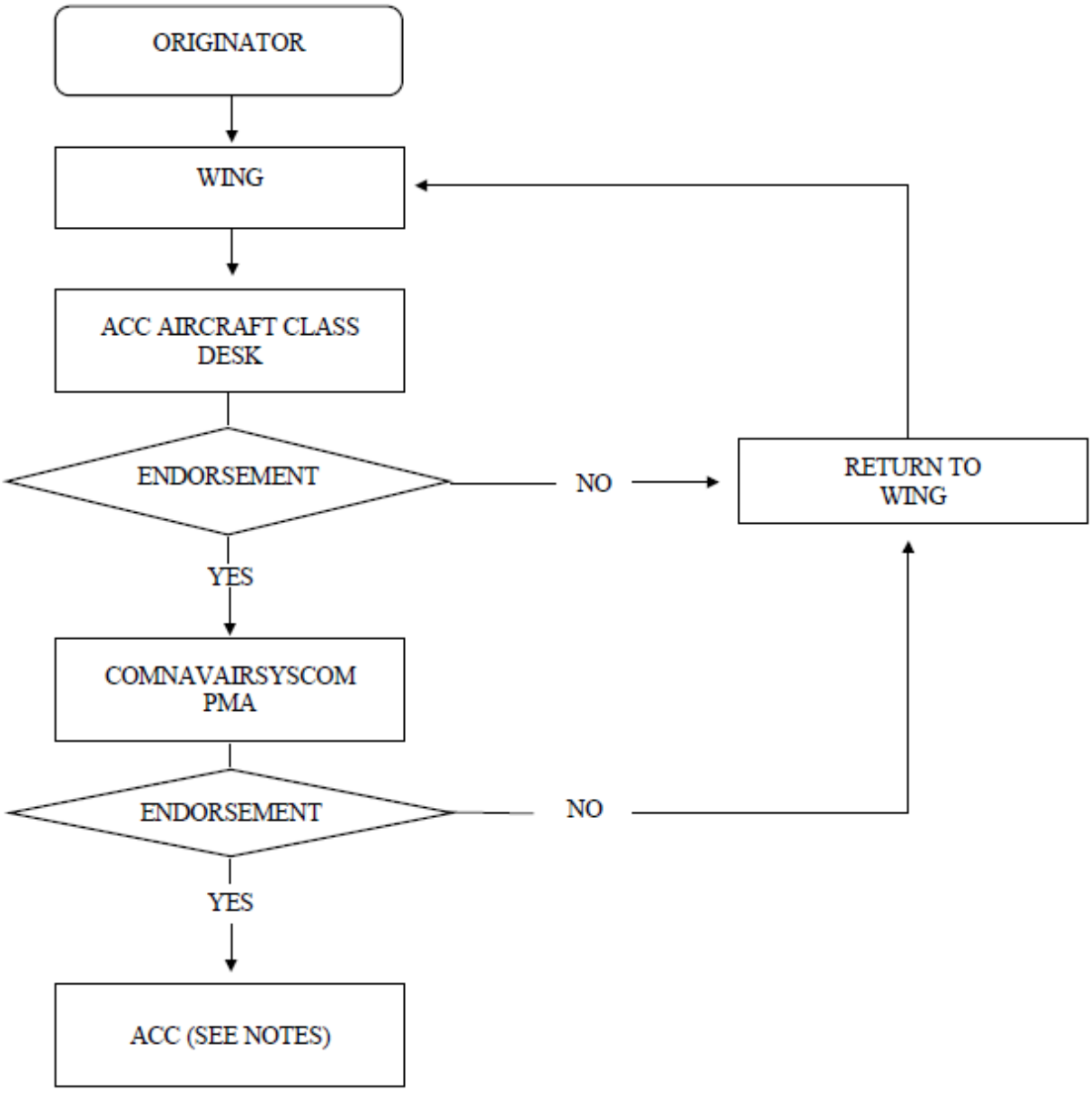
Figure 9-5: T/M/S Aircraft Mission-Essential Subsystems Matrix (MESM) (Example)

EOC CODE	MISSION ESSENTIAL EQUIPMENT	FMC MISSION	PMC MISSION	PMC MISSION	PMC MISSION	PMC MISSION	NOT SAFELY FLYABLE
C	EQUIPMENT 1						
C	EQUIPMENT 2	X					
C	EQUIPMENT 3 (T/A MODE REQUIRED)	X					
D	EQUIPMENT 4 (2 OF 2 REQUIRED)	X	X				
D	EQUIPMENT 5 (POSITIONS 4 & 5 REQUIRED)	X	X				
J	EQUIPMENT 6	X	X	X			
J	EQUIPMENT 7 (NOTE)	X	X	X			
K	EQUIPMENT 3 (T/F MODE REQUIRED)	X	X	X	X		
L	EQUIPMENT 8	X	X	X	X	X	
Z	EQUIPMENT 9	X	X	X	X	X	X
Z	ENGINE	X	X	X	X	X	X

NOTES: 1. NMC EOC codes will be changed to T when the aircraft is OUT-MCRS.

2. PMC EOC codes will be changed to U when the aircraft is OUT-MCRS.

Figure 9-6: MESM Functional Matrix (Example)

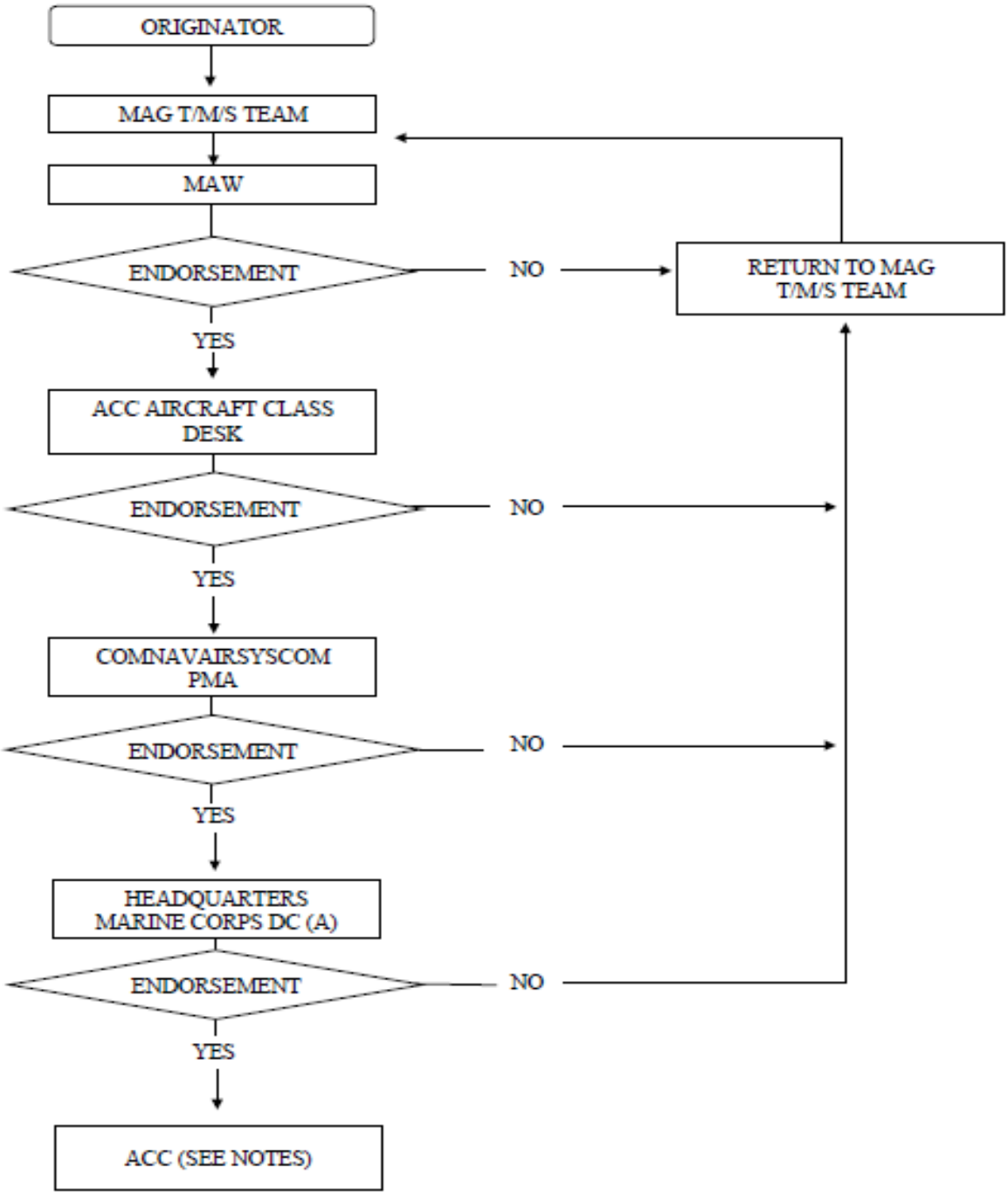


NOTES: 1. COMNAVAIRFOR N421 is the approval authority for T/M/S aircraft managed by COMNAVAIRFOR or COMNAVAIRFORES ACC aircraft class desks.

2. COMNAVAIRTRA N42 is the approval authority for T/M/S aircraft managed by COMNAVAIRTRA ACC aircraft class desks.

3. COMNAVAIRSYSCOM ACC is the approval authority for T/M/S aircraft managed by COMNAVAIRSYSCOM ACC aircraft class desks.

Figure 9-7: MESM Change Recommendation Routing (Navy)

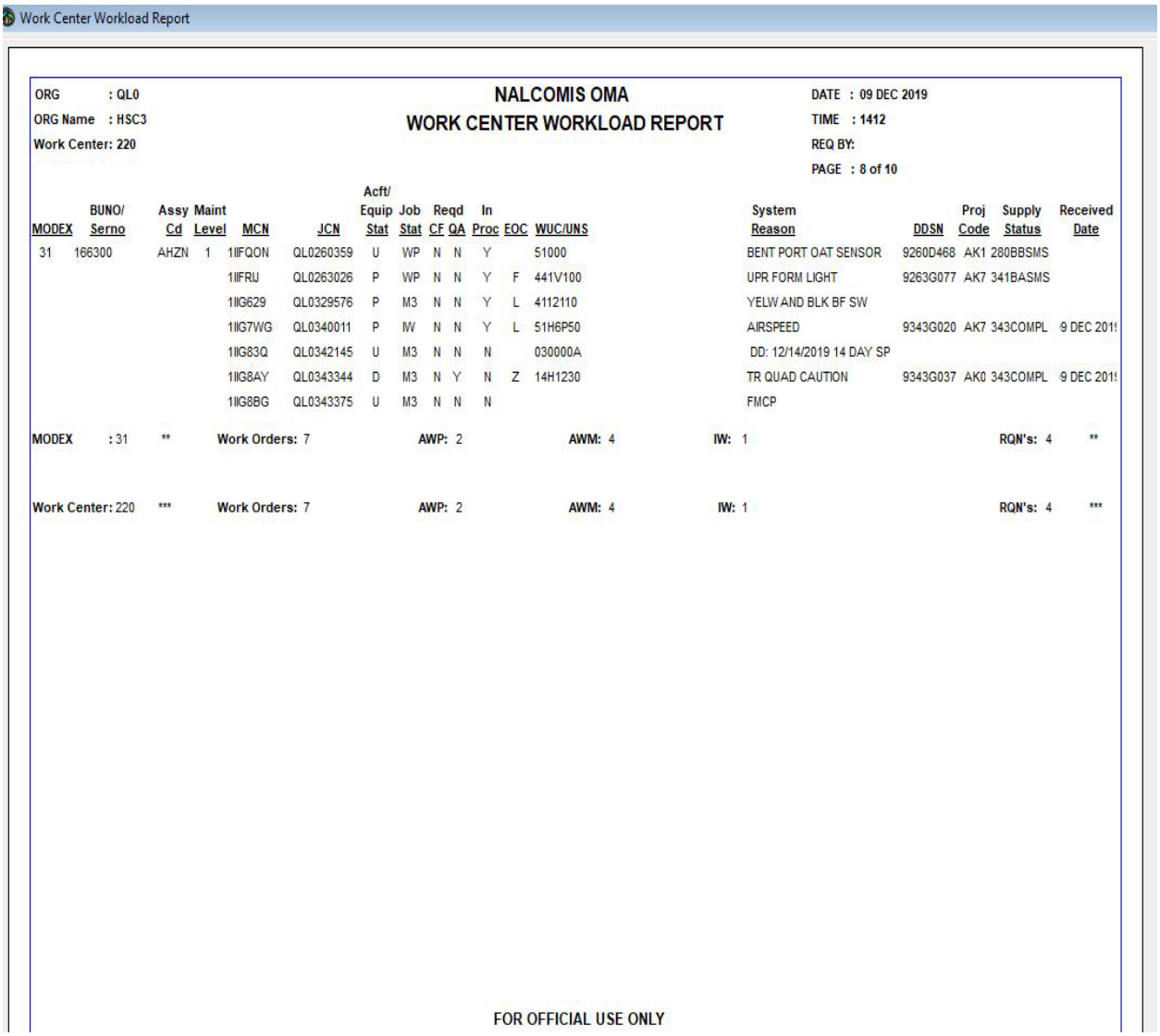


NOTES: 1. COMNAVAIRFOR N421 is the approval authority for T/M/S aircraft managed by COMNAVAIRFOR or COMNAVAIRFORES ACC aircraft class desks.

2. COMNAVAIRTRA N42 is the approval authority for T/M/S aircraft managed by COMNAVAIRTRA ACC aircraft class desks.

3. COMNAVAIRSYSCOM ACC is the approval authority for T/M/S aircraft managed by COMNAVAIRSYSCOM ACC aircraft class desks.

Figure 9-8: MESM Change Recommendation Routing (Marine Corps)



Work Center Workload Report

ORG : QL0
ORG Name : HSC3
Work Center: 220

NALCOMIS OMA
WORK CENTER WORKLOAD REPORT

DATE : 09 DEC 2019
TIME : 1412
REQ BY:
PAGE : 8 of 10

MODEX	BUNO/ Serno	Assy Cd	Maint Level	MCN	JCN	Acft/ Equip Stat	Job Stat	Reqd CF	Reqd QA	In Proc	EOC	WUC/UNS	System Reason	DDSN	Proj Code	Supply Status	Received Date
31	166300	AHZN	1	1IIFQON	QL0260359	U	WP	N	N	Y		51000	BENT PORT OAT SENSOR	9260D468	AK1	280BBSMS	
				1IIFRIJ	QL0263026	P	WP	N	N	Y	F	441V100	UPR FORM LIGHT	9263G077	AK7	341BASMS	
				1IIG629	QL0329576	P	M3	N	N	Y	L	4112110	YELW AND BLK BF SW				
				1IIG7WG	QL0340011	P	IW	N	N	Y	L	51H6P50	AIRSPEED	9343G020	AK7	343COMPL	9 DEC 201
				1IIG83Q	QL0342145	U	M3	N	N	N		030000A	DD: 12/14/2019 14 DAY SP				
				1IIG8AY	QL0343344	D	M3	N	Y	N	Z	14H1230	TR QUAD CAUTION	9343G037	AK0	343COMPL	9 DEC 201
				1IIG8BG	QL0343375	U	M3	N	N	N			FMCP				

MODEX : 31 ** Work Orders: 7 AWP: 2 AWM: 4 IW: 1 RQN's: 4 **

Work Center: 220 *** Work Orders: 7 AWP: 2 AWM: 4 IW: 1 RQN's: 4 ***

FOR OFFICIAL USE ONLY

Figure 9-9: NALCOMIS Work Center Workload Report (Sample)

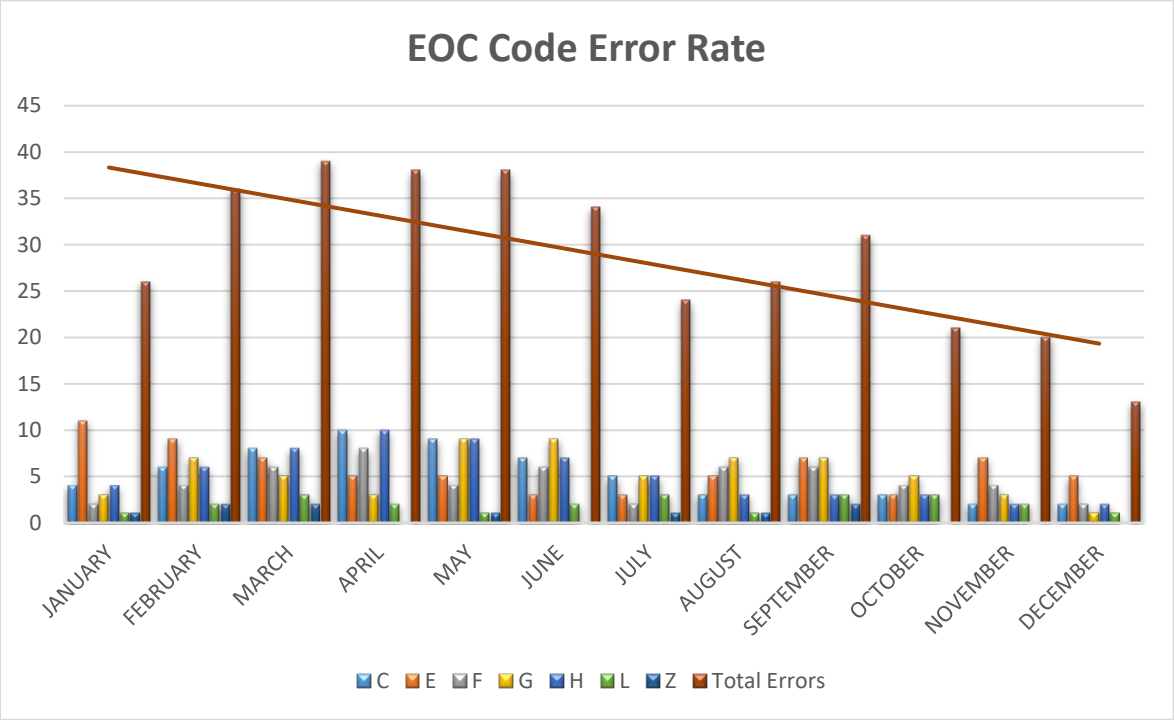


Figure 9-10: EOC Code Error Rate Trend Chart (Example)

CHAPTER 10

Naval Aviation Maintenance Program Standard Operating Procedures (NAMPSOPs)

10.1 Aviation Maintenance Training Program (NAMPSOP) 1

10.1.1 References 1

10.1.2 Introduction 1

10.1.3 Formal Training 3

10.1.3.1 Definition 3

10.1.3.2 Directives 4

10.1.3.3 Funding and Seat Reservation 4

10.1.3.4 Contractor field services training 5

10.1.4 In-Service Training Requirements 5

10.1.4.1 QPT 5

10.1.4.2 AMSTRP 5

10.1.4.3 JQR 5

10.1.4.4 OJT 6

10.1.4.5 Lesson Guides and IMI 6

10.1.4.6 Required Reading 7

10.1.4.7 NAMP Indoctrination Training 8

10.1.4.8 Refresher Training 8

10.1.4.9 Navy Occupational Safety and Health (NAVOSH) and Safety Training 8

10.1.4.10 Qualification/Certification Record 8

10.1.5 Responsibilities 9

10.1.5.1 Type Wings, TECOM, Maintenance Training Syllabus Sponsors (MTSS), and Navy IMAs: 9

10.1.5.2 Maintenance Officer (MO) 11

10.1.5.3 Aviation Maintenance Training Program Manager 11

10.1.5.4 ASM Fleet Administrator 13

10.1.5.5 Sea Operational Detachment (SEAOPDET) Coordinator (Navy) 14

10.1.5.6 Division Officers 14

10.1.5.7 Work Center Supervisors 15

Figure 10.1-1: OJT Syllabus (Example) 16
Figure 10.1-2: Required Reading and Maintenance Information Record (OPNAV 4790/34) ... 17
Figure 10.1-3: NAMP Indoctrination Training Example 18
Figure 10.1-4: NAMP Refresher Training Requirements Example 19
Figure 10.1-5: Qualification/Certification Record (Left Side) (Example) 20
Figure 10.1-5: Qualification/Certification Record (Right Side) (Example) 21
10.2 Fuel Surveillance Program (NAMPSOP) 22
10.2.1 References 22
10.2.2 Introduction 22
10.2.3 Requirements 22
10.2.3.1 Aircraft Fuel Sampling 22
10.2.3.2 Test Cell Fuel Sampling 23
10.2.3.3 Fuel System Integrity 24
10.2.4 Responsibilities 24
10.2.4.1 Wing or MAW Model Manager 24
10.2.4.2 Maintenance Officer (MO) 24
10.2.4.3 Program Manager 24
10.2.4.4 Quality Assurance (QA) Officer 25
10.2.4.5 QA Fuel Surveillance Program Monitor 25
10.2.4.6 Maintenance Control and Production Control 25
10.2.4.7 Line, Power Line, and Test Cell Supervisor 25
10.2.4.8 Power Plants and Test Cell Supervisors 26
10.2.4.9 Aircrew 26
10.3 Navy Oil Analysis and Consumption Monitoring Program 27
10.3.1 References 27
10.3.2 Introduction 27
10.3.3 Requirements 27
10.3.3.1 Training 27
10.3.3.2 Oil Analysis 27
10.3.3.3 Oil Consumption Monitoring 28
10.3.3.4 Oil Consumption Documentation 28
10.3.4 Responsibilities 28

10.3.4.1 NOAP or JOAP Laboratories....28
10.3.4.2 Type Wing or MAW Model Manager: 29
10.3.4.3 Maintenance Officer....29
10.3.4.4 Program Manager....29
10.3.4.5 Maintenance Control or Production Control....30
10.3.4.6 Quality Assurance (QA) Officer....30
10.3.4.7 Quality Assurance Program Monitor....30
10.3.4.8 Logs and Records....30
10.3.4.9 Work Center Supervisors....31
10.3.4.10 Maintenance Personnel....31
10.3.4.11 Aircrew....31
Figure 10.3-1 (Page 1): Oil Analysis Request (DD 2026)....32
Figure 10.3-1 (Page 2): Oil Analysis Request (DD 2026)....33
Figure 10.3-1 (Page 3): Oil Analysis Request (DD 2026)....34
Figure 10.3-1 (Page 4): Oil Analysis Request (DD 2026)....35
Figure 10.3-2: Engine/Gearbox Oil Consumption Record (Sample) 36
10.4 Aviators Breathing Oxygen (ABO) Surveillance Program (NAMPSOP) 37
10.4.1 References....37
10.4.2 Introduction....37
10.4.3 Requirements....38
10.4.3.1 ABO Testing....38
10.4.3.2 ABO Generation....38
10.4.3.3 ABO Maintenance and Servicing....39
10.4.3.4 Personnel Training and Qualification....39
10.4.3.5 ABO Facilities....40
10.4.4 Responsibilities....40
10.4.4.1 Maintenance and Production Officer....40
10.4.4.2 Program Manager....40
10.4.4.3 Quality Assurance (QA) Officer:....42
10.4.4.4 ABO Program Monitor....42
10.4.4.5 Work Center Supervisor....42
10.4.4.6 ABO Personnel....43

10.4.4.7 (I/A) ABO Analyzer Operators 43
10.5 Hydraulic Contamination Control Program (NAMPSOP) 44
10.5.1 References 44
10.5.2 Introduction 44
10.5.3 Requirements 44
10.5.3.1 Navy and Marine Corps Activities 44
10.5.3.2 Commercial activities and Other Government Agencies 44
10.5.3.3 Training and Designation 44
10.5.3.4 Contamination Control 45
10.5.3.5 Hydraulic Fluid Sampling and Analysis 45
10.5.3.6 Analysis Documentation 46
10.5.4 Responsibilities 47
10.5.4.1 Type Wing or MAW Model Manager 47
10.5.4.2 Maintenance Officer 47
10.5.4.3 Program Manager 47
10.5.4.4 Quality Assurance (QA) Officer 48
10.5.4.5 Program Monitor 48
10.5.4.6 Maintenance Control or Production Control 48
10.5.4.7 Logs and Records 49
10.5.4.8 Work Center Supervisor 49
10.5.4.9 Technicians 49
Figure 10.5-1: Hydraulic Contamination Analysis Technician Designation (Example) 50
Figure 10.5-2: Hydraulic Contamination Control Qualification/Certification Worksheet (Sample) 51
Figure 10.5-3: Hydraulic Contamination Control Trend Analysis Chart (Sample) 52
10.6 Tire and Wheel Maintenance Safety Program (NAMPSOP) 53
10.6.1 References 53
10.6.2 Introduction 53
10.6.3 Requirements 54
10.6.4 Training and Certification 54
10.6.5 Responsibilities 56

10.6.5.1 Type Wing (Navy) and Marine Corps Training and Education Command (TECOM) 56
10.6.5.2 Maintenance Officer (MO) 56
10.6.5.3 Supply Officer 56
10.6.5.4 Tire and Wheel Maintenance Safety Program Manager 56
10.6.5.5 Quality Assurance (QA) Officer 57
10.6.5.6 QA Tire and Wheel Maintenance Safety Program Monitor 57
10.6.5.7 Work Center Supervisor 57
10.6.5.8 Maintenance Personnel 58
Figure 10.6-1 (page 1): Aircraft Tire and Wheel Maintenance Qualification and Certification 59
Figure 10.6-1 (page 2): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level 60
Figure 10.6-1 (page 3): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level 61
Figure 10.6-2 (page 1): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level 62
Figure 10.6-2 (page 2): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level 63
Figure 10.6-2 (page 3): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level 64
Figure 10.6-3 (page 1): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 65
Figure 10.6-3 (page 2): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 66
Figure 10.6-3(page 3): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 67
Figure 10.6-4 (page 1): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 68
Figure 10.6-4 (page 2): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 69
Figure 10.6-4 (page 3): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level 70

Figure 10.6-5: Supplemental Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements - I-Level 71
10.7 NAMP Compliance Auditing (NAMPSOP) 72
10.7.1 Introduction 72
10.7.2 Definitions 72
10.7.3 Audit Categories 73
10.7.4 Requirements 73
10.7.5 Responsibilities 74
10.7.5.1 COMNAVAIRSYSCOM 74
10.7.5.2 COMNAVAIRFOR N422C 74
10.7.5.3 Type Wings and Marine Air Wings 74
10.7.5.4 Maintenance Officer 74
10.7.5.5 Quality Assurance Officer (QAO) 75
10.7.5.6 Quality Assurance Supervisor (QAS) 75
10.7.5.7 Program Monitors 76
10.7.5.8 Program Managers 76
10.7.5.9 Division Officers and Division or Branch Chiefs 77
10.7.5.10 Work Center Supervisors 78
Figure 10.7-1 (page 1): O-Level and I-Level NAMP Compliance Audits 79
Figure 10.7-1 (page 2): O-Level and I-Level NAMP Compliance Audits 80
Figure 10.7-2: QA Discrepancy Tracker (Sample) 81
10.8 Technical Data Management (NAMPSOP) 82
10.8.1 References 82
10.8.2 Introduction 82
10.8.3 Requirements 83
10.8.3.1 Authorized Technical Publications 83
10.8.3.2 NATEC Technical Manual Application System (TMAPS) 84
10.8.3.3 Technical Data Inventory and Currency Verification 84
10.8.3.4 Portable Electronic Maintenance Aids (PEMA) 84
10.8.3.5 Local Maintenance Requirements Cards (LMRC) 85
10.8.3.6 Pre-Final Technical Data 87
10.8.4 Responsibilities 87

10.8.4.1 NATEC 87
10.8.4.2 NAVAIR PMA260 PEMA FST 87
10.8.4.3 Type Wings and MAWs....88
10.8.4.4 Maintenance Officer (MO) 88
10.8.4.5 Quality Assurance Officer (QAO) 88
10.8.4.6 Technical Data Management QA Monitor....89
10.8.4.7 Quality Assurance Representatives (QAR)....89
10.8.4.8 Technical Data Manager (TDM) (O-Level and I-Level) 90
10.8.4.9 Technical Data Manager Assistant (TDMA) 93
10.8.4.10 IMRL Manager....93
10.8.4.11 Maintenance or Production Control 93
10.8.4.12 Work Center Supervisors 93
10.8.4.13 Maintenance Technicians....94
Figure 10.8-1: Local Maintenance Requirement Card (LMRC) Submission Letter (Example) 95
10.9 Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) (NAMPSOP) 96
10.9.1 References....96
10.9.2 Introduction....96
10.9.3 Deficiency Report (DR) Procedures 97
10.9.3.1 General 97
10.9.3.2 Report Control Number (RCN)....98
10.9.3.3 Aircraft Delivery Deficiency Report (ADDR)....99
10.9.3.4 Acceptance Inspection Deficiency Report (AIDR)....99
10.9.3.5 Baseline Trouble Report (BTR) 101
10.9.3.6 Conventional Ordnance Discrepancy Reports (CODR), Explosive Event Reports (EER), and Explosive Mishap Reports (EMR) 101
10.9.3.7 Engineering Investigation (EI)....102
10.9.3.8 Hazardous Material Reports (HMR)....102
10.9.3.9 Product Quality Deficiency Report (PQDR)....103
10.9.3.10 Supply Discrepancy Report (SDR) 105
10.9.3.11 Technical Publications Deficiency Report (TPDR)....105
10.9.3.12 Transportation Discrepancy Report (TDR)....107

10.9.4 Exhibit Handling Procedures for EI, HMR, and PQDR (CAT I and CAT II) Material 107
10.9.5 O-Level and I-Level Activity Responsibilities 111
10.9.5.1 Type Wing or Marine Aircraft Group (MAG) 111
10.9.5.2 Maintenance Officer (MO) 111
10.9.5.3 Quality Assurance (QA) Officer 112
10.9.5.4 NAMDRP Manager 112
10.9.5.5 Division Officers 114
10.9.5.6 Work Center Supervisors: 114
10.9.6 NAVAIR Activity Responsibilities 114
10.9.6.1 FST and Quality Teams for ADDRs, AIDRs, EIs, EI/HMRs, and PQDRs 114
10.9.6.2 AIDR Quality Teams 118
10.9.6.3 ADDR Support Point 120
10.9.6.4 Baseline Trouble Report 120
10.9.6.5 PQDR Quality Teams 121
10.9.6.6 Technical Publication Deficiency Report Team 123
Figure 10.9-1 (page 1): HMR and PQDR Message Template 126
Figure 10.9-1 (page 2): HMR and PQDR Message Template 127
Figure 10.9-2: Category 1 Technical Publication Deficiency Report (Example) 128
Figure 10.9-3: Baseline Trouble Report Message (Sample) 129
Figure 10.9-4: Discrepancy Report Workload Priority 130
Figure 10.9-5: AIDR Process Timeline 131
Figure 10.9-6: EI Process Timeline 132
Figure 10.9-7: PQDR Process Timeline 133
Figure 10.9-8 (page 1) Partial Listing of Fleet Support Teams 134
Figure 10.9-8 (page 2): Partial Listing of Fleet Support Teams 135
Figure 10.9-9: Maintenance Technologies Points of Contact 136
Figure 10.9-10: ADDR Process Timeline 137
10.10 Technical Directive (TD) Compliance Program (NAMPSOP) 138
10.10.1 References 138
10.10.2 Introduction 138
10.10.3 Requirements 140

10.10.3.1 Configuration Changes....140
10.10.3.2 TD Compliance....141
10.10.3.3 I-Level Engine TD Compliance....143
10.10.3.4 TD Deferral Procedures....143
10.10.3.5 TD Compliance Deferral - Aircraft Controlling Custodian or Equipment Class Desk....144
10.10.3.6 TD Compliance Verifications....145
10.10.3.7 TD Applicability Reviews....148
10.10.3.8 TD Compliance Documentation....148
10.10.4 Responsibilities....149
10.10.4.1 COMNAVAIRSYSCOM Program Offices....149
10.10.4.2 ACC or Equipment Class Desks....150
10.10.4.3 NATEC....150
10.10.4.4 Type Wing or MAW....150
10.10.4.5 Commanding Officer (CO)....151
10.10.4.6 Maintenance Officer (MO)....151
10.10.4.7 TD Compliance Program Manager (MMCO or Production Control Officer)151
10.10.4.8 TD Compliance Program Coordinator (TDPC)....152
10.10.4.9 Quality Assurance (QA) Officer....154
10.10.4.10 Technical Data Manager (TDM)....155
10.10.4.11 Supply Department....156
10.10.4.12 Logs and Records Clerk (Navy) or Maintenance Data Specialist (Marine Corps)....156
10.10.4.13 Work Center Supervisors....158
Figure 10.10-1: Baseline Deckplate TDRS Report (Sample)....159
Figure 10.10-2 (page 1): Technical Directive Review Checklist (Example)....160
Figure 10.10-2 (page 2): Technical Directive Review Checklist (Example)....161
Figure 10.10-3: Supply Asset Technical Directive Review Checklist (Example)....162
10.11 Foreign Object Damage (FOD) Prevention Program....163
10.11.1 Reference....163
10.11.2 Introduction....163
10.11.3 Requirements....163

10.11.4 Responsibilities 167
10.11.4.1 Air Field and Air Capable Ships Commanding Officer (CO) 167
10.11.4.2 Aircraft Controlling Custodians (ACC) 167
10.11.4.3 Type Wings or Marine Aircraft Wing (MAWs) 167
10.11.4.4 Navy Carrier Air Wing (CVW), Marine Corps Air Combat Element (ACE), and Other Composite Aviation Units 168
10.11.4.5 Maintenance Officer (MO) 168
10.11.4.6 FOD Prevention Program Manager 168
10.11.4.7 Quality Assurance (QA) Officer 169
10.11.4.8 QA FOD Program Monitor 169
10.11.4.9 Maintenance Control 170
10.11.4.10 Division Officers 170
10.11.4.11 Work Center Supervisors 170
10.11.4.12 Maintenance Personnel 171
Figure 10.11-1 (page 1): Engine FOD Incident Report Format 173
Figure 10.11-1 (page 2): Engine FOD Incident Report Format 174
Figure 10.11-1 (page 3): Engine FOD Incident Report Format 175
Figure 10.11-2: FOD Walk Down Diagram (Example) 176
10.12 Tool Control Program (TCP) (NAMPSOP) 177
10.12.1 Reference 177
10.12.2 Introduction 177
10.12.3 Requirements 177
10.12.3.1 Tool Control Manuals (TCM) 177
10.12.3.2 Tool Marking and Serial Numbers 178
10.12.3.3 Tool Containers 179
10.12.3.4 Tool Inventory Lists 180
10.12.3.5 Tool Security and Checkout Procedures 181
10.12.3.6 O-Level and I-Level Tool Inventories 182
10.12.3.7 Broken/Worn Tool Procedures 182
10.12.3.8 O-Level and I-Level Missing Tool Procedures 183
10.12.3.9 Special Procedures for Aviation Life Support Systems (ALSS) 184
10.12.4 Responsibilities 185

10.12.4.1 Type Wing or MAW 185
10.12.4.2 Maintenance Officer (MO) 185
10.12.4.3 Tool Control Program Manager 185
10.12.4.4 Tool Control Program Coordinator 186
10.12.4.5 QA Officer 187
10.12.4.6 QA TCP Monitor 187
10.12.4.7 Division Officer 188
10.12.4.8 Work Center Supervisor 188
10.12.4.9 Work Center Tool Control Representative 188
Figure 10.12-1: Tool Control Manual Change Recommendation (Example) 190
Figure 10.12-2: Tool Control Manual Deviation Request (Example) 191
Figure 10.12-3: Tool Container Shortage List (Example) 192
Figure 10.12-4: Missing Tool Report (Example)Quality Assurance 193
Figure 10.12-5: Broken/Worn Tool Report (Example) 194
Figure 10.12-6: Contractor/Depot Field Maintenance Team Tool Control Program and FOD Brief (Example) 195
10.13 Aircraft and Support Equipment (SE) Corrosion Prevention and Control Program (NAMPSOP) 196
10.13.1 References 196
10.13.2 Introduction 196
10.13.2.6 Corrosion Control Fleet Support Team (FST): 198
10.13.3 Requirements 198
10.13.3.1 General 198
10.13.3.2 Manpower Requirements 198
10.13.3.3 Training Requirements 199
10.13.3.4 Facilities and Environmental Requirements 201
10.13.3.5 Medical and Personal Protective Equipment (PPE) Requirements 201
10.13.3.6 Emergency Reclamation Team (ERT) 202
10.13.3.7 Aircraft, Engine, and Equipment Preservation Requirements 202
10.13.3.8 Aircraft and Equipment Painting Requirements 204
10.13.4 Responsibilities 205
10.13.4.1 COMNAVAIRPAC (CNAP) N422 205

10.13.4.2 COMNAVAIRSYCOM (NAVAIR) 205
10.13.4.3 Type Wing or MAG 206
10.13.4.4 CVW and ACE 207
10.13.4.5 MO 208
10.13.4.6 AMO 208
10.13.4.7 MMCO 208
10.13.4.8 Program Manager 209
10.13.4.9 Quality Assurance 210
10.13.4.10 Maintenance Control and Production Control (O-Level and I-Level) 210
10.13.4.11 Data Analyst (O-Level) 211
10.13.4.12 Work Center Supervisors 211
Figure 10.13-1: FAL Development Process 212
Figure 10.13-2: FAL Cover Letter 213
Figure 10.13-3: FAL Summary 214
Figure 10.13-4: FAL Level 1 Detail 215
Figure 10.13-5: FAL Level 3 Detail 216
Figure 10.13-6: FAL Pareto Chart (sample) 217
Figure 10.13-7: FAL Item Substructure Figures and Work Unit Codes (Example) 218
10.14 Plane Captain Qualification Program (NAMPSOP) 219
10.14.1 References 219
10.14.2 Introduction 219
10.14.3 Requirements 219
10.14.3.1 Training and Designation 219
10.14.3.2 Naval Aircrewmen 220
10.14.3.3 Requalification 220
10.14.4 Responsibilities 221
10.14.4.1 Navy Type Wings 221
10.14.4.2 Commanding Officer (CO) 221
10.14.4.3 Maintenance Officer (MO) 222
10.14.4.4 Plane Captain Qualification Program Manager 222
10.14.4.5 Quality Assurance (QA) Officer 223
10.14.4.6 Plane Captain Program Monitor 223

10.14.4.7 Plane Captains 224
Figure 10.14-2 (page 1): Plane Captain Training Syllabus Topics (Example) 226
Figure 10.14-2 (page 2): Plane Captain Training Syllabus Topics (Example) 227
Figure 10.14-3: Plane Captain Refresher Training Syllabus (Example) 228
10.15 Egress/Explosive Systems Checkout Program (NAMPSOP) 229
10.15.1 References 229
10.15.2 Introduction 229
10.15.3 Requirements 229
10.15.4 Responsibilities 231
10.15.4.1 Type Wings 231
10.15.4.2 Maintenance Officer (MO) 232
10.15.4.3 Program Manager 232
10.15.4.4 Quality Assurance (QA) Officer 233
10.15.4.5 QA Program Monitor 233
10.15.4.6 QARs 233
10.15.4.7 Aircraft Division Officer 233
10.15.4.8 Egress/Explosive Systems Checkout Instructors 233
10.15.4.9 Work Center Supervisors 234
Figure 10.15-1: Egress/Explosive Systems Checkout Qualification (Example) 235
Figure 10.15-2: Egress/Explosive Systems Checkout Instructor Designation (Example) 236
10.16 Support Equipment Operator Training and Licensing Program (NAMPSOP) 237
10.16.1 References 237
10.16.2 Introduction 237
10.16.3 SE Operator Training Requirements 238
10.16.3.1 Phase I Training 238
10.16.3.2 Phase II Training 238
10.16.4 SE Operator License Requirements 240
10.16.5 Responsibilities 243
10.16.5.1 Type Wings and Marine Corps Training and Education Command (TECOM) 243
10.16.5.2 Maintenance Officer (MO) 243
10.16.5.3 Program Manager 244

10.16.5.4 QA Representative (QAR) 245
10.16.5.5 Division Officers 245
10.16.5.6 Work Center Supervisors 246
Figure 10.16-1 (page 1): Equipment Requiring an SE Operator's License 247
Figure 10.16-1 (page 2) : Equipment Requiring an SE Operator's License 248
Figure 10.16-2: USN Aviation Support Equipment Operator's License (OPNAV 4790/102) (Sample) 249
Figure 10.16-3: NEC/MOS Courses that satisfy Phase I SE Training requirements 250
Figure 10.16-4 (page 1): Phase I Operator Training Outline (Example) 251
Figure 10.16-4 (page 2): Phase I Operator Training Outline (Example) 252
Figure 10.16-5 (front): SE License Certification (Example) 253
Figure 10.16-5 (back): SE License Certification (Example) 254
10.17 Support Equipment (SE) Maintenance (NAMPSOP) 255
10.17.1 References 255
10.17.2 Introduction 255
10.17.3 Requirements 256
10.17.3.1 Transfer and Acceptance Procedures 256
10.17.3.2 Subcustody Issue Procedures 256
10.17.3.3 Maintenance 257
10.17.3.4 Maintenance Documentation 258
10.17.3.5 NALCOMIS OOMA Configuration Management Auto Log Set (CM ALS) Records 259
10.17.3.6 SE Custody and Maintenance History Record (OPNAV 4790/51) 260
10.17.3.7 Historical File 260
10.17.4 Responsibilities 261
10.17.4.1 Type Wing or MAW 261
10.17.4.2 Maintenance Officer 261
10.17.4.3 Program Manager 262
10.17.4.4 Program Coordinator 262
10.17.4.5 Division Officers 263
10.17.4.6 Work Center Supervisors 263
Figure 10.17-1 (page 1): Support Equipment Acceptance/Transfer Checklist (Example) 264

Figure 10.17-1 (page 2): Support Equipment Acceptance/Transfer Checklist (Example).....265
Figure 10.17-1 (page 3): Support Equipment Acceptance/Transfer Checklist (Example).....266
Figure 10.17-2: SE Preoperational Record (OPNAV 4790/52).....267
Figure 10.17-3: Support Equipment Transaction Report (OPNAV 4790/64).....268
10.18 Naval Aviation Metrology and Calibration (METCAL) Program (NAMPSOP).....269
10.18.1 References.....269
10.18.2 Introduction.....270
10.18.3 Requirements.....271
10.18.4 Responsibilities.....276
10.18.4.1 I-Level Responsibilities.....276
10.18.4.2 O-Level Activity Responsibilities.....280
10.18.4.3 O-Level and I-Level Work Center Supervisors.....282
Figure 10.18-1: METCAL Program Invoice (Sample).....283
Figure 10.18-2: TMDE Discrepancy Report (Sample).....284
Figure 10.18-3 (Page 1): Measure Meter Card (OPNAV 4790/58).....285
Figure 10.18-3 (Page 2): Measure Meter Card (OPNAV 4790/58).....286
10.19 Hazardous Material Control and Management (HMC&M) Program (NAMPSOP) ..287
10.19.1 References.....287
10.19.2 Introduction.....287
10.19.3 Requirements.....289
10.19.3.1 Safety and Environmental Compliance.....289
10.19.3.2 Training and Qualification Requirements.....289
10.19.3.3 HAZMAT Documentation and Reporting.....291
10.19.3.4 HAZMAT Storage.....292
10.19.3.5 HAZWASTE and Excess HAZMAT Requirements.....292
10.19.4 Responsibilities.....293
10.19.4.1 COMNAVAIRSYSCOM.....293
10.19.4.2 Type Wing or Marine Aircraft Wing (MAW).....293
10.19.4.3 Commanding Officer (CO).....293
10.19.4.4 Maintenance Officer (MO).....293
10.19.4.5 Command HMC&M Program Manager.....293
10.19.4.6 Command HMC&M Supervisor.....294

10.19.4.7 Quality Assurance (QA) Officer 296
10.19.4.8 HMC&M Program Monitor 296
10.19.4.9 Division Officers 296
10.19.4.10 Work Center Supervisors 296
10.19.4.11 Work Center HMC&M Coordinators 297
10.20 Intermediate Level (I-Level) Component Repair Optimization (NAMPSOP) 298
10.20.1 References 298
10.20.2 Introduction 298
10.20.3 Component Repair Review and ICRL Validation 300
10.20.3.1 Purpose 300
10.20.3.2 CRR and IV 301
10.20.3.3 Periodicity. 301
10.20.3.4 Component Repair Review (CRR) Procedures 301
10.20.3.5 ICRL Validation (IV) Procedures 304
10.20.3.6 ICRL Data Field Procedures 304
10.20.3.7 ICRL Change Request (ICR) 306
10.20.4 Responsibilities 307
10.20.4.1 NAVAIR Program Offices 307
10.20.4.2 COMNAVAIRPAC (N422) 307
10.20.4.3 Maintenance Officer (MO) 308
10.20.4.4 Supply Officer 308
10.20.4.5 Assistant Maintenance Officer (AMO) 308
10.20.4.6 Maintenance Material Control Officer (MMCO) or Production Control Officer 309
10.20.4.7 ICRL Manager 310
10.20.4.8 Production Control 311
10.20.4.9 NALCOMIS Data Base Administrator (DBA) 311
10.20.4.10 AMSU/JASU Supervisor 312
10.20.4.11 Supply ICRL Program Representative 312
10.20.4.12 Division Officers 312
10.20.4.13 Work Center Supervisors 313
10.20.4.14 Work Center ICRL Petty Officer or NCO 313

Figure 10.20-1: ICRL Change Request (Example) 314
Figure 10.20-2 (page 1): ICRL Capability Codes 315
Figure 10.20-2 (page 2): ICRL Capability Codes 316
Figure 10.20-3: Work Center ICRL Petty Officer/NCO Designation (Example) 317
Figure 10.20-4: ICRL Requirements for Target Capability Codes and Target Capability 318
10.21 Electrostatic Discharge (ESD) Protection and Electromagnetic Interference (EMI) Reporting Program (NAMPSOP) 319
10.21.1 References 319
10.21.2 Introduction 319
10.21.3 Training 319
10.21.4 Responsibilities 322
10.21.4.1 Type Wing 322
10.21.4.2 Maintenance Officer (MO) or Production Officer 322
10.21.4.3 Supply Officer 322
10.21.4.4 ESD Protection and EMI Reporting Program Manager 323
10.21.4.5 Supply Department ESD Protection Coordinator 323
10.21.4.6 Quality Assurance (QA) Officer 324
10.21.4.7 QA ESD Protection and EMI Reporting Program Monitor 324
10.21.4.8 Division Officers 324
10.21.4.9 Work Center Supervisors 324
10.21.4.10 Maintenance Personnel 324
10.21.4.11 Material Control Division Personnel 325
10.22 Miniature/Microminiature (2M) Program (NAMPSOP) 326
10.22.1 References 326
10.22.2 Introduction 326
10.22.3 Requirements 326
10.22.3.1 2M Repairs 326
10.22.3.2 2M Technician Certification 326
10.22.3.3 2M Technician Recertifier 326
10.22.3.4 Recertification 327
10.22.3.5 2M Workstations 327
10.22.3.6 2M Facilities 327

10.22.4 Responsibilities 327
10.22.4.1 COMNAVAIRFOR and NAVAIR Aviation Maintenance Management Teams (AMMT) 327
10.22.4.2 Maintenance Officer (MO) 328
10.22.4.3 Program Manager 328
10.22.4.4 Quality Assurance Officer (QAO) 328
10.22.4.5 QA 2M Program Monitor 328
10.22.4.6 2M Technician Recertifiers 329
10.22.4.7 2M Work Center Supervisor 329
10.22.4.8 Center for Naval Aviation Technical Training Unit (CNATTU) 2M Instructors 329
10.23 Gas Turbine Engine Test Facility Operation and Maintenance 331
10.23.1 References 331
10.23.2 Introduction 331
10.23.3 ETF Operator Training 331
10.23.4 ETF Operator and ETF Qualifier Designation 333
10.23.4.1 ETF Operator Designation 333
10.23.4.2 ETF Qualifier Designation 333
10.23.5 Proficiency and Recertification Requirements 333
10.23.5.1 Proficiency Requirements 333
10.23.5.2 Recertification Requirements 334
10.23.6 Responsibilities 334
10.23.6.1 NAVAIR 334
10.23.6.2 Maintenance Officer (MO) 334
10.23.6.3 Program Manager 335
10.23.6.4 Quality Assurance (QA) Officer 336
10.23.6.5 Program Monitor 336
10.23.6.6 ETF Qualifier 336
10.23.6.7 ETF Supervisors 336
10.23.7 Engine Test Facility Maintenance 336
10.23.7.1 Permanent Facilities Ashore 336
10.23.7.2 Permanent Facilities Afloat 337

10.23.7.3 Mobile Facilities (MF) 337
10.23.7.4 Basic Maintenance Requirements 337
10.23.7.5 Electrical Power Requirements 337
10.23.7.6 Calibration 338
10.23.7.7 Basic Operating Procedures 338
10.23.7.8 Engine Test Cell Technical Evaluation 338
10.23.7.9 Engine Test Cell Correlation 338
10.24 Aviation Maintenance Inspections (AMI) and Maintenance Program Assessments (MPA) 340
10.24.1 Reference 340
10.24.2 Introduction 340
10.24.3 Aviation Maintenance Inspection (AMI) 342
10.24.4 Maintenance Program Assessments (MPA) 343
10.24.5 Responsibilities 343
10.24.5.1 COMNAVAIRFOR (N422) 343
10.24.5.2 NAVAIR ACCO AMMT Aviation Maintenance Management Branch 344
10.24.5.3 Immediate Superior in Command (ISIC) 344
10.24.5.4 AMMT and ISIC MAT 344
10.24.5.5 O-Level and I-Level Maintenance Officers 345
Figure 10.24-1: Aviation Maintenance Inspection (AMI) Corrective Action Letter (Example) 346
10.25 Long Term Down Aircraft Management Procedures 347
10.25.1 References 347
10.25.2 Introduction 347
10.25.3 Requirements 347
10.25.4 Responsibilities 348
10.25.4.1 Squadrons 348
10.25.4.2 Type Wings and Marine Air Groups (MAG) 348
10.25.4.3 Aircraft Controlling Custodians (ACC) 348
Figure 10.25-1 (page 1): Long Term Non-Operational Aircraft Report 350
Figure 10.25-1 (page 2): Long Term Non-Operational Aircraft Report 351
10.26 Electrical Wiring Interconnect System (EWIS) Maintenance (NAMPSOP) 352

10.26.1 References 352
10.26.2 Introduction 352
10.26.3 Requirements 352
10.26.3.1 General 352
10.26.3.2 Training 353
10.26.3.3 EWIS Maintenance 354
10.26.4 Responsibilities 355
10.26.4.1 COMNAVAIRSYSCOM 355
10.26.4.2 Type Wings and MAWs 355
10.26.4.3 Maintenance Officer 356
10.26.4.4 Assistant Maintenance Officer (AMO) 356
10.26.4.5 Maintenance Control 356
10.26.4.6 EWIS Program Manager 356
10.26.4.7 Quality Assurance 357
10.26.4.8 Work Center Supervisors 357
10.27 Aircraft Gun Systems (AGS)/Aircraft Crew Served Weapons (ACSW) Maintenance Program (NAMPSOP) 359
10.27.1 References 359
10.27.2 Introduction 359
10.27.3 Requirements 359
10.27.3.1 Acceptance/Transfer Transactions 359
10.27.3.2 Issue, Receipt, and Turn-In Transactions 360
10.27.4 General Maintenance Requirements 361
10.27.4.1 Installation and Removal 361
10.27.4.2 Pre/Post Fire Inspections 362
10.27.4.3 Scheduled Maintenance 362
10.27.5. Discrepancy Reporting 362
10.27.5.1 AGS/ACSWs, ACSW Mounts and LASER Aiming Devices (LAD) Discrepancy Reports (DR) 362
10.27.5.2 HMR 362
10.27.5.3 PQDR 362
10.27.5.4 TPDR 362

10.27.5.5 BTR 363
10.27.5.6 CODR and EER 363
10.27.5.7 EMR 363
10.27.5.8 AGS Deficiency Reporting 363
10.27.6 Beyond Capability of Maintenance (BCM) and Defense Logistics Agency Disposition Services (DLADS) 363
10.27.7 Responsibilities 364
10.27.7.1 COMNAVAIRFOR Aircraft Armament Systems Type Commander (N46B2) 364
10.27.7.2 COMNAVAIRFOR Aviation Maintenance Management Teams (AMMT) 364
10.27.7.3 Type Wings and Marine Aircraft Wings (MAW) 364
10.27.7.4 Maintenance Officer 364
10.27.7.5 Quality Assurance (QA) Officer 365
10.27.7.6 Program Manager 365
10.27.7.7 Program Monitor 366
10.27.7.8 Logs and Records Clerks and Maintenance Data Specialists (Marine Corps) 366
10.27.7.9 Ordnance Work Center Supervisors 367
10.27.7.10 AGS/ACSW Maintenance Personnel 367
Figure 10.27-1 OMA CODR Data for IMA Reporting 368
10.28 Aircraft Magnetic Compass Calibration and Verification 369
10.28.1 References 369
10.28.2 Introduction 369
10.28.3 Requirements 369
10.28.4 Responsibilities 371
10.28.4.1 COMNAVAIRSYSCOM 371
10.28.4.2 Activities Operating Naval Aircraft 371
Figure 10.28-1: Compass Correction Card (Example) 372
10.29 Aircraft Survivability Equipment (ASE) (NAMPSOP) 373
10.29.1 Introduction 373
10.29.2 Responsibilities 373
10.29.2.1 COMNAVAIRSYSCOM 373

10.29.2.2 COMNAVAIRPAC/COMNAVAIRLANT (CNAP/CNAL) N421N Common Avionics Class Desk 373
10.29.2.3 Type Wings and Marine Aircraft Wings 374
10.29.2.4 Maintenance Officer 375
10.29.2.5 Program Manager 375
10.29.2.6 Work Center Supervisor 376
Figure 10.29-1: ASE Asset Increase/Decrease Report (Example) 377
Figure 10.29-2: ASE Asset Loss-Damage Report (Example) 378
10.30 Marine Air Traffic Control and Landing Systems (MATCALS) Maintenance 379
10.30.1 References 379
10.30.2 Introduction 379
10.30.3 Requirements 380
10.30.3.1 Personnel Training and Designation 380
10.30.3.2 General Maintenance 380
10.30.3.3 Maintenance Documentation 380
10.30.3.4 Quality Assurance 381
10.30.3.5 Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) 381
10.30.3.6 Tool Control 381
10.30.3.7 Corrosion Prevention and Control 382
10.30.3.8 Technical Data Management 382
10.30.3.9 Naval Aviation Metrology and Calibration 382
10.30.3.10 Technical Directive (TD) Compliance 382
10.30.3.11 Aviation Maintenance Material Readiness List (AMMRL) 383
10.30.3.12 MATCD Inspections 383
10.30.4 Responsibilities 383
10.30.4.1 MATCALS Functional Wing Commander (FWC) 383
10.30.4.2 Marine Aviation Logistics Squadron (MALS) 385
10.30.4.3 MATCALS Maintenance Section Maintenance Officer (MO) 385
10.30.4.4 MATCALS Program Manager 386
Figure 10.30-1: MATCALS Maintenance Section Organization 387
Figure 10.30-2: MATCALS Maintenance Functions 388
Figure 10.30-3: MATCALS Quality Assurance Programs 389

10.31 Expeditionary Airfield (EAF) and Marine Corps Air Station (MCAS) Aircraft Launch and Recovery Equipment (ALRE) Maintenance 390
10.31.1 References 390
10.31.2 Introduction 390
10.31.3 Requirements 390
10.31.3.1 Training and Designation 390
10.31.3.2 Quality Assurance 391
10.31.3.3 Maintenance 391
10.31.3.4 Preventive Maintenance (PM) 391
10.31.3.5 Preservation 392
10.31.3.6 Unscheduled Maintenance 392
10.31.3.7 Technical Directive Reviews 392
10.31.3.8 Equipment Records and Logbooks 392
10.31.3.9 NAMP Compliance Auditing 394
10.31.3.10 Certification 394
10.31.4 Responsibilities 394
10.31.4.1 PMA 251 394
10.31.4.2 MAW 394
10.31.4.3 MALS 394
10.31.4.4 Maintenance Officer 394
10.31.4.5 EAF Program Manager 395
10.31.4.6 Quality Assurance Chief 395
10.31.4.7 Production Control Chief 396
10.31.4.8 Work Center Supervisor 397
Figure 10.31-1: EAF/ MCAS Aircraft Recovery Maintenance Organization 398
Figure 10.31-2: EAF/ MCAS Recovery Quality Assurance Auditing 399
10.32 Aircraft Weight and Balance (W&B) Program 400
10.32.1 References 400
10.32.2 Introduction 400
10.32.3 Requirements 400
10.32.3.1 General 400
10.32.3.2 Weight and Balance Personnel Designation and Training 401

10.32.3.3 Weight and Balance Officer Responsibilities 401
10.32.4 Depot Activities 403
10.33 Fleet Engineering Disposition (FED) Procedures 404
10.33.1 Introduction 404
10.33.2 Procedures 404
10.33.2.1 Submitting activity will: 404
10.33.2.2 FSTs: 405
10.33.2.3 Type Wings and MAGs will: 405
10.34 Aeronautical Equipment Welder Certification 407
10.34.1 Introduction 407
10.34.2 Requirements 407
10.34.2.1 General Procedures 407
10.34.2.2 Certification 407
10.34.2.3 Certification Extension 407
10.35 Nondestructive Inspection (NDI) Program 409
10.35.1 References 409
10.35.2 Introduction 409
10.35.3 Requirements 409
10.35.3.1 General NDI Policy 409
10.35.3.2 NDI Training Courses 410
10.35.3.3 Vision Requirements 411
10.35.3.4 NDI Instructors 411
10.35.3.5 NDI Specialists 411
10.35.3.6 NDI Technicians 411
10.35.3.7 NDI Operators 413
10.35.3.8 NDI Records 415
10.35.4 Responsibilities 415
10.35.4.1 COMNAVAIRSYSCOM 415
10.35.4.2 COMNAVAIRFOR 416
10.35.4.3 Depot Fleet Readiness Centers 416
10.35.4.4 Intermediate Level Maintenance Activities (IMA) 416
10.35.4.5 O-Level activities 417

10.35.4.6 NDI Work Center Supervisor 418
Figure 10.35-1: NDI Certification Record OPNAV 4790/139 (Example) 419
Figure 10.35-2: NDI Technician/Operator Work Record OPNAV 4790/140 (Example) 420
10.36 AIRSpeed Continuous Process Improvement 421
10.36.1 References 421
10.36.2 Introduction 421
10.36.3 AIRSpeed CPI Training and Certification 421
10.36.3.1 AIRSpeed CPI Training 421
10.36.3.2 AIRSpeed CPI Certification 422
10.36.4 Responsibilities 423
10.36.4.1 Commanding Officer (CO) 423
10.36.4.2 Maintenance Officer (MO) 423
10.36.4.3 AIRSpeed CPI Work Center 424
10.36.4.4 AIRSpeed Officer 425
10.36.4.5 BMT Administrator 427
10.36.4.6 CPIMS Administrator 427
10.36.4.7 Maintenance Material Control Officer (MMCO) 427
10.36.4.8 Division Officers 428
10.37 Aircraft Performance Automated Trending and Analysis (ATA) (NAMPSOP) 429
10.37.1 References 429
10.37.2 Introduction 429
10.37.3 Responsibilities 431
10.37.3.1 COMNAVAIRSYSCOM 431
10.37.3.2 COMNAVAIRFOR and COMNAVAIRSYSCOM Aviation Maintenance Management Teams 434
10.37.3.3 Type Wings and Marine Air Wings 434
10.37.3.4 Maintenance Officer 434
10.37.3.5 MMCO 435
10.37.4 Procedures 435
10.37.4.1 Organizational Level ATA 435
10.37.4.2 Intermediate level ATA 437
10.38 Aircraft Battle Damage Repair (ABDR) 438

10.38.1 Reference 438
10.38.2 Introduction 438
10.38.3 Requirements 438
10.38.4 Responsibilities 439
10.38.4.1 Depot Fleet Readiness Centers 439
10.38.4.2 T/M/S Fleet Support Team (FST) 439
10.38.4.3 CVW, ACE or MAG MO 439
10.38.4.4 Squadron Maintenance Control 439
10.38.4.5 Intermediate Level Maintenance Activity (IMA) 439
10.39 Gas Turbine Engine Maintenance (GTEM) Program 440
10.39.1 References 440
10.39.2 Introduction 440
10.39.3 General Procedures 441
10.39.3.1 NAMP Indoctrination 441
10.39.3.2 Logbooks and Records 441
10.39.3.3 Engine Transfer and Shipment 441
10.39.3.4 Supply Procedures 442
10.39.3.5 Power Plant Technical Manuals 442
10.39.3.6 Modular Engines 444
10.39.3.7 Auxiliary Power Unit (APU) and Support Equipment Gas Turbine Engine (SEGTE) 444
10.39.3.8 Technical Directives (TD) 445
10.39.3.9 Gas Turbine Engine (GTE) Test Facilities 445
10.39.3.10 Preservation and Storage 445
10.39.3.11 Engine bearing maintenance, storage, and preservation 445
10.39.3.12 Engine slings and stands 445
10.39.3.13 Overhead cranes and hoists 445
10.39.4 Intermediate Level Maintenance Activity (IMA) Procedures 446
10.39.4.1 Production Planning 446
10.39.4.2 Pre-induction Screening 446
10.39.4.3 Engine Inspection, Repair, and Testing 447
10.39.5 Responsibilities 448

10.39.5.1 COMNAVAIRSYSCOM....448
10.39.5.2 TYCOM Engine Class Desk....448
10.39.5.3 IMA Maintenance Officer....449
10.39.5.4 IMA Assistant Maintenance Officer....449
10.39.5.5 IMA Quality Assurance....449
10.39.5.6 GTEM Program Manager....449
Figure 10.39-1: Engine Screening and Processing....451
10.40 Aviation Life Support Systems (ALSS) and Egress Systems Maintenance....452
10.40.1 References....452
10.40.2 Introduction....453
10.40.3 ALSS and Egress System Technician Qualifications....454
10.40.4 ALSS and Egress System Quality Assurance Personnel Qualifications....455
10.40.5 Maintenance....455
10.40.6 Technical Directives....456
10.40.7 Logbooks and Records....457
10.40.8 ALSS Spare Pool Assets....457
10.40.9 ALSS and Egress Systems Acceptance and Transfer....459
10.40.10 ALSS Work Order and Maintenance Action Form Documentation....459
10.40.11 ALSS Configuration Management Auto Log-Set (CM ALS)....459
10.40.12 Responsibilities....460
10.40.12.1 Maintenance Officer....460
10.40.12.2 Program Manager....460
10.40.12.3 Quality Assurance Officer....461
10.40.12.4 Program Monitor....461
10.40.12.5 Work Center Supervisors....461
10.40.12.6 ALSS and Egress Systems Technicians....462
10.40.12.7 Aircrew....462
10.41 Maintenance Department Safety (NAMPSOP)....463
10.41.1 References....463
10.41.2 Introduction....463
10.41.3 General Requirements....463
10.41.3.1 Navy Occupational Safety and Health (NAVOSH) and Safety Training....463

10.41.3.2 Safety Stand Down (SSD) 463
10.41.3.3 Mishap and Hazard Reporting 464
10.41.3.4 Industrial Hygiene Survey 464
10.41.4 Navy Occupational Safety and Health (NAVOSH) Programs 464
10.41.4.1 Personal Protective Equipment (PPE) 464
10.41.4.2 Hazardous Materials Control and Management (HMC&M) 464
10.41.4.3 Fall Protection 465
10.41.4.4 Respiratory Protection Program 465
10.41.4.5 Asbestos Management Program 465
10.41.4.6 Hearing Conservation Program (HCP) 465
10.41.4.7 Sight Conservation Program 465
10.41.4.8 Lead Control Program 465
10.41.4.9 Non-Ionizing Radiation Program 466
10.41.4.10 Ergonomics Program 466
10.41.4.11 Laser Hazard Control Program 466
10.41.5 Responsibilities 466
10.41.5.1 Type Wings and Marine Air Wings (MAW) 466
10.41.5.2 Maintenance Officer (MO) 466
10.41.5.3 Quality Assurance Officer (QAO) 467
10.41.5.4 Program Manager 467
10.41.5.5 Division Officers 468
10.41.5.6 Work Center Supervisors 468
10.41.5.7 Maintenance Personnel 468
Figure 10.41-1: NAVOSH/Safety Training 469
10.42 Aircraft Engine/Auxiliary Power Unit (APU) Turn-up License and Aircraft Taxi License Procedures (NAMPSOP) 470
10.42.1 References 470
10.42.2 Introduction 470
10.42.3 Aircraft Engine/APU Turn-up Licensing 470
10.42.4 Aircraft Taxi License 472
10.42.5 Responsibilities 473
10.42.5.1 Type Wings and Marine Air Groups (MAG) 473

10.42.5.2 Commanding Officer 473
10.42.5.3 Maintenance Officer 473
10.42.5.4 Program Manager 473
10.42.5.5 Quality Assurance (QA) Officer 474
10.42.5.6 Program Monitor 474
10.42.5.7 Turn Qualification Instructors 474
10.42.5.8 Engine/APU/Taxi Operators 474
Figure 10.42-1: Aircraft Engine/APU Turn-up License (OPNAV 4790/192) 475
Figure 10.42-2: Aircraft Taxi License (OPNAV 4790/191) 476
10.43 Unmanned Aircraft Systems Ground Maintenance Vehicle Operator (GMVO) Program (NAMPSOP) 477
10.43.1 References 477
10.43.2 Introduction 477
10.43.3 Requirements 477
10.43.4 Responsibilities 478
10.43.4.1 Type Wings and Marine Air Groups (MAG) 478
10.43.4.2 Commanding Officer 478
10.43.4.3 Maintenance Officer 479
10.43.4.4 GMVO Program Manager 479
10.43.4.5 GMVO Program Coordinator 479
10.43.4.6 Quality Assurance Officer (QAO) 480
10.43.4.7 GMVO Program Monitor 480
10.43.4.8 GMVO Instructor 480
10.43.4.9 Ground Maintenance Vehicle Operator (GMVO) 481
10.43.4.10 Training Petty Officer 481
Figure 10.43-1: GMVO Qualification License Example 482
Figure 10.43-2: GMVO Instructor Designation Example 483
10.44 Low Observables Maintenance Program (LOMP) (NAMPSOP) 484
10.44.1 References 484
10.44.2 Introduction 484
10.44.3 Requirements 485
10.44.4 Navy and Marine Corps Activities 485

10.44.5 Training....485
10.44.6 Responsibilities....486
10.44.6.1 NAVAIR LOGIC Team and Program Offices....486
10.44.6.2 COMNAVAIRFOR N422C....486
10.44.6.3 Type Wing/MAG/Intermediate Level FRCs/AIMDs/MALS....486
10.44.6.4 Maintenance Officer/Aircraft Maintenance Officer....487
10.44.6.5 Maintenance Control/Production Control....487
10.44.6.6 Program Manager....488
10.44.6.7 Program Monitor....489
10.45 Additive Manufacturing (AM) Program NAMPSOP....490
10.45.1 References....490
10.45.2 Introduction....490
10.45.3 Requirements....490
10.45.4 Part Requirements....490
10.45.5 AM Job Aid Requirements....491
10.45.6 Equipment Requirements....492
10.45.7 Manpower Requirements....492
10.44.8 Facilities and Environmental Requirements....492
10.45.9 Responsibilities....492
10.45.9.1 COMNAVAIRSYCOM (NAVAIR)....492
10.45.9.2 NAVAIR Program Offices....493
10.45.9.3 Type Wing or MAG....493
10.45.9.4 AIMD Afloat....493
10.45.9.5 Maintenance Officer (MO)....493
10.45.9.6 Supply Officer....494
10.45.9.7 Assistant Maintenance Officer (AMO)....494
10.45.9.8 Individual Component Repair List (ICRL) Manager....494
10.45.9.9 Work Center 550 ICRL Program Representative....494
10.45.9.10 AM Program Manager....494
10.45.9.11 QAO....494
10.45.9.12 AM QAR....495
10.45.9.13 Work Center 550 Supervisor....495

10.46 Miscellaneous Programs and Processes 496
10.46.1 Explosives Handling Personnel Qualification and Certification Program 496
10.46.2 Aircraft Maintenance Material Readiness List (AMMRL) Program 496
10.46.3 Joint Depot Maintenance Program 497
10.46.4 Fleet Air Introduction Liaison Survival Aircrew Flight Equipment (FAILSAFE) Program 497
10.46.5 Naval Ordnance Management Policy (NOMP) 497
10.46.6 Mobile Facility (MF) Program 497
10.46.7 Depot Fleet Readiness Center (FRC) Customer Liaison Program 498
10.46.8 Reliability Centered Maintenance (RCM) Program 499
10.46.9 Service Life Management Programs 499
10.46.9.1 Aircraft Service Period Adjustment (ASPA) Program 499
10.46.9.2 Conversion In Lieu Of Procurement (CILOP) Program 499
10.46.9.3 Modification, Corrosion and Paint Program (MCAPP) 499
10.46.9.4 Reclamation in Lieu of Procurement (RILOP) Program 500
10.46.9.5 Service Life Extension Program (SLEP) 500
10.46.9.6 Structural Appraisal of Fatigue Effects (SAFE) Program 500
10.46.9.7 Structural Life Limits Program 500
10.46.9.8 Phased Depot Maintenance (PDM) Program 501
10.46.9.9 Integrated Maintenance Concept (IMC) Program 501
10.46.9.10 Material Condition Inspection (MCI) 502
10.46.9.11 Life Limited Repair (LLR) Program 502
10.46.9.12 Enhanced Phase Maintenance (EPM) Program 502
10.46.10 Vibration Analysis 502
10.46.11 Planner and Estimator (P&E) Services 503
10.46.12 Recovery and Reclamation of Crash Damaged Aircraft 504
10.46.13 Management Information Systems (MIS) 504
10.46.14 Management of Permitted Radioactive Commodities on Naval Aircraft 506
Figure 10.46-1 (page 1): Mobile Facility (MF) Acceptance/Transfer Checklist 507
Figure 10.46-1 (page 2): Mobile Facility (MF) Acceptance/Transfer Checklist 508
Figure 10.46-2 (page 1): Environmental Control Unit (ECU) Acceptance/Transfer Checklist 509
Figure 10.46-2 (page 2): Environmental Control Unit (ECU) Acceptance/Transfer Checklist 510

Figure 10.46-3: Work Request Customer Service (OPNAV 4790/36A).....511

10.1 Aviation Maintenance Training Program (NAMPSOP)

10.1.1 References

a. OPNAVINST 1500.76, Naval Training Systems Requirements, Acquisition, and Management

b. OPNAVINST 1540.2, Naval Aviation Technical Training Program Administration and Operation

c. OPNAVINST 1500.47, Navy Training Quota Management

d. COMUSFLTFORCOM/COMNAVPERSCOMINST 1300.1, Enlisted Manning Policy and Procedures

e. CENNAVAVNTECHTRAINST 1541.2, Mobile Training Team Program

f. CENNAVAVNTECHTRAINST 1500.13, Training Requirements Review Program Policy and Guidance

g. NETCINST 1500.19, Training Requirement Submission, and Course Development, Delivery, and Maintenance End to End Process

h. COMNAVAIRFORINST 4790.3, Naval Aviation Technical Engineering Services

i. NAVMC 4790.1, Aviation Maintenance and Supply Training and Readiness Program

j. OPNAVINST 3500.34, Personnel Qualification Standards Program

k. NAVEDTRA 43100-1L, Unit Coordinator's Guide

l. NAVEDTRA 43100-2H, PQS Manager and PQS Model Manager's Guide

m. OPNAVINST 5100.19 Vol 1, Navy Safety and Occupational Health (SOH) Program Manual for Forces Afloat

n. OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual

p. BUPERSINST 1080.54, Enlisted Distribution and Verification Process

10.1.2 Introduction

10.1.2.1 A proficient work force is key to achieving and sustaining naval aviation operational readiness. All activities maintaining aircraft and aeronautical equipment are responsible for ensuring their personnel are adequately trained and skilled in their duties. This NAMPSOP provides direction on general management procedures for formal and in-service training of O-Level and I-Level Navy and Marine Corps Maintenance Department uniformed military personnel. This NAMPSOP is not applicable to the training of government service or contractor personnel, regardless of the level of the maintenance activity assigned.

10.1.2.2 The Aviation Maintenance Training (AMT) Program provides basic, intermediate, and advanced levels of training to Department of the Navy aviation maintenance personnel involved with aircraft, engines, components, and related equipment. The program also covers aviation meteorological and photographic equipment, air launched weapons, missile targets, and aeronautical equipment. The program aims to provide Naval Aviation with a competent workforce,

formally trained by the A and C-Schools, reflecting manpower document billet requirements, and that has attained F-School and In-Service Training (IST) required by NAMP, NAVAIR and NAVOSH policies. A competent workforce is one that utilizes technical knowledge and skill to safely and proficiently perform maintenance plan tasks in the required operating environment. Maintenance training is aligned to maintenance tasks and manning concepts required by the weapon system acquisition, and arranged in a continuum of formal training and IST syllabi throughout a career.

10.1.2.3 For Navy personnel, the Qualified and Proficient Technician (QPT) Program provides IST standardization via Naval Education and Training (NAVEDTRA) Personnel Qualification Standards (PQS). QPT contains a structured training syllabus that provides maintenance personnel with the minimum level of proficiency required for their rate and pay grade. QPT expands on prerequisite formal schools and Navy enlisted classification (NEC) training. QPT PQS is tailored to two QPT certification levels that correspond to personnel's skill level that is expected for professional development. QPT levels:

a. Qualified and Proficient Apprentice (QPA), generally for E-4 and below personnel. QPA includes general and rating specific training on flight line and work place safety, basic aircraft or equipment servicing and inspection, support equipment (SE) licensing, basic maintenance documentation requirements, basic type/model/series (T/M/S) aircraft or I-Level equipment maintenance tasks (typically limited to servicing, preventive maintenance, and component removal and replacement), identification, use, and handling of hazardous material, and any additional qualifications necessary to perform at the Apprentice level.

b. Qualified and Proficient Journeyman (QPJ), generally for E-5 and E-6 personnel. QPJ includes required QPA items for personnel new to a T/M/S aircraft or I-Level duty, in-depth T/M/S aircraft and equipment information and job tasks (typically troubleshooting to component level, ready for issue material (RFI) determination, schematics use, end-to-end testing, and rigging or tuning of systems and components), advanced maintenance documentation, shop and shift workload management, and any additional qualifications necessary to perform at the Journeyman level. QPJ certified individuals become instructors and mentors to apprentices.

10.1.2.4 For Marine Corps personnel, the Aviation Maintenance and Supply Training and Readiness Program (AMSTRP) provides structured IST for each aviation military occupational specialty (MOS). The AMSTRP implements concepts that include system skill proficiency qualifications, designations, and SE licensing requirements. The AMSTRP provides maintenance training standardization, identification of training resources, and a standardized method for measuring the manpower readiness of work centers, divisions, and Maintenance Departments. NAVMC 4790.1 directs the AMSTRP.

10.1.2.5 PQS is the foundational element of the QPT Program and AMSTRP. PQS are structured training syllabi that delineate the minimum knowledge and skills an individual must demonstrate before they are qualified to perform specific maintenance or administrative duties. OPNAVINST 3500.34 directs the PQS Program, and specifies key roles for Commander, Naval Air Systems Command (COMNAVAIRSYSCOM) Naval Education Training Command (NETC). NAVEDTRA 43100-1 and 43100-2 provide policy on developing and managing PQS.

10.1.2.6 On the job training (OJT) is the primary training element in attaining technical proficiency and skill in performing maintenance and administrative duties. OJT consists of personnel performing tasks under the supervision of qualified personnel. The trainee gains knowledge, skill, and experience by observing and participating in the work.

10.1.2.7 Job Qualification Requirements (JQR) are locally produced guides for training and qualification elements not covered by a QPT, AMSTRP, or NAVEDTRA PQS.

10.1.2.8 Lectures, Interactive Multimedia Instruction (IMI), and required reading provide essential knowledge for performing certain tasks.

10.1.2.9 The Advanced Skills Management Program (ASM) is an unclassified Management Information System (MIS) that contains job task requirements, documents completed training, qualifications, certifications, designations, duty or billet assignments, and tracks personnel progress in completing QPT or AMSTRP. ASM is the primary training database and personnel management for designation, qualification and certification for Navy and Marine Corps O-Level and I-Level maintenance activities. All designations, qualifications, and certifications are complete when signed off by the designation authority and will be tracked by the date in ASM.

NOTES: 1. All prerequisites required to support a certification, designation, or qualification must be maintained in a current status. If a prerequisite lapses, expires, is suspended, or is revoked, the associated certification, designation, or qualification will be placed in "Not in Use" status in ASM, and the MPP will be updated. When prerequisites are returned to current or up-to-date status, ASM and the MPP will be updated.

2. All activities will use ASM for all NAMP program designations.

10.1.3 Formal Training

10.1.3.1 Definition

Formal training is training with an approved course curriculum which may or may not produce an NEC or MOS. Formal training programs and AMT courses aim to provide Naval Aviation with a competent workforce, formally trained by the A and C-Schools, reflecting manpower document billet requirements, and that has attained F-School and In-Service Training (IST) required by NAMP, NAVAIR and NAVOSH policy or program requirments. Additionally, formal training with an approved course curriculum is by NETC, CNATT or Depot FRCs. Formal training courses provide specific weapon system task training that provides familiarization in operation and maintenance of the system, support equipment, or program being maintained. Types of formal training include:

Class A - Basic knowledge and skills required for entry level performance. NEC or MOS not normally awarded.

Class C - Advanced knowledge and skills required to fill a billet coded with an NEC or MOS. Awards NEC or MOS.

Class D - Professional CNO mandated or non-pipeline refresher training. NEC not normally awarded.

Class F - Individual functional skill training required by fleet, ACC, TYCOM, or SYSCOM instructions. No NEC awarded.

Class G - Segment course of an NEC or MOS producing pipeline. Does not, by itself, award an NEC or MOS and may be attended outside the entire pipeline.

Class R - Training upon initial enlistment or induction which provides general indoctrination and prepares the recruit for early adjustment to military life by providing skill and knowledge in basic military subjects.

Class T - Team training to fleet personnel, officers and enlisted, enroute to duty as members of ship's company. No NEC is awarded.

10.1.3.2 Directives

The directives referenced in 10.1.1 provide overarching policy and command responsibilities for formal training development, management, scheduling, and future requirements. Summary:

a. Formal course curriculum, IST syllabi and training devices, are produced by NAVAIRSYSCOM utilizing policies contained in Reference a.

b. Aviation technical training systems produced under Reference a are approved within CNO Navy Training System Plans and managed by CNATT in accordance with policies in Reference b.

c. Seat forecasting and quota management is governed by CNO and BUPERS per the procedures of Reference c.

d. Personnel distribution policies including Fleet responsibility to screen orders of inbound personnel for billet related training is contained in Reference d.

e. Procedures for requesting CNATT Mobile Training Teams are contained in Reference e.

f. The Training Requirement Review (TRR) process by which CNATT gathers Fleet feedback for training improvement is governed by Reference f. Feedback can be submitted at any time via NETC Fleet Feedback email to pnsc.netc.pao@navy.mil. Information should include course identification number (CIN), course location and feedback comments. NETC will forward the submission to the appropriate Learning Center to be reviewed at the next TRR.

g. When Fleet feedback reveals un-resourced issues, reference g. provides a process for requesting design and cost analysis for submission to the OPNAV Resource Sponsor.

h. Reference h. identifies the process for requesting NATEC on-site training.

10.1.3.3 Funding and Seat Reservation

a. BUPERS is the primary source of TAD funding for training received enroute prior to reporting to an ultimate duty station. TAD funding for other formal training is in accordance with respective type/functional commander travel directives.

b. Course locations may be researched in the Catalog of Navy Training Courses (CANTRAC) and reserved via the enterprise Navy Training Reservation System (eNTRS). BUPERS is the Quota Control Authority for A and C-Schools, thus BUPERS Detailers may need to be contacted for seat reservation.

c. Marine Corps aviation maintenance training that requires TAD and travel funds is requested per Commanding General, Training and Education Command (TECOM) directives and the CANTRAC. CG TECOM coordinates Marine Corps aviation training requirements and represents CMC on all training matters.

10.1.3.4 Contractor field services training

NAVAIR program offices provide contractor field services training for new weapon systems being introduced to the fleet. Fleet personnel are trained by the contractor either at the contractor's facility or at a Fleet site. Fleet personnel ordered to this specialized training program must be of the highest caliber and capable of instructing other personnel upon completion of the training.

10.1.3.5 Training Model Managers (TMMs)

TMMs provide systematic review and evaluation of training for respective community weapon systems. The TMM is normally the lead Wing or equivalent I-Level FRC organization with expertise on the system and therefore best able to evaluate or propose changes to training curricula or syllabi.

10.1.4 In-Service Training Requirements

10.1.4.1 QPT

Navy personnel performing duties covered by the QPT Program must complete the QPT certification commensurate with their duties and paygrade.

10.1.4.2 AMSTRP

Marine Corps personnel must complete the AMSTRP requirements for their MOS.

NOTES: 1. QPT and AMSTRP certifications may be used as qualification elements for attaining certain job specific, by name designations or licenses. However, a QPT or AMSTRP certification will not be used as a substitute for designation or licensing; for example, designation as a Plane Captain, Collateral Duty Inspector (CDI), Quality Assurance Representative (QAR), Safe for Flight (SFF), or licensing auxiliary power unit (APU) or engine turn-up.

2. Navy Type Wings operating the F-35 aircraft may establish QPT qualification programs modeled after the Marine Corps AMSTRP for F-35 MOS. Guidance must be published in a Wing instruction.

10.1.4.3 JQR

Qualification for a maintenance duty not covered by the QPT Program, AMSTRP or a NAVEDTRA PQS must be conducted per a published JQR. The JQR must include all elements required to attain qualification (as applicable):

a. Formal training courses (10.1.3)

b. Required reading.

c. IMI.

d. Related general qualifications, for example, flight deck firefighting and cardiopulmonary resuscitation (CPR).

e. SE license requirements.

f. OJT in specific maintenance and administrative tasks related to the job. Figure 10.1-1 provides an example of an OJT syllabus.

10.1.4.4 OJT

OJT must be conducted and documented in a task until the trainee is qualified. Supervisors will recommend final qualification only when confident the individual is knowledgeable and skilled in that area. Once the Work Center Supervisor certifies an individual as qualified in a task, OJT documentation for that task is no longer required. Procedures:

a. OJT will be performed under the supervision and instruction of qualified and designated personnel. Designated qualifiers will sign-off completion of tasks (line items), only if the individual demonstrates thorough knowledge and skill in the practical application of the task.

b. The preferred method of OJT is hands-on performance of the task. Simulation may be used when it is impractical to perform the actual task. As applicable, OJT will include:

(1) General administrative duties, for example, work order (WO) or maintenance action form (MAF), and logs and records entries

(2) Use of technical manuals, reports, and reference materials

(3) Use of tools and test equipment

(4) Inspection and maintenance procedures

(5) General and T/M/S or equipment specific corrosion control inspection, treatment and prevention procedures.

(6) Quality assurance (QA) certification requirements.

(7) Post task question and answer session to assess the trainee's level of comprehension.

NOTES: 1. Naval Aviation Logistics Command Management Information System (NALCOMIS) download may be used to document completion of an OJT task unless specified to be documented in a paper or electronic training document, for example, a QPT PQS syllabus.

2. OJT refresher training in technical or administrative procedures is required whenever personnel demonstrate a lack of knowledge or skill in task areas for which they have been previously signed off as qualified to perform.

10.1.4.5 Lesson Guides and IMI

a. Lesson guides or IMI will be used to conduct non-OJT maintenance training. Lesson guides must be based on technical references (technical manuals, Interactive Electronic Technical Manual (IETMs), COMNAVAIRSYSCOM manuals, or instructions) or policy directives, such as the NAMP, NAVAIR, TYCOM instructions.

b. Lesson guides are required only if the material in IMIs, manuals, instructions, or videos is insufficient for the presenter to cover the topic. IMI is available on Navy eLearning at (https://learning.nel.navy.mil/ELIAASv2p/). A list of In-Service training courses is also available by navigating to: Course Catalog, Navy Learning Centers and Programs, Center for Naval Aviation Technical Training (CNATT), and then In-Service.

c. Lesson guides must include the following elements, as a minimum:

(1) Lesson number

(2) Time required to conduct the lesson

(3) Date prepared

(4) Date reviewed

(5) Prepared or reviewed by

(6) Title

(7) Objective

(8) Instructional aids (if required) and where they can be obtained

(9) References

(10) Presentation. If the lesson is covering a procedure in a maintenance technical manual or instruction, the presentation section will state, "Cover the procedures of (reference) with emphasis on (primary points)." All safety precautions, emergency procedures, and applicable Aviation Maintenance Advisories (AMA), QA requirements must be thoroughly covered.

(11) Summary. As a minimum, the summary must include any safety precautions and emergency procedures covered in the lesson.

(12) Question and answer period

NOTE: The COMNAVAIRFOR AMMT produces lesson guides on multiple NAMP processes. AMMT NAMP Lesson guides can be downloaded from the COMNAVAIRPAC SharePoint https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/.

10.1.4.6 Required Reading

a. Information directed to be read, such as COMNAVAIRFOR AMAs, COMFRC FST AMEAs, Type Wing or MAW advisories, or CO memorandums, must be logged on the Required Reading and Maintenance Information Record (OPNAV 4790/34) (Figure 10.1-2), or an electronic equivalent form.

b. Required reading material will be maintained in a readily accessible Required Reading File (hardcopy or electronic). For large publications and instructions not feasible to be maintained in the file, a Required Reading Cross-Reference Locator Sheet will be used to list the location of the material and the specific chapters and paragraphs required to be read. Reading materials no longer required to be read will be purged from the file each month.

c. Completion of required reading may be accomplished individually or in a group training session.

10.1.4.7 NAMP Indoctrination Training

The purpose of NAMP Indoctrination Training is for activities to provide first-tour Maintenance Department personnel with a fundamental overview of NAMP processes. Requirements:

a. NAMP Indoctrination Training will be provided to all Maintenance Department personnel within their first 45 days reporting to their first aviation command. Although the training does not need to be in any specific format, NAMP Indoctrination Training topics will include all NAMPSOPs requirements.

b. Primary means to document NAMP Indoctrination Training is ASM. Commands not implemented with ASM will document NAMP Indoctrination Training utilizing Figure 10.1-3.

c. NAMP Indoctrination Training may be taught by the applicable Program Manager or QA Program Monitor to an individual or in a group setting.

NOTE: 1. If the Program Manager or QA Program Monitor are not available due to an operational commitment, Navy activities may elect to have the member's Work Center Supervisor provide NAMP Indoctrination training.

2. Navy and Marine Corps Officers who have completed Naval Aviation Maintenance Program Indoctrination Course (CIN C-4D-2012), Naval Aviation Maintenance Program Management Course (CIN C-4D-2013), or Aviation Officer Maintenance Fundamentals Course (CIN C-555-0034) are exempt from NAMP Indoctrination training.

10.1.4.8 Refresher Training

a. Refresher training is required for maintenance personnel when specifically directed in the applicable NAMPSOP or other naval directive. In addition, refresher training will be accomplished as follows:

(1) Upon release of an updated NAMP (revision or change)

(2) When directed by higher authority or dictated by operational environment

(3) Directed by an AMA

b. Primary means to document NAMP Refresher Training is ASM. Commands not implemented with ASM will document NAMP Refresher Training utilizing Figure 10.1-4.

10.1.4.9 Navy Occupational Safety and Health (NAVOSH) and Safety Training

All personnel assigned to the Maintenance Department must receive NAVOSH and Safety Training applicable to their duties. Requirements are specified in 10.41 Maintenance Department Safety NAMPSOP.

10.1.4.10 Qualification/Certification Record

a. Activities using ASM must initiate a Qualification/Certification Record in ASM for each enlisted member and government employee that requires a NAMP qualification, license, certification, or designation. All letters of designation, qualification, certification, course completion, medical certification, and completed PQS and JQR will be filed in the ASM Qualification/Certification Record.

NOTES: 1. Each officer serving in a billet within the Maintenance Department will maintain an active ASM account.

2. Duplicate paper records and forms are not authorized in activities using ASM. In the event a qualification/certification equivalency within ASM does not fulfill the requirements of the NAMP, the command's ASM Fleet Administrator will contact the Model Manager for resolution. Paper records may be used until the ASM deficiency is corrected.

3. Scanned images of individual training documents are not required to be maintained in ASM once the subject course, qualification, or license has been signed electronically within ASM.

b. Activities not using ASM or other approved electronic training documentation system must maintain a hardcopy Qualification/Certification Record per the example of Figure 10.1-5. Hardcopy Qualification/Certification records will only contain documents required by the individual to perform their current duties. All other documents will be given to the individual for their personal file.

c. Qualification/Certification Record Transfer procedures:

(1) Transfer between Commands using ASM. The transferring command will perform Permanent Change of Station (PCS) check out in ASM upon transfer of each individual. The gaining command will perform PCS check in upon reporting.

(2) Transfer from ASM Command to Non-ASM Command. The ASM command will transfer the electronic version onto a CD in pdf format. Once the CD record is created, the ASM Fleet Administrator will PCS check out and PCS check in the record to the non-ASM unit.

(3) Transfer from Non-ASM Command to ASM Command. The Non-ASM command will scan and make a CD copy of the entire training jacket and provide it to the transferring individual. The ASM command will enter the individual's qualification and certifications into ASM when the individual reports.

10.1.5 Responsibilities

10.1.5.1 Type Wings, TECOM, Maintenance Training Syllabus Sponsors (MTSS), and Navy IMAs:

a. (All) Publish JQRs and supporting lectures for any duty or function not covered by a QPT or AMSTRP syllabus or NAVEDTRA PQS. JQRs will include the minimum elements specified in paragraph 10.1.4.3.

b. (All) Review and update QPT, AMSTRP, JQR and other training requirements every 12 months, or sooner if changes or modifications to related systems or components have occurred.

c. (All) Participate in Training Requirement Reviews (TRR).

d. (Type Wings and TECOM) Designate staff personnel and subordinate activities to act as Model Manager and Developer (MTSS for Marine activities) or the T/M/S Master Task List (MTL), accreditations and test banks, and for review of ASM task lists and tests for currency and content.

NOTES: 1. TECOM Policy and Standards Division (PSD) Aviation Standards Branch (ASB) will develop and publish via ASM a Training and Readiness syllabus for all aviation Military Occupational Specialties (MOS) applicable to Organizational and Intermediate levels of maintenance. TECOM will also develop standardized training and testing syllabus for designated billets, such as QAR, CDQAR, CDI, and Plane Captain. Designated duty training syllabus and testing will be tailored to the specific T/M/S aircraft, engines, components and equipment maintained. All training documentation and testing will be executed within the construct of the Advanced Skills Management (ASM) environment. MAWs will review and consolidate submissions from their activities and forward to TECOM Aviation Standards Branch for action.

2. Navy Model Managers and Developers must complete the NAVEDTRA PQS 43401 Advanced Skills Management (305) Model Manager Watch Station.

e. (Type Wings and MTSS) Coordinate and assist activities in implementing the maintenance training outlined in the AMSTRP.

f. (Type Wings and MTSS) Prioritize assignment of training course quotas within Wing activities when demand exceeds CNATTU or CNATTMARU capacity.

g. (Type Wings and MTSS) Act as approving authority for temporary deviations from NAMP-directed formal training requirements under the following conditions:

(1) Authority to grant deviations applies only to deployed personnel.

(2) Deviations must be requested by name and by course, in writing via naval letter or message. The request must include the convening date for the course the individual will attend after return from deployment. Course seats can be reserved by submitting a request via the Enterprise Navy Training Reservation System, at the following link: https://app.prod.cetars.training.navy.mil/eNTRS/. If a course seat cannot be obtained, the deviation request will include a request for Type Wing/MAW assistance in prioritizing and scheduling course seats. Multiple requests may be submitted on one letter or message.

(3) Deviation approvals must be granted by name and by course, in writing via naval letter or message. “Blanket” deviations are not authorized.

(4) Deviations must expire no later than 120 days after return to home base for CONUS activities, and no later than 180 days after return to home base for OCONUS activities.

h. (Type Wings and Navy IMAs) Manage the ASM database and system security as follows:

(1) Assign, modify, and delete user access privileges and passwords

(2) Review the accuracy of ASM database files

(3) Troubleshoot user problems and submit trouble tickets

(4) Publish a contingency plan for procedures during ASM system downtime

i. (Type Wings and Navy IMAs) Provide COMNAVAIRFOR Maintenance Training (Code N422A) with the number of F-School and T-School quotas required for each assigned unit identification code (UIC), for publishing in the Fleet Training Management and Planning System (FLTMPS).

j. (Type Wings) Coordinate with the responsible COMNAVAIRSYSCOM Program Office and CNATT to maintain a current PQS for each QPT certification level for each rating and T/M/S aircraft supported.

k. (Navy IMAs) Coordinate with the responsible COMNAVAIRSYSCOM Program Office and CNATT to maintain a current PQS for each QPT certification level for each I-Level rating and work center.

NOTE: PQS correction or change recommendations will be emailed to the PQS Model Manager using the PQS Feedback form located on the last page of the PQS package.

10.1.5.2 Maintenance Officer (MO)

a. Designate the Assistant Maintenance Officer (AMO) as the Aviation Maintenance Training Program Manager per 10.1.2.9.

NOTE: The Aircraft Maintenance Chief is the Aviation Maintenance Training Program Manager for Marine O-Level activities.

b. Designate an E-5 or above as the ASM Fleet Administrator. Commands that deploy detachments must also designate an E-4 or above to act as the Detachment ASM Fleet Administrator during the deployment period.

NOTE: 1. If not using ASM, designations may be documented in a list included as an enclosure in the Monthly Personnel Plan paragraph 10.1.5.3.e.

2. An E-4 may be designated as ASM Fleet Administrator in smaller commands with less than 100 personnel in the Maintenance Department.

c. Designate qualifiers for QPT, AMSTRP, PQS, and JQR task areas.

d. Publish local command procedures (LCP) per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for maintenance training not addressed in this NAMPSOP or Wing LCP. O-Level LCPs must be submitted to the Type Wing or MAW for consideration of incorporation in a Wing LCP.

10.1.5.3 Aviation Maintenance Training Program Manager

a. Manage training for the Maintenance Department. Coordinate and assist QA and NAMP Program Managers with NAMP indoctrination training to ensure first-tour Maintenance Department personnel are provided an overview of the fundamental NAMP processes as they relate to the duties

the individual will perform upon assignment to a workcenter. Provide NAMP indoctrination training on Aviation Maintenance Training Program per 10.1.4.7.

b. (Deploying activities) Develop and track the accomplishment of a Deployment Turnaround Maintenance Training Plan with the specific training requirements and personnel proficiency goals required to meet the operational events of the turnaround cycle and deployment. As a minimum, the plan will identify qualification requirements (number and type of QARs and CDIs, number of personnel qualified as Plane Captains, Paint and Final Finish, etc.) and required quotas for training courses.

c. (Non-deploying activities) Develop and track the accomplishment of an Annual Training Plan with specific training requirements and personnel proficiency goals required to sustain the Maintenance Department. As a minimum, the training plan must identify qualification requirements (number and type of QARs and CDIs, number of personnel qualified as Plane Captains, Paint and Final Finish, etc.) and required quotas for training courses. Commands with both a non-deploying element and deploying elements must develop an annual training plan that encompasses non-deploying and deploying elements.

d. Obtain quotas and prioritize attendance of formal training courses.

e. Publish an electronic or hardcopy Monthly Personnel Plan (MPP) no later than the 1st day of each month. The MPP may contain reports downloaded from ASM, FLTMPS, and other databases. The MPP will include:

(1) Schedule of command-held maintenance training (in-service training required for their rate/MOS and pay grade, recurring training requirements; NAMP Indoctrination; NAMP Refersher Training, NAVOSH training, etc.)

(2) Schedule of confirmed formal courses and attendees.

(3) Recertification or requalification requirements (Plane Captain practical examination, Egress /Explosive Systems check-out, etc.)

(4) Current list of QPT, AMSTRP, PQS, and JQR qualifiers.

(5) List of personnel currently designated for specific duties (Safe For Flight, UAS GMVO, QAR, CDQAR, CDI, Plane Captain, NAMP Program Manager, Hydraulic Contamination Analysis Technician, ACSP Entry Authority, etc.)

(6) List SE Operator's License expiration dates, including the expiration date of vehicle driver's licenses.

(7) A narrative or graphic depiction of the current maintenance department qualification status and plan for attaining maintenance qualification readiness.

f. Monitor QPT and AMSTRP qualification progress of each individual and the overall percentage certified for each work center.

g. (O-Level) Submit ASM software discrepancies and ASM Master Task List (MTL) change recommendations to the Type Wing or MTSS coordinator.

h. Review personnel documents (My Navy Assignment, Activity Manning Document, and PCS orders) and verify incoming personnel either possess the requisite skills (NEC or MOS) or will

receive training to qualify for the billet. If incoming personnel do not have required skills, coordinate with manpower and training activities to resolve deficiencies.

i. Non-QA qualifications and certifications are eligible for reinstatement for personnel who transfer or are Temporary Assigned Duty (TAD) provided it is within the same T/M/S or equipment. Qualifications and certifications must be reviewed by the appropriate qualifying and certifying authority prior to consideration for reinstatement. All additional requirements outside of this instruction will be validated and adheared to during the reinstatement process.

NOTE: For QA and SE qualifications per paragraph 7.3.5.2 and NAMPSOP 10.16.4.

j. Coordinate with subject matter experts to develop lesson guides for topics not covered by IMI or video, per paragraph 10.1.4.5.

k. Coordinate the development of JQRs per 10.1.4.3 if needed to cover qualifications for a maintenance duty not covered by the QPT Program, AMSTRP, NAVEDTRA PQS, or a Wing JQR. O-Level activities will submit locally produced JQRs to the applicable Wing for consideration of publishing as a Wing JQR.

l. Coordinate with the various NAMP Program Managers to develop a NAMP Refresher Training matrix (Figure 10.1-4) to specify recurring refresher training requirements applicable to the command.

m. (Navy O-Level and I-Level) Use the FLTMPS Command 12 Month Training Plan and associated FLTMPS ADHOC reports to manage accomplishment of F-School and T-School graduate requirements.

n. (O-Level) Forward discrepancies in QPT or AMSTRP content to the respective Type Wing or MTSS for review.

o. Provide ASM training to Division Officers. At a minimum, the training will include procedures for reviewing qualifications, certifications, and licenses using the Work Center and Management Views; screening training records prior to sign-offs; and conducting initial check-in and quarterly reviews.

p. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.1.5.4 ASM Fleet Administrator

a. Complete the NAVEDTRA PQS 43401 Advanced Skills Management (301) Basic ASM Administrator Watch station.

b. Manage the ASM program within the activity, and assist the Program Manager, Type Wing Manager/Developer (O-Level), and site representative in matters pertaining to ASM.

c. Provide ASM training to personnel. If needed, contact ASM Site Representatives or the ASM Help Desk to request training from the ASM Support Team. Video teleconference and web-based training are also available.

d. Submit ASM software discrepancies and MTL change recommendations to the Aviation Maintenance Training Program Manager.

NOTE: Navy activities are not authorized to make ASM MTL changes without Type Wing approval. TECOM Aviation Standards Branch is the approval authority for Marine Corps ASM changes.

e. Monitor defect reports and correspond with the ASM Help Desk for resolution (as applicable).

f. Maintain ASM system security per SECNAVINST 5211.5.

g. Assign, modify, or delete ASM user access privileges and passwords.

h. Perform ASM PCS check out or in when individuals transfer or report.

10.1.5.5 Sea Operational Detachment (SEAOPDET) Coordinator (Navy)

The SEAOPDET coordinator will schedule, coordinate, and track completion of training requirements to qualify SEAOPDET personnel for their deployed billet.

10.1.5.6 Division Officers

a. Perform initial review of each individual's Qualification/Certification Record within 30 days of the member reporting to the division, and perform a semi-annual (every 6 months) progress review thereafter. Reviews must be documented in the ASM Review tab. If ASM is not available, a paper or electronic document may be used to document training reviews.

b. Review Work Center Supervisor notes during initial and 6-month Division Officer Reviews.

c. Review each member's QPT or AMSTRP individual training syllabus prepared by their Work Center Supervisor and verify the syllabus has been appropriately tailored for past experience and training.

NOTE: The Division Officer may delegate training record, training syllabus, and semi-annual training progress reviews to the Division or Branch Chief.

d. Brief newly reporting personnel on QPT, AMSTRP, PQS, and JQR qualification requirements and the expected completion timelines required for career progression.

e. Review NAMP compliance audits, 3M summaries, ASM reports and direct refresher training when the data indicates a deficiency in knowledge or skill.

f. Verify division training is conducted per the training schedule.

g. Monitor projected personnel attrition vs. projected numbers of qualified personnel, and verify a sufficient number of qualified personnel will be available to support the division's workload.

h. Report division training and qualification status to the Aviation Maintenance Training Program Manager.

i. Submit recommendations for changes to the ASM MTL and test question data banks to the ASM Fleet Administrator, as needed, to maintain currency related to division duties.

10.1.5.7 Work Center Supervisors

NOTE: Work Center Supervisors may assign no more than two personnel as Maintenance In-Service Training Coordinators (MITCs) if needed to handle the workload associated with managing, scheduling and logging training. MITCs should be E-4 or above paygrade. Assignment of MITCs does not relieve the Work Center Supervisor of the responsibility to ensure training requirements are accomplished.

a. Track completion of work center personnel training.

b. Verify training, qualifications, and certifications are documented in each Individual's Qualification/Certification Record within 5 working days of completion.

c. Perform an initial Qualification/Certification Record review within 30 days of a new member reporting to the work center, and perform progress reviews at least once every 6 months thereafter. Reviews and notes on information concerning training progress and any specific recommendations will be documented in ASM with a tag of "Other".

d. Nominate PQS, JQR, QPT, and AMSTRP qualifiers based on technical knowledge and skills.

e. Assign qualified personnel to conduct OJT.

f. Sign off qualification in OJT task areas only if the individual has demonstrated sufficient knowledge and skill to independently perform the task.

g. Recommend personnel for final qualification, certification, or designation only when confident the nominee is knowledgeable and skilled in the area.

h. Direct refresher training for personnel that demonstrate a lack of knowledge or skill in areas they were previously signed off as qualified.

i. Coordinate with the ASM Fleet Administrator to provide ASM training to work center personnel.

j. Review syllabi, lesson guides, and IMI annually to verify material is relevant and current. Submit discrepancies to the Aviation Maintenance Training Program Manager for forwarding to the respective Type Wing or Marine MTSS for resolution.

k. Review the Required Reading File each month to ensure the material is current and work center personnel are logging completion (Figure 10.1-2).

l. Provide transferring individuals with their Qualification/Certification Record and original designation letters prior to transfer, per paragraph 10.1.4.10.c.

OJT SYLLABUS: 9101

A/S32A-45 MID-RANGE TOW TRACTOR

TRAINEE'S RATE and NAME: _____

OJT TASKS	**INST**	**DATE**	**INST**	**DATE**	**INST**	**DATE**	**W/C SUP**	**DATE**
PMs								
Carburetor Adjustment								
R&R Carburetor								
Adjust Rocker Arms								
Tune Up								
R&R Spark Plugs								
R&R Fan Belts								
R&R Alternator								
Flush Radiator								
R&R Steering Box								
Adjust Trans Bands								
R&R Power Steering Pump								
R&R Ring Gear								
R&R Starter								
R&R Manifold Gasket								
Brake Job								
Repair Park Brake								
Rebuild Front End								
QEC Engine								
QEC Transmission								
ADDITIONAL TASKING								

Page 1 of 1

Figure 10.1-1: OJT Syllabus (Example)

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2

REQUIRED READING AND MAINTENANCE INFORMATION RECORD

DIVISION

SUBJECT

NAME	RATE												

OPNAV 4790/34 (REV 1/2015)

Page 1 of 1

Figure 10.1-2: Required Reading and Maintenance Information Record (OPNAV 4790/34)

NAMP INDOCTRINATION TRAINING

NAME: _____ **RATE/RANK**: _____

CHECK-IN DATE: _____

TOPIC	INSTRUCTOR	DATE COMPLETED

Figure 10.1-3: NAMP Indoctrination Training Example

NAMP REFRESHER TRAINING	
TOPIC	**SCHEDULE**

Figure 10.1-4: NAMP Refresher Training Requirements Example

QUALIFICATION/CERTIFICATION RECORD

LEFT SIDE

Name:_____ **Rate/Rank** _____

DOD ID # (Last 4 ONLY)**:** _____

1. Current Letters~~/~~ and Certificates of Designation/Qualifications, for example, Quality Assurance Representative/Inspector Recommendation/Designation OPNAV 4790/12

2. Current medical certifications required for duties, for example, audiograms, X ray~~,~~ screening, laser eye testing, flight deck physical, and CPR.

3. Course completion certificates, for example, CENNAVAVNTECHTRA completion letters and certificates, and SE Phase I and Phase II training.

4. Personal Qualifications Standards (PQS) completion certificates, for example, NAVPERS 1070/604 for shipboard damage control, maintenance and material management (3M), and completed JQR.

PRIVACY ACT STATEMENT

1. Authority for the collection of information: 5 U.S.C. 301, Department Regulation and E.O. 9397 (SSN).

2. Information contained in the qualification/certification record will be used to monitor your training progress and track miscellaneous administrative functions within the Training Department.

3. Completion of this form is voluntary. However, failure to complete this form may result in the inaccurate documentation of your training. The principal purpose of the Privacy Act is to make known your special considerations and for you to authorize the release of your qualifications/certification record information.

I understand that this Privacy Act Statement applies to all requests for personal information made to my qualification/certification record and that a signed copy in my qualification/certification record is evidence of this notification. I further understand that I may receive a copy of this statement from the Training Department, on request. I also understand that I will be informed of any changes to the system or records for which this information is compiled and that I have the right to review personal data contained in this record, on request.

_____ _____

Signature Date

Figure 10.1-5: Qualification/Certification Record (Left Side) (Example)

QUALIFICATION/CERTIFICATION RECORD

RIGHT SIDE

1. Primary Billet and Collateral Duty Descriptions
2. NAMP Indoctrination Training (Figure 10.1-3), if applicable.
3. Maintenance Training Syllabus
4. NAVOSH and Safety Training completed for past four years (Figure 10.41-1)
5. Egress/Explosive System Check-Out Certification (if applicable)

Figure 10.1-5: Qualification/Certification Record (Right Side) (Example)

10.2 Fuel Surveillance Program (NAMPSOP)

10.2.1 References

a. NAVAIR 01-1A-35, Aircraft Fuel Cells and Tanks.

b. NAVAIR 00-80T-109, Aircraft Refueling NATOPS Manual.

c. MIL-HDBK-844B (AS), Aircraft Refueling Handbook for Navy/Marine Corps Aircraft.

d. NAVAIR 15-01-500, Preservation of Naval Aircraft.

e. NAVAIR 01-1A-20, Aviation Hose and Tube Manual.

10.2.2 Introduction

The Fuel Surveillance Program establishes the minimum requirements for sampling fuel in naval aircraft and aircraft engine test cells. Fuel sampling can detect water, debris, and other contaminants that can negatively impact aircraft engine performance. Harmful effects of fuel contamination include low performance, erratic or incorrect fuel quantity indication, fuel system icing, and damage to engine and fuel system components.

NOTE: For Depot Fuel Surveillance Program see Chapter 12.

10.2.3 Requirements

10.2.3.1 Aircraft Fuel Sampling

WARNING: JP-4, JP-5, AND JP-8 CAN CAUSE SEVERE BURNS, IRRITATIONS AND BLINDNESS. AVOID PROLONGED SKIN CONTACT.

10.2.3.1.1 Fuel samples must be taken within 24 hours preceding the aircraft's initial launch, unless specified otherwise by type/model/series (T/M/S) aircraft maintenance requirements card (MRCs). Fuel samples are not valid for more than 24 hours.

NOTE: Group 3 UAS that utilize a sealed fuel system will take fuel samples from the external fuel cell.

10.2.3.1.2 Fuel sampling will be conducted per the T/M/S maintenance technical manuals. For aircraft without specified fuel sampling procedures, follow the general requirements of NAVAIR 01-1A-35.

a. Allow maximum possible time before sampling. Whenever possible, aircraft should have a minimum of two hours settling time, after aircraft movement or refueling to allow for water and solids to settle.

b. PPE, including chemical resistant gloves, chemical resistant apron, and goggles, must be worn while taking, handling, and disposing of fuel samples.

c. Take separate samples from all fuel cell/tank low point drains, including auxiliary, removable, and in-flight refueling tanks (approximately one pint from each low point drain) using a one-quart, clear, clean glass container.

NOTE: Group 3 UAS that utilize a sealed fuel system will take fuel samples from the external fuel cell.

d. A Naval aircrewman designated by the Commanding Officer (CO) per NATOPS Evaluation Report (OPNAV 3710/7), or the Line/Power Line Supervisor, or a CDI, CDQAR, or QAR will visually inspect samples for a clear and bright appearance with no visible water or sediment by swirling and checking directly under the swirl vortex for any discoloration, water, cloudiness, or sediment per NAVAIR 00-80T-109.

(1) If contaminants are present, retain the contaminated sample, drain approximately 1 gallon of fuel into bucket or other suitable container, and take another sample.

(2) If the second sample is contaminated, immediately notify Maintenance Control, initiate a downing discrepancy work order (WO) against the aircraft and give both samples to Quality Assurance (QA) for inspection.

e. Sample bottles must be emptied and cleaned after each use.

f. Fuel samples must be disposed of per local hazardous waste (HAZWASTE) procedures.

10.2.3.2 Test Cell Fuel Sampling

WARNING: JP-4, JP-5, AND JP-8 CAN CAUSE SEVERE BURNS, IRRITATIONS AND BLINDNESS. AVOID PROLONGED SKIN CONTACT.

Fuel samples will be taken from all fixed and portable engine test stands fuel cells/tanks and accumulators. Minimum sampling procedures are as follows:

a. Samples must be taken prior to the first engine run of the day, at a minimum.

NOTE: Shipboard test cell fuel sampling is conducted by V-4 Division. Prior to the first engine run of the day, the test cell operator must contact V-4 and verify samples were taken and no contamination is present.

b. PPE, including chemical resistant gloves and goggles, must be worn while taking, handling, and disposing of fuel samples.

c. Drain or draw samples from lowest possible point below the fuel pick-up point (approximately one pint of fuel for each sample), using a one-quart, clear, clean glass or polyethylene container.

d. The Test Cell supervisor or CDI, CDQAR, or QAR will visually inspect fuel samples for a clear and bright appearance with no visible water or sediment by swirling and checking directly under the swirl vortex for any discoloration, water, cloudiness, or sediment per NAVAIR 00-80T-109.

(1) If contaminants are present, retain the sample, drain and draw approximately 5 gallons (but not more than 10 gallons) of fuel from the low point and take another sample.

(2) If more than 10 gallons are drained to achieve a satisfactory sample, initiate a downing discrepancy MAF against each test cell the contaminated tank feeds, and notify Production Control and QA.

e. Defuel and clean contaminated fuel cells before returning to operation.

f. Sample bottles must be cleaned after each use.

g. Fuel samples must be disposed of per local HAZWASTE procedures.

10.2.3.3 Fuel System Integrity

a. NRFI and inactive fuel cells or tanks must be preserved and protected against contamination per NAVAIR 15-01-500.

b. Protective measures, such as approved covers or caps, must be placed on open removed fuel cells, lines, and components per NAVAIR 01-1A-20.

10.2.4 Responsibilities

10.2.4.1 Wing or MAW Model Manager

a. Publish a training syllabus oriented to the T/M/S aircraft operated to include:

(1) Specific procedures and requirements for fuel sampling as outlined in NAVAIR 01-1A-35, NAVAIR 00-80T-109, MIL-HDBK-844 (AS), T/M/S maintenance technical manuals, and the NATOPS manuals.

(2) Procedures for maintaining fuel system integrity during maintenance.

(3) PPE, safety precautions, and HAZWASTE procedures for fuel handling.

b. Publish local command procedures (LCP) per Appendix D to direct geographic, T/M/S-specific, or command-directed actions for Fuel Surveillance not addressed in this NAMPSOP.

10.2.4.2 Maintenance Officer (MO)

a. Designate a Fuel Surveillance Program Manager per 10.1.2.9.

(1) The Line or Power Line Division Officer or Chief Petty Officer or NCOIC is recommended for O-Level activities.

(2) The Power Plants Division Officer or Chief Petty Officer or NCOIC is recommended for I-Level activities.

b. Publish an LCP per Appendix D if required to direct geographic, T/M/S-specific, or command-directed actions for fuel surveillance not addressed in this NAMPSOP. Command LCPs must be submitted to the Wing or MAW for consideration of inclusion in a Wing LCP.

10.2.4.3 Program Manager

a. Perform an audit using the Computerized Self Evaluation Checklist (CSEC) within 60 days of being designated as Program Manager, and annually thereafter per 10.7.4.8.

b. Provide NAMP indoctrination and refresher training on Fuel Surveillance policy per 10.1.4.7

and 10.1.4.8. Verify fuel surveillance personnel receive Fuel Surveillance familiarization prior to performing maintenance while assigned to the work center and annually thereafter. Training must be specific to the duties the individual performs.

c. (IMA Program Managers) Publish a training syllabus oriented to the type of test cell operated, containing the elements specified in NAVAIR 01-1A-35.

d. Maintain a program file to include:

(1) List of equipment requiring fuel sampling

(2) POCs

(3) Program related correspondence and message traffic

(4) References or cross reference locator sheets

(5) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.2.4.4 Quality Assurance (QA) Officer

Designate the Power Plants QAR as the Fuel Surveillance Program Monitor per 10.1.2.9.

10.2.4.5 QA Fuel Surveillance Program Monitor

a. Perform audits using CSEC, per the procedures of paragraph 10.7.4.7

b. Immediately conduct an investigation of the source of fuel contamination. If the contamination is suspected to have come from the refueling source (truck or fueling station), immediately notify the station or ship Fuels Officer and provide them a sample for analysis, per MIL-HDBK-844B (AS).

10.2.4.6 Maintenance Control and Production Control

a. Immediately issue a downing discrepancy WO and notify QA to conduct an investigation whenever aircraft or test cell fuel contamination is reported.

b. When embarked, direct fuel samples be drawn and analyzed for flash point and follow the precautions in NAVAIR 00-80T-109, whenever an aircraft receives, or is suspected of receiving, any fuel other than JP-5. Notify flight deck control not to move the aircraft to the hangar bay until the flashpoint has been certified to be above 120 degrees Fahrenheit.

c. Debrief aircrew returning from cross-country flights to verify specific fuels used.

d. Track fuel systems of preserved aircraft and test cells, and issue WOs for the preservation actions specified in T/M/S maintenance technical manuals and NAVAIR 15-01-500.

10.2.4.7 Line, Power Line, and Test Cell Supervisor

a. Verify completion of Fuel Surveillance Program indoctrination training for personnel.

b. Assign only qualified personnel knowledgeable of performing fuel sampling per maintenance technical manuals, NATOPS procedures, and this NAMPSOP.

c. Periodically, spot check personnel conducting fuel sampling to verify correct procedures and safety precautions are being followed.

d. Verify contaminated samples are immediately reported to Maintenance Control, and are physically given to QA for inspection.

e. Provide PPE and equipment to personnel performing fuel sampling.

f. Verify that waste fuel is being disposed of per local HAZWASTE procedures.

10.2.4.8 Power Plants and Test Cell Supervisors

a. Assist QA in conducting the investigation of the source of contaminated aircraft or test cell fuel systems.

b. Refer to and comply with maintenance technical manuals and T/M/S NATOPS for specific gravity and minimum flow setting adjustment, if aircraft or test cells have been serviced with fuels other than JP-5.

10.2.4.9 Aircrew

a. Be trained in fuel sampling requirements, procedures, and contamination identification if required to conduct refueling or fuel sampling without maintenance personnel available, including in-flight refueling operations, per NAVAIR 00-80T-109.

b. Comply with specified requirements for approved emergency fuels and limitations regarding interchangeability of fuel types and grades.

c. Notify Maintenance Control when fuel other than JP-5 has been used.

10.3 Navy Oil Analysis and Consumption Monitoring Program

10.3.1 References

a. NAVAIR 17-15-50.1, Joint Oil Analysis Program Manual, Volume I.

b. NAVAIR 17-15-50.2, Joint Oil Analysis Program Manual, Volume II.

c. NAVAIR 17-15-50.3, Joint Oil Analysis Program Manual, Volume III.

10.3.2 Introduction

The Navy Oil Analysis and Consumption Monitoring Program establishes requirements for monitoring the usage rate and condition of oil in aircraft equipment, in order to detect impending failures. Naval aviation participates in the Joint Oil Analysis Program (JOAP), which is a combined Navy, Army, and Air Force effort designed to provide timely and accurate oil analysis support by strategically locating oil analysis laboratories and standardizing procedures and equipment. The Fleet Support Team (FST) for naval aviation participation in the JOAP is the Navy Oil Analysis Program (NOAP) Office, 22229 Elmer RD. BLDG. 2360, Patuxent River, MD 20670-1534, phone (301) 757-9249 or (301) 997-8260. The NOAP Office can provide information regarding equipment requirements, correlation, and testing standards.

NOTES: 1. For a list of certified NOAP laboratories, send an email to NOAP@navy.mil.

2. For Depot Navy Oil Analysis and Consumption Monitoring Program see Chapter 12.

10.3.3 Requirements

10.3.3.1 Training

Personnel certifying aircraft Safe for Flight, Work Center Supervisors, and maintenance personnel responsible for servicing and sampling engine/gearbox oil must receive job specific training on servicing requirements, sampling requirements, maximum oil consumption limits, and monitoring procedures referenced in NAVAIR 17-15-50, maintenance technical manuals, Wing local command procedure (LCPs), and this NAMPSOP.

10.3.3.2 Oil Analysis

Oil samples will be taken as directed by the type/model/series (T/M/S) specific maintenance technical manuals, or when requested by the Oil analysis laboratory. Oil samples will then be submitted for analysis utilizing the oil Analysis Request form DD-2026 (Figure 10.3-1) located at https://www.esd.whs.mil/Directives/forms/dd2000_2499/. All oil analysis records will be kept on file for as long as the engine or gearbox is held by the command.

10.3.3.2.1 An entry will be made in configuration management auto log-set (CM ALS) and the logbook Aeronautical Equipment Service Record (AESR) Miscellaneous History whenever oil analysis results indicate abnormal or out of limits wear metals or other oil contaminants.

10.3.3.2.2 For components with scheduled removal component (SRC) cards, the entry will be made in the Repair/Rework/Overhaul section. For components with equipment history record (EHR) cards, the entry will be made in the Maintenance Record section. The entry must include:

a. Type and amount of wear metals or other contaminants

b. Corrective action taken

c. Results of subsequent sample analysis

NOTES: 1. For detailed instructions on completing the form, reference NAVAIR 17-15-50.1.

2. Activities that have converted to Aircraft Component Tracking System (ACTS) must also document in the SRC or EHR component records within ACTS.

10.3.3.3 Oil Consumption Monitoring

Oil consumption will be monitored for engines, gearboxes, and transmissions with oil consumption rates (such as ounces per flight hour)specified in applicable maintenance technical manuals.

NOTE: Gearboxes and transmissions that only have leak limits, such as drops per minute, do not require oil consumption monitoring.

10.3.3.4 Oil Consumption Documentation

10.3.3.4.1 Oil consumption will be documented in the Engine/Gearbox Oil Consumption record (Figure 10.3-2) in the quantity specified in applicable maintenance technical manuals, such as, ounces per flight hour. The quantity and grade of oil added to each engine will also be annotated in block 6 of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) per Chapter 5 procedures. If block 6 is not activated use block 8 under special requirements to annotate the quantity and grade of oil added to each engine.

10.3.3.4.2 The current working copy of the Engine/Gearbox Oil Consumption Record will be maintained in the aircraft discrepancy book (ADB). The last two completed oil consumption records will be filed in the applicable logbook/AESR.

NOTES: 1. The last two completed oil consumption records and the current working copy record will be included in the logbook/AESR when the aircraft is transferred, or when an engine is turned in for repair or when an engine or gearbox is transferred RFI to another operating activity.

2. Oil consumption records are not required to be transferred with gearboxes turned in for repair and can be disposed of after transfer.

10.3.4 Responsibilities

10.3.4.1 NOAP or JOAP Laboratories

a. Comply with laboratory operating procedures, documentation, and notification requirements referenced in NAVAIR 17-15-50.

b. Notify the NOAP Program FST via email (NOAP@navy.mil) whenever a NOAP Lab Operator reports or transfers.

c. Notify the activity that submitted the sample and the responsible FST of sample results coded other than "A." Notification will be made via fastest possible means, per NAVAIR 17-15-50.2.

10.3.4.2 Type Wing or MAW Model Manager:

a. Publish an LCPs per Appendix D to direct T/M/S specific or other Wing-directed actions for oil analysis and oil consumption monitoring not addressed in this NAMPSOP. At a minimum, the Wing LCP must contain:

(1) The list of items requiring oil consumption monitoring.

(2) A standardized method for Maintenance Control to track oil consumption (Figure 10.3-2).

b. Include T/M/S specific oil analysis and consumption monitoring questions in the Wing Computerized Self Evaluation Checklist (CSEC) supplemental.

10.3.4.3 Maintenance Officer

a. Designate an E-7 or above in Maintenance Control (O-Level), an E-7 or above in Power Plants Division (I-Level) as the Navy Oil Analysis and Consumption Program Manager per 10.1.2.9.

b. Publish LCPs per Appendix D if required to direct T/M/S specific or other command directed actions for oil analysis and oil consumption monitoring not addressed in this NAMPSOP or the Wing LCP. O-Level Command LCPs will be submitted to the Wing or MAW Model Manager for consideration of inclusion in the Wing LCP.

10.3.4.4 Program Manager

a. Perform an audit using the CSEC within 60 days of designation as the Program Manager and annually thereafter per 10.7.4.8.

b. Be knowledgeable of the oil analysis and oil consumption requirements referenced in NAVAIR 17-15-50, applicable maintenance technical manuals, and this NAMPSOP.

c. Provide NAMP indoctrination and refresher training on Navy Oil Analysis and Consumption Program policy per 10.1.4.7 and 10.1.4.8. Verify personnel receive Navy Oil Analysis and Consumption familiarization prior to performing maintenance while assigned to the work center and annually thereafter. Training must be specific to the duties the individual performs.

d. Coordinate with the NATOPS Officer to provide training to pilots and aircrew on oil consumption documentation procedures while operating away from home base.

e. Verify logbook entries whenever samples are deemed “out of limits”. AESR, SRC, and EHR card entries are made for oil analysis results indicating abnormal or out of limits wear metals or other oil contaminants. Activities with ACTS must also verify ACTS component records.

f. Maintain a program file to include:

(1) POCs, to include Intermediate Maintenance Activity (IMA) or Wing, Fleet Support Team (FST), and Aviation Maintenance Management Team (AMMT) Subject Matter Expert (SMEs).

(2) List of aircraft, gearbox, and equipment requiring oil analysis and oil consumption monitoring. Shipboard Aircraft Intermediate Maintenance Department/Detachment (AIMD) list will include AIMD and Engineering Department equipment.

(3) Program correspondence and message traffic

(4) References or cross-reference locator sheet.

(5) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.3.4.5 Maintenance Control or Production Control

a. Comply with training requirements of paragraph 10.3.3.1 for all personnel designated to certify aircraft Safe for Flight.

b. Verify oil consumption rates for engines and gearboxes are within limits specified in T/M/S instructions prior to releasing aircraft Safe for Flight. If oil consumption rate exceeds the authorized limits, initiate a work order (WO) or maintenance action form (MAF) to take actions directed in Technical Manuals.

c. Annotate the quantity and grade of oil added to each engine in block 6 of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141), per Chapter 5 procedures.

d. Maintain an up-to-date Engine/Gearbox Oil Consumption Record (Figure 10.3-2) in the ADB. Forward completed forms to Logs and Records for filing.

e. Initiate a WO or MAF to take actions directed in Technical Manuals for engines or gearboxes with oil analysis result codes other than "A" per NAVAIR 17-15-50.1.

f. Brief pilots and aircrew on oil consumption limitations, servicing requirements, and procedures if the aircraft will be operated away from home base.

10.3.4.6 Quality Assurance (QA) Officer

Designate a Power Plants QAR as the Navy Oil Analysis and Consumption Program Monitor Navy Oil Analysis and Consumption Program Monitor per 10.1.2.9.

10.3.4.7 Quality Assurance Program Monitor

a. Perform audits using the CSEC, per the procedures of paragraph 10.7.4.7. Review oil analysis laboratory results and coordinate with Maintenance or Production Control to issue a WO or MAF for oil sample results with codes other than "A" per NAVAIR 17-15-50.1.

b. Keep a record of Oil Analysis Request forms (DD-2026) until test results are listed in either the monthly or the Component Enrolled Report provided by the oil analysis laboratory.

c. Screen Oil Consumption Records each week for completeness and accuracy.

d. Monitor oil consumption rates and oil contamination trends. Advise Maintenance or Production Control if a trend indicates an impending out-of-limits condition.

10.3.4.8 Logs and Records

a. Make the logbook, AESR, CM ALS Miscellaneous History (OPNAV 4790/25A), SRC Card (OPNAV 4790/28A), and EHR Card (OPNAV 4790/113) entries specified in paragraph 10.3.3. Activities with ACTS must also make the entry in the ACTS SRC or EHR component record.

b. File and transfer Engine/Gearbox Oil Consumption Records (Figure 10.3-2) per the requirements of paragraph 10.3.3.4.

10.3.4.9 Work Center Supervisors

a. Verify personnel complete the training requirements applicable to their duties per paragraph 10.3.3.1.

b. Periodically spot-check work in progress to verify the proficiency of personnel performing engine/gearbox oil servicing and sampling.

c. Stock an adequate supply of oil sampling kits, as specified in NAVAIR 17-15-50.1.

d. Personally conduct a daily inspection of assigned oil servicing units and verify they are clean and free of contamination.

e. Verify samples from engines or gearboxes are taken at the interval established in the maintenance technical manuals.

f. Review Oil Analysis Requests form (DD-2026) (Figure 10.3-1) for accuracy.

g. Send oil samples to the assigned monitoring oil laboratory per NAVAIR 17-15-50.1.

h. Submit a “SPECIAL” oil analysis sample when requested by the NOAP or JOAP laboratory. Mark the Oil Analysis Request (DD-2026) and mailing container with red borders to alert the oil laboratory of the need for immediate processing per NAVAIR 17-15-50.1.

10.3.4.10 Maintenance Personnel

a. Strictly follow servicing and sampling procedures specified in the maintenance technical manuals.

b. Inspect and verify servicing units are clean and free of contamination prior to each use.

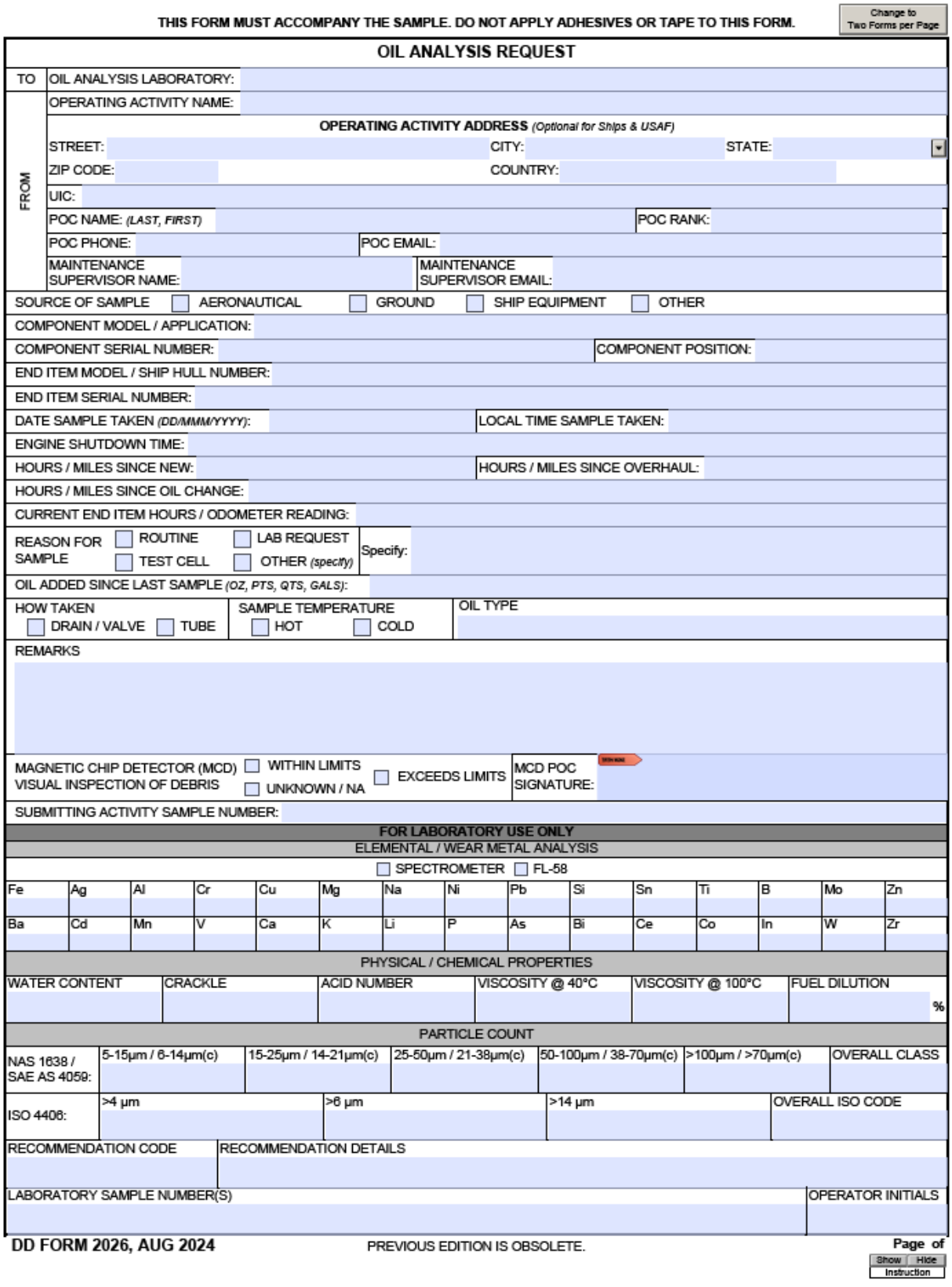
c. Verify servicing units have the correct oil grade prior to each use.

d. Know the oil consumption limits of engines and gearboxes, and immediately notify the Work Center Supervisor and Maintenance or Production Control whenever excessive oil consumption is suspected.

10.3.4.11 Aircrew

a. Review oil consumption rates documented on the Engine/Gearbox Oil Consumption Record (Figure 10.3-2) and the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) prior to flight.

b. Be thoroughly familiar with oil servicing and sampling procedures in the event servicing or sampling is required while operating away from home base.



THIS FORM MUST ACCOMPANY THE SAMPLE. DO NOT APPLY ADHESIVES OR TAPE TO THIS FORM.

Change to Two Forms per Page

OIL ANALYSIS REQUEST

TO: OIL ANALYSIS LABORATORY:

FROM:
- OPERATING ACTIVITY NAME:
- **OPERATING ACTIVITY ADDRESS** *(Optional for Ships & USAF)*
- STREET: CITY: STATE:
- ZIP CODE: COUNTRY:
- UIC:
- POC NAME: *(LAST, FIRST)* POC RANK:
- POC PHONE: POC EMAIL:
- MAINTENANCE SUPERVISOR NAME: MAINTENANCE SUPERVISOR EMAIL:

SOURCE OF SAMPLE ☐ AERONAUTICAL ☐ GROUND ☐ SHIP EQUIPMENT ☐ OTHER

COMPONENT MODEL / APPLICATION:

COMPONENT SERIAL NUMBER: COMPONENT POSITION:

END ITEM MODEL / SHIP HULL NUMBER:

END ITEM SERIAL NUMBER:

DATE SAMPLE TAKEN *(DD/MMM/YYYY)*: LOCAL TIME SAMPLE TAKEN:

ENGINE SHUTDOWN TIME:

HOURS / MILES SINCE NEW: HOURS / MILES SINCE OVERHAUL:

HOURS / MILES SINCE OIL CHANGE:

CURRENT END ITEM HOURS / ODOMETER READING:

REASON FOR SAMPLE ☐ ROUTINE ☐ LAB REQUEST ☐ TEST CELL ☐ OTHER *(specify)* Specify:

OIL ADDED SINCE LAST SAMPLE *(OZ, PTS, QTS, GALS)*:

HOW TAKEN ☐ DRAIN / VALVE ☐ TUBE | SAMPLE TEMPERATURE ☐ HOT ☐ COLD | OIL TYPE

REMARKS

MAGNETIC CHIP DETECTOR (MCD) VISUAL INSPECTION OF DEBRIS ☐ WITHIN LIMITS ☐ UNKNOWN / NA ☐ EXCEEDS LIMITS | MCD POC SIGNATURE:

SUBMITTING ACTIVITY SAMPLE NUMBER:

FOR LABORATORY USE ONLY

ELEMENTAL / WEAR METAL ANALYSIS

☐ SPECTROMETER ☐ FL-58

Fe	Ag	Al	Cr	Cu	Mg	Na	Ni	Pb	Si	Sn	Ti	B	Mo	Zn
Ba	**Cd**	**Mn**	**V**	**Ca**	**K**	**Li**	**P**	**As**	**Bi**	**Ce**	**Co**	**In**	**W**	**Zr**

PHYSICAL / CHEMICAL PROPERTIES

WATER CONTENT	CRACKLE	ACID NUMBER	VISCOSITY @ 40°C	VISCOSITY @ 100°C	FUEL DILUTION
					%

PARTICLE COUNT

	5-15µm / 6-14µm(c)	15-25µm / 14-21µm(c)	25-50µm / 21-38µm(c)	50-100µm / 38-70µm(c)	>100µm / >70µm(c)	OVERALL CLASS
NAS 1638 / SAE AS 4059:						

	>4 µm	>6 µm	>14 µm	OVERALL ISO CODE
ISO 4406:				

RECOMMENDATION CODE | RECOMMENDATION DETAILS

LABORATORY SAMPLE NUMBER(S) | OPERATOR INITIALS

DD FORM 2026, AUG 2024 PREVIOUS EDITION IS OBSOLETE. Page of

Show Hide Instruction

Figure 10.3-1 (Page 1): Oil Analysis Request (DD 2026)

THIS FORM MUST ACCOMPANY THE SAMPLE. DO NOT APPLY ADHESIVES OR TAPE TO THIS FORM.

Change to Two Forms per Page

TRANSIENT AIRCRAFT OIL ANALYSIS RECORD

ASSIGNED OIL ANALYSIS LABORATORY	LABORATORY TELEPHONE NO.	END ITEM MODEL AND SERIAL NO.
	(DSN):	
	(Commercial):	COMPONENT MODEL AND SERIAL NO.

LAB CODE										
DATE										
Total Time Since: OIL CHG										
Total Time Since: OVERHAUL										
Instrument Used: SPECTRO										
Instrument Used: FL-58										
Fe										
Ag										
Al										
Cr										
Cu										
Mg										
Na										
Ni										
Pb										
Si										
Sn										
Ti										
B										
Mo										
Zn										
Ba										
Cd										
Mn										
V										
Ca										
K										
Li										
P										
As										
Bi										
Ce										
Co										
In										
W										
Zr										

DATE DEPARTED *(Return this form with aircraft)*

REMARKS *(Place MCD Tabs here)*

DD FORM 2026, AUG 2024 PREVIOUS EDITION IS OBSOLETE. **Page of**

Show Hide Instruction

Figure 10.3-1 (Page 2): Oil Analysis Request (DD 2026)

INSTRUCTIONS

The Oil Analysis Request Form, DD Form 2026, is used for:

1. Submission of routine or special oil samples.
2. Reporting Chip Detector Inspection Results.
3. Documenting / Reporting Analysis Results when automated reporting systems are not available.

Proper completion of the Oil Analysis Request by the submitting activity is a vital step in the evaluation process upon which maintenance actions are based. When forms are incomplete or erroneously completed, all other efforts to produce a valid evaluation are degraded or impossible. Customers shall use only plain language, unless otherwise directed. If extra space is required, attach additional sheets.

The DD Form 2026 is divided into three sections. The following step-by-step instructions provide detailed information on how to complete the form along with which activity is responsible for each section:

1. OIL ANALYSIS REQUEST section of the DD Form 2026. This section of the form is to be completed by the activity requesting the analysis of an oil sample.
   a. TO: OIL ANALYSIS LABORATORY. Enter the designated Oil Analysis Program (OAP) laboratory, which will perform the sample analysis, e.g., FRCSE Jacksonville, FL; Fort Liberty, NC; Columbus AFB, MS; etc. Contact your respective Service Oil Analysis Program Management Office for a list of available laboratories. A list of Navy Oil Analysis Laboratories is also available in the Work Package 003 Volume 2 of the JOAP Manual ((NAVY) NAVAIR 17-15-50.x; (ARMY) TM 38-301-x; (AIR FORCE) T.O. 33-1-37-x; (COAST GUARD) TO 33-1-37-x).
   b. FROM.
      (1). OPERATING ACTIVITY NAME. Enter the designation of the operating activity submitting the sample. Examples: "VMM-363", "HSM-41", "USS TRIPOLI (LHA-7)", "337 Med Co A.", "A Company, 1-8 CAV". Air Force, enter unit and name of base or location;
      (2). OPERATING ACTIVITY ADDRESS. Enter complete address information for the operating activity. This is optional for Ships and USAF activities.
      (3). UIC. Enter the six-character unit identification code (Ex: N00421).
      (4). POC NAME / RANK. Enter the name and rank of the person submitting the sample.
      (5). POC PHONE / EMAIL. Enter the phone number and email address of the person submitting the sample.
      (6). MAINTENANCE SUPERVISOR NAME / EMAIL. Enter the name and email address of the Maintenance Supervisor responsible for the submitted sample. For Navy- enter information for the Maintenance Material Control Officer (MMCO) or other responsible individual.
   c. SOURCE OF SAMPLE. Check the appropriate block for the source of the sample.
   d. COMPONENT MODEL/APPLICATION. Enter the designation or description of the component/equipment (ex: engine, gearbox, etc) being sampled. For engines, include the type, model, and series. Examples of engines or components include: "F100-PW-220", "T64-GE-416A", "J85-GE-5", "42/INT GBX", "90/TAIL GBX", "MAIN XMSN", "GTCP36-50", "LM 2500 GTE Hydraulic Start Unit", "AVDS-1790-2DR", "Hydraulic Valve Control Station 1".
   e. COMPONENT SERIAL NUMBER. Enter complete serial number of the component/equipment being sampled. Since shipboard equipment rarely has a readily identifiable serial number, Navy activities submitting samples from shipboard equipment are requested to create a unique identification code for each piece of equipment by combining the ship's hull number with a number indicating position on the ship and an appropriate abbreviation. Details for creating these unique identification codes are contained in Volume 1, Work Package 003 of the JOAP Manual. Examples: "BH648916", "A235-00076", "714651" Shipboard Examples: "DDG110-LG/RASTWHPU", "CG52-4/GRG", "LCAC58-1/SCAVFAN"
   f. COMPONENT POSITION. If applicable, enter position or position number of the component. This is common for engines and some gearboxes. Examples: "#1", "#2", "LEFT", "RIGHT", "PORT", "STARBOARD", "N/A"
   g. END ITEM MODEL/SHIP HULL NUMBER. Enter mission, design and series (type, model, series) of end item which contains the component or system being sampled. This is often an aircraft or vehicle. Examples: "MH-60R", "CVN-68", "F-16C", "CV-22B", "Cat-130GNS", "M32A-60"
   h. END ITEM SERIAL NUMBER. Enter the complete end item serial number (aircraft bureau number). Examples: "162516", "168850", "900946", "09-0043", "1220493"
   i. DATE SAMPLE TAKEN (DD/MMM/YYYY). Enter the date in the format day/month/year on which the sample was taken, e.g., 03DEC2023 for December 3, 2023
   j. LOCAL TIME SAMPLE TAKEN. Enter local time sample was taken using 24 hour clock, e.g., 0700, 1600, 2200, etc.
   k. ENGINE SHUTDOWN TIME. Enter local time the engine was shutdown prior to oil sampling using the 24-hour clock.

   NOTE

   Accurate data on hours/miles since overhaul and hours/miles since oil change are extremely important for correct evaluation of the analysis results. Every effort possible must be made to ensure that these data are correct.

   l. HOURS / MILES SINCE NEW. Enter the total hours/miles since new of the component being sampled to the nearest whole hour/mile (round up if 0.5 or above). Indicate if the number reported is in hours or miles. Examples: "1200 Hours", "1200 Miles"
   m. HOURS / MILES SINCE OVERHAUL. Enter the total hours/miles since overhaul of the component being sampled to the nearest whole hour/mile (round up if 0.5 or above). If the equipment has never been overhauled, the total operating hours/miles since new are reported. Indicate if the number reported is in hours or miles. Air Force personnel will normally enter total flying hours. For Navy ship equipment enter hours if known, otherwise leave blank. Examples: "110 Hours", "110 Miles"
   n. HOURS / MILES SINCE OIL CHANGE. Enter hours/miles since oil change on the component being sampled to the nearest whole hour/mile (round up if 0.5 or above). Indicate if the number reported is in hours or miles. For Navy ship equipment enter hours if known, otherwise leave blank. Examples: "25 Hours", "25 Miles"
   o. CURRENT END ITEM HOURS / ODOMETER READING. If available, enter the miles or hours of the aircraft or vehicle upon which the component is installed. This is equivalent to the odometer reading. Specify if hours or miles are reported. Examples: "2200 Hours" or "2200 Miles".

   NOTE

   If the sample is a special sample, it must be prominently marked in red (such as red borders), both on the form and on the outside of the mailing container to alert the laboratory to the need for immediate processing.

DD FORM 2026, AUG 2024 Page of

PREVIOUS EDITION IS OBSOLETE.

Figure 10.3-1 (Page 3): Oil Analysis Request (DD 2026)

INSTRUCTIONS

p. REASON FOR SAMPLE. Enter reason for taking sample. Mark applicable block; if "Other" block is marked, specify reason for sample, e.g., initial sample, warning light, etc.

NOTE

Oil consumption information is essential to the evaluation process for trend analysis and to determine if a system is using excessive amounts of oil. Report suspected excessive oil usage to both the local system manager(s) and the local oil analysis laboratory.

q. OIL ADDED SINCE LAST SAMPLE. Enter the quantity of oil added since the last sample and specify the measurement used. Examples: "5 ounces", "2 gallons", "5 pints"

r. HOW TAKEN. Mark the appropriate block. See Volume 1, Work Package 003 of the JOAP Manual for definitions of Tube, Drain, or Valve sampling.

s. SAMPLE TEMPERATURE. Mark the appropriate block.

t. OIL TYPE. Enter the specification number, product designation or product name. Examples: "MIL-PRF-23699 Cl", "DOD-PRF-85734", "MIL-PRF-7808 Gr 4", "MIL-PRF-2104"

u. REMARKS. Enter any pertinent sample information. On initial samples of new equipment, provide the JOAP laboratory with the following:

(1). System oil capacity.

(2). Sampling / Oil change interval.

(3). Minor maintenance actions within the oil system.

v. MAGNETIC CHIP DETECTOR (MCD) VISUAL INSPECTION OF DEBRIS. If visual inspection of MCD is required, Air Force or Army customers are to check the appropriate block for the debris observed on the chip detector, i.e. "WITHIN LIMITS", "EXCEEDS LIMITS". If not required, the submitter should mark "UNKNOWN/NA". The person conducting the inspection must sign the MCD Point of Contact (POC) signature block (not OAP lab personnel).

w. SUBMITTING ACTIVITY SAMPLE NUMBER. Submitting activities may use this space to assign a designation to the sample being submitted thus facilitating the submission of multiple samples and oil analysis requests in one shipping envelope or container.

2. FOR LABORATORY USE ONLY section of the DD Form 2026. This section of the form is completed by the laboratory personnel performing the analysis of the oil sample. It is rarely used since most oil analyses are automated and use computer systems to record results and provide results back to customers. Consult JOAP Manual Volume 2 for details on when and if this section of the form must be completed. Laboratory personnel must consult JOAP Manual Volumes 3, 4, and/or 5 for details on which tests are to be performed based on the component from which the sample has been extracted. These volumes also provide limits along with guidance on the interpretation of the results.

a. ELEMENTAL / WEAR METAL ANALYSIS. Check the appropriate block for the elemental / wear metal instrument used, i.e. "SPECTROMETER" or "FL-58". Fill in all values obtained for each element as indicated by the instrument.

b. PHYSICAL / CHEMICAL PROPERTIES. Fill in the results for the tests performed.

c. PARTICLE COUNT. Fill in the results along with the Overall Class and/or Overall ISO Code, if performed.

d. RECOMMENDATION CODE. Enter the appropriate recommendation code based upon the oil analysis test results.

e. RECOMMENDATION DETAILS. Provide any additional information appropriate based on the results obtained.

f. LABORATORY SAMPLE NUMBER(S). Enter the sample identification number assigned by the laboratory.

g. OPERATOR INITIALS. The laboratory operator enters their initials.

3. TRANSIENT AIRCRAFT OIL ANALYSIS RECORD. This section of the form is on the reverse or back side. It is used in the uncommon situation where the oil analysis servicing of a specific component is being transitioned from one oil analysis laboratory to another and the losing laboratory is not equipped with an automated data system. The oil analysis records for the component being transferred are entered on this form by the losing laboratory's operator so that a hard copy of the results can be delivered to the receiving oil analysis laboratory. JOAP Manual Volume 2 includes details on how and when this section of the form is to be used.

DD FORM 2026, AUG 2024 Page of

PREVIOUS EDITION IS OBSOLETE.

Figure 10.3-1 (Page 4): Oil Analysis Request (DD 2026)

BUNO: _____ Engine/Gearbox S/N: _____ Position:_____

Maximum allowable Oil Consumption is _____ oz. per flight hour.

Completed records to be filed in the AESR manila envelope

DATE	FLIGHT HOURS	OZ. CONSUMED	CONSUMPTION RATE (OZ. PER F/H)	SERVICING PERSONNEL SIGNATURE	MAINTENANCE CONTROL SIGNATURE

Figure 10.3-2: Engine/Gearbox Oil Consumption Record (Sample)

10.4 Aviators Breathing Oxygen (ABO) Surveillance Program (NAMPSOP)

10.4.1 References

a. NAVAIR 06-30-501, Oxygen/Nitrogen Systems Technical Manual.

b. NAVAIR 13-1-6.4-1, Aviation-Crew Systems Oxygen Systems (Aircraft Equipment, Masks, and other Systems).

c. NAVAIR 13-1-6.4-2, Aviation-Crew Systems Oxygen Equipment (Regulators).

d. NAVAIR 13-1-6.4-3, Aviation-Crew Systems Oxygen Equipment (Concentrators).

e. NAVAIR 13-1-6.4-4, Aviation-Crew Systems Oxygen Equipment (Converters).

f. NAVAIR A6-332AO-GYD-000, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory and Field Guide.

g. NAVAIR AG-115SL-OMP-000, Cryogenics Sampler Model FCS 2001 Part Number 600646.

h. NAVAIR 06-20-2, Gas Cylinders (Storage Type) Use, Handling, and Maintenance (ATOS).

i. NAVAIR 17-15-534, Operation and Intermediate Maintenance with Illustrated Parts Breakdown, Analyzer, Aviators Breathing Oxygen (ABO), A/E26T-3, Part Number 3964AS100-1.

j. NAVAIR 19-25D-26, Servicing Trailer, Liquid Oxygen Low Loss, Closed Loop Type TMU-70/M Part Number 22455.

k. NAVAIR 19-25D-33, Storage Tank, Liquid Oxygen, Type TMU-27/M, 50-Gallon Capacity.

l. NAVAIR 19-600-138-6-1, Preoperational Checklist, Storage Tank, Liquid Oxygen Low Loss, Closed Loop, TMU-70/M.

m. NAVAIR 19-600-282-6-2, Periodic Maintenance Requirements Manual, 50 Gallon Storage Tank, Liquid Oxygen, TMU-27/M.

n. NAVAIR 00-80T-96 CH-1, U.S. Navy Support Equipment Common (Basic Handling & Safety Manual).

10.4.2 Introduction

a. The Aviators Breathing Oxygen (ABO) Surveillance Program establishes requirements that reduce risk to personnel working with ABO and prevent the contamination of aircraft oxygen systems and components through strict quality control measures and periodic surveillance procedures. ABO surveillance begins with the generation or procurement of liquid oxygen (LOX) or gaseous oxygen and continues through the storage, handling, transfer, and servicing of aircraft and oxygen systems. It involves thorough testing and monitoring of oxygen and oxygen systems to ensure contaminants; such as hydrocarbons, inert solids, particulate matter, moisture, carbon dioxide, toxic and odorous contaminants, nitrous oxide, and halogenated compounds are detected and eliminated.

NOTE: For Depot Aviators Breathing Oxygen (ABO) Surveillance Program see Chapter 12.

b. ABO surveillance requirements start with the generation or procurement of liquid oxygen (LOX) or gaseous oxygen and continues through the storage, handling, transfer, servicing, and maintenance of aircraft and oxygen systems. ABO surveillance involves thorough testing and monitoring of oxygen and oxygen systems to ensure detection and elimination of contaminants such as hydrocarbons, inert solids, particulate matter, moisture, carbon dioxide, toxic and odorous contaminants, nitrous oxide, and halogenated compounds.

c. The Fleet Support Team (FST) for the ABO Surveillance Program is the COMMANDING OFFICER, NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION, CODE 4.8.6.10, HWY 547, LAKEHURST NJ 08733-5090, DSN 624-4253/1433 or Comm (732) 323-4253.

10.4.3 Requirements

All activities operating aircraft with LOX or gaseous oxygen systems, operating or maintaining LOX or gaseous oxygen system servicing equipment, or conducting ABO analysis must comply with the ABO Surveillance Program.

WARNING: EXTREME CARE MUST BE TAKEN WHEN HANDLING CRYOGENICS TO MINIMIZE THE PROBABILITY OF CONTACT WITH THE SKIN. DIRECT CONTACT WITH CRYOGENIC FLUIDS OR SURFACES COOLED BY CRYOGENIC LIQUIDS CAN CAUSE SEVERE BURNS, FIRE, AND EXPLOSIONS. VIOLENT FAILURE OF ABO EQUIPMENT CAN RESULT IN LOSS OF LIFE.

WARNING: FAILURE TO CORRECT DEFICIENCIES IN ABO/OBOGS SYSTEMS CAN RESULT IN LOSS OF LIFE OR LOSS OF AIRCRAFT. AIRCRAFT EXPERIENCING AN AIRCREW PHYSIOLOGICAL EPISODE WHERE THE QUALITY OF THE OXYGEN OR FUNCTIONING OF THE ABO/OBOGS SYSTEM OR RELATED AIRCREW-WORN EQUIPMENT MAY HAVE CONTRIBUTED TO THE EPISODE (SUCH AS HYPOXIA) WILL BE RESTRICTED FROM FLIGHT UNTIL CONDITIONAL INSPECTION PROCEDURES SPECIFIED IN THE AIRCRAFT TECHNICAL MANUALS OR OTHER DIRECTIVES ARE COMPLETED. A CAT I HMR/EI (10.9) MUST BE SUBMITTED ON EACH AIRCRAFT COMPONENT, AIRCREW EQUIPMENT, OR SE THAT MAY HAVE CONTRIBUTED TO THE EPISODE.

10.4.3.1 ABO Testing

All ABO will be tested per the requirements specified in maintenance technical manuals and NAVAIR A6-332AO-GYD-000. All Analyzer Sets will be tested for proper operation by performing an ABO Correlation Sample Test, at least once every six months (two times per year) per NAVAIR A6-332AO-GYD-000, Section V.

10.4.3.2 ABO Generation

a. All LOX and gaseous oxygen operations will be performed by two or more qualified technicians per NAVAIR 13-1-6.4.

b. All Navy and Marine Corps ABO and Nitrogen Generation plants operated by I-Level activities will be designated as Work Center 820.

c. All ABO and Nitrogen Generation plant equipment will be inspected and maintained as aviation support equipment per the procedures of the Support Equipment (SE) Maintenance Program per paragraph 10.17.

10.4.3.3 ABO Maintenance and Servicing

a. Aircraft LOX and gaseous oxygen systems, components, and related support equipment (SE) will be maintained by Work Center 130 or 13B (O-Level ALSS and Environmental Systems), Work Center 81C (I-Level Oxygen Regulator and Equipment Shop), Work Center 92C (I-Level LOX/Oxygen/Nitrogen SE Repair Shop), or FRC D-level qualified oxygen personnel only.

b. Tools and toolboxes used to maintain or service aircraft oxygen systems or oxygen servicing SE will be used for oxygen system maintenance and servicing only. Tools and toolboxes will be marked "OXYGEN USE ONLY," be clean, and free of foreign objects or hydrocarbons per NAVAIR 13-1-6.4.

c. All operations involving the maintenance and servicing of LOX and gaseous oxygen will be performed by two or more qualified personnel per NAVAIR 13-1-6.4.

NOTE: LOX converter removal and replacement may be performed by one ABO trained person and is not restricted to Work Center 130 or 13B personnel only.

d. Personal protective equipment (PPE) must be used during LOX and gaseous oxygen servicing operations.

e. A 6-inch deep drip or drain pan must be used to catch LOX overflow. LOX drip or drain pans will be clearly marked “LOX USE ONLY," be clean, and FOD and hydrocarbon-free per NAVAIR 13-1-6.4.

10.4.3.4 Personnel Training and Qualification

10.4.3.4.1 Personnel involved in the manufacture, analysis, use, handling, or servicing of oxygen systems, equipment, and SE will have a thorough knowledge of the characteristics of LOX and gaseous oxygen systems and components, to include ABO dangers, contamination hazards, and need for quality standards.

10.4.3.4.2 Newly reporting personnel assigned to the Maintenance Department will receive NAMP Indoctrination and refresher training (ABO personnel only) on Aviators Breathing Oxygen Surveillance Program policy per 10.1.4.7 and 10.1.4.8.

10.4.3.4.3 Personnel that generate LOX and gaseous oxygen, or service and maintain ABO systems and components, must receive task specific ABO training and annual refresher training thereafter. Training will be specified in the individual’s qualification training track, be conducted by lecture, and include detailed instructions on the dangers of handling LOX and gaseous oxygen, the requirements and use of PPE, and type/model/series (T/M/S) specific procedures applicable to the person’s assigned duties.

10.4.3.4.4 ABO Analyzer Operators will receive initial qualification training by one of the following methods:

a. Aviators Breathing Oxygen (ABO) Test Site Operator/Analyst course (Course C-670-2018)

b. Aviators Breathing Oxygen Contaminant Analyzer Intermediate Operator/Maintainer course (Course C-750-3217)

c. ABO qualified Naval Aviation Technical Data and Engineering Services Command (NATEC) (COMFRC FST HQ Technical Data Department) personnel

NOTES: 1. Submit course training requests to Naval Aviation Technical Training Center (NATTC) per NAVAIR A6-332AO-GYD-000, Section IV.

2. Material engineering laboratories may use a senior chemist, equipment operator, or an accredited university for training.

10.4.3.4.5 ABO Analyzer Operators must maintain currency in operating analyzers and interpreting scans by reading at least one sample scan every 6 months, no later than the last day of the month.

NOTES: 1. ABO Analyzer Operators who have exceeded six months between sample scans will have their operator duties suspended until they complete refresher training given by a current ABO Analyzer Operator.

2. ABO Analyzer Operators who do not interpret at least one sample scan within 24 months will have their operator duties revoked and must complete one of the initial qualification training methods listed in paragraph 10.4.3.4.4.

10.4.3.5 ABO Facilities

a. Oxygen system components maintenance shops must comply with the facilities requirements of NAVAIR 13-1-6.4.

b. Gas cylinders must be protected, stored, and hydrostatically tested per NAVAIR 06-20-2.

10.4.4 Responsibilities

NOTE: Responsibilities specific to different levels of maintenance and oxygen analyzing sites are indicated by the following: O = Organizational, I = Intermediate, and I/A = I-Level activities with analyzing capability. If no level of maintenance is indicated, all levels are responsible.

10.4.4.1 Maintenance and Production Officer

a. Designate an ABO Surveillance Program Manager assigned to Work Center 130, 13B, or 800 Division per 10.1.2.9.

b. Develop local command procedure (LCPs) per Appendix D, if required to direct geographic, T/M/S, or command directed actions for ABO Surveillance not addressed in this NAMPSOP. Command LCPs will be submitted to the Wing or MAW for consideration of developing a Wing LCP.

10.4.4.2 Program Manager

a. Know and enforce compliance with sections of the maintenance technical manuals and this NAMPSOP that are applicable to the aircraft and equipment maintained or serviced.

b. Perform program audits per 10.7.5.8.

c. Provide NAMP indoctrination and refresher training (ABO personnel only) on ABO Surveillance Program per 10.1.4.7 and 10.1.4.8. Verify ABO surveillance personnel receive ABO Surveillance familiarization prior to performing maintenance while assigned to the work center and annually (ABO personnel only) thereafter. Training must be specific to the duties the individual performs.

d. (O) Retain the I-Level Performance Test Sheet (PTS) and maintenance action form (MAF) for each On-Board Oxygen Generation Systems (OBOGS) concentrator and oxygen regulator installed in the aircraft.

NOTES: 1. The lack of a PTS or MAF in the Program Manager's binder does not make the component non-ready for issue (NRFI).

2. The PTS and MAF can be disposed of when the component is transferred for rework or repair.

3. The PTS and MAF will be submitted with the suspected component when turned in for an Engineering Investigation (EI) due to a physiological episode.

e. (I/A) Verify ABO Analyzer Operators are qualified and remain current with proficiency requirements per paragraph 10.4.3.4.5.

f. Maintain a program file to include:

(1) POCs

(2) Program correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

(5) (O) OBOGS concentrator and aircraft installed oxygen regulator PTS and MAF

(6) (I/A) Copies of training and course completion certificates for ABO Analyzer Operators

(7) (I/A) One MAF documenting each Analyzer Operator's analysis of an oxygen sample within the last 6 months

NOTE: The last MAF documenting an Analyzer Operator's analysis of an oxygen sample will be retained for 24 months after the Analyzer Operator transfers from the command. This provides a reference for the next command to verify the Analyzer Operator completed the required training per paragraph 10.4.3.4.

(8) (I/A) Sample results for Analyzer periodic maintenance and Oxygen sample analyzer. Retain results for one year. Results can be filed in a separate binder, but must be cross-referenced in the program file.

(9) (I/A) Three-part correlation sample documents for the last 12 months per 10.4.3.1.

(10) (I) Industrial Hygienist air exchange results.

10.4.4.3 Quality Assurance (QA) Officer:

Designate a QAR (normally an Aviation Structural Mechanic Egress (AME), or Aircrew Survival Equipmentman (PR as the ABO Surveillance Program Monitor per 10.1.2.9.

NOTE: Carrier Air Wing (CVW) or Aviation Combat Element (ACE) MOs must designate a CVW or ACE Squadron QAR as ABO Surveillance Program Monitor, if operating a consolidated ABO servicing team.

10.4.4.4 ABO Program Monitor

a. Read and remain current with the references and sections of this NAMPSOP and ABO procedures in maintenance technical manuals that are applicable to the aircraft and equipment maintained and serviced.

b. Perform audits per paragraph 10.7.5.7.

10.4.4.5 Work Center Supervisor

Supervisors of work centers responsible for ABO generation, systems servicing, or maintenance must:

a. Verify all tools and toolboxes used to maintain and service oxygen systems or servicing SE comply with NAVAIR 13-1-6-4.

b. Maintain a minimum of two ABO qualified personnel to perform servicing, testing, oxygen generation, and SE or aircraft purging.

c. Store and maintain ready for issue material (RFI) LOX converters and oxygen servicing SE per applicable manuals.

d. Assign only qualified personnel to perform oxygen related functions and only licensed personnel to operate oxygen servicing SE.

e. Personally check the physical condition of each ABO tool and PPE weekly, at a minimum, and replace when necessary.

f. Spot check work in progress involving the handling of LOX and gaseous oxygen to verify it is being performed by two or more ABO qualified personnel (except for removal and replacement of aircraft LOX converters). Check that the correct PPE, tools, and drip or drain pans are being used.

g. Immediately notify Maintenance or Production Control of contamination or odors in oxygen systems. Assist with initiating WOs to perform conditional maintenance on affected oxygen systems, components, and SE per maintenance technical manuals.

h. Keep equipment and areas around oxygen system components, SE, and storage areas clean, free of hydrocarbons and combustible materials.

i. (O) Forward test pressure gauge relief valve test fixtures to IMA for testing and setting per NAVAIR 19-25D-26.

j. Verify ABO Surveillance Program indoctrination training and annual refresher training are completed per 10.1.4.7 and 10.1.4.8 for personnel involved in the generation, analysis, use, handling, servicing or maintenance of oxygen, oxygen components, and related SE.

10.4.4.6 ABO Personnel

a. Check the condition of ABO PPE prior to use. Any worn or unserviceable PPE will be immediately removed from service.

b. Wear all PPE required per NAVAIR 13-1-6.4 and NAVAIR 06-30-501 when working with LOX and gaseous oxygen.

c. Only use tools marked “OXYGEN USE ONLY” to perform maintenance or servicing of ABO systems or SE.

d. Prior to starting LOX and gaseous oxygen operations, correctly position a clean, FOD and hydrocarbon free properly marked "LOX USE ONLY” 6-inch deep drip or drain pan to collect LOX overflow per NAVAIR 13-1-6.4.

e. Immediately notify the Work Center Supervisor if contamination or odors in oxygen systems are detected or suspected.

f. Keep equipment and areas around oxygen system components, SE, and storage areas clean, free of hydrocarbons and combustible materials.

10.4.4.7 (I/A) ABO Analyzer Operators

a. Perform analysis of oxygen samples, per the requirements specified in maintenance technical manuals and NAVAIR 17-15-98.

b. Perform ABO Analyzer Correlation Sample Test per NAVAIR A6-332AO-GYD-000.

c. Provide the following correlation documents to the Program Manager:

(1) Submitted cover letter and sample results

(2) Statistical Analysis Report

d. Analyze the results from the system performance test, optimized system energy throughput, maintenance log sheet data, and system hardware configuration parameters to detect signs of system degradation or component failures and take corrective action per NAVAIR 17-15-98 and NAVAIR 17-15-534.

e. Perform at least one oxygen sample analysis every 6 months per paragraph 10.4.3.4.5. Prior to transfer, obtain a hardcopy of the last MAF documenting an analysis, and present the copy to the next command as proof of currency per paragraph 10.4.4.2.d.

10.5 Hydraulic Contamination Control Program (NAMPSOP)

10.5.1 References

a. NAVAIR 01-1A-17 CH-2, Aviation Hydraulics Manual

b. NAVAIR 01-1A-20, Aviation Hose and Tube Manual

c. NAVAIR 17-15BF-97, Operation Instructions Hydraulic Particle Counter Test Set

10.5.2 Introduction

Hydraulic fluid contamination can cause hydraulic system failures and presents a serious threat to aircraft airworthiness and the operational readiness of support equipment (SE). All personnel managing or performing maintenance on naval aircraft hydraulic systems, components, and SE must be aware of the causes and effects of hydraulic contamination, and the procedures required to prevent contamination.

NOTE: For Depot Hydraulic Contamination Control Program see Chapter 12.

10.5.3 Requirements

10.5.3.1 Navy and Marine Corps Activities

All Navy and Marine Corps activities performing maintenance on naval aircraft hydraulic systems, components, and SE must comply with the Hydraulic Contamination Control Program.

10.5.3.2 Commercial activities and Other Government Agencies

Commercial activities and other government agencies performing contract maintenance, production, or other support functions on naval aircraft, related hydraulic systems, components, and SE must comply with the Hydraulic Contamination Control Program requirements specified in contractual documentation.

10.5.3.3 Training and Designation

a. All newly reporting maintenance personnel will receive (NAMP) Indoctrination Training on the Hydraulic Contamination Control Program per 10.1.4.7. Training must be specific to the duties the individual performs.

b. Work Center Supervisors and maintenance personnel responsible for performing maintenance on aircraft, or SE hydraulic components and systems, and personnel certifying aircraft Safe For Flight must receive job-specific training on the hydraulic contamination control and testing requirements. At a minimum, training will include the applicable requirements specified in:

(1) COMNAVAIRFORINST 4790.2, paragraph 10.5.

(2) NAVAIR 01-1A-17, NAVAIR 01-1A-20, and NAVAIR 17-15BF-97.

(3) Type/model/series (T/M/S) aircraft or equipment technical manuals.

(4) Wing local command procedures (LCP).

c. Hydraulic Contamination Analysis Technicians must be designated on a Hydraulic Contamination Analysis Technician Designation form (Figure 10.5-1) or in Advanced Skills Management (ASM). Completion of the Hydraulic Contamination Analysis Technician Training Worksheet (Figure 10.5-2) is a prerequisite for each designated analysis method (Electronic Particle Tester or Contamination Analysis Kit).

NOTES: 1. Personnel certified as a Hydraulic Contamination Analysis Technician on the same T/M/S aircraft, or SE, by a previous command may be certified by their new command if they complete the required reading, demonstrate practical proficiency to a certified Quality Assurance Representative (QAR) or Collateral Duty Quality Assurance Representative (CDQAR) and complete the applicable test. All other sections on the Qualification and certification form will be annotated "Previously complied with at (command)" and the previous command certification records will be retained in the individual's qualification/certification record or in ASM.

2. (O-Level and I-Level, only) Hydraulic Contamination Analysis Technicians assigned to activities using the Electronic Particle Counter as their primary means of testing must also be trained and certified on the Contamination Analysis Kit (57L414), commonly known as the Patch Test Kit.

3. Activities responsible for contamination testing of SKYDROL hydraulic fluid, only, are relieved of the requirement for Hydraulic Contamination Control Analysis Technicians to be trained and certified on use of the Contamination Analysis Kit (57L414) as a back-up method of testing.

4. (O-Level and I-Level, only) Hydraulic Contamination Analysis Technicians must pass an annual proficiency test in each method for which they are certified, per the procedures of 10.5.4.5.c.

10.5.3.4 Contamination Control

a. The contamination control measures of NAVAIR 01-1A-17 and NAVAIR 01-1A-20 will be complied with during all maintenance affecting aircraft or SE hydraulic systems or components.

b. All aircraft and SE internal and external hoses used to service or apply pressure to aircraft hydraulic systems must be marked or etched per NA 01-1A-20 or T/M/S maintenance technical manuals.

c. Whenever aircraft or SE hydraulic system integrity is broken, all affected fittings, lines, and components will immediately be capped or plugged (using approved closures).

d. Only SE authorized per NAVAIR 01-1A-17 will be used to dispense hydraulic fluid.

e. Uninstalled hydraulic components will be handled and stored in a manner that prevents contamination, to include being cleaned, capped/plugged, and correctly tagged per 10.11.4.11.d.

f. Work areas, tools, and equipment used to maintain or service hydraulic systems will be kept clean and free of potential contaminants per NAVAIR 01-1A-17.

10.5.3.5 Hydraulic Fluid Sampling and Analysis

a. Aircraft, hydraulic test equipment, and hydraulic SE will be sampled and analyzed per NAVAIR 01-1A-17 and applicable T/M/S aircraft and equipment technical manuals and MRCs. When sampling and analysis is required, it will be completed prior to the next flight of the aircraft or operation of the SE. Hydraulic fluid analysis will also be performed during aircraft and equipment acceptance inspections, per 5.4.1 (aircraft) and 10.17 (SE).

b. An Electronic Particle Counter will be used to measure hydraulic fluid contamination levels, when available. The Contamination Analysis Kit (57L414) may be used when a particle counter is not available.

c. T/M/S maintenance technical manuals will be used to determine the maximum acceptable (passing) level of hydraulic fluid particulate contamination. If limits are not specified in T/M/S maintenance technical manuals, the acceptable limits in NAVAIR 01-1A-17 apply.

d. The decontamination procedures of T/M/S maintenance technical manuals will be performed to restore contaminated hydraulic systems to acceptable Navy class levels. If decontamination procedures are not specified in T/M/S maintenance technical manuals, the procedures of NAVAIR 01-1A-17 apply.

10.5.3.6 Analysis Documentation

a. Compliance with hydraulic fluid contamination analysis must be documented in the Corrective Action block of the WO or MAF for the discrepancy that required the analysis. The type of analysis conducted (Electronic Particle Tester or Contamination Analysis Kit) and Navy class results will be annotated on the WO or MAF documenting the component's replacement.

b. When Aircraft are in Extended Non-Flight Activity/Status 14 days or more (for example: Phase, Special, PMI, ISR, IMC, Scheduled Depot Maintenance) with multiple WOs requiring Hydraulic Contamination Analysis, maintenance control may issue a one-time BLOC HYD sample (Bleed, Leak, and Operation Checks as required) inspection WO. The WO system reason block will be BLOC HYD sample. The BLOC WO will list each SYS REASON, JCN, and MCN that requires the Hydraulic Sample, Bleed, Leak, and Operation Checks as applicable per T/M/S specific MIMs as an In-Processes. The BLOC HYD sample WO In-Processes must include a description of the maintenance performed for that specific item. The type of analysis conducted (Electronic Particle Tester or Contamination Analysis Kit) and Navy class results will be annotated on the WO Corrective Action block. When a BLOC HYD sample Work Order is utilized, all Aircraft Hydraulic Systems must be tested.

NOTES: 1. Equipment Operational Capability (EOC) Code Z per applicable T/M/S MESM will be applied to all WOs directing hydraulic fluid contamination analysis. Additionally, EOC Code Z will be applied to WOs following non-hydraulic system aircraft maintenance that required breaking hydraulic system integrity.

2. Assist type Work Orders will be EOC code Y automatically by NALCOMIS from the original EOC Z downing discrepancy WO.

c. A logbook entry must be made to document hydraulic fluid analysis performed for acceptance inspections of aircraft and SE, and whenever applicable publication limits are reached. The logbook entry must include the date of the sample, type contamination, Navy class, method of

decontamination, and reference. Entries will be made in the Miscellaneous/History section of the aircraft logbook, Aeronautical Equipment Service Record (AESR) Miscellaneous/History (OPNAV 4790/25A), CM ALS, or SE Custody and Maintenance History Record (OPNAV 4790/51) respectively.

d. A Hydraulic Contamination Trend Analysis Chart (Figure 10.5-3) must be maintained for each assigned aircraft, individual hydraulic test equipment, and SE requiring hydraulic fluid analysis. Entries in the chart must be made by a Quality Assurance Representative (QAR) who is also designated as a Hydraulic Contamination Analysis Technician. At a minimum, the most current chart and the last completed chart will be on file.

NOTE: Activities are required to maintain Hydraulic Contamination Trend Analysis Chart (Figure 10.5-3) for all I-Level Temporary Loaned assets.

10.5.4 Responsibilities

10.5.4.1 Type Wing or MAW Model Manager

Publish an LCP per Appendix D to direct geographic, T/M/S specific, or other command directed actions for hydraulic contamination control not addressed in this NAMPSOP. At a minimum, the LCP must include:

a. A standardized training syllabus for NAMP Indoctrination Training and for T/M/S job specific training for each T/M/S aircraft assigned.

b. Develop a standardized open book written test for Hydraulic Contamination Analysis Technician qualification, to include particle counter analysis procedures. O-Level tests must cover Electronic Particle Tester and Contamination Analysis Kit. Tests must be reviewed annually.

10.5.4.2 Maintenance Officer

a. Designate a qualified Hydraulic Contamination Analysis Technician as the Program Manager per 10.1.2.9.

b. Designate Hydraulic Contamination Analysis Technicians, per paragraph 10.5.3.3.c.

c. Develop an LCP per Appendix D, if required to address geographic, T/M/S specific, or command directed actions for hydraulic contamination control not addressed in this NAMPSOP. O-Level Command LCPs must be submitted to the Type Wing or MAW for consideration of inclusion in the Wing LCP.

10.5.4.3 Program Manager

a. Perform initial and annual Program Manager audits per 10.7.5.8.

b. Provide NAMP indoctrination on Hydraulic Contamination Control Program per 10.1.4.7. Verify personnel receive familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Prior to endorsing their Hydraulic Contamination Analysis Technician Designation (Figure 10.5-1), verify Hydraulic Contamination Analysis Technician nominees are fully trained and proficient per paragraph 10.5.3.3.c.

d. Update the Hydraulic Contamination Analysis Technician Training Worksheet (Figure 10.5-2) when additional or updated required reading is added. O-Level activities will notify the Type Wing or MAW Model Manager for consideration of inclusion in the training syllabus.

e. Maintain a program file to include:

(1) Points of contact (POC).

(2) Program related correspondence and message traffic.

(3) References or cross-reference locator sheets.

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit.

10.5.4.4 Quality Assurance (QA) Officer

Designate a QAR qualified as a Hydraulic Contamination Control Analysis Technician as the Program Monitor.

10.5.4.5 Program Monitor

a. Perform audits of the Hydraulic Contamination Control Program per paragraph 10.7.4.7.

b. Maintain the Hydraulic Contamination Trend Analysis Charts (Figure 10.5-3) for each assigned aircraft, individual hydraulic test equipment, and SE requiring hydraulic fluid analysis. At a minimum, maintain the current chart and the last completed chart on file.

c. Perform the initial qualification and annual proficiency tests of designated Hydraulic Contamination Analysis Technicians. Proficiency testing cannot be simulated; it must be based on an actual hydraulic fluid sample taken from an aircraft, individual hydraulic test equipment, or hydraulic component. Proficiency tests will be performed per the procedures of the Hydraulic Contamination Analysis Technician Monitor (Computerized Self Evaluation Checklist (CSEC) area 5800. The initial qualification test will be documented on the Hydraulic Contamination Analysis Technician Training Worksheet (Figure 10.5-2). Annual proficiency tests will be documented in the CSEC area 5800 checklist. In large organizations where the annual proficiency test workload exceeds the capacity of the Program Monitor, the QA Officer may allow other QARs or CDQARs designated as Hydraulic Contamination Analysis Technicians to administer annual proficiency tests.

10.5.4.6 Maintenance Control or Production Control

a. Issue WOs or MAFs to conduct hydraulic fluid sampling and analysis per paragraph 10.5.3.6.

b. Verify Hydraulic Contamination Trend Analysis Charts (Figure 10.5-3) are included in the aircraft logbook, AESR Miscellaneous History (OPNAV 4790/25A), CM ALS, SE historical file and/or Maintenance History Record (OPNAV 4790/51) when aircraft or SE are transferred.

c. Verify aircraft logbook, AESR Miscellaneous History (OPNAV 4790/25A), CM ALS, and/or SE Custody and Maintenance History Record (OPNAV 4790/51), entries are made each time hydraulic system fluid analysis is performed.

d. Screen WOs or MAFs to verify hydraulic fluid analysis was conducted and results were annotated in the Corrective Action block per paragraph 10.5.3.6.

10.5.4.7 Logs and Records

a. Make required aircraft logbook entries per paragraph 10.5.3.6 and Chapter 8, paragraphs 8.2.7, 8.6.3.2 and 8.5.17.

b. Place the current Hydraulic Contamination Trend Analysis Chart (Figure 10.5-3) and the last completed chart from QA in the aircraft logbook or SE Custody and Maintenance History Record (OPNAV 4790/51) prior to transfer.

10.5.4.8 Work Center Supervisor

a. Verify NAMP Indoctrination Training on the Hydraulic Contamination Control Program was given to all newly reporting personnel per 10.1.4.7.

b. Verify personnel have received job specific Hydraulic Contamination Control Training per paragraph 10.5.3.3.

c. Periodically observe work in progress to verify technicians are complying with hydraulic contamination control requirements per paragraph 10.5.3.4.

d. Enforce high standards of housekeeping where hydraulic maintenance and sampling is performed per NAVAIR 01-1A-17.

e. Maintain Contamination Analysis Kits (57L414) and Electronic Particle Counters in ready for issue material (RFI) status.

10.5.4.9 Technicians

a. Comply with hydraulic contamination control requirements per paragraph 10.5.3.4.

b. Immediately report suspected hydraulic system contamination to the Work Center Supervisor.

From: _____
(Department Head)

To: _____
(Individual Designated)

_____
(Hydraulic Contamination Control Program Manager)

Subj: HYDRAULIC CONTAMINATION ANALYSIS TECHNICIAN DESIGNATION

Ref: (a) COMNAVAIRFORINST 4790.2

1. You are designated as a Hydraulic Contamination Analysis Technician and will perform your duties per reference (a).

2. I certify that I have read and understand the duties and responsibilities of the assigned billet and will perform the duties to the best of my ability.

Individual Designated Signature	Date
Hydraulic Contamination Control Program Manager Signature	Date
Department Head Signature	Date

Original to:
Individual's Qualification/Certification Record

Figure 10.5-1: Hydraulic Contamination Analysis Technician Designation (Example)

NAME	RATE/RANK	
A. REQUIRED READING:		
1. COMNAVAIRFORINST 4790.2 par. 10.5	Signature	Date
2. NAVAIR 01-1A-17	Signature	Date
3. NAVAIR 01-1A-20	Signature	Date
4. NAVAIR 17-15BF-97	Signature	Date
5.	Signature	Date
6.	Signature	Date
7.	Signature	Date
8.	Signature	Date
9.	Signature	Date
10.	Signature	Date
11.	Signature	Date
12.	Signature	Date
13	Signature	Date
Blocks (5) through (13) are for T/M/S specific maintenance technical manuals.		
NOTE: All required reading must be accomplished prior to taking hydraulic samples and performing analysis.		
B. OJT: Five samples must be taken, analyzed, and witnessed by a qualified Hydraulic Contamination Analysis Technician. The sixth sample must be taken and analyzed while being monitored by a qualified QAR.		

PODS Testing Method				Patch Testing Method			
Sample Number	Source (Type Equip)	Date	Qualifier Name/ Initials	Sample Number	Source (Type Equip)	Date	Qualifier Name/ Initials
1				1			
2				2			
3				3			
4				4			
5				5			
6 (QA)				6 (QA)			

C. TESTING: 1. Demonstrate proficiency by taking and analyzing a sample while being monitored by a qualified QA Hydraulic Contamination Control Program Monitor. 2. Complete an open book Hydraulic Contamination Control Program written examination (Passing score 80% minimum).		
Score	Date	QAR Print/Signature
D. CERTIFICATION VERIFICATION/REQUEST:		
The above named individual has satisfactorily completed all prerequisites for hydraulic system sample analysis certification.		
Hydraulic Contamination Control Program Manager Print/Signature		Date

Figure 10.5-2: Hydraulic Contamination Control Qualification/Certification Worksheet (Sample)

1. AIRCRAFT BUNO _____ SIDE NO. _____ SYSTEM _____

2. SUPPORT EQUIPMENT NOMENCLATURE _____

TEC _____ SERIAL NO. _____

OIL ANALYSIS HISTORY

DATE	CLASS	JCN	TAKEN BY	REASON	QAR
AIRCRAFT = CLASS (1-5) UNSAT= (U); SE = (1-3) UNSAT=(U)					

Figure 10.5-3: Hydraulic Contamination Control Trend Analysis Chart (Sample)

10.6 Tire and Wheel Maintenance Safety Program (NAMPSOP)

10.6.1 References

a. OPNAVINST 5100.19, Navy Safety and Occupational Health (SOH) Program Manual for Forces Afloat

b. OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual

c. NAVAIR 00-80T-96 CH-1, US Navy Support Equipment Common Basic Handling & Safety Manual

d. NAVAIR 01-1A-503, Maintenance of Aeronautical Antifriction Bearings for Organizational, Intermediate and Depot Maintenance Levels

e. NAVAIR 01-1A-509-2, Cleaning and Corrosion Control, Volume II, Aircraft

f. NAVAIR 04-10-1, Organizational, Intermediate, and Depot Maintenance Instruction Aircraft Wheels

g. NAVAIR 04-10-506, Inspection, Maintenance, Repair, Storage, and Disposition Instructions O-Level, I-Level, and D-level Maintenance Aircraft Tires and Tubes

h. NAVAIR 04-10-508, Application Table for Aircraft Tires and Tubes

i. NAVAIR 15-01-500, Organizational, Intermediate and Depot Preservation of Naval Aircraft

j. NAVAIR 17-1-123, Tire Inflator Assembly Kit Part Number M85352/1 Dual Chuck Stem Gage Part Number M85352/4

k. NAVAIR 17-1-125 CH 1 Maintenance Instructions (Organizational and Intermediate Level) Support Equipment Cleaning, Preservation, and Corrosion Control

l. NAVAIR 17-1-129 CH1, Organizational and Intermediate Maintenance Instructions Support Equipment Tire and Wheel Assemblies, O-Level and I-Level Maintenance Instructions

m. NAVAIR 17-15G-1, Aircraft Tire Inflator/Monitor Part Number 631AS100-1

n. NAVAIR 17-600-174-6-1, Tire Inflator Assembly Kit Part Number M85352/1, Dual Chuck Stem Gage Part Number M85352/4

o. NAVAIR 19-1-55, Aircraft Wheel Holder and Tire Bead Breaking Machine Models LEE-1 and LEE-1X

p. NAVAIR AG-200GT-TIC-MRC-000, Preoperational Checklist Tire Inflator Booth Part Number 938AS100-1

10.6.2 Introduction

10.6.2.1 The Tire and Wheel Maintenance Safety Program establishes requirements for the safe maintenance, handling, and storage of aircraft, support equipment (SE), and Armament Weapons Support Equipment (AWSE) tires and wheels.

NOTE: For Depot Tire and Wheel Maintenance Safety Program see Chapter 12.

10.6.2.2 Mishandling aviation tires and wheels can result in injury or death of aviation maintenance personnel. The destructive potential of air or nitrogen under pressure is tremendous. Inflated and partially inflated tires must be handled with the same respect and precautions normally applied to handling live ordnance. Many accidents have been caused by failure to follow established tire and wheel maintenance procedures and safety precautions, usually due to inadequate training and supervision.

10.6.2.3 The FST for aircraft tires is COMMANDING OFFICER, FRCSW NORTH ISLAND, CODE 4.3.4.4, SAN DIEGO, CA 92135-7058, DSN 735-8675 or COMM (619) 545-8675.

10.6.2.4 The FST for SE and AWSE tires and wheels is COMMANDING OFFICER, NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION, CODE 4.8.6.9, LAKEHURST NJ 08733-5000, DSN 624-7906 or COMM (732) 323-7906.

10.6.3 Requirements

10.6.3.1 All activities removing, replacing, servicing, handling, or performing tear down and buildup of aircraft, SE, and AWSE tire and wheel assemblies must comply with the Tire and Wheel Maintenance Safety Program.

10.6.3.2 Only specified I-Level activities are authorized to tear down and buildup aircraft, SE, and AWSE tire and wheel assemblies.

10.6.3.3 Tires will not be discarded or scrapped until determined non-serviceable per NAVAIR 04-10-506.

10.6.3.4 Refer to NAVAIR 04-10-506 Aircraft Tires and Tubes manual, and to NAVAIR 17-1-129 Support Equipment Tire and Wheel Assemblies manual for handling, storage, shipping, and tire pressure requirements of RFI and non-RFI Aircraft, SE, and AWSE tire and wheel assemblies.

10.6.3.5 Wheel bearing periodic inspection and lubrication requirements of NAVAIR 01-1A-503 (aircraft) and NAVAIR 17-1-129 (SE or AWSE) must be strictly adhered to. All wheel bearings must be protected from contamination from abrasives, improper grease, solids, and fluids while in storage and during handling and installation.

10.6.3.6 Activities responsible for maintaining aircraft must publish a local MRC to check tire pressure every 7 days, unless tire pressure inspection is already included in type/model/series (T/M/S) aircraft 7 day Special Inspection and Preservation Check MRCs per paragraph 3-3a of NAVAIR 04-10-506 and paragraph 3-68 of NAVAIR 15-01-500.

10.6.3.7 A current Aircraft Tires, Tubes, and Wheels Inflation and Deflation Safety Precautions poster must be displayed in each work center performing tire and wheel assembly maintenance. Posters can be obtained by contacting: COMMANDER, NAVAL SAFETY COMMAND, 375 A STREET, NORFOLK VA 23511-4399, DSN 564-3520 or COMM (757) 444-3520 or at website https://navalsafetycommand.navy.mil/Media/Poster/Aviation-Posters.

10.6.4 Training and Certification

a. All personnel involved with tire and wheel servicing or maintenance must be trained and certified for the specific tire and wheel servicing and maintenance tasks they perform. Training and

certification will be documented on the applicable Tire and Wheel Maintenance Qualification and Certification form (Figures 10.6-1 through 10.6-5).

b. Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements - O-Level (Figure 10.6-1) lists the minimum training and certification requirements for O-Level aircraft tire and wheel maintenance.

c. Support Equipment and Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements - O-Level (Figure 10.6-2) lists the minimum training and certification requirement for O-Level SE or AWSE tire and wheel maintenance.

d. Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements - I-Level (Figure 10.6-3) lists the minimum training and certification requirements for I-Level aircraft tire and wheel maintenance, as applicable to the T/M/S supported.

e. Support Equipment and Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level (Figure 10.6-4) lists the minimum training and certification requirements for I-Level SE or AWSE tire and wheel maintenance, as applicable to the equipment supported.

NOTES: 1. After initial I-Level certification is completed, the Supplemental Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements I-Level (Figure 10.6-5) will be used to document training and certification on additional T/M/S or part number aircraft tires and wheels.

2. Personnel certified as a Tire and Wheel technician on the same T/M/S aircraft, SE or AWSE by a previous command may be certified by their new command if they complete the required reading, demonstrate practical proficiency to a certified Quality Assurance Representative (QAR) or Collateral Duty Quality Assurance Representative (CDQAR) and complete the applicable test. All other sections on the Qualification and certification form will be annotated "Previously complied with at (command)" and the previous command certification records will be retained in the individual's qualification/certification record or in ASM.

f. Tire and wheel maintenance training will emphasize the hazards associated with servicing and maintaining tire and wheel assemblies, to include proper procedures for inflating or deflating assemblies, handling and protecting bearings, and the hazards associated with handling beryllium (if applicable). O-Level and I-Level personnel must receive annual refresher training in tire and wheel maintenance hazards.

g. Supply Department personnel who handle tires and wheels must be trained on the hazards and safety procedures associated with handling inflated and deflated tire and wheel assemblies and components containing beryllium.

h. Tire and wheel training and certification documentation will be filed in each member's Individual Qualification and Certification record per paragraph 10.1. Personnel recertified based on training at a previous command must keep their original qualification package on file along with their current command qualification and certification record.

10.6.5 Responsibilities

10.6.5.1 Type Wing (Navy) and Marine Corps Training and Education Command (TECOM)

Navy Type Wings must publish local command procedures (LCP) per Appendix D with an O-Level tire and wheel maintenance training and testing syllabus tailored for each T/M/S aircraft maintained. TECOM must establish the standard training and testing syllabus within the Aviation Maintenance and Supply Training and Readiness Program (AMSTRP). The syllabus must contain the minimum requirements from (Figures 10.6-1 and 10.6-2). Testing must include an open book written test (minimum passing score is 90 percent) with emphasis on safety requirements and a practical proficiency demonstration examination.

10.6.5.2 Maintenance Officer (MO)

a. Designate a certified tire and wheel individual as the Tire and Wheel Maintenance Safety Program Manager per 10.1.2.9.

(1) Activities performing O-Level aircraft tire and wheel servicing or maintenance must designate an Aircraft Tire and Wheel Maintenance Safety Program Manager.

(2) Activities performing O-Level SE or AWSE tire and wheel servicing or maintenance must designate an SE and AWSE Tire and Wheel Maintenance Safety Program Manager.

(3) I-Level activities performing tear down and buildup of aircraft, SE, and AWSE wheel assemblies must designate an Aircraft Tire and Wheel Maintenance Safety Program Manager and an SE and AWSE Tire and Wheel Maintenance Safety Program Manager per 10.1.2.9.

NOTE: The Aircraft Tire and Wheel Maintenance Safety Program Manager and the SE and AWSE Tire and Wheel Maintenance Safety Program Manager may be the same individual, provided they are certified in each area.

b. (O-Level) Publish an LCP per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for tire and wheel maintenance safety not addressed in this NAMPSOP or the Type Wing and MAW LCP. O-Level LCPs will be submitted to the Type Wing and MAW for consideration of incorporation in the Wing LCP.

c. (I-Level) Publish an LCP per Appendix D specific to the type of tire and wheel maintenance being performed, with a training syllabus for each T/M/S aircraft, SE, or AWSE supported that contains, as a minimum, all requirements of (Figures 10.6-3 and 10.6-4).

d. Certify personnel who have completed tire and wheel maintenance requirements in writing using (Figures 10.6-1 through 10.6-4). O-Level and I-Level MOs may not delegate this authority.

10.6.5.3 Supply Officer

The Supply Officer will verify supply personnel who handle tires and wheels are trained per 10.6.4.g. Supply Departments without the required expertise to conduct training will use tire and wheel maintenance safety certified I-Level, D-level, or Naval Aviation Technical Data and Engineering Service Command (NATEC) personnel. Annual refresher training is required. Training must be documented in the Individual's Qualification and Certification record.

10.6.5.4 Tire and Wheel Maintenance Safety Program Manager

a. Be knowledgeable of the references listed in paragraph 10.6.1 applicable to the tire and wheel maintenance performed by their command, and the procedures of this NAMPSOP.

b. Perform a program audit within 60 days of assignment and annually thereafter, per 10.7.5.8.

c. Provide NAMP indoctrination and refresher training on Tire and Wheel Maintenance Safety Program per 10.1.4.7 and 10.1.4.8. Verify personnel receive Tire and Wheel Maintenance Saftey familiarization prior to performing maintenance while assigned to the work center and annually thereafter. Training must be specific to the duties the individual performs.

d. Interview personnel nominated for tire and wheel certification, prior to signing their qualification and certification form. The interview must include verification of the candidate's knowledge of all aspects of tire and wheel maintenance safety, with emphasis on hazards associated with inflating and deflating tires, procedures for handling and protecting bearings, and the hazards associated with beryllium.

e. Provide annual refresher training to certified tire and wheel maintenance personnel per paragraph 10.6.4.f.

f. Maintain a program file to include:

(1) POCs.

(2) Program correspondence and message traffic.

(3) References or cross-reference locator sheets.

(4) A current list of certified tire and wheel maintenance personnel.

(5) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit.

10.6.5.5 Quality Assurance (QA) Officer

a. Designate a certified Tire and Wheel Maintenance QAR as the Program Monitor per 10.1.2.9.

10.6.5.6 QA Tire and Wheel Maintenance Safety Program Monitor

a. Perform program audits per paragraph 10.7.5.7.

b. (I-Level) Develop an open book written exam (minimum passing score is 90 percent for aircraft tire and wheel, SE, and AWSE tire and wheel), with emphasis on safety precautions.

c. (O-Level) Use the written exam generated by the Type Wing or MAW (minimum passing score is 90 percent).

NOTE: Any QA may administer the written test, but only tire and wheel certified QARs will administer the practical proficiency exam (O and I Level).

10.6.5.7 Work Center Supervisor

a. Verify trainees have completed all required reading prior to permitting them to start tire and wheel maintenance on-job training (OJT).

b. Verify personnel have been trained and certified prior to assignment to independently perform tire and wheel servicing or maintenance.

c. Periodically spot check work in progress to verify:

(1) Only certified personnel are independently performing tire and wheel maintenance.

(2) Trainees performing OJT are under the direct supervision of a certified tire and wheel maintenance technician throughout the entire maintenance evolution.

(3) Personnel are complying with tire and wheel maintenance procedures and safety precautions.

10.6.5.8 Maintenance Personnel

a. Service or perform maintenance on tire and wheel assemblies only if certified or under the direct supervision of certified tire and wheel maintenance personnel.

b. Strictly comply with tire and wheel servicing, handling, safety precautions, and maintenance procedures for the specific T/M/S aircraft, SE, or AWSE maintained.

c. Handle and protect wheel bearings per NAVAIR 01-1A-503 (aircraft) and NAVAIR 17-1-129 (SE and AWSE).

Aircraft Tire and Wheel Maintenance Qualifications and Certification Requirements – O-Level

Command: _____ W/C: _____ Date: _____
Name: _____ Rate/Rank:_____

W/C Supervisor Indoc: Signature: _____ Date: _____

1. Required Reading:

(applicable sections)	Trainee Initials	Supervisor Signature	Date
A. COMNAVAIRFORINST 4790.2	_____	_____	_____
B. OPNAVINST 5100.19, VOL I Chapters A3, B5, B6, B12	_____	_____	_____
C. M5100.23 Chapters B7, B10, B15,B19, B20	_____	_____	_____
D. NAVAIR 00-80T-96 WP 4, 5, 7	_____	_____	_____
E. NAVAIR 01-1A-20	_____	_____	_____
E. NAVAIR 01-1A-503	_____	_____	_____
F. NAVAIR 01-1A-509-2	_____	_____	_____
G. NAVAIR 04-10-1	_____	_____	_____
H. NAVAIR 04-10-506	_____	_____	_____
I. NAVAIR 04-10-508	_____	_____	_____
J. NAVAIR 17-1-123	_____	_____	_____
K. NAVAIR 17-15G-1	_____	_____	_____
L. NAVAIR 17-600-174-6-1	_____	_____	_____
M. Applicable maintenance technical manuals (List each applicable publication)	_____	_____	_____

NOTE: All required reading must be completed prior to startin

2. Completed Phase I and Phase II SE license training for Nitrogen Servicing Equipment:

Phase I Completion Date: _____ Phase II Completion Date: _____

3. OJT: A technician certified in tire and wheel maintenance will sign off and date each area of OJT each time the individual performs a task under supervision (applicable for A. through I.).

NOTE: Each OJT area requires a minimum of three tasks for each T/M/S

	Signature	Date
A. (T/M/S)_____Nose/Tail Wheel Bearing Removal/Cleaning/Inspection/Handling/ Lubrication/Installation	_____ _____ _____	_____ _____ _____
B. (T/M/S)_____Main Mount Wheel Bearings Removal/Cleaning/Inspection/Handling/ Lubrication/Installation	_____ _____ _____	_____ _____ _____
C. (T/M/S)_____ Outrigger Wheel Bearings Removal/Cleaning/Inspection/Handling/ Lubrication/Installation	_____ _____ _____	_____ _____ _____
D. (T/M/S)_____Nose/Tail Wheel Assembly Deflation/Removal/Inspection/Handling/ Lubrication/Installation/Service	_____ _____ _____	_____ _____ _____
E. (T/M/S)_____Main Mount Wheel Assembly Deflation/Removal/Inspection/Handling/ Lubrication/Installation/Service	_____ _____ _____	_____ _____ _____
F. (T/M/S)_____Outrigger Wheel Assembly Deflation/Removal/Inspection/Handling/ Lubrication/Installation/Service	_____ _____ _____	_____ _____ _____

Figure 10.6-1 (page 1): Aircraft Tire and Wheel Maintenance Qualification and Certification

3. OJT (Cont.)

G. (T/M/S)_____Operation of Remote Inflator Assembly _____ _____
_____ _____
_____ _____

H. (T/M/S)_____Aircraft Jacking Procedures _____ _____
_____ _____
_____ _____

I. Documentation Procedures _____ _____
_____ _____
_____ _____

J. Use/Handling of Beryllium (if applicable) _____ _____
_____ _____
_____ _____

4. Certification: A QAR certified in tire and wheel maintenance will sign each area only after the individual has demonstrated proficiency and awareness of all procedures and safety precautions. One separate line for each T/M/S is required (applicable for A through J).

A. (T/M/S) _____Nose/Tail Wheel Bearings Removal/Inspection/Handling/Installation

Signature: _____ Date: _____

B. (T/M/S): _____Main Mount Wheel Bearings Removal/Inspection/Handling/Installation

Signature: _____ Date: _____

C. (T/M/S): _____Outrigger Wheel Bearings Removal/Inspection/Handling/Installation

Signature: _____ Date: _____

D. (T/M/S) _____Nose/Tail Wheel Assembly Removal/Inspection/Handling/Installation/Servicing

Signature: _____ Date: _____

E. (T/M/S): _____Main Mount Wheel Assembly Removal/Inspection/Handling/Installation/Servicing

Signature: _____ Date: _____

F. (T/M/S): _____Outrigger Wheel Assembly Removal/Inspection/Handling/Installation/Servicing

Signature: _____ Date: _____

G. (T/M/S): _____Operation of Remote Inflator Assembly

Signature: _____ Date: _____

H. (T/M/S): _____Aircraft Jacking Procedures

Signature: _____ Date: _____

I. Documentation Procedures

Signature: _____ Date: _____

J. Use/Handling of Beryllium Assemblies (if applicable)

Signature: _____ Date: _____

WRITTEN TEST SCORE (Minimum 90 percent): _____

QAR/QA Specialist _____Date: _____

Figure 10.6-1 (page 2): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

Program Manager Recommendation

Program Manager Signature: _____ Date: _____

This is to certify: _____ has Successfully completed all established requirements for aircraft tire and wheel tear down and build-up and is qualified to perform tire and wheel servicing and handling on:

_____ (T/M/S) (Main/Nose/Tail/ Outrigger Assy)	_____ (MO Initials)	_____ (T/M/S) (Main/Nose/Tail Outrigger Assy)	_____ (MO Initials)
_____ (T/M/S) (Main/Nose/Tail/ Outrigger Assy)	_____ (MO Initials)	_____ (T/M/S) (Main/Nose/Tail Outrigger Assy)	_____ (MO Initials)
_____ (T/M/S) (Main/Nose/Tail/ Outrigger Assy)	_____ (MO Initials)	_____ (T/M/S) (Main/Nose/Tail Outrigger Assy)	_____ (MO Initials)

MO Signature: _____ Date: _____

Original to : Individual's Qualification/Certification Record

Figure 10.6-1 (page 3): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

Support Equipment and Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

Command: _____ W/C: _____ Date: _____
Name: _____ Rate/Rank:_____

W/C Supervisor Indoc: Signature: _____ Date: _____

1. Required Reading:

(applicable sections)	Trainee Initials	Supervisor Signature	Date
A. COMNAVAIRFORINST 4790.2	_____	_____	_____
B. OPNAVINST 5100.19, VOL I Chapters A3, B5, B6, B12	_____	_____	_____
C. M5100.23 Chapters B7, B10, B15,B19, B20	_____	_____	_____
D. NAVAIR 00-80T-96	_____	_____	_____
E. NAVAIR 01-1A-20	_____	_____	_____
F. NAVAIR 17-1-123	_____	_____	_____
G. NAVAIR 17-1-125	_____	_____	_____
H. NAVAIR 17-1-129	_____	_____	_____
I. NAVAIR 17-600-174-6-1	_____	_____	_____
J. NAVAIR 01-1A-503	_____	_____	_____
K. NAVAIR 01-1A-509-2	_____	_____	_____
L. Applicable maintenance technical manuals (List each applicable publication)	_____	_____	_____

NOTE: All required reading must be completed prior to starting OJT.

2. Completed Phase I and Phase II SE license training for Nitrogen Servicing Equipment:

NOTE: Not required for AWSE qualifications and certifications.

Phase I Completion Date: _____ Phase II Completion Date: _____

3. OJT: A technician certified in tire and wheel maintenance will sign off and date each area of OJT each time the individual performs a task under supervision (applicable for A. through H.).

NOTE: Each OJT area requires a minimum of three tasks for each type assembly.

	Signature	Date
A. Bearings Removal/Cleaning/Inspection/ Handling/Lubrication/Installation (if applicable)	_____	_____
	_____	_____
	_____	_____
B. Solid Rim Deflation/Removal/Replacement/Service	_____	_____
	_____	_____
	_____	_____
C. Split Rim Deflation/Removal/Replacement/Service	_____	_____
	_____	_____
	_____	_____
D. Demountable Flange Deflation/Removal/Inspection/ Service	_____	_____
	_____	_____
	_____	_____
E. SD-2 Spotting Dolly Deflation/Removal/ Replacement/Service (if applicable)	_____	_____
	_____	_____
	_____	_____

Figure 10.6-2 (page 1): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

3. OJT (Cont.)

F. Operation of Nitrogen/Air Servicing Equipment/Remote Inflator Assembly (if applicable)	_____	_____
	_____	_____
	_____	_____
G. Equipment Jacking Procedures	_____	_____
	_____	_____
	_____	_____
H. Documentation Procedures	_____	_____
	_____	_____
	_____	_____

4. Certification: A QAR certified in tire and wheel maintenance will sign each area only after the individual has demonstrated proficiency and awareness of all procedures and safety precautions. One separate line for each type assembly required (applicable for A through H)

A. Bearing Removal/Cleaning/Inspection/Handling/Lubrication/Installation (if applicable)

Signature: _____ Date: _____

B. Solid Rim Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

C. Split Rim Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

D. Demountable Flange Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

E. SD-2 Spotting Dolly Deflation/Removal/Replacement/Service (if applicable)

Signature: _____ Date: _____

F. Operation of Nitrogen/Air Servicing Equipment/Remote Inflator Assembly (if applicable)

Signature: _____ Date: _____

G. Equipment Jacking Procedures

Signature: _____ Date: _____

H. Documentation Procedures

Signature: _____ Date: _____

WRITTEN TEST SCORE (Minimum 90 percent): _____

QAR Signature: _____ Date: _____

Figure 10.6-2 (page 2): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

Program Manager Recommendation

Program Manager Signature: _____ Date:_____

This is to certify: _____ has successfully completed all established requirements for Support Equipment or Armament Weapons Support Equipment tear down and build-up and is qualified to perform tire and wheel servicing and handling on:

_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)
_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)
_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)

MO Signature: _____ Date: _____

Original to : Individual's Qualification/Certification Record

Figure 10.6-2 (page 3): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – O-Level

Aircraft Tire and Wheel Maintenance Qualifications and Certification Requirements – I-Level

Command: _____ W/C: _____ Date: _____
Name: _____ Rate/Rank:_____

W/C Supervisor Indoc: Signature: _____ Date: _____

1. Required Reading:

(applicable sections)	Trainee Initials	Supervisor Signature	Date
A. COMNAVAIRFORINST 4790.2	_____	_____	_____
B. OPNAVINST 5100.19, VOL I Chapters A3, B5, B6, B12	_____	_____	_____
C. M5100.23 Chapters B7, B10, B15,B19, B20	_____	_____	_____
D. NAVAIR 00-80T-96 WP 4, 5, 7	_____	_____	_____
E. NAVAIR 01-1A-20	_____	_____	_____
E. NAVAIR 01-1A-503	_____	_____	_____
F. NAVAIR 01-1A-509-2	_____	_____	_____
G. NAVAIR 04-10-1	_____	_____	_____
H. NAVAIR 04-10-506	_____	_____	_____
I. NAVAIR 04-10-508	_____	_____	_____
J. NAVAIR 17-1-123	_____	_____	_____
K. NAVAIR 17-15G-1	_____	_____	_____
L. NAVAIR 17-600-174-6-1	_____	_____	_____
M. NAVAIR 19-1-55	_____	_____	_____
N. NAVAIR AG-200-GT-TIC-MRC-000	_____	_____	_____
O. Applicable maintenance technical manuals (List each applicable publication)	_____	_____	_____

NOTE: All required reading must be completed prior to starting OJT.

2. Completed Phase I and Phase II SE license training for Nitrogen Servicing Equipment:

Phase I Completion Date: _____ Phase II Completion Date: _____

3. OJT: A technician certified in tire and wheel maintenance will sign off and date each area of OJT each time the individual performs a task under supervision (applicable for A. through I.).

NOTE: Each OJT area requires a minimum of three tasks for each T/M/S

	Signature	Date
A. (P/N)_____Tire/Wheel Assembly	_____	_____
Bearing Removal/Cleaning/Inspection	_____	_____
Lubrication/Installation	_____	_____
B. (P/N)_____Tire/Wheel Assembly	_____	_____
Tear Down/Build-Up	_____	_____
	_____	_____
C. (P/N)_____Tire/Wheel Assembly	_____	_____
Bearings Removal/Cleaning/Inspection	_____	_____
Lubrication/Installation	_____	_____
D. (P/N)_____Tire/ Wheel Assembly	_____	_____
Tear Down/Build-Up	_____	_____
	_____	_____
E. Use of Bead Breaker (if applicable)	_____	_____
	_____	_____
	_____	_____

Figure 10.6-3 (page 1): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

3. OJT (Cont.)

F. Use of Inflation Cage _____ _____
_____ _____
_____ _____

G. Operations of Ship's Nitrogen Servicing Equipment/ _____ _____
Remote Inflator/Monitor Assembly _____ _____
_____ _____

H. Documentation Procedures _____ _____
_____ _____
_____ _____

I. Use/Handling of Beryllium (if applicable) _____ _____
_____ _____
_____ _____

4. Certification: A QAR, certified in tire and wheel maintenance, will sign each area only after the individual has demonstrated proficiency and awareness of all procedures and safety precautions. One separate line for each T/M/S is required (applicable for A through I).

A. (P/N) _____ Tire/Wheel Assembly Bearings Removal/Cleaning/Inspection/Lubrication

Signature: _____ Date: _____

B. (P/N): _____ Tire/Wheel Assembly Tear Down/Build-Up

Signature: _____ Date: _____

C. (P/N): _____ Tire/Wheel Assembly Bearings Removal/Cleaning/Inspection/Lubrication

Signature: _____ Date: _____

D. (P/N) _____ Tire/Wheel Assembly Tear Down/Build-Up

Signature: _____ Date: _____

E. Use of Bead Breaker (if applicable)

Signature: _____ Date: _____

F. Use of Inflation Cage

Signature: _____ Date: _____

G. Operation of Nitrogen Servicing Equipment/Remote Inflator/Monitor Assembly

Signature: _____ Date: _____

H. Documentation Procedures

Signature: _____ Date: _____

I. Use/Handling of Beryllium Assemblies (if applicable)

Signature: _____ Date: _____

WRITTEN TEST SCORE (Minimum 90 percent): _____

QAR: _____ Date: _____

Figure 10.6-3 (page 2): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

Program Manager Recommendation

Program Manager Signature: _____ Date:_____

This is to certify: _____ has Successfully completed all established requirements for aircraft tire and wheel tear down and build-up and is qualified to perform tire and wheel servicing and handling on:

_____	_____	_____	_____
(P/N Tire/Wheel Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)
_____	_____	_____	_____
(P/N Tire/Wheel Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)

MO Signature: _____ Date: _____

Original to : Individual's Qualification/Certification Record

Figure 10.6-3(page 3): Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

Support Equipment and Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

Command: _____ W/C: _____ Date: _____
Name: _____ Rate/Rank:_____

W/C Supervisor Indoc: Signature: _____ Date: _____

1. Required Reading:

(applicable sections)	Trainee Initials	Supervisor Signature	Date
A. COMNAVAIRFORINST 4790.2	_____	_____	_____
B. OPNAVINST 5100.19, VOL I Chapters A3, B5, B6, B12	_____	_____	_____
C. M5100.23 Chapters B7, B10, B15,B19, B20	_____	_____	_____
D. NAVAIR 00-80T-96	_____	_____	_____
E. NAVAIR 01-1A-20	_____	_____	_____
F. NAVAIR 17-1-123	_____	_____	_____
G. NAVAIR 17-1-125	_____	_____	_____
H. NAVAIR 17-1-129	_____	_____	_____
I. NAVAIR 17-600-174-6-1	_____	_____	_____
J. NAVAIR 19-1-55	_____	_____	_____
K. NAVAIR AG-200-GT-TIC-MRC-000	_____	_____	_____
L. Applicable maintenance technical manuals (List each applicable publication)	_____	_____	_____

NOTE: All required reading must be completed prior to starting OJT.

2. Completed Phase I and Phase II SE license training for Nitrogen Servicing Equipment:

NOTE: Not required for AWSE qualifications and certifications.

Phase I Completion Date: _____ Phase II Completion Date: _____

3. OJT: A technician certified in tire and wheel maintenance will sign off and date each area of OJT each time the individual performs a task under supervision (applicable for A. through J.).

NOTE: Each OJT area requires a minimum of three tasks for each type assembly

	Signature	Date
A. Bearings Removal/Cleaning/Inspection/ Handling/Lubrication/Installation (if applicable)	_____	_____
	_____	_____
	_____	_____
B. Tear Down/Build-Up Inflation of Solid Rim Assembly	_____	_____
	_____	_____
	_____	_____
C. Tear Down/Build-Up Inflation of Split Rim Assembly	_____	_____
	_____	_____
	_____	_____
D. Tear Down/Build-Up Inflation of Demountable Flange Assembly	_____	_____
	_____	_____
	_____	_____
E. Tear Down/Build-Up Inflation of SD-2 Spotting Dolly (if applicable)	_____	_____
	_____	_____
	_____	_____

Figure 10.6-4 (page 1): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

3. OJT (Cont.)

F. Use of Bead Breaker (if applicable) _____ _____
_____ _____
_____ _____

G. Use of Inflation Cage _____ _____
_____ _____
_____ _____

H. Operation of Nitrogen/Air Servicing Equipment Remote Inflator Assembly _____ _____
_____ _____
_____ _____

I. Jacking Procedures _____ _____
_____ _____
_____ _____

J. Documentation Procedures _____ _____
_____ _____
_____ _____

4. Certification: A QAR, certified in tire and wheel maintenance, will sign each area only after the individual has demonstrated proficiency and awareness of all procedures and safety precautions.

A. Bearing Removal/Cleaning/Inspection/Lubrication/Installation (if applicable)

Signature: _____ Date: _____

B. Solid Rim Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

C. Split Rim Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

D. Demountable Flange Deflation/Removal/Replacement/Service

Signature: _____ Date: _____

E. SD-2 Spotting Dolly Deflation/Removal/Replacement/Service (if applicable)

Signature: _____ Date: _____

F. Use of Bead Breaker (if applicable)

Signature: _____ Date: _____

G. Use of Inflation Cage

Signature: _____ Date: _____

H. Operation of Nitrogen/Air Servicing Equipment/Remote Inflator Assembly

Signature: _____ Date: _____

I. Jacking Procedures

Signature: _____ Date: _____

J. Documentation Procedures

Signature: _____ Date: _____

WRITTEN TEST SCORE (Minimum 90 percent): _____

QAR/QA Specialist _____ Date: _____

Figure 10.6-4 (page 2): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

Program Manager Recommendation

Program Manager Signature: _____ Date:_____

This is to certify: _____ has successfully completed all established requirements for Support Equipment or Armament Weapons Support Equipment tear down and build-up and is qualified to perform tire and wheel servicing and handling on:

_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)
_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)
_____	_____	_____	_____
(Type Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)

MO Signature: _____ Date: _____

Original to: Individual's Qualification/Certification Record

Figure 10.6-4 (page 3): Support Equipment/Armament Weapons Support Equipment Tire and Wheel Maintenance Qualification and Certification Requirements – I-Level

SUPPLEMENTAL TIRE AND WHEEL CERTIFICATION

1. Required Reading:

(applicable sections)	**Trainee Initials**	**Supervisor Signature**	**Date**

2. OJT: A certified technician will sign off and date each area of OJT each time the individual performs a task under supervision (applicable for A and B).

NOTE: Each OJT area requires a minimum of three tasks for each P/N.

A. (P/N) _____ Tire/Wheel Assembly BearingsRemoval/Cleaning/Inspection Lubrication/Installation		
B. (P/N) _____ Tire/Wheel Assembly Tear Down/Build-Up		

3. Certification: A QAR or QA Specialist certified in tire and wheel maintenance will sign each area only after the individual has demonstrated proficiency and awareness of all procedures and safety precautions.

A. (P/N) _____ Tire/Wheel Assembly Bearings Removal/Cleaning/Inspection/Lubrication

Signature: _____ Date: _____

B. (P/N) _____ Tire/Wheel Assembly Te Tire/Wheel Assembly Tear Down/Build-Up

Signature: _____ Date: _____

Program Manager Recommendation

Program Manager Signature: _____ Date: _____

This is to certify: _____ has successfully completed all established requirements for aircraft tire and wheel tear down and build-up and is qualified to perform tire and wheel

_____	_____	_____	_____
(P/N Tire/Wheel Assembly)	(MO Initials)	(Type Assembly)	(MO Initials)

MO or FRC _____ Date: _____

Original to: Individual's Qualification/Certification Record

Figure 10.6-5: Supplemental Aircraft Tire and Wheel Maintenance Qualification and Certification Requirements - I-Level

10.7 NAMP Compliance Auditing (NAMPSOP)

10.7.1 Introduction

This NAMPSOP directs requirements for Organizational Level (O-Level) and Intermediate Level (I-Level) Navy and Marine Corps aviation maintenance activities to audit NAMP policy compliance.

NOTE: For Depot NAMP Compliance Auditing see Chapter 12.

10.7.2 Definitions

a. Auditors. Auditors are responsible for verifying compliance by thoroughly examining aircraft, engines, engine modules, equipment, records, documentation, and personnel involved in the process. The key factors to the effectiveness of an audit are the auditor's knowledge of the process inspected, attention to detail, and sampling a sufficient percentage of the aircraft, equipment, records, and personnel involved.

b. Program. Program is used to describe maintenance processes which have standard operating procedures. Figure 10.7-1 lists programs audited by O-Level and I-Level activities.

c. Area. Area is used to describe maintenance and administrative procedures within chapters of the policy document.

d. Computerized Self Evaluation Checklist (CSEC). CSEC is the standardized list of questions and references for conducting NAMP Compliance Audits. The CSEC also serves as the database for collecting and tracking discrepancy and corrective action data.

NOTE: CSEC questions may not list every required action of the referenced policy document. Program Managers and QAR Program Monitors must be familiar with all program requirements.

(1) The CSEC database is divided into three categories of inspecting activities: Aviation Maintenance Management Team (AMMT), Wing (Type Wing/Marine Air Wing), and Activity.

(a) The AMMT database is used by COMNAVAIRFOR and COMNAVAIRSYSCOM AMMTs when conducting Aviation Maintenance Inspections (AMI) and Maintenance Program Assessments (MPA).

(b) The Wing database is used by Type Wings and Marine Aircraft Wings (MAWs) when conducting MPAs.

(c) The Activity database is used by activities when auditing programs and individual work centers.

(2) COMNAVAIRFOR N422C NAMP Inspections and Compliance is the lead for the O-Level and I-Level CSEC. NAVAIR ACCO AMMT is the lead for the D-Level CSEC. CSECs can be downloaded from the NAVAIR website at: (https://myteam.navair.navy.mil/KM/60/business-processes/resource-management-and-adminstration-processes/NAMP).

e. Discrepancies recognized during audits are classified as follows:

(1) Short-term. Discrepancies identified which can be resolved within 10 working days.

(2) Long-term. Discrepancies identified, which cannot be resolved within 10 working days. These discrepancies require a corrective action plan approved by the QAS or QAO and will be tracked on the QA Discrepancy Tracker (Figure 10.7-2).

10.7.3 Audit Categories

a. Program Manager audits are in-depth inspections performed by the designated Program Manager to assess compliance throughout the activity.

b. Quality Assurance (QA) audits are random sample inspections performed by the designated QA Representative (QAR) Program Monitor to determine compliance with select NAMP programs.

c. Work Center audits are inspections performed jointly by the Division Officer and the Division or Branch Chief to assess individual work centers for:

(1) Correct manning per the authoritative manpower document.

(2) Adequate numbers of certified or designated personnel assigned to accomplish the workload, for example; Collateral Duty Quality Assurance Representatives (CDQAR), Collateral Duty Inspectors (CDI), and Plane Captains.

(3) Adequate material condition of equipment, tools, and facilities.

(4) Compliance with maintenance safety requirements and Safety and Occupational Health regulations.

(5) Cleanliness and condition of workspaces.

(6) Compliance with basic NAMP policies applicable to the work center, for example, tool container inventories, electrostatic discharge (ESD) and hydraulic contamination prevention measures on uninstalled components, and correct use of personal protective equipment (PPE).

d. Special audits are Maintenance Officer directed unscheduled inspections performed to investigate suspected non-compliance with specific programs or processes as a result of trend analysis.

10.7.4 Requirements

a. O-Level and I-Level activities must conduct QA audits for applicable programs (Figure 10.7-1) at least once every 12 months.

b. The most current version of the CSEC will be used for conducting audits. Type Wing or MAW Supplemental CSECs will be used, if applicable.

c. Auditors are responsible for verifying compliance by thoroughly examining aircraft, engine, engine modules, equipment, records, documentation, and personnel involved in the process.

d. Audit discrepancies must be entered in the QA CSEC database at the completion of the audit.

e. The Program Manager will lead the corrective action process for managed programs and QA audit discrepancies until corrective action is complete.

f. The Division Officer or Division Chief will lead the corrective action process for all work center audit discrepancies until corrective actions are complete. Short-term discrepancies will be tracked by the Division Officer or Division Chief. Long-term discrepancies will be tracked per 10.7.4.g.

g. Only long-term discrepancies will be briefed to QA and added to the QA Discrepancy Tracker (Figure 10.7-2). The QA Discrepancy Tracker may be maintained as an electronic or paper file in any format QA deems most efficient.

h. Activities will seek initial NAMP related guidance from their ISIC prior to contacting TYCOM.

10.7.5 Responsibilities

10.7.5.1 COMNAVAIRSYSCOM

a. (Production Support Branch) Maintain the CSEC software and core question database on the NAVAIR SharePoint site.

b. (Aviation Maintenance Management branch) Approve changes to the CSEC used by D-Level activities.

10.7.5.2 COMNAVAIRFOR N422C

a. Approve changes to the O-Level and I-Level CSEC.

b. Update the O-Level and I-Level CSEC database no later than the first week of January, April, July, and October.

10.7.5.3 Type Wings and Marine Air Wings

Publish CSEC supplemental questions if needed to address requirements specific to the type of aircraft maintained or unique processes covered by Wing LCPs.

10.7.5.4 Maintenance Officer

a. Designate a Program Manager for each applicable program (Figure 10.7-1) per 10.1.2.9. If a specific billet is not designated as the Program Manager in the figure or in the applicable NAMPSOP, the MO will designate the individual whose rate or experience best qualifies them to be a Program Manager.

b. Review the results of Program Manager audits and QA audits to include direction on corrective actions.

c. Approve work center audit schedules received from Division Officers.

d. Review of Division Officer work center audits is optional, provided all long-term work center audit discrepancies are added to the QA Discrepancy Tracker.

e. Review QA Discrepancy Tracker to ensure corrective action plans effectively address the root cause of the discrepancies to ensure timely and sustainable compliance results.

f. Direct special audits when deemed necessary. The MO will specify the scope of the special audit and who will conduct it.

g. Publish an LCP per Appendix D if required, to specify command-specific audit procedures not addressed in this NAMPSOP. Squadron LCPs will be submitted to the Type Wing or MAW for consideration of developing a Wing LCP.

10.7.5.5 Quality Assurance Officer (QAO)

a. Designate a qualified QAR as Program Monitor for each applicable program (Figure 10.7-1) per 10.1.2.9. If Program Monitor qualifications are specified in the applicable Chapter 10 NAMPSOP, the QAR must meet the qualifications prior to being designated as the Program Monitor. If the applicable NAMPSOP does not specify Program Monitor qualifications, the QAR whose Navy rate/Marine Corps MOS and experience best qualifies them to audit the program will be designated.

b. Brief the MO on the status of the QA Discrepancy Tracker (Figure 10.7-2) each month. The brief will cover discrepancies corrected since the last brief and the status of uncorrected discrepancies.

c. At the completion of audits, make determination if audit discrepancies are either short or long-term discrepancies defined in 10.7.2 and brief Program Managers on corrective action timelines.

d. Route Program Manager and QA audits to the MO with quantifying information on outstanding discrepancies to include timelines for corrective actions.

e. Forward current outstanding and overdue discrepancies from the QA Discrepancy Tracker for inclusion into the MMP.

10.7.5.6 Quality Assurance Supervisor (QAS)

a. The QAS or activity equivalent will perform duties as the Program Manager for NAMP Compliance Auditing and will assess compliance with the procedures of this NAMPSOP within 60 days of designation.

b. Provide general audit requirements during initial indoctrination training per 10.1.4.7.

c. Train Program Managers, Program Monitors, Division Officers, Division Chiefs, and Work Center Supervisors on the requirements of the NAMP Compliance Auditing Program upon their assignment. Training will include:

(1) Auditing responsibilities.

(2) A review of previous audits for common problem areas.

(3) Procedures for entering data in the CSEC and printing audit reports.

(4) AMMT tools and AMI grading criteria.

d. Maintain the QA CSEC database on a QA Division computer.

e. Check for an updated CSEC the second week of January, April, July, and October. Download the updated CSEC and distribute copies of applicable sections to designated Program Managers as required.

f. Coordinate the auditing schedule with Program Managers and publish an annual schedule of QA audits in January of each year.

g. Track the completion of audits and verify results are entered in the CSEC database.

h. Review discrepancies in QA audits and special audits for indications of poor quality or unsafe maintenance practices. Provide corrective action recommendations to the QAO to address the root cause of the discrepancy, improve quality and prevent recurrence.

i. Route completed Program Manager, QA audits and special audits to the MO, via the QAO. When returned from the MO, brief and provide copies of the audit to the designated Program Manager.

j. Maintain the last three QA audits (electronic or hardcopy) on file. The audit file must include, at a minimum, the completed CSEC discrepancy sheets, corrective actions, and accompanying routing forms.

k. Manage the QA Discrepancy Tracker (Figure 10.7-2) and route the outstanding and overdue discrepancies to the MO via the QAO for inclusion into the MMP.

l. Maintain a program file to include:

(1) POCs.

(2) Program related correspondence and message traffic.

(3) References or cross-reference locator sheets.

(4) Initial and most current CSEC audit.

10.7.5.7 Program Monitors

a. Be thoroughly familiar with the policy and procedures applicable to their program.

b. Perform the annual QA audit for designated programs per Figure 10.7-1. The audit will include at least 25% of the population of aircraft, engines, engine modules, equipment, records, documentation and personnel involved in the process. If a program affects multiple divisions, the sample must involve each division responsible for compliance.

c. Upon assignment, review the discrepancy tracker and previous audits for the programs assigned for trends or outstanding discrepancies.

d. For QA audited programs, accompany new Program Managers during their first Program Manager audit and provide training on policy requirements and auditing techniques. The training session may be used as the QA annual audit.

10.7.5.8 Program Managers

a. Be thoroughly familiar with the policy applicable to their programs and the references cited in each CSEC question.

b. Review previous Program Manager audits and QA audits to identify contributing factors to common recurring discrepancies.

c. Upon designation, complete an initial audit within 60 days and annually thereafter. The following is required:

(1) If the program is also a QA audited program, the designated QA Program Monitor will accompany and provide training to the Program Manager during the initial program audit per 10.7.5.7.d.

(2) The initial audit must examine at least 25% of the population of aircraft, equipment, records, documentation, and personnel involved in the process.

(3) After the 60 day timeframe has elapsed, the Program Manager will brief the QAS on program status and all outstanding discrepancies. QA will add all remaining discrepancies to the QA Discrepancy Tracker.

NOTE: The 60 day timeframe allots for the completion of the look portion of the audit and corrective action on all short-term discrepancies. The initial Program Manager audit will be routed to the MO with quantifying information on outstanding discrepancies to include timelines for corrective actions.

d. The annual audit must examine at least 50% of the population of aircraft, engines, engine modules, equipment, records, documentation, and personnel involved in the process. Workload permitting, 100% of the process should be covered. The annual Program Manager audit is most effective when the audit is divided into segments over the course of the year from completion of the initial audit. For example, the Logs and Records Program Manager for a squadron with 12 aircraft should examine three different logbooks per quarter in order to achieve 100% coverage of the annual audit.

e. Maintain the initial and most current CSEC audit (electronic or hardcopy) in the program file. The audit file must include, at a minimum, the completed CSEC discrepancy sheets, corrective actions, and accompanying routing forms.

f. Notify Division Officers and Division Chiefs of program discrepancies identified and lead the completion of corrective actions.

g. Provide Division Officers and Division Chiefs with training on the critical program requirements to inspect during work center audits.

h. If program assistance external to the command is required, inform the ISIC for situational awareness prior to requesting assistance from experts outside the immediate Chain of Command.

10.7.5.9 Division Officers and Division or Branch Chiefs

a. Within 30 days of assignment, jointly review the most current work center audit discrepancies and corrective actions.

b. Route a work center audit schedule to the MO for approval within 30 days of assignment to ensure all work center audits are completed within a 12 month timeframe. Publish schedule in the MMP to inform the work centers involved.

c. Jointly perform a work center audit of each division work center at least once every 12 months.

d. Direct and track corrective action for work center audit discrepancies, Program Manager and QA Audits. Ensure outstanding long-term discrepancies are routed to QA for inclusion into the discrepancy tracker.

e. Maintain a file of the last two work center audits (electronic or hardcopy). The audit file must include, at a minimum, the completed CSEC discrepancy sheets, corrective actions, and accompanying routing forms.

10.7.5.10 Work Center Supervisors

a. Within 30 days of assignment and annually thereafter, perform an internal work center review utilizing CSEC to assess compliance with applicable programs.

b. Review the work center CSEC discrepancies with Division Officer and Division or Branch Chief within 10 working days.

		Applicable To			
CSEC Area	Program Title	O	I	Program Audit	QA Audit
200	Maintenance In-Service Training	X	X	Program Manager	N/A
300	Fuel Surveillance	X	X	Program Manager	Program Monitor
400	Navy Oil Analysis Program (NOAP) and Oil Consumption Monitoring	X	X	Program Manager	Program Monitor
500	Aviators Breathing Oxygen (ABO) Surveillance	X	X	Program Manager	Program Monitor
600	Hydraulic Contamination Control	X	X	Program Manager	Program Monitor
700	Tire and Wheel Maintenance Safety	X	X	Program Manager	Program Monitor
800	Quality Assurance	X	X	QA Supervisor	QA Officer
900	Maintenance Department Safety Program	X	X	QA Supervisor	QA Officer
1000	Naval Aviation Maintenance Discrepancy Reporting Program	X	X	QA Supervisor	N/A
1100	Aircraft Confined Space Program (ACSP)	X	X	Program Manager	Program Monitor
1200	Foreign Object Damage (FOD) Prevention	X	X	Program Manager	Program Monitor
1300	Tool Control	X	X	MCO	Program Monitor
1400	Corrosion Prevention and Control	X	X	Program Manager	Program Monitor
1500	Plane Captain Qualification	X		Program Manager	Program Monitor
1600	Egress and Explosive Systems Checkout	X		Program Manager	Program Monitor
1700	Support Equipment Operator Training and Licensing	X	X	AMO	N/A
1800	Support Equipment Maintenance	X	X	MMCO	N/A
1900	Technical Data Management	X	X	TDM	Program Monitor
2000	Naval Aviation Metrology and Calibration	X	X	Program Manager	Program Monitor
2100	Nondestructive Inspection (NDI)	X	X	Program Manager	Program Monitor
2200	Hazardous Material Control and Management	X	X	Program Manager	Program Monitor
2300	IMA Component Repair Optimization		X	Program Manager	N/A
2400	Electrostatic Discharge (ESD) Protection / Electromagnetic Interference (EMI) Reporting	X	X	Program Manager	Program Monitor
2500	Miniature/Microminiature (2M)		X	Program Manager	Program Monitor
2600	Technical Directive (TD) Compliance	X	X	MMCO / PCO	N/A
2700	Electrical Wiring Interconnect System (EWIS)	X		Program Manager	Program Monitor
2800	Manpower Management	X	X	AMO	N/A

Figure 10.7-1 (page 1): O-Level and I-Level NAMP Compliance Audits

		Applicable To			
CSEC Area	Program Title	O	I	Program Audit	QA Audit
2900	Maintenance Control	X		MMCO / PCO	N/A
3000	Production Control		X	MMCO / PCO	N/A
3100	Weight and Balance	X		MMCO	N/A
3200	Aircraft Performance Automated Trending and Analysis (ATA)	X	X	MO Designated	N/A
3300	Logs and Records	X	X	MMCO / PCO	N/A
3400	Phase Maintenance	X		MMCO / PCO	N/A
3600	Data Analysis	X	X	MMCO / PCO	N/A
3700	Material Control	X	X	MMCO / PCO	N/A
3800	Aircraft Maintenance Material Readiness List (AMMRL)	X	X	Program Manager	N/A
3900	Vibration Analysis	X		Program Manager	Program Monitor
4000	Aircraft Engine/APU Turn-up Licensing	X		Program Manager	Program Monitor
4100	Gas Turbine Engine Maintenance		X	Program Manager	Program Monitor
4200	Gas Turbine Engine Test Facility Operation and Maintenance		X	Program Manager	Program Monitor
4300	Aerial Refueling Stores (ARS)	X	X	Program Manager	Program Monitor
4400	Aeronautical Equipment Welder		X	Program Manager	Program Monitor
4500	Battery Maintenance Safety	X	X	Program Manager	Program Monitor
4600	Aircraft Compass Calibration	X		Program Manager	Program Monitor
4700	Laser Hazard Control	X	X	Program Manager	Program Monitor
4800	NOMP AWCAP	X	X	Program Manager	Program Monitor
4900	Explosives Handling Personnel Qualification and Certification	X	X	Program Manager	Program Monitor
5000	Aircraft Armament Systems (AAS)	X	X	Program Manager	Program Monitor
5100	Armament Weapons Support Equipment (AWSE)		X	Program Manager	Program Monitor
5200	Aviation Life Support Systems (ALSS)	X	X	Program Manager	Program Monitor
5300	Aircraft Survivability Equipment	X		Program Manager	Program Monitor
5500	Mobile Facilities		X	Program Manager	N/A
5600	CDI Evaluation	X	X	N/A	Program Monitor
5700	Plane Captain Practical Examination	X		N/A	Program Monitor
5800	Hydraulic Contamination Periodic (Monitor)	X	X	N/A	Program Monitor
31000	AIRSpeed		X	Program Manager	N/A

NOTES: 1. Program Audits designated as a responsibility of the AMO, MMCO, or PCO may be delegated to other personnel. Delegation does not relieve the AMO/MMCO/PCO of responsibility to review the audit, sign off completion and track discrepancy correction.

2. PCO is equivalent to the MMCO for the Marine Corps per 1.2.3.j.

Figure 10.7-1 (page 2): O-Level and I-Level NAMP Compliance Audits

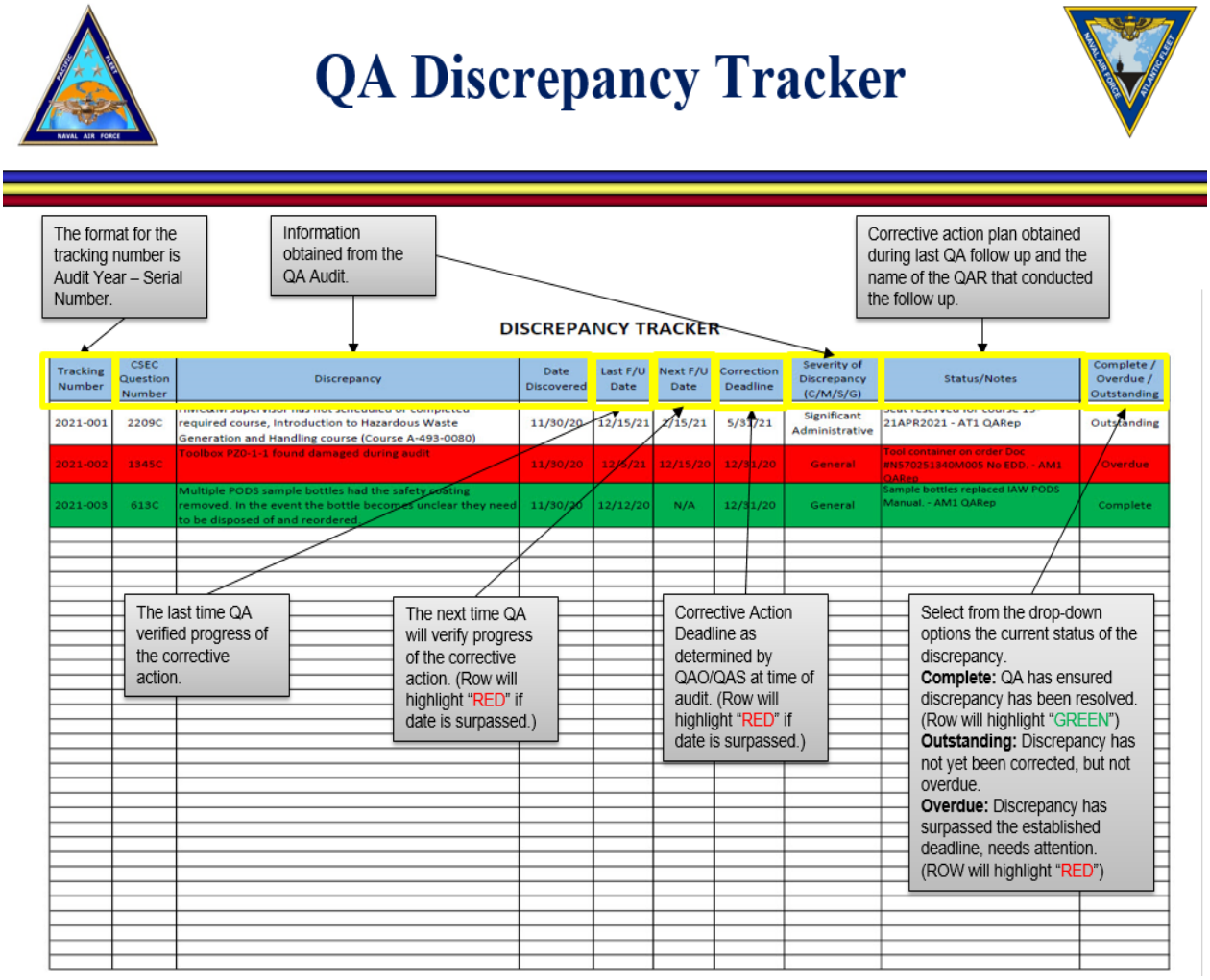


Figure 10.7-2: QA Discrepancy Tracker (Sample)

10.8 Technical Data Management (NAMPSOP)

10.8.1 References

a. DOD Instruction 8500.01, Cybersecurity

b. DOD Instruction 8560.01, Communications Security (COMSEC) Monitoring and Information Assurance (IA) Readiness Testing.

c. CNAF M-3710.7, NATOPS General Flight and Operating Instructions.

d. NAVAIRINST 13630.5, Optimizing Weapon System Avionics Support Using Automatic Test Systems.

e. NAVAIRINST 13650.1, Aircraft Maintenance Material Readiness List (AMMRL) Program.

f. NAVAIR 00-25-100, Naval Air Systems Command Technical Publications Library Management Program.

g. COMNAVAIRPAC/COMNAVAIRLANTINST 13650.3, Aircraft Maintenance Material Readiness List (AMMRL) Program.

h. NAVAIR 00-25-604, Naval Air Systems Command Fleet Support/Integrated Program Team Acquisition and Sustainment of NAVAIR Technical Manuals.

i. Department of Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.227-7013.

10.8.2 Introduction

10.8.2.1 Aviation maintenance activities are responsible for using approved, up-to-date technical data to perform maintenance. This NAMPSOP directs the requirements and responsibilities for managing the technical data held by maintenance activities of O-Level and I-Level activities.

NOTES: 1. Proprietary Data (drawings, specifications, processes, etc.) will not be released to contractors. Material containing proprietary data cannot be discussed with, forwarded, carried, or provided to any contractor or person outside the Department of Defense without the written permission from the owner of the data per Department of Defense Federal Acquisition Regulation Supplement Clause 252.227-7013.

2. For Depot Technical Data Management see Chapter 12.

10.8.2.2 NAVAIR 00-25-100 is the governing policy document for the Naval Air Systems Command (NAVAIR) Technical Publications Library Management Program, and provides procedures related to technical manuals (TM) and Technical Publications Library (TPL) operations.

10.8.2.3 Procedures of this NAMPSOP are applicable to all forms of technical data used to perform or support aviation maintenance, to include:

a. TMs and other publications listed in NA 00-25-100, WP 004 00, NAVAIR Related Documentation Controlled By Other Navy or DOD Elements.

b. NAVAIR approved and numbered technical publications.

c. Commercial technical publications.

d. Publications issued by Naval Sea (NAVSEA), Naval Ordnance (NAVORD), Naval Supply (NAVSUP), Naval Facilities (NAVFAC), and Marine Corps (MARCORPS) used to perform or support aviation maintenance.

e. NAVAIR Pre-Final Technical Data approved for use by the applicable NAVAIR Program Office.

NOTE: Activities must contact the COMFRC FST HQ Technical Data Department NATEC Customer Service Division by phone at (619) 545-1888/DSN 735-1888 or by e-mail at COMFRC_NATEC_Customerservice@us.navy.mil for disposition when pre-final technical data does not contain a current authorization letter.

f. Military Specifications and Standards (MILSPEC/STD).

g. Technical data issued by other U.S armed services (Army, Air Force, and Coast Guard).

h. Technical data issued by NAVAIR Fleet Support Team (FST), such as Engineering Dispositions (ED).

i. Maintenance related policy instructions, such as CNAF M-3710.7 (NATOPS), COMNAVAIRFORINST 4790.2 (NAMP), COMNAVAIRPAC/COMNAVAIRLANTINST 4790.23 (FAME), Type Wing and MAW instructions, and local command procedures (LCP).

NOTES: 1. Operational Test Program Sets (OTPS) are, managed per NAVAIRINST 13630.5.

2. Media Trax training aids are not classified as TMs. Media Trax training aids will not be placed in the Enhanced Library Management System (ELMS), and TMs will not be placed in Media Trax.

j. NAVAIR Additive Manufacturing (AM) Technical Data Packages (TDP's) as per AM NAVAIRINST 4790.41

NOTE: NAVAIR AM TDP's are only to be used for organic manufacturing capabilities within I-Level and D-Level maintenance facilities. TDPs will only be downloaded from the AM portal at https://www.JTDI.mil/group/am.

10.8.2.4 NATEC Customer Service can provide assistance in obtaining technical data. Requests may be submitted on line via (https://mynatec.navair.navy.mil), by email to COMFRC_NATEC_Customerservice@us.navy.mil, or by phone to (619) 545-1888/DSN 735-1888.

10.8.3 Requirements

10.8.3.1 Authorized Technical Publications

Technical publications specified in paragraph 10.8.2.3 are the only authorized references for performing aircraft and aviation equipment maintenance.

NOTE: Electronic media technical publications should be used whenever available.

10.8.3.2 NATEC Technical Manual Application System (TMAPS)

TMAPS and the Joint Knowledge Caching Server (JKCS) are the only approved sources for NAVAIR TMs.

10.8.3.3 Technical Data Inventory and Currency Verification

All technical data held by an activity will be inventoried and verified for currency each year. At least 50 percent of the technical data will be verified in the first six months of the year, and the remaining 50 percent in the last six months of the year. The inventory can be broken into smaller segments, such as 10 percent each month or 25 percent each quarter, as long as all of the technical data held by the activity is verified over the course of the year.

NOTE: The latest issue dates for most technical publications not issued by NAVAIR can be found in the NAVSUP Naval Logistics Library (NLL) at (https://nll.navsup.navy.mil). For other technical documents, access the publishing agency's website. Refer to NAVAIR 00-25-100, WP 006 00, NAVAIR Related Documentation Controlled by Other Navy or Department of Defense Elements.

10.8.3.4 Portable Electronic Maintenance Aids (PEMA)

a. PEMAs are the only authorized hardware device for installing electronic TMs and Automated Logistics Environment (ALE) programs. Non-TM technical data, such as local command or wing instructions, will not be stored on PEMAs.

b. PEMAs will be used to support maintenance only. PEMAs will not be used for personal or non-maintenance purposes.

NOTE: Use of PEMAs while conducting maintenance around aircraft and equipment are subject to FOD program. As such, PEMAs will be checked to ensure all associated hardware is accounted for before and after maintenance is performed.

c. Only software approved by the applicable T/M/S Program Office will be installed on PEMAs. No other software is allowed, including any Microsoft applications, unless approved by COMNAVAIRFOR (N422).

NOTE: Installation or use of any personally owned software or removable storage media on a PEMA is prohibited.

d. PEMA system software will be updated no later than 10 working days after receipt of a PEMA Service Pack. PEMA Service Packs are issued each month. Updates must be downloaded from the Joint Technical Data Integration (JTDI) website (https://wwwjtdi.mil).

NOTE: Only System Administrators and designated Technical Data Manager (TDM) personnel will have administrative privileges for updating PEMA software and technical data. Maintenance personnel will not be granted PEMA administrative privileges of any level.

e. The Cybersecurity Procedures of DOD Instruction 8500.01 and DOD Instruction 8560.01 will be adhered to.

f. T/M/S-specific ALE software will be managed per the T/M/S NAVAIR Program Office requirements posted on the NAVAIR PMA260 website (https://pma260.navair.navy.mil).

g. PEMAs will be managed as Common Support Equipment (CSE) per NAVAIRINST 13650.1. All PEMA transactions will be controlled and monitored by the Support Equipment Controlling Authority (SECA) and the PEMA FST. Unless directed by SECA with PEMA FST concurrence, PEMAs will not be transferred between activities. Activities with approved fleet transfer request with concurrence from PEMA FST will ensure PEMAs are returned to the PEMA FST for proper handling, reimaging, redistribution, and disposal. Transfer questions will be directed to the PEMA FST help desk at pema@us.navy.mil.

h. PEMA misuse will be reported as SE Misuse and Abuse per Chapter 7.

NOTE: PEMAs are not subject to Support Equipment (SE) Maintenance Program, Optimized Organizational Maintenance Activity (OOMA) Automated Log Sets (ALS), or Support Equipment History/Maintenance Records (OPNAV 4790/51).

i. Requests for assistance in resolving PEMA hardware or software operation problems, and questions regarding PEMA replacement, warranty repair, software imaging, and software updates will be submitted via email to the PEMA Fleet Support Team (FST) at pema@us.navy.mil.

NOTE: General information on PEMA certifications, PEMA training, PEMA system software, PEMA FAQ, and PEMA Users Logistics Support Summary (ULSS) may be requested via email to pema@us.navy.mil.

j. PEMAs will be stored in a locked space, container, or locker during off shift work hours when not in use .

10.8.3.5 Local Maintenance Requirements Cards (LMRC)

a. LMRCs for scheduled maintenance requirements not covered by other TM must be published:

(1) When directed in a technical directive (TD) or Interim Rapid Action Change (IRAC)

(2) When required for SE, per paragraph 10.17.3.3.e

(3) When required to add new requirements to existing NAVAIR MRC decks

(4) When the operating activity determines Periodic Maintenance (PM) is required and no other source of information specifies PM procedures

b. LMRC decks will be numbered with the activity's three-digit Organization Code and a sequential number containing the following elements:

(1) The applicable two digit general subject classification listed in NAVAIR 00-25-100, WP 004 00, Figure 2, followed by "600" to denote MRC. Example: 19-600 denotes a ground servicing equipment MRC.

(2) A locally assigned two digit sequential number to identify the deck

(3) Either “6-1” to identify a Pre-Operational Inspection or “6-2” to identify a PM requirement

Example: “PK2 19-600-22-6-1” is the number of an LMRC issued by Organization Code PK2. The LMRC is for SE (19-600), is the 22nd deck issued, and is for a pre-operational inspection (6-1).

(4) Cards that do not relate to other steps in the existing LMRC or MRC deck will be placed after the last card in the deck and numbered with the next consecutive number. Cards added to an existing LMRC deck or NAVAIR MRC deck will be inserted within the existing cards in the most efficient sequence for accomplishing the task. The inserted card will be numbered with the preceding card number followed by an alphabetic suffix. For example, three cards inserted between cards 12 and 13 would be numbered 12A, 12B, 12C. Cards inserted between alphabetical suffix cards are numbered with a decimal and numeric suffix, for example, two cards inserted between 12A and 12B would be numbered 12A.1 and 12A.2.

(5) All card numbers will be listed on the deck’s A Card (List of Effective Cards) or a separate 5x8 card formatted like the A Card.

c. LMRC title cards for SE must list the model number, designation, and part number. Generic nomenclatures, such as “Grinder” “Metal Shears” and “Radar Test Bench” are unacceptable.

d. The PM interval, such as “Daily” “28-Day” or “364 Day” will be entered in the block between CHANGE No. and ELECT PWR. Any reference directing the LMRC, such as a TD or IRAC, will be entered immediately below the interval.

e. Personnel rate and military occupational skill (MOS) requirements will be listed in the rating (RTG) and MOS block.

f. Power and air conditioning requirements will be listed in the electric power (ELEC PWR), hydraulic power (HYD PWR) and air conditioning (COND AIR) blocks.

g. Detailed information on consumables, tools, personal protective equipment (PPE), and WARNING or CAUTION requirements will be listed in the body (lower right hand block). Specific tools and materials will be listed, for example, "Wrench, 3/8, Open End" (not just "Wrench") and "Oil, VV-L-800 or Equivalent” (not just "Oil").

h. Inspection and maintenance procedures will be numbered and listed in sequence in the body.

Example: 1. Unfold the ladder

2. Inspect and verify braces are not bent and hardware is secure
3. Inspect each step for security, rivets in place, and no corrosion
4. Place the ladder on a flat surface and verify it is not bent or warped

i. LMRCs for O-Level activities will be submitted and approved as follows:

(1) O-Level activities must submit LMRCs (except those directed by TD or IRAC) to their Type Wing or MAW for approval. LMRCs will be submitted via the Local Maintenance Requirement Card (LMRC) Submission Letter (Figure 10.8-1) with a statement of why the LMRC is needed, a summary of the proposed inspection or maintenance procedures, and a statement of

whether the LMRC is recommended for local use only or has Fleet-wide impact. If the Type Wing or MAW approves the LMRC, they will distribute it to other affected Wing activities, and provide a copy to the ACC Class Desk and the T/M/S aircraft or equipment FST. Any LMRC deemed to have wider than local application will be forwarded by naval letter to the FST with sufficient information on why a Fleet-wide LMRC is recommended.

(2) O-Level activities without a WING will request concurrence from FST when generating LMRCs. With FST concurrence, O-Level activities without a WING will seek a deviation from 10.8.3.5 to CNAF N422 TYCOM following paragraph 1.2.6.4.

j. I-Level Maintenance Officers are authorized to approve LMRCs for their activity with equipment FST concurrence. For LMRCs approved by the MO, a copy of the LMRC, a summary of the inspection or maintenance procedure, and FST concurrence statement will be retained. Additionally, a statement of whether the LMRC is recommended for local use only or has a Fleet-wide impact must be forwarded to the equipment FST. Figure 10.8-1 is an example of the LMRC submission letter.

k. LMRCs must be reviewed every 12 months, based on the date block, and updated. LMRCs inserted into NAVAIR MRCs must also be reviewed when there is a change or revision to the MRC. The review will be documented by annotating the date of the review and initialing the LMRC A Card.

NOTE: LMRCs do not have to be resubmitted for approval if requirements are not changed during the annual review.

10.8.3.6 Pre-Final Technical Data

Pre-final technical data are preliminary TMs, interim manuals, interim maintenance support packages, AM Technical Data Packages and redline manuals, to include technical publications, schematics, and drawings. Pre-final technical data may be used only if approved and certified by the applicable NAVAIR Program Office per NAVAIR 00-25-604, WP 016 00, Waivers and Deviations.

10.8.4 Responsibilities

10.8.4.1 NATEC

a. Control, distribute, and archive NAVAIR technical data.

b. Manage TMAPS and Enhanced Library Management System (ELMS) applications.

c. Post pre-final technical data in TMAPS only if approved for use by the applicable NAVAIR Program Office.

d. Provide Technical Data Management Specialists to assist activities with CTPL management per NAVAIR 00-25-100, WP 003 00, Naval Air Technical Data and Engineering Service Center Customer Service Support Division.

10.8.4.2 NAVAIR PMA260 PEMA FST

a. Prepare and deliver PEMA Service Pack updates.

b. Monitor and act as the central point of contact for dissemination of information related to PEMA FOD issues via the PEMA help desk at pema@us.navy.mil.

c. Coordinate with the Support Equipment Controlling Authority (SECA), concur and monitor PEMA transfers between AMMRL for PEMA transfers between AMMRL Activity Identifiers (AAI).

10.8.4.3 Type Wings and MAWs

a. Comply with LMRC responsibilities per paragraph 10.8.3.5.

b. Each month review the NATEC ELMS Library Audit Report for each assigned squadron and provide direction on correction of discrepancies, as required.

c. Publish Local Command Procedures (LCP) per Appendix D, if required, to direct geographic, T/M/S-specific or command-directed action for Technical Data management not addressed in this NAMPSOP. LCP must include, when applicable:

(1) For detachment concept units, develop comprehensive training for the detachment/deployment's Technical Data Management Assistant (TDMA).

(2) Direct detachment or deployment TDMA to verify 100 percent of publications prior to detachment/deployment.

(3) Direct subordinate commands to assign QA oversight during detachment/deployment for detachment concept units.

d. Provide semi-annual training to TDM, to include:

(1) IRAC management, including bookmarking procedures for Interactive Electronic Technical Manual (IETM) Interim Rapid Action Changes (IRAC)

(2) ELMS management procedures

(3) PEMA management procedures

(4) Common discrepancies noted during Aviation Maintenance Inspections (AMI) and Maintenance Program Assessments (MPA)

10.8.4.4 Maintenance Officer (MO)

a. Designate the Quality Assurance Officer as the Technical Data Management Officer per 10.1.2.9.

b. (O-Level) Review and validate the requirement for proposed LMRCs prior to forwarding to the Type Wing or MAW for approval.

c. (I-Level) Review and approve LMRCs.

10.8.4.5 Quality Assurance Officer (QAO)

NOTE: When able, the QAO should complete the CNATTU Technical Data Managers course (Course C-555-0007) to gain knowledge of TPL requirements.

a. Perform Technical Data Management work center audit 04A per paragraph 10.7.3.c.

NOTE: Work Center 04A audit may be performed in conjuction with 040 work center audit.

b. Designate a TDM for the QA CTPL (Work Center 04A) per 10.1.2.9.

NOTES: 1. If the activity does not have a TDM specified in the applicable QA organization chart per Chapter 7, a QAR will be designated to manage the CTPL.

2. Personnel assigned to the CTPL should be retained in the billet for a minimum of 12 months.

c. If needed, designate Technical Data Manager Assistants (TDMA) per 10.1.2.9.

NOTE: TDMAs are not required for every Work Center or location where technical publications are maintained outside the CTPL. TDMA will be assigned only if the TDM is unable to manage the technical data held in the DTPL.

d. Designate a Quality Assurance Representative (QAR) as the Technical Data Management QA Monitor per 10.1.2.9.

e. Review proposed LMRCs prior to forwarding to the MO.

f. Maintain a program file to include:

(1) POCs

(2) References or cross-reference locator sheets, correspondence, messages, and lesson guides

(3) Memorandums documenting completion of technical data inventories and verifications

(4) Copies of the most current Program Manager Audit and QA Audit

10.8.4.6 Technical Data Management QA Monitor

a. Complete the CNATTU Technical Data Managers course (Course C-555-0007) within 90 working days of assignment.

b. Perform audits per paragraph 10.7..7.

10.8.4.7 Quality Assurance Representatives (QAR)

a. Review newly received technical publications and directives to determine application to the Maintenance Department.

b. Verify work guides, FCF booklets, check-off lists, check-sheets, and MRCs are complete and current.

c. Review new LMRCs for accuracy and correct procedures, prior to submission to the QA Officer.

d. Verify scheduled MRC and LMRC requirements are entered in the NALCOMIS OOMA or Support Equipment Standardization System (SESS) database, and are updated as changes occur.

NOTE: MRC tasking will be pushed down from the Baseline Manager for activities operating NALCOMIS Optimized Organizational Maintenance Activity (OOMA); however, tasking will not be activated until receipt of the MRC.

e. Submit Technical Publications Deficiency Reports (TPDR) per paragraph 10.9.3.11.

f. Review active COMFRC FST AMEAs with the MMCPO to determine applicability to the Maintenance Department.

10.8.4.8 Technical Data Manager (TDM) (O-Level and I-Level)

NOTE: Weapons Department will maintain a TPL containing publications necessary to perform its maintenance responsibilities for AWSE. If the Weapons Department is supported by an IMA, the TPL will be a dispersed library of the supporting IMA CTPL. Requests for publications will be processed and ordered through the supporting IMA.

a. Provide NAMP indoctrination on Technical Data Management per 10.1.4.7. Verify personnel receive Technical Data Management familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. Be responsible for the currency of all technical data held by the command, to include technical data dispersed outside the CTPL.

c. Complete the CNATTU Technical Data Managers course (Course C-555-0007) prior to assignment.

d. On assignment and turnover, inventory and verify the currency of all technical data held in the CTPL and at least 25 percent of the technical data held in each DTPL, utilizing a Computerized Self Evaluation Checklist (CSEC) to identify discrepancies and corrective actions noted during the turnover audit. The incoming and outgoing TDM should jointly perform the turnover inventory and verification whenever possible. The QAR assigned as monitor will provide oversight for this audit. Completion will be documented in a memorandum signed by the QAO. The memorandum will reference the annotated Complete Listings.

NOTE: Turnover CTPL and DTPL inventories may be credited for the annual inventory and verification requirement per paragraph 10.8.3.3.

e. On assignment and prior to each inventory, review the ELMS Frequently Asked Questions (FAQ) section located on the ELMS Main Menu.

f. Maintain a CTPL Transaction file, the directives and manuals required to operate a TPL per NA 00-25-100, WP 013 00, Technical Publications Library Management Program.

g. Download electronic NAVAIR manuals from the NATEC TMAPS website, Naval Logistics Library (NLL), or Joint Technical Data Integration (JTDI) Joint Delivery Management System JDMS server.

h. Incorporate IRACs, Rapid Action Changes (RAC), and Electronic Rapid Action Changes (ERAC) within 2 working days of receipt and incorporate formal changes, routine revisions and notices within 5 working days of receipt.

NOTE: If changes are given to a TDMA to incorporate, the TDM must issue a Change Entry Certification Record (CECR) per NAVAIR 00-25-100 and must physically inspect the manual for correct incorporation prior to closing the CECR.

i. Dispose of cancelled or updated technical data on receipt of the new version, update the ELMS Library, and record disposed manuals in the ELMS History File, per NAVAIR 00-25-100, WP 013 00, paragraph 10-4.

NOTE: Requests to use cancelled technical data will be submitted to the applicable NAVAIR Program Office via COMFRC FST HQ Technical Data Department per NAVAIR 00-25-100.

j. Coordinate with the Command Security Manager on the receipt, stowage, distribution, inventory, and disposition of classified technical data.

k. Coordinate with the Operations Department to obtain and track NATOPS manuals held within the Maintenance Department.

l. Provide training to work center supervisors and TDMA on assignment and provide refresher training as needed.

m. Register with NATEC as the ELMS Customer Account POC, and act as the activity's single POC for the Automatic Distribution Requirements List (ADRL).

n. Maintain an accurate ADRL for all TMs used by the activity.

NOTE: NATEC will send automatic email notifications of updates to all TMs listed on the ADRL.

o. Run the ELMS Library Audit Function every working day. Any manuals flagged with a red "D" will be verified for need and downloaded or placed on order.

p. Review the TDs Posted Since Last Summary list on NATEC in the Technical Directives section every working day per 10.10.4.10.

q. Enter locally produced reference materials into ELMS. Examples include LCPs, LMRCs, and printed copies of all or portions of electronic TMs.

r. List the location of all manuals held in ELMS using the Locator Listing option.

s. Enter pre-final technical data into ELMS.

t. Maintain a master file of applicable Technical Directives (TD) per paragraph 10.10.4.10.

u. Manage PEMAs per paragraph 10.8.3.4, to include:

(1) Maintain PEMA administrative privileges for updating technical data and installing PEMA Service Pack updates.

(2) List of all PEMA technical data and system software in the ELMS PEMA Management Module on the NATEC website (https://mynatec.navair.navy.mil) per reference (f).

(3) Install PEMA system software updates per the applicable PEMA T/M/S. Specific directions can be found on the NAVAIR PMA-260 website at (https://nll.navsup.navy.mil).

(4) Sub-custody PEMAs to work centers.

(5) Tailor the technical data loaded on PEMAs to the needs of the work center assigned.

NOTE: Activities that have implemented the Common Connected PEMA with Standard PEMA Cyber Solution (SPECS) will not tailor technical data to each work center.

(6) Maintain accurate accounting in ELMS of each PEMA serial number, work center issued to, and most current PEMA Service Pack update (if required).

(7) Inventory all PEMAs and verify PEMA Service Pack currency at least once per quarter.

(8) Maintain a current local PEMA inventory sheet with hardware nomenclature, serial number, LAN number (if applicable), quantity, location, operational status, and part number.

(9) Coordinate with the IMRL Manager to return PEMAs for repairs and replacement.

(10) Track PEMAs in shipment per NAVAIRINST 13650.1 and COMNAVAIRPAC/COMNAVAIRLANTINST 13650.3, as applicable.

v. At least once every 6 months, physically inventory and compare all technical publications (including TMs on PEMAs) against the activity's ADRL, per the procedures of NAVAIR 00-25-100, WP 010 00, Naval Air Technical Data and Engineering Service Center Technical Publications Library Program. The review will include Work Center Supervisor verification that each publication is required. Annotate changes and discrepancies on the Complete Listing Report, take corrective action, update the ADRL in ELMS, and maintain the annotated listing in the CTPL transaction files.

w. Reconcile ELMS each week per the following procedures:

(1) Verify incorporation of TM updates by reviewing Checked Out TMs, Issued CECRs, and Overdue CECRs in ELMS per the procedures of NAVAIR 00-25-100, WP 010 00.

(2) Verify the Weekly IRAC and TM Tracker (NAVAIR 00-25-100, WP 014 00, Central/Dispersed Technical Publications Library Verification/Audit Requirements). This report is issued weekly by naval message and is also available on the NATEC website (https://mynatec.navair.navy.mil/). On receipt, an appropriate review and annotation must be conducted by the TDM and QAR SME to verify that all applicable IRACs and TMs have been received.

(3) Verify the Weekly Summary for Issued TDs per the procedures of the Technical Directive Compliance NAMPSOP per paragraph 10.10.4.10. This report is available on the NATEC website (https://mynatec.navair.navy.mil/).

x. Reconcile TMs on order each month per the following procedures:

(1) Verify the currency of the Requisition Log per NAVAIR 00-25-100, WP 009 00, Technical Data Requisition Procedures.

(2) Query the Pubs on Order report from the Tech Manual Search link of ELMS.

(3) Follow-up on requisitions submitted via the Defense Automatic Addressing System (DAAS) or "on-line" when utilizing the ELMS Requisition Log. Requisition status may also be checked via the Naval Logistics Library (NLL) P2003 Online Search, Order, and Status Tool (https://nll.navsup.navy.mil).

y. Reconcile technical data held in DTPLs every 6 months (semi-annually) per the following procedures:

(1) Verify accuracy of the ELMS "Locator" listing associated with each DTPL.

(2) Check every page of at least 50 percent of the publications in the DTPL against the List of Effective Pages or List of Effective Cards.

NOTE: 100 percent of publications held in DTPLs must be checked over the course of a year.

(3) Verify paper manuals for correct control stamp, binder spine identification strip annotation and arrangement per NAVAIR 00-25-100, WP 013 00.

(4) Document completion of the DTPL Semi-annual Review in a memorandum signed by the QAO. The memorandum will be kept in the TDM transaction file.

z. Prior to transfer, debrief the QAO on the status of the library, including any inventory requirements and publication update actions that have not been completed.

10.8.4.9 Technical Data Manager Assistant (TDMA)

a. On assignment, complete an inventory and verify the currency of all technical data held in the DTPL. The inventory and verification will be conducted jointly with the TDM.

b. Maintain the currency of all technical data held in the dispersed library.

c. Coordinate with the TDM to maintain the accuracy of ELMS.

d. Maintain publication binders in accordance with NAVAIR 00-25-100, WP 013 00.

e. Give the TDM any maintenance publication received directly from other sources, for example, commercial maintenance publications delivered with new equipment.

f. Correct inventory and audit discrepancies within five working days.

10.8.4.10 IMRL Manager

a. Accept, inventory, and transfer PEMAs as CSE, per NAVAIRINST 13650.1 and COMNAVAIRPAC/COMNAVAIRLANTINST 13650.3, as applicable, and this instruction.

b. Sub-custody all PEMAs to Work Center 04A (CTPL) on a Controlled Equipage Custody Record (NAVSUP 306).

c. Update LAMS to reflect "F2" (NRFI) status for non-operable PEMAs, and coordinate PEMA repairs and replenishment. When the SECA provides the authorization number, transfer the PEMA to Jacksonville Cass Staging Facility (JAXCSF) with a copy of Transaction Report and information on the failure.

d. Resolve PEMA allowance shortages.

10.8.4.11 Maintenance or Production Control

Include LMRCs when issuing PM requirements.

10.8.4.12 Work Center Supervisors

a. Accept custody and accountability for work center PEMAs.

b. Provide technical data indoctrination training to work center personnel per the Maintenance In Service Training NAMPSOP per 10.1.4.7. Training will include:

(1) Responsibilities for using only approved technical data

(2) TPDR procedures

(3) PEMA procedures, to include responsibility to utilize PEMAs for work-related functions only, PEMA inspection procedures, and storage and security requirements when not in use

c. Return non-operable PEMAs to the TDM as soon as discovered.

d. Maintain technical data in the work center only if authorized to do so, and only in the quantity required to accomplish work center responsibilities.

e. Submit requests for technical data to the TDM.

f. Inform the TDM when technical data held by the work center is no longer required.

g. (I-Level) Ensure all AM technical data packages maintained in Work Center 550 on hard drives, disks, and computers are the most current version prior to any use.

10.8.4.13 Maintenance Technicians

a. Only use authorized and current technical data.

b. Report problems with technical data to the Work Center Supervisor.

c. Thoroughly inspect PEMAs for missing or loose parts prior to starting and on completion of each task, and prior to entering or leaving the flight deck or flight line. If parts are missing, immediately inform the Work Center Supervisor.

d. Only use authorized cleaning and sealing compounds on PEMAs.

NOTE: Unauthorized sealants and cleaners may void the PEMA manufacturer's warranty.

4790
Ser N42/123
18 May 2021

From: Maintenance Officer, Strike Fighter Squadron ONE TWO THREE
To: Commander, Strike Fighter Wing

Subj: LOCAL MAINTENANCE REQUIREMENT CARD (LMRC) FOR FA-18E CHAFF DISPENSER, P/N 123456789-10

Ref: (a) COMNAVAIRFORINST 4790.2D

Encl: (1) VFA-123 LMRC number PK3-01-600-33-6-2, FA-18E CHAFF DISPENSER PREVENTIVE MAINTENANCE

1. Per reference (a), enclosure (1) LMRC is submitted for Wing approval.

2. Justification of need: FA-18E Chaff Dispensers are often stored uninstalled for long periods after deployment, and it is not unusual to find corrosion on a dispenser's electrical connections when preparing the dispenser for first use after deployment. Enclosure (1) LMRC directs a 28-day PM to inspect uninstalled dispenser electrical connections for corrosion and treat as necessary.

3. This LMRC has Fleet-wide application for all uninstalled FA-18 chaff dispensers.

4. VFA-123 POC: AMEC Scott Barefoot, phone (123) 456-7899, DSN 456-7899, email: aero.professional@navy.mil.

R. T. TAYLOR
By direction

Figure 10.8-1: Local Maintenance Requirement Card (LMRC) Submission Letter (Example)

10.9 Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) (NAMPSOP)

10.9.1 References

a. CNAF M-3710.7, NATOPS General Flight and Operating Instructions.

b. OPNAVINST 3750.6, Naval Aviation Safety Management System.

c. NAVAIRINST 4423.12, Assignment and Application of Uniform Source, Maintenance and Recoverability Codes.

d. OPNAVINST 5102.1, Navy and Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual.

e. OPNAV M-8000.16, The Naval Ordnance Management Policy (NOMP) Manual.

f. SECNAVINST 4855.3, Product Data Reporting and Evaluation Program.

g. DLAR(JP) 4155.24/SECNAVINST 4855.21, Product Quality Deficiency Report Program

h. DTR 4500.9-R, Defense Transportation Regulation, Part II - Cargo Movement.

i. NAVSUP Publication 485, Naval Supply Procedures.

j. NAVSUP Publication 723, Navy Inventory Integrity Procedures.

k. OPNAVINST 4790.15E, Aircraft Launch and Recovery Equipment Maintenance Program (ALREMP).

l. NAVAIRINST 4855.1, Corrective and Preventive Action Process Instruction.

m. NAVAIRINST 4855.2, Supplier Performance.

n. SUSTAINMENT OPERATING INSTRUCTION (SOI) 1514.02, F-35 Program Problem Reporting and Resolution Instruction.

o. Defense Logistics Manual (DLM) 4000.25, Volume 2, Chapter 17, Supply Discrepancy Reporting.

10.9.2 Introduction

10.9.2.1 The Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) establishes requirements for reporting deficiencies that impact naval aviation aircraft and equipment due to substandard materials, workmanship, and technical publications.

NOTE: Activities operating or maintaining F-35 aircraft will follow the discrepancy reporting procedures and processes outlined within the F-35 Joint Program Officer Sustainment Operating Instruction (SOI) 1514.02 Problem Reporting and Resolution.

10.9.2.2 NAMDRP establishes policy for Aircraft Delivery Deficiency Reports (ADDR), Acceptance Inspection Deficiency Reports (AIDR), Baseline Trouble Reports (BTR), Hazardous Material Reports (HMR), Product Quality Deficiency Reports (PQDR), and Technical Publication Deficiency Reports (TPDR). NAMDRP also directs policy for Engineering Investigations (EI) to

determine the cause of material discrepancies that impact the airworthiness of aircraft or the safety of aircrew or maintenance personnel.

10.9.2.3 In combination with other policy directives, NAMDRP provides for reporting of the full spectrum of discrepancies that affect naval aviation maintenance. NAMDRP directly supports Title 41 Code of Federal Regulations (CFR) §101-26.803-2 Reporting quality deficiencies. NAMDRP also supports the objectives of SECNAVINST 4855.3 Product Data Reporting and Evaluation Program, the discrepancy reporting of OPNAVINST 8000.16 Naval Ordnance Management Policy, NAVSUP Publication 723 Navy Inventory Integrity Procedures, and Defense Transportation Regulation 4500.9 cargo transportation policy.

10.9.2.4 Commander, Fleet Readiness Centers, Quality Management Group (COMFRC, QMG) is the program manager for PQDRs, AIDRs, and ADDRs. Fleet Support Team (FST) Engineering Fleet Readiness Center (FRC) East is the program manager for HMRs and EIs. COMFRC Technical Data Department is the program manager for TPDRs. NAWCAD Air Systems Logistics Product Customer Service Branch is the program manager for BTRs.

10.9.3 Deficiency Report (DR) Procedures

10.9.3.1 General

a. Category 1 (CAT 1 or CAT I) DRs are used to describe deficiencies, discrepancies, and defects that create a safety risk that could result in death or injury to personnel, risk of damage to or loss of aircraft, equipment, or facilities. Category 2 (CAT 2 or CAT II) DRs are used to describe deficiencies, discrepancies and defects that do not create a safety risk or potential for damage, but do pose a risk to the quality of maintenance and operational readiness.

b. Deficiency reports do not fulfill the requirement for submitting a Hazard Report per OPNAVINST 3750.6 on conditions that can cause injury, illness, or death to personnel; damage to or loss of a system, equipment or property; or damage to the environment. Commands are required to submit a separate OPNAVINST 3750.6 Hazard Report when the incident or discrepancy meets the intent of both instructions.

NOTE: DRs related to mishaps must not contain privileged information. Refer to OPNAVINST 3750.6 for restrictions.

c. Deficiency reports on suspected or known material defects will not be submitted with the phrase “Submitted for Tracking, Trending, or for Informational Purposes Only”. The FST or Quality team will determine required action based on their review of the deficiency. It will be assumed an investigation will take place, unless the FST or Quality Team closes the investigation, via a Closing Report or Response, to include instructions for disposition of the exhibit (if applicable).

d. The Joint Deficiency Reporting System (JDRS) website (https://jdrs.mil) will be used to submit ADDR, AIDR, BTR, HMR, PQDR (CAT I and II only), and TPDR. JDRS enables the creation, transmission, and tracking of DRs. JDRS automatically routes reports to assigned Fleet Support Team (FST), Quality Teams, and other concerned activities, based on the report type submitted and the FST, Quality Team, and Software Product Team (SWPT) selected via the Support Team Points of Contact (STPOC) ST Lookup tool. Activities can receive reports, request

other information, and conduct technical dialog with the originator, exhibit holding activity, FST Engineer, and Quality Teams within JDRS.

NOTE: Ships and detached/deployed activities, may use JDRS Lite due to bandwidth constrains. The JDRS Lite Web Application URL will be different for each ship. The URL will have the format as https://<shiphull>JDRSLite.<shiphull>.navy.mil. Replace the <shiphull> characters in the URL with your ship hull number (i.e: CVN-72, LHA-6). For example, the URL for USS Nimitz (CVN-68) would be https://cvn68jdrslite.cvn68.navy.mil.

e. Conventional Ordnance Discrepancy Reports (CODR) and Explosive Event Reports (EER) will be submitted via the All Weapons Information System (AWIS) website (https://awis.navair.navy.mil/AWIS/index.asp). Explosive Mishap Reports (EMR) will be reported to Risk Management Information (RMI) via the Air Force Safety Automated System website (https://afsas.safety.af.mil/).

f. Supply Discrepancy Reports (SDR) will be submitted via the Product Data Reporting and Evaluation Program Automated Information System (PDREP AIS) (https://www.pdrep.csd.disa.mil/#).

g. Transportation Discrepancy Reports (TDR) will be submitted via USTRANSCOM public website (https://www.ustranscom.mil/).

h. Corrections to aircraft NATOPS or tactical manuals will be reported per CNAF M-3710.7.

i. Corrections to non-technical references, such as command instructions and notices, will be reported to the issuing command.

j. Source, Maintenance and Recoverability (SM&R) code discrepancies and change recommendations will be submitted per NAVAIRINST 4423.12.

NOTES: 1. When JDRS is not accessible, CAT I and CAT II DRs will be transmitted by naval message in the format shown in the HMR Report Message Template (Figure 10.9-1), Category 1 Technical Publication Deficiency Report (Figure 10.9-2) or Baseline Trouble Report Message (Figure 10.9-3). Priority precedence will be used for CAT I DR messages. Routine precedence will be used for CAT II messages.

2. If the FST, Quality Team, or SWPT cannot be determined, contact the JDRS Clearinghouse Representative via JDRS using the Technical Dialog tool or the "Help Menu", under the "Contract Us" link.

3. Uploading classified information or images to AWIS, JDRS, or PDREP AIS websites is strictly prohibited.

10.9.3.2 Report Control Number (RCN)

The originating activity must assign a RCN to each DR in the following format:

a. Element (1) – Service Designator Code (N, V, or R) of the originating activity.

- Use "N" for Navy and Marine Corps aviation non-deploying units.

- Use "V" for Navy and Marine Corps Aviation Atlantic Fleet operating forces.
- Use "R" for Navy and Marine Corps Aviation Pacific Fleet operating forces.

b. Elements (2) through (6) – DODAAC/UIC of the originating activity, for example, 54056.

c. Elements (7) and (8) – Calendar Year, for example, 10.

d. Elements (9) through (12) – Locally assigned control numbers (numeric only), sequentially numbered throughout the calendar year without regard for type of report. For example, the first report of the year is an AIDR assigned control number 0001; the second report is an HMR assigned control number 0002; the third report is another AIDR assigned control number 0003; the fourth report is a TPDR assigned control number 0004.

NOTE: The RCN or message report Date Time Group (DTG) must be referenced on all correspondence.

10.9.3.3 Aircraft Delivery Deficiency Report (ADDR)

a. ADDRs are submitted by Depot FRCs to document deficiencies associated with inadequate periodic maintenance (PM) found by Depot FRC Aircraft Examiners during rework, modification, Planned Maintenance Interval (PMI), Integrated Maintenance Concept/Program (IMC/P), or long-term storage where the Depot FRC has accepted custody.

b. ADDRs will be sent to the squadron that inducted the aircraft.

c. The initial ADDR (including zero deficiency responses) must be submitted via JDRS within 20 calendar days of completion of the initial evaluation. Initial ADDRs will include detailed descriptions of material condition, corrosion discrepancies, associated O-Level periodic maintenance and requirements, and focus area lists (as applicable). The Depot FRC will upload a picture of the discrepancy that has a "2" as the second digit of the MAL Code (Exfoliation) and any MAL Code that has the third digit as a "3" or "4" (Severe or Flight Critical).

d. Depot FRC must submit supplemental ADDRs within 30 calendar days of completion of the Depot event. Supplement ADDRs are a continuation of the initial ADDR report and uses the same RCN as the initial ADDR. Add "Supplemental" to the title in block 6, and continue numbering from the deficiencies on the initial ADDR. Supplemental ADDRs will include a Maintenance Requirement Card (MRC) Deck or Interactive Electronic Technical Manual (IETM) Special Inspection correlation and turnaround and material costs summary, man-hours, engineering hours, and corrective actions taken by the originator. Remarks must contain details that clearly identify the problem, corrective actions, and parts required.

e. ADDRs will be submitted via the JDRS website.

10.9.3.4 Acceptance Inspection Deficiency Report (AIDR)

a. An AIDR must be submitted for all newly manufactured, modified, or newly reworked aircraft to include Phased Depot Maintenance (PDM) and other scheduled Depot events. Additionally, an AIDR must be submitted for In-Service Repairs unrelated to PDM events.

NOTE: For JDRS purposes, the use of PMI and PDM are interchangeable.

b. AIDRs will only list those deficiencies attributed to the manufacture, modification, or rework processes. Deficiencies not directly pertaining to the quality of rework, manufacture, or not covered in the negotiated work package or rework specification will not be reported in an AIDR.

NOTES: 1. An AIDR is required even if no deficiencies attributable to manufacturing, modification, or rework processes are found. In this case, no deficiencies will be listed, and JDRS will auto-default to a "No Deficiency Noted, AIDR".

2. Do not use an AIDR to report equipment shortages, ferry or shipping damages, or deterioration during pool storage. Contact the providing activity for resolution.

3. Malfunction Code "174" will be used on AIDRs, Work Order (WOs), and Maintenance Action Forms (MAFs) related to AIDR deficiencies.

4. Do not submit an AIDR if the aircraft was transferred from one squadron to another squadron.

c. AIDRs (including No Deficiencies Noted reports) will be submitted via the JDRS website within 5 calendar days after completion of the acceptance inspection or after the acceptance inspection functional check flight, as required by the maintenance requirement cards (MRCs). The AIDR will only include deficiencies noted by the ferry aircrew and any deficiencies attributable to manufacture, modification, or rework process, including the PDM events.

NOTES: 1. Manufacturing, modification, or rework process deficiencies found within 30 calendar days of the initial AIDR will be reported on a supplemental AIDR using a new RCN. Add "Supplemental" to the title in block 6; i.e., change from Initial AIDR to Supplemental AIDR.

2. Components or parts deficiencies discovered during initial acceptance of newly manufactured, modified, or reworked aircraft must also be reported on a PQDR per paragraph 10.9.3.4. The PQDR will be referenced in block 3B of the AIDR.

d. AIDR for aircraft that were reworked, modified, or stored by a Depot Fleet Readiness Center (FRC Southwest, FRC Southeast or FRC East) will be submitted to the Depot FRC AIDR Quality Team. Refer to the JDRS ST Look-up tool: Under Aircraft T/M/S, select "Lower Level" and then select "ORGANIC" Screening (NAVAIR Reworked).

e. AIDR for aircraft that were manufactured, stored, or modified by an Original Equipment Manufacturer (OEM) or commercial contractor will be submitted to the Commercial AIDR Quality Team. Refer to the JDRS ST Look-up tool: Under Aircraft T/M/S, select "Lower Level" and then select "COMMERCIAL" Screening (New or COMM Reworked).

f. AIDR remarks must include detailed descriptions of defects, photographs of the defects, corrective actions taken by the originator, and any parts involved. Each AIDR deficiency will be categorized as Critical, Major, or Minor, using the following guidance:

(1) Critical: Defects that create a hazardous or unsafe condition with risk to the airworthiness of the aircraft or the safety of personnel.

NOTES: 1. Critical Deficiencies on components or parts discovered defective during initial acceptance of newly manufactured, modified, or newly reworked aircraft must also be reported as a CAT I PQDR per paragraph 10.9.3.9. The PQDR will be referenced in Block 3B of the AIDR.

2. Critical Deficiencies in systems, for example, fuel system or hydraulic system contamination, FOD, or logbook errors are Critical in nature and will be documented as a Critical deficiency without a CAT I PQDR submitted.

(2) Major: Defects that are not an airworthiness or safety risk, but do materially reduce the operational capability of the aircraft.

(3) Minor: Defects that do not materially reduce operational capability of the aircraft, but do depart from established quality standards.

10.9.3.5 Baseline Trouble Report (BTR)

a. BTR will be submitted for Naval Aviation Logistics Command Management Information System (NALCOMIS) Optimized Organizational Maintenance Activity (OOMA) baseline deficiencies that prevent the issuance of Work Order (WOs) for inspections, Technical Directives (TDs), or unscheduled maintenance against aircraft or tracked components. Baseline deficiencies include:

(1) Wrong work unit code (WUC) to CAGE or part number (P/N) relationship

(2) Items with no WUC

(3) Incorrect removal intervals for life limited components

(4) TDs not in the baseline

(5) Incorrect inspections intervals for an aircraft or tracked component, such as aircraft armament equipment, mission mounted equipment, and aerial refueling stores

b. BTRs are submitted via the JDRS website. When JDRS is not accessible, BTRs will be submitted by priority naval message, addressed to the Baseline Help Desk COMFRC FST HQ Technical Data Department with info copy to COMNAVAIRFOR (N421) and the appropriate Type Wing, per the Baseline Trouble Report Message (Figure 10.9-3).

10.9.3.6 Conventional Ordnance Discrepancy Reports (CODR), Explosive Event Reports (EER), and Explosive Mishap Reports (EMR)

NOTE: Refer to OPNAVINST 5102.1 and OPNAV M-8000.16 for the authoritative policy on submitting CODRs, EERs, EMRs and ordnance-related PQDRs.

a. CODRs report incidents where ordnance or weapon systems fail to function per the design or intent of the system and result in no property damage or injury. This includes improper storage, explosives, ammunition, explosive systems, or devices, including weapon systems components that come in direct contact with the ordnance (e.g., ammunition, explosives, missiles) and AWSE or Ordnance IMRL items used to manufacture, fire, handle, test, load, deliver, store or transport ordnance. CODRs will be reported and monitored via the All Weapons Information System (AWIS) website (https://awis.navair.navy.mil/AWIS/index.asp).

b. EERs report accidents or incidents involving conventional ordnance, ammunition, explosives, explosive systems and devices resulting in an unintentional detonation, firing, deflagration, burning, launching of ordnance material (including all ordnance impaction off range), leaking or spilled propellant fuels and oxidizers (less OTTO fuel II), or chemical agent release. This pertains to all events that do not meet the severity classification of a Class A, B, or C mishap per OPNAVINST 5102.1. EERs will be reported and monitored via the All Weapons Information System (AWIS) website (https://awis.navair.navy.mil/AWIS/index.asp).

c. EMRs report accidents and incidents defined as explosive mishaps which meet a severity classification of class A, B, or C per OPNAVINST 5102.1. EMRs will be reported using Risk Management Information (RMI), even if an ordnance system works as designed, and human error contributed to an incident or accident. Any explosive event not meeting one of these severity classifications will be reported as an EER. EMRs will be reported to Risk Management Information (RMI) and monitored via the Air Force Safety Automated System website (https://afsas.safety.af.mil/).

d. Ordnance PQDRs will be submitted via the JDRS website (https://jdrs.mil), per the procedures of 10.9.3.9.

NOTE: If a Weapons Department is receiving AWSE maintenance support from an I-Level activity, the Weapons Department and I-Level activity will provide each other with a copy of submitted AWSE DRs.

10.9.3.7 Engineering Investigation (EI)

a. An EI is a physical examination of discrepant material conducted by the designated Fleet Support Team (FST) to determine the root cause of defects and deficiencies.

b. Deficient material reported via HMR or PQDR (CAT I or II) is automatically considered for an EI. Activities may also submit an EI (CAT I or CAT II) request for the following reasons:

(1) To support investigations of material associated with aircraft or grand mishaps, lightning strikes, electromagnetic interference, and stray voltage problems.

(2) To investigate a component rejected by the Navy Oil Analysis Program (NOAP) after all authorized repairs are attempted.

(3) To support the mandatory investigation requirements of Activated Aircraft Emergency Egress Systems per OPNAVINST 3750.6.

(4) When aircraft readiness is seriously impaired due to poor material reliability (including Support Equipment).

(5) When directed by higher authority.

c. The FST engineer for the discrepant material or equipment is responsible for determining whether an EI will be conducted, closed with a final response, or closed administratively.

d. Refer to paragraph 10.9.4 for EI material handling procedures.

10.9.3.8 Hazardous Material Reports (HMR)

a. HMRs will be submitted on any material deficiency, which, if not corrected, could result in death or injury to personnel, or damage to or loss of aircraft, equipment, or facilities.

NOTE: An HMR must be submitted regardless of how or when the discrepant condition was detected.

b. All HMRs are considered Category 1 safety discrepancies and must be submitted within 24 hours of discovery of any of the following conditions:

(1) Malfunction or failure of a component, which, if not corrected, could result in death or injury to personnel, or damage to or loss of aircraft, equipment, or facilities.

(2) A configuration deficiency in aircraft, engines, support equipment (SE), or components that creates a safety hazard.

(3) A design flaw that allows incorrect installation of parts resulting in possible system malfunction or failure.

(4) In-flight or ground loss of aircraft parts (things falling off aircraft (TFOA)) in which maintenance or material factors are involved.

c. HMR material will be processed in accordance with paragraph 10.9.4.

d. HMRs are submitted via the JDRS website.

NOTES: 1. When JDRS is not accessible; HMR will be reported by priority precedence message, within 24 hours of discovery, using the HMR and PQDR Message Template (Figure 10.9-1).

2. For HMR incidents where lack of training or improper training in maintenance procedures is a contributor to the discrepancy or incident, the Center for Naval Aviation Technical Training Unit, Pensacola, FL will be included in the "info" block of the HMR PLA: CENNAVAVNTECHTRA PENSACOLA, FL.

3. Things falling off aircraft related to Aircraft Armament System (AAS) parts or components will be dual-reported as an HMR per this instruction and a CODR per OPNAVINST M-8000.16.

4. Due to DOD service differences in JDRS terminology, an HMR is submitted in JDRS as a "CAT I EI with HMR intent."

10.9.3.9 Product Quality Deficiency Report (PQDR)

NOTE: PQDRs directly support Title 41 Code of Federal Regulations (CFR) §101-26.803-2 Reporting quality deficiencies and SECNAVINST 4855.3, Product Data Reporting and Evaluation Program (PDREP) objectives.

a. PQDRs will be submitted for new or newly reworked material, products, and software with deficiencies attributable to the use of poor quality material, or substandard workmanship by the supplier, contractor, or rework facility. The deficiency must have been discovered during receipt inspection or during the initial installation, initial operational check, or first flight with the material installed. PQDRs will also be submitted for materials that fail prematurely during the specified

warranty period and for materials manufactured or maintained under a Performance Based Logistics (PBL) or Contract Logistics Support (CLS) contract.

NOTES: 1. New material is defined as material procured under contract from a commercial or government source, or manufactured by a Depot. Material is considered new for PQDR purposes until it has been proven in actual operation.

2. Newly reworked material is defined as material which has been overhauled, rebuilt, repaired, or modified by a Depot or commercial activity. Material will be considered newly reworked for PQDR purposes until it has been proven during actual operation.

3. Warranted material is considered new for PQDR reporting purposes until warranty expiration.

4. Deficiencies that impact safety and are discovered after initial use will be reported as a CAT I EI (with the HMR indent checked). If safety is not an issue but an EI is considered necessary, submit a CAT II EI request.

5. PQDRs will not be submitted for material repaired by an I-Level activity. Defective material received from an I-Level activity will be returned to Supply as a Y-Code action, and will be investigated by the repairing I-Level activity's Quality Assurance (QA) per Chapter 7 procedures.

6. Material suspected of being counterfeit will be reported on a PQDR, regardless of the cost of the material. Annotate the "Suspect Counterfeit" intent box and enter "Suspect Counterfeit" in the description (Block 3B) and include a clear and concise description of the defect. Enter code 766 (Specification, Out of) in block 3C Malfunction Defect Code.

7. Technical Directives (TD) must be issued to recall and inspect quality deficient components per NAVAIRINST 5215.12. JDRS will not be used to recall quality deficient components.

8. Do not submit PQDRs for materials in TD Modification Kits found defective during installation. TD Modification Kit deficiencies will be reported to the Program Manager-Air responsible for the TD Modification Kit.

9. Foreign Military Sales (FMS) PQDR will be submitted to NAVSUP WSS as a Supply Discrepancy Report (SDR). If appropriate, NAVSUP WSS will convert the SDR to a PQDR and forward it to the applicable NAVSEA or NAVAIR Screening Point for review and further processing.

10. Do not submit PQDRs to COMFRC Quality Team, Patuxent River, MD. COMFRC Quality Team does not process nor investigate PQDRs.

b. CAT I PQDRs will be submitted for quality deficiencies with the potential to cause death, injury, or severe occupational illness; loss of or major damage to a weapons system; critically restrict combat capabilities; or result in a production line stoppage at original equipment manufacturer (OEM), contractor, and depot manufacturing and rework facilities. Discrepancies that

potentially impact a safety critical characteristic on a product specified as a critical safety item (CSI) will be categorized as a CAT I PQDR. Discrepancies with CSIs that do not impact safety will be categorized as CAT II PQDR.

c. CAT II PQDR will be submitted for quality deficiencies that do not affect safety or impair combat efficiency.

d. PQDR submission procedures:

(1) Submit PQDRs via the JDRS website.

(2) Submit a CAT I PQDR within 24 hours of discovery. Submit a CAT II PQDR within three calendar days of discovery.

NOTE: If JDRS is unavailable, report CAT I PQDRs by priority precedence message per the HMR and PQDR Message Template (Figure 10.9-1) within 24 hours of discovery.

(3) Verify the last rework activity and the manufacturer information is correct. Upload a copy of the Ready for Issue (RFI) tag or the Certificate of Conformance, the original Issue Release or Receipt Document Number (DD Form 1348-1A), and the contract number (if applicable) into JDRS. Additional support documentation may also be uploaded, such as photographs, test reports, and other pertinent data. Write the PQDR RCN on all uploaded documents.

NOTE: Failure to submit the RFI tag or Certification of Conformance, the original Issue Release or Receipt Document Number (DD Form 1348-1A), and the contract number (if applicable) may result in premature record closure without an investigation being performed and/or loss of credit for the defective material.

(4) For Depot Level Repairable (DLR) material, include the supporting Supply Department points of contact as information addressees.

(5) Process PQDR material exhibits per paragraph 10.9.4.

10.9.3.10 Supply Discrepancy Report (SDR)

NOTE: Refer to DLM 4000.25, Chapter 17 vice NAVSUP Publication 723 for the authoritative policy on submitting SDRs.

a. SDRs are used to report discrepancies related to incorrect packaging, preservation, marking, handling, overage, shortage, expired shelf life, or misidentified material attributable to the supplier of the material (including U. S. Government and commercial sources).

b. SDRs are submitted via the Product Data Reporting and Evaluation Program Automated Information System at (https://www.pdrep.csd.disa.mil/).

10.9.3.11 Technical Publications Deficiency Report (TPDR)

a. TPDRs will be submitted to correct deficiencies in Maintenance Requirement Cards (MRC), Checklists, Shop Process Cards, Maintenance Instruction Manuals (MIM), Interactive Electronic Technical Manual (IETMs), Weapons or Stores Loading Manuals, Conventional or Nuclear Weapon Checklists, Stores Reliability Cards (SRC), Illustrated Parts Breakdown (IPB), and Technical Directives (TD).

NOTES: 1. NAVAIR Fleet Support Teams (FST) will use the JDRS Fast Track TPDR to correct deficiencies and to initiate changes to technical publications under their engineering authority, for example to incorporate new data, such as TD changes.

2. TPDR are not used to report problems with instructions or notices.

3. Conflicts between procedures in technical publications and HAZMAT or HAZWASTE Environmental Compliance Regulations must be reported to the FST on an environmental report, HMR, or TPDR with the Fleet Readiness Center Southeast (FRCSE) (Code 4.3.4) and Aircraft Controlling Custodian (ACC) or Type Commander (TYCOM) as information addressees.

4. Recommendations for improvements (vice corrections) to procedures in technical publications are reported by letter to the applicable Fleet Support Team (FST).

5. Discrepancies in aircraft NATOPS manuals are reported per CNAF M-3710.7.

b. CAT 1 TPDRs will be submitted on safety related technical publication deficiencies that could result in death or injury to personnel, or damage to or loss of aircraft, equipment, or facilities. Submit CAT 1 TPDRs to the JDRS website (or via Interactive Electronic Technical Manual (IETM) JDRS interface, if available) within 24 hours of discovery. If JDRS is unavailable, CAT 1 TPDRs will be submitted by naval message on a Category 1 Technical Publication Report (Figure 10.9-2), with NATEC SAN DIEGO CA as an addressee.

c. CAT 2 TPDRs will be submitted for non-safety related technical publication deficiencies that cause maintenance delays of 8 hours or more. All non-safety related measurement value discrepancies, such as position sensitive indicator, rate of flow, torque values, or electrical readings will be submitted as a CAT 2 TPDR. List of Effective Pages errors will be reported as CAT 2 TPDR. In addition, P/N discrepancies causing a maintenance delay of 8 hours or more will be submitted as a CAT 2 TPDR.

d. CAT 3 TPDRs will be submitted for non-safety related technical publication deficiencies that cause maintenance delays of less than 8 hours. In addition, P/N discrepancies resulting in supply requisition errors causing maintenance delays of less than 8 hours will be submitted as a CAT 3 TPDR.

e. CAT 4 TPDRs will be submitted for non-safety related technical publication deficiencies of a non-technical or administrative nature that do not delay maintenance. CAT 4 TPDR includes misspelled words or typographical errors. CAT 4 will not be used to report List of Effective Page errors, errors in measurement values (position sensitive indicator, rate of flow, torque values, electrical readings, or other measurement readings), or illegible or incorrect P/N. These types of errors must be reported as CAT 1, 2 or 3 TPDR, as applicable.

f. General TPDR procedures:

(1) Submit a separate TPDR for each deficiency, whether the deficiencies are in the same or a different publication. This facilitates tracking and final resolution of the TPDR. IETM users will also submit separate TPDRs for each deficiency.

(2) Contact the JDRS Clearinghouse, listed on the JDRS website under the "Help" menu, "Service Contacts" link or the local JDRS Clearinghouse Representative for assistance in resolving problems with submitting a TPDR via JDRS. For additional information on TPDR, contact the NATEC TPDR Clearinghouse Coordinator (COMFRC FST HQ Technical Data Department) at DSN 735-1888, or COMM (619) 545-1888. Information is also available in NAVAIR 00-25-100.

(3) TPDR status is tracked on the JDRS website. The TPDR Drafter and Submitter will receive e-mail notification of changes in the status of the TPDR. Additionally, if e-mail addresses are provided during TPDR submission, the originator and other addressees will also receive status feedback.

(4) Requests for deviation to TPDR submission policy will be addressed via naval letter or message to COMFRC FST HQ Technical Data Department, subject "JDRS TPDR Waiver Request."

10.9.3.12 Transportation Discrepancy Report (TDR)

NOTE: For the authoritative policy on submitting TDRs, refer to Defense Transportation Regulation DTR 4500.9-R, Part II - Cargo Movement, Chapter 210.

a. The purpose of a TDR is to document the loss, shortage or damage to Government material to support the filing of claims against Transportation Service Provider (TSP). TDRs report transportation discrepancies involving motor, air, water, rail, and small package TSPs for:

(1) Astray freight (see Defense Transportation Regulation (DTR) Chapter 209)

(2) Shortage

(3) Pilferage

(4) Theft

(5) Damage

(6) Vandalism

(7) Material overage

(8) Contract and/or accessorial services ordered but not provided

(9) Non-conformance with HAZMAT shipping requirements

b. TDRs are submitted via https://www.sddc.army.mil/tdr/default.aspx

10.9.4 Exhibit Handling Procedures for EI, HMR, and PQDR (CAT I and CAT II) Material

NOTES: 1. Exhibit handling procedures must be strictly followed to ensure exhibits are properly prepared, stored, shipped, and delivered to the FST or Quality Team responsible for conducting the investigation.

2. Exhibits will only be stored or shipped by activities identified in block 20A of the Deficiency Report.

3. All exhibits must be turned into the Supply Department, except for environmentally sensitive material, which must be held in a HAZMAT storage area, and Communications Security Material System (CMS) material, which must be turned over to the CMS vault or stored in a CMS approved safe (as applicable) pending disposition instructions.

4. When PQDR exhibits are turned into local exhibit holding activities (local supply department) the original requisition number for the exhibit must be provided.

a. The Work Center responsible for the item will protect and package the exhibit immediately upon removal in order to prevent corrosion, contamination, or other damage. Protection and packaging requirements:

(1) Use electrostatic discharge caps or tape on all electrostatic discharge sensitive exhibits.

(2) Cap or plug all fluid openings to prevent contamination or loss of fluids.

(3) Do not adjust, disassemble, or perform any type of cleaning on the exhibit unless authorized by the appropriate NAVAIR FST for EIs or Quality Team Screening Point/Action Point for PQDRs.

(4) Maintain all exhibits in an "as is" condition. Do not attempt to reassemble fragments of failed material, remove any component for future use, make any adjustment, disassemble, or clean during local troubleshooting/investigation unless authorized by the NAVAIR FST for EIs or NAVAIR Quality Team Screening Point and/or Action Point for PQDRs.

(5) When feasible, forward associated accessories, components, or materials suspected of contributing to the malfunction.

(6) Mark the turn-in WO or MAF with "EI" or "PQDR" in 3-inch red letters. Do not obscure other data on the WO or MAF.

(7) Annotate the RCN in the discrepancy block of the WO or MAF.

(8) Annotate BCM-8 and EI or PQDR in the Corrective Action block of the WO or MAF.

NOTE: Consumables will be treated as repairable items and placed in BCM-8 status so the exhibit can be placed in Litigation "L" Supply Condition Code by the Supply Department.

b. The reporting activity's QA Department will prepare exhibits as follows:

(1) Whenever possible, take photographs showing the condition of the exhibit when the deficiency was discovered. Digital pictures will be uploaded to the JDRS website in the Miscellaneous Attached Message/Document section of the Report Summary page.

(2) Prior to packaging the exhibit, ensure all pertinent information is recorded.

(a) Scan or digitally photograph the Ready For Issue (RFI) Tag (DD 1574) and upload or attach to the DR, prior to submittal. If the RFI Tag is added after submission of the DR, upload it in the Miscellaneous Attached Messages/Documents section of the Report Summary page in the

JDRS website. Including the RFI Tag will assist the Quality Team in determining and verifying the repair activity.

(b) Record the contract number under which the material was manufactured or repaired in block 13A of the DR. The contract number may be found on the Manufacturer's Invoice (DD Form 250), on the Requisition and Invoice/Shipping Document (DD Form 1149) or DD Form 1348-1 Issue Release/Receipt Document, on package markings, or stamped or printed on the defective item or data plate. Use logistic tools, such as FEDLOG, to assist in determining the contract number.

(c) Record the Original Requisition Number/Turn-in Document Number in block 13B. The requisition number is mandatory for a charge reversal.

(3) Attach the WO or MAF, PQDR Exhibit Tag (DD Form 2332), a copy of the PQDR or EI request, and a copy of the shipping instructions (Preliminary Disposition Report) to the component or assembly.

(4) Verify all associated service records, for example, SRC, EHR, ASR, MSR, or AESR, have the appropriate logbook entries. Ensure the correct record accompanies the exhibit and is properly stored in the shipping container.

(5) For aircraft engine and gas turbine compressor or engine related EI and PQDR exhibits, annotate the engine logbook as transferred for EI or PQDR investigation.

(6) Forward fluid samples in a clean, sealed, and authorized container. If contamination is suspected, annotate the sample bottles accordingly.

(7) Request special shipping instructions from the FST if any hazardous conditions are evident.

c. Supply Department must:

(1) Verify the exhibit is correctly packaged and marked in accordance with NAVSUP P-700. The exhibit WO or MAF and external packaging will be clearly marked "EI" or "PQDR" in 3-inch red letters.

(2) Quarantine and store the exhibit separately from material being processed through normal repair channels.

(3) Place the exhibit in Supply Condition Code "L" within the eRetrograde Management System (eRMS), and hold the exhibit until disposition instructions are received from the NAVAIR Screening/Action Point. If shipping instructions are not received within 20 calendar days from the date the EI or PQDR was submitted, contact the NAVAIR Screening/Action Point and request status. Do not BCM any EI exhibit due to a pending carcass charge without authorization from the NAVAIR Screening/Action Point and the TYCOM.

NOTE: The technical dialogue within JDRS is critical to providing a permanent record and timeline of follow-up action taken via phone calls or e-mail correspondence. If multiple follow-ups have been made without disposition instructions being provided, Supply will request assistance from the JDRS Clearinghouse. If no response received,

contact COMFRC Quality Commercial/Interservice Department, COMM 301-757-8716.

(4) Once disposition instruction is received and BCM action is completed, process and mark all EI and PQDR material using Supply Condition Code "L" in the eRetrograde Management System (eRMS).

NOTE: Components held in Supply Condition Code "L" will not generate a carcass bill for 45 days vice 30 days for components held in Supply Condition Code "F".

(5) Verify the following information is correct and properly entered into the eRMS website: Document number, National Stock Number (NSN), and Serial number

(6) Process the exhibit document number through eRMS for shipment to Advanced Traceability and Control (ATAC) (afloat units) or in accordance with local shipping procedures (shore activities) for further transfer to final destination.

NOTES: 1. Unless otherwise directed by the FST or Quality Team, all EI and PQDR exhibits must be shipped using the Premium shipping tool on the JDRS website.

2. Under no circumstances will shore activities ship EI or PQDR exhibits within the ATAC system.

3. Afloat units will process all Non-Ready For Issue (NRFI) retrograde components, including EI or PQDR exhibits, via eRMS using "BEI" or "BQD" Document Identifier and ship via ATAC for further transfer to final destination.

4. Regardless of the method of shipment, all EI or PQDR exhibit shipments must be documented in JDRS to enable the JDRS Material Management Branch and all POCs involved with the investigation to track the shipment.

5. A request for Tracer Response can only be generated by the Originating Unit Submitter or Exhibit Holding Point personnel having Ship Exhibit with Tracer assigned user roles within JDRS (DR) Message Release Authority.

6. The COMNAVAIRSYSCOM JDRS Clearinghouse will provide assistance in resolving JDRS website shipping issues, overweight and oversized exhibits, connectivity issues, and waybill assistance. The JDRS Clearinghouse can be reached at 1-888-832-5972 or by contacting the local Clearinghouse Representative, listed on the JDRS website under the "Help" menu, "Service Contacts" or "Contact Us" link.

7. Material to be released to an authorized contractor's representative or shipped directly to a contractor's plant will be processed through the supporting Supply Department. Supply may issue the material on a custody basis only after receiving authority from the FST or Quality Team Action Point. DLR exhibits sent to commercial contractors will be shipped per the instructions received from the Action Point.

d. JDRS Customer Service Team (CST) will:

(1) Complete the JDRS Exhibit Receipt tool upon receipt of an EI or PQDR exhibit per Discrepancy Report Workload Priority (Figure 10.9-4).

(2) Complete D-level Repairable Carcass Tracking or TIR.

(3) Assist all POCs when tracking lost exhibits.

(4) Complete the JDRS Material Disposition tool, when the FST or Quality Team has completed their investigation, returned the material from Condition Code "L", and placed the material back into supply per disposition instructions.

(5) Approve EI Exam Plans.

NOTE: After record closure, the JDRS Exhibit Receipt tool remains live to allow the Customer Service Team to document the receipt of shipments or notify the POCs if exhibits were not received and are assumed lost.

10.9.5 O-Level and I-Level Activity Responsibilities

10.9.5.1 Type Wing or Marine Aircraft Group (MAG)

a. Act as the ADDR final approver or closing authority for aircraft under their cognizance.

b. Coordinate actions to meet the ADDR Process Timeline (Figure 10.9-10).

c. Review the ADDR report for accuracy, completeness, and validity.

d. Use the JDRS website to verify accurate information has been received from the originator. When incomplete or incorrect information is noted, contact the originating Depot to make the necessary changes.

e. Follow-up on ADDRs not received from the Depot within 45 calendar days after the aircraft is transferred to the Depot.

f. Ensure squadrons investigate discrepancies identified in the ADDR.

g. Review the squadron's investigative report for completeness and validity.

h. Conduct the necessary follow-up action to reduce the possibility of like occurrences.

i. Provide closing or final response, via JDRS website, on all ADDRs as soon as possible, but not later than 30 calendar days after receipt of the squadron's investigative report and applicable FST corrective actions or resolutions.

j. Evaluate ADDRs and squadron responses to identify T/M/S trends and take action to prevent recurrence.

10.9.5.2 Maintenance Officer (MO)

a. Enroll in JDRS as a DR Submitter (Approve and Submit website DR Message Release Authority).

NOTE: The MO may delegate DR Submitter role to the AMO, QA Officer, or NAMDRP Program Manager.

b. Review and authorize DRs, prior to submission in JDRS.

c. Designate DR Submitters (Approve and Submit website DRs Message Release Authority) and DR Drafters (draft only) per 10.1.2.9.

d. Forward ADDR investigation results to the Type Wing or MAG for screening and closing.

NOTE: ADDR final response timeline may be extended to permit a thorough quality investigation. Submit technical dialog, via JDRS Technical Dialog tool, informing the originator of the investigation progress every 30 days until the final response is submitted. Include the originator and all concerned activities in the distribution of the investigation report.

e. If a mishap was involved, coordinate with the Mishap Board and the Aviation Safety Officer (ASO) prior to releasing DRs.

10.9.5.3 Quality Assurance (QA) Officer

a. Enroll in JDRS as a DR Submitter (Approve and Submit website DRs Message Release Authority) (if delegated).

b. Designate the Quality Assurance Supervisor or a Quality Assurance Representative as the NAMDRP Program Manager per 10.1.2.9.

NOTE: The NAMDRP Program Manager must be assigned for a minimum of 12 months.

c. Review DRs for accuracy and completeness prior to forwarding to the MO.

d. Manage and coordinate the submission of DRs within specified timeframes.

e. Provide copies of DR correspondence relating to aviation ground, flight, flight related, and explosive mishaps to the ASO.

f. Review NAMDRP Computerized Self-Evaluation Checklist (CSEC) audits and direct corrective actions for process improvement.

g. Take corrective action to preclude or minimize the reoccurrence of deficiencies.

h. Investigate and address each deficiency listed on the ADDR within ADDR Process Timeline (Figure 10.9-10). The investigation will include a determination, if FST assistance is required to resolve ADDR deficiencies, and if maintenance procedures need to be modified to mitigate discrepancy trends.

10.9.5.4 NAMDRP Manager

a. Perform a CSEC program manager audit within 60 days of designation as Program Manager and annually thereafter per 10.7.5.8.

b. Provide NAMP indoctrination on NAMDRP per 10.1.4.7. Verify personnel receive NAMDRP familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Keep current on the DR requirements per paragraph 10.9.1, references a. thru o. and this NAMPSOP.

d. Assist work centers with determining which DRs are needed, and assist them with preparing DRs.

e. Prior to submission to the QAO, screen DRs and verify that the correct deficiency report is selected, all data fields are complete and accurate, the discrepancies are sufficiently detailed and clearly described, and the correct screening point is identified using the JDRS ST Lookup Tool by T/M/S.

NOTE: DRs with missing, incomplete, or inaccurate data are at risk of not being investigated and prematurely closed due to "Missing Documentation".

f. Review DRs for discrepancy trends and provide the QAO with recommendations for corrective action to resolve deficiencies.

g. Respond to ADDRs, via the JDRS Acknowledge Receipt tool and within the ADDR Process Timeline (Figure 10.9-10).

NOTE: If the ADDR was not sent to the correct squadron, the program manager will use the JDRS Acknowledge Receipt tool to reject the ADDR to the originating D-level activity. Immediate Acknowledge/Reject action will be taken to ensure the correct squadron completes the Acknowledge Receipt process within the ADDR Process Timeline (Figure 10.9-10).

h. Maintain an RCN log to ensure each DR, including EER, EMR, and CODR, is assigned a unique RCN. For detailed procedures refer to paragraph 10.9.3.2. The RCN log must contain the following:

(1) Date

(2) RCN

(3) DR Type

(4) Nomenclature

(5) BUNO Number (for AIDRs).

(6) P/N

(7) S/N. (if applicable)

(8) NSN or NIIN

(9) Brief description of deficiency

(10) Status (filled in upon issuance of final or closing report)

i. Review JDRS technical dialog pertaining to the unit's DRs. Initiate JDRS FST Input Request or technical dialog correspondence to the FST and Quality Team when:

(1) DR responses have not been received within prescribed timeframes.

(2) Shipping instructions have not been released within 20 days of DR submission.

(3) DRs have not met process timeline goals specified in AIDR Process Timeline (Figure 10.9-5), EI Process Timeline (Figure 10.9-6), and PQDR Process Timeline (Figure 10.9-7).

(4) Support is required to resolve ADDR deficiencies, or ADDR trends indicate the need for an update to maintenance procedures/specifications.

j. Provide JDRS training to DR Drafters and DR Submitters.

NOTE: JDRS handbooks are available under the JDRS "Help" menu, "Handbooks" link to assist users with tool operation.

k. Perform a monthly validation and update of personal information, such as phone number, e-mail address, PLA, office code, rank, and job title, for DR Drafters and DR Submitters, and notify JDRS via the "Contact Us" tool update or delete profiles.

l. Maintain a program file to include:

(1) Program POCs.

(2) FST, Quality Team or manufacturer responses received external to JDRS. Retain for one year or until final FST, Quality Team, or manufacturer response (closing response/action) is received, whichever is greater.

(3) Follow-up messages or correspondence and JDRS technical dialogs.

NOTE: DRs and technical dialog correspondence stored on JDRS do not require hard copy files. JDRS maintains electronic copies of all DR and related correspondence and closing reports. A paper copy of the DR may be retained when connectivity with JDRS is an issue.

(4) References or cross reference locator sheets.

(5) Initial and most current completed CSEC program manager audit and program audit.

10.9.5.5 Division Officers

a. Enroll in JDRS as a DR Drafter.

b. Review DRs submitted by the division and coordinate with QA when recurring deficiencies are noted.

10.9.5.6 Work Center Supervisors:

a. Enroll in JDRS as a DR Drafter.

b. Submit DRs to QA whenever a discrepancy occurs that meets the reporting requirement.

c. Verify NAMDRP indoctrination training is provided to personnel per 10.1.4.7.

10.9.6 NAVAIR Activity Responsibilities

10.9.6.1 FST and Quality Teams for ADDRs, AIDRs, EIs, EI/HMRs, and PQDRs

a. Respond to DRs, via JDRS Website (https://jdrs.mil) in the Acknowledge Receipt tool, within the AIDR Process Timeline (Figure 10.9-5), EI Process Timeline (Figure 10.9-6), and PQDR Process Timeline (Figure 10.9-7):

(1) One calendar day after receipt of a CAT I EI, CAT I PQDR, or CAT 1 TPDR

(2) Three calendar days after receipt of a CAT II PQDR

(3) Four calendar days after receipt of an AIDR

(4) Thirty calendar days after receipt of a CAT 2, 3, or 4 TPDR

NOTES: 1. Acknowledging receipt of a DR is considered a response.

2. DRs submitted via command e-mail will be imported into JDRS upon receipt by the FST or Quality Team. The FST, or Quality Team will make every effort to acknowledge the DR within this instruction's timeframes.

3. DRs received during scheduled facility shutdown periods (weekends/holidays) will be acknowledged the next working day.

b. Take timely action on all EI requests per COMNAVAIRSYSCOM Research and Engineering Group EI Process Timeline (Figure 10.9-6). FST may request assistance in completing an EI or initiating an EI within the FST organization when a problem is suspected and has not been reported.

c. If the FST is unable to complete an EI because of equipment or facility limitations, specialized engineering discipline requirements, or other reason(s), FST will request assistance from an appropriate Navy technical activity or contractor establishment. Assistance from other FSTs will be requested by message with an information copy to the PMA and COMNAVAIRSYSCOM. Assistance from other Navy technical activities or contractors will be requested by the FST to the appropriate COMNAVAIRSYSCOM code on the Partial Listing of FST (Equipment Supported) (Figure 10.9-8). When contractor assistance is required and a support contract exists, request for assistance may be sent directly to the appropriate ACO by message. Approval by the PMA is required prior to obligating funds for any contractor assistance services.

d. Process investigations as follows:

(1) Determine if the HMR or PQDR was sent to the correct FST, or Quality Team. If not, readdress the request to the correct FST, or Quality Team, via JDRS website Acknowledge Receipt tool, for action and inform the originator of the action taken.

(2) If the correct FST, or Quality Team cannot be identified, forward the report to the JDRS Clearinghouse, via the JDRS website Acknowledge Receipt.

NOTE: Immediate acknowledge receipt or forward action must be taken to ensure the correct FST, or Quality Team completes the acknowledge Receipt Process within AIDR, EI, and/or PQDR Process Timelines (Figures 10.9-5, 10.9-6, and 10.9-7).

(3) Liaison with the report originator (as required) to obtain amplifying or clarifying information on the reported discrepancy or failure.

(4) Study the history of failures and determine if an EI is needed on the equipment or material in question.

(5) Confirm the criticality (CSI, CAI, or noncritical) of the discrepant item or establish the criticality if a determination had not previously been made. Every HMR, EI, and PQDR processed through JDRS contains a link by which criticality determinations or recommendations can be submitted to appropriate Critical Item Managers. This facilitates updating the official Critical Item database to ensure the DOD community is aware and responsive to issues relating to critical parts.

(6) Close deficiency reports and/or EI requests via a JDRS Closing Report when an investigation will not be conducted.

NOTE: Include the Supply Department or unit holding the material as an action addressee within the Closing Report. Provide instructions stating the material will not be required for investigation and may be released for repair via normal supply channels.

(7) Complete the JDRS website Go or No Go tool to determine the engineering risk, cost analysis, or other factors that indicate whether an investigation is required. Use the Technical Dialog tool to communicate with the report originator or other POCs when additional informational is required.

(8) When it is determined that an investigation is required, assign an Investigation Control Number (ICN) and provide the JDRS Preliminary Disposition Report/Shipping Instructions, for the discrepant equipment or material or describe the arrangements for an onsite investigation. All exhibits must be shipped as directed by the Preliminary Disposition Report/Shipping Instructions.

(9) Use the ICN numbering system, for example, WC3EI-AV8-0001-04S, for deriving ICNs per the following:

(a) The first elements of the ICN must be the three-character D-level identifier (Organization Code) per the Deckplate Organization Code Translator at https://deckplate.navair.navy.mil/#/, then References and select Organization Lookup, followed by "EI" or PQDR" and a dash (-).

(b) The second element of the ICN must be the two-, three-, or four-character system identifier (H60, T400, ACCY, ELEC, AVNC, etc.), followed by a dash (-). For PQDR, the investigative quality organization may be used vice system identifier.

(c) The third element of the ICN must be a four-character sequentially assigned number beginning with "0001" for the first assigned HMR/PQDR in a new calendar year, followed by a dash (-).

(d) The fourth element of the ICN must be the two-digit calendar year identifier, (ex. "07" for calendar year 2007), followed by a request urgency indicator of "R" for Routine (CAT II), "S" for Safety, or "M" for Mishap related (CAT I).

(10) Develop an Exhibit Examination Plan via JDRS. Ensure the examination plan is provided to the investigating activity and customer service team. Notify local investigating activity

receiving personnel of the request for the equipment/material exhibit can be properly identified and routed when received.

(11) Follow-up on equipment or material non-receipt. Under normal circumstances, follow-up must be made within four calendar days for CONUS (eight calendar days for OCONUS shipping) after the response message. The period may be extended if it is known that shipment will take longer than 20 calendar days. Follow-up includes a JDRS Tracer Request to the originator and supply activity responsible for shipping the material. Checks are also conducted with the local supply activity, Customer Service Team charged with receiving the material, site delivery points, and repair receiving points to ensure the material is delivered to the correct destination.

NOTE: All possible follow-up actions must be taken, particularly on equipment/material related to CATI EIs and PQDRs, and aircraft mishaps.

(12) Conduct or arrange for the completion of the EI. EIs must be assigned Priority 1 or 2 depending on the FSTs assessment of the probable impact or effect of the reported problem. EIs in support of aircraft mishaps must be assigned Priority 1.

NOTE: The originator's recommended or requested priority must be given serious consideration.

(13) Reclassify the EI to a PQDR if the investigation provides factual evidence that the defect was attributable to the use of poor material quality or substandard workmanship by the supplier, contractor, or rework facility. The PQDR Quality Team may reclassify a PQDR into an EI based on factual evidence.

(14) If completion of an investigation requires assistance from another FST, or Quality Team request assistance directly from the FST, or Quality Team with information copy to the PMA. If another Navy technical activity or a contractor will complete the investigation, forward a letter or message to the appropriate COMNAVAIRSYSCOM program office requesting assistance. In either case, the report originator must be officially notified of the change in Action Points and provided with new contact points. Any Navy activity or contractor performing an investigation must submit a report of findings, conclusions, and recommendations to the FST/Acton Point only. The FST/Action Point will review or amend the report, and then issue a final report or closing action.

(15) Final Reports must be completed within the prescribed timeframes shown within each individual Process Timeline (Figures 10.9-5, 10.9-6, or 10.9-7). Total time allowed to complete the Final Reports from receipt of the exhibit (or the beginning of the Examination Cycle) varies dependent upon whether the investigation is a result of a CAT I mishap, a CAT I non-mishap, or a CAT II failure. If the final report cannot be completed within the timeframe shown within each individual Process Timeline (Figures 10.9-5, 10.9-6, or 10.9-7), an interim report or message must be provided to the originator at the specified intervals until the Final Report is released.

(16) Return, or provide for the return of, the unserviceable equipment or material to the CST for disposition. Use the JDRS website (https://jdrs.mil) Material Disposition tool to inform the CST of the condition of the material and disposition direction. Serviceable RFI material will be certified as such, and applicable documentation (RFI Tag, etc.) will accompany the component. If the equipment or material is extensively disassembled and salvageable, it may be inducted for rework

and should be entered into the Supply System inventory under the proper condition code. In the case of EIs and/or PQDRs supporting mishap investigations, no disposition of the equipment or material will be made until released by the senior member of the AMB per OPNAVINST 3750.6.

NOTE: Mishap material must be managed and maintained by the cognizant FST. It is the responsibility of the Engineering Team to conduct follow up actions or disposition requests to the AMB. Once the AMB approves the material disposition, the Engineering FST will contact the JDRS Clearinghouse for workflow assistance to reopen the DRs Disposition tool. The FST will then dispose of the material, via normal Material Disposition means. The Customer Service Team (CST) will return the material from "L" condition to either "A" "F" or "H" as instructed and process accordingly.

(17) FSTs will support the processing of PQDRs for assigned material per paragraph 10.9.6.1. Activities responsible for investigations must take action on PQDR requests per requirements of COMNAVAIRSYSCOM Quality Management Group.

NOTE: The D-Level Quality Department will serve as the lead for coordinating the internal effort to ensure PQDR are processed, investigated, and responded to within the PQDR Process Timeline (Figure 10.9-7).

10.9.6.2 AIDR Quality Teams

NOTE: For additional policy concerning the processing of AIDRs refer to COMFRC Quality Management Group (QMG) AIDR Screening and Investigation Standard Work Package (SWP) 6412-002 located under the NAMDRP tab at: Standard Work Process (SWP) Documents - All Documents (navy.mil) https://myteam.navair.navy.mil/frc/COMFRC/COMFRCSWPDocs/Forms/AllItems.aspx.

10.9.6.2.1 AIDR Screening Point

a. The AIDR Screening Points are:

(1) The D-level activity for those aircraft reworked (organic) under their cognizance.

(2) COMNAVAIRSYSCOM (cognizant PMA) for aircraft manufactured or reworked under commercial contracts.

(3) The FST for aircraft reworked under Depot Maintenance Inter-Service Support Agreement.

(4) The cognizant government PCO for aircraft manufactured or reworked under commercial contract or inter-Service agreement not administered by COMNAVAIRSYSCOM PCO.

(5) FRC WESTPAC for those aircraft reworked under their cognizance or at contractor facilities under their cognizance.

b. AIDR Screening Points must:

(1) Determine if the AIDR has been sent to the correct Quality Team or AIDR Screening Point. If not, use JDRS Acknowledge Receipt tool to readdress the request to the correct Quality Team or AIDR Screening Point for action and inform the originator of the action taken.

(2) If the correct FST cannot be identified, forward the report to the JDRS Clearinghouse, via JDRS Acknowledge Receipt tool for acton.

NOTE: Immediate acknowledge receipt or forward action will be taken to ensure the correct Quality Team completes the Acknowledge Receipt Process within the AIDR Process Timeline (Figure 10.9-5).

(3) Evaluate all incoming and outgoing AIDR to determine urgency, action required, and category, using JDRS.

(4) Review the AIDR report for accuracy, completeness, and validity. When incomplete or incorrect areas are noted, obtain the necessary information by contacting the originator. Make the necessary changes via the JDRS Data Review or Data Edit tools, and complete the JDRS processing prior to issuing a final report.

(5) Follow-up on AIDR not received from the aircraft reporting custodian within 45 calendar days after the aircraft is delivered to the reporting custodians.

(6) Identify those deficiencies requiring a response from the AIDR Action Point.

(7) Request the AIDR Action Point investigate discrepancies identified.

(8) Review the AIDR Action Point's investigative report for completeness and validity.

(9) Provide final response, via JDRS website, on all reported AIDR deficiencies as soon as possible, but not later than 45 calendar days after receipt of the AIDR. The final response timeline may be extended for a thorough quality investigation. A technical dialog will be submitted, via JDRS Technical Dialog tool, informing the originator of the investigation progress every 45 days until the final report is submitted. Include the originator and all concerned activities in the distribution of the investigation report.

(10) Review all AIDR for compliance to D-level maintenance specifications.

(11) Conduct the necessary follow-up action to reduce the possibility of like occurrences.

(12) Adhere to the AIDR Process Timeline (Figure 10.9-5).

10.9.6.2.2 AIDR Action Point

a. Perform an investigation and address each deficiency as requested by the AIDR Screening Point.

b. Forward Investigative results to the AIDR Screening Point as soon as possible, but no later than 45 calendar days from the date of AIDR submission.

c. Take corrective action to preclude/minimize repetitive deficiencies.

d. Adhere to the AIDR Process Timeline (Figure 10.9-5).

NOTE: Some D-level activities serve as both the AIDR Screening and Action Points.

10.9.6.3 ADDR Support Point

FST must provide the following ADDR Support:

a. In the event the squadron needs assistance in resolving deficiencies listed in the ADDR, they will request support via the JDRS FST Input Request Tool. FST will screen and acknowledge all incoming ADDR FST Input Requests within 3 working days of receipt.

b. Provide resolution or issue corrective actions for squadron requested ADDR support within 30 days of receipt of FST Input Request.

c. Initiate changes to the T/M/S O-Level periodic maintenance requirements to correct deficiencies noted in the FST or squadron investigation.

d. Initiate changes to T/M/S D-level PMI specifications to correct deficiencies noted in the FST or squadron investigation.

NOTES: 1. An interim response will be provided via JDRS technical dialog if resolution is not determined within 30 days and a status update every 30 days thereafter, until final resolution.

2. Corrective action is defined as a TPDR, IRAC, RAC, change or revision to the applicable technical publication(s). Corrective actions will be tracked via the JDRS Action Tracker tool.

10.9.6.4 Baseline Trouble Report

a. NAWCAD Air Systems Group (ASG) is designated as the process owner for NALCOMIS OOMA baseline management and will ensure that a baseline manager is assigned to each T/M/S that utilizes NALCOMIS OOMA. BTRs are the medium used to report NALCOMIS OOMA baseline deficiencies. Baselines manager responsibilities within the BTR process include, but are not limited to, the following:

(1) Maintain a record of all baseline changes utilizing JDRS. Changes are broadcast via the Baseline Trouble Report Daily Summary located on the NATEC TMAPS website.

(2) Acknowledge receipt of each BTR and assign action, as required, within 1 working day after receipt of a BTR.

(3) Research all BTRs for applicability and content.

(4) Coordinate all actions required to resolve the reported issue. Provide status updates to the affected parties via the Tech Dialog function within JDRS if resolution will require more than 3 working days to complete.

(5) Monitor BTR submissions and if warranted provide change recommendations for NALCOMIS OOMA application deficiencies, process improvements, baseline management or NAMP policy changes to the NAWCAD Air Systems Group (ASG) process owner for review and consideration.

(6) Ensure that all changes to approved reference material required to resolve baseline issues are coordinated with the applicable PMA/FST.

b. PMA or FST Baseline Managers:

(1) Follow-up each BTR to ensure corrective action is completed.

(2) Provide BTR status to ACC or TYCOM and Type Wings, MAGs, or CVWs.

10.9.6.5 PQDR Quality Teams

10.9.6.5.1 PQDR Quality Team Screening Point

NOTE: For additional policy concerning the processing of CAT I and CAT II PQDRs refer to COMFRC Quality Management Group (QMG) Product Quality Deficiency Report Standard Work Package Product Quality Deficiency Report Screening and Investigation (SWP) 6412-001 located under COMFRC Instructions, Standard Work Process (SWP) Documents at: Standard Work Process (SWP) Documents - All Documents (navy.mil) https://myteam.navair.navy.mil/frc/COMFRC/COMFRCSWPDocs/Forms/AllItems.aspx.

a. Examine the PQDR request to determine if the DR has been sent to the correct Quality Team. If not, readdress the request to the correct Quality Team, via JDRS website Acknowledge Receipt tool, for action and inform the originator of the action taken.

b. If the correct Quality Team cannot be identified, forward the report to the JDRS Clearinghouse, via the JDRS website Acknowledge Receipt tool, for action.

NOTES: 1. COMFRC Inter-Service Screen Point (ISPT-NAVAIR) acts as the Screening Point for PQDR when the FST cannot be determined or for commercial contracts administered by a COMNAVAIRSYSCOM PCO.

2. Immediate acknowledge receipt or forward action will be taken to ensure the correct Quality team complete the Acknowledge Receipt within the PQDR Process Timeframes in accordance with Figure 10.9-7.

c. Evaluate incoming and outgoing PQDR to determine urgency, action required, and category using JDRS. When incomplete or incorrect areas are noted, obtain the necessary information by contacting the originator, make the necessary changes using either the Data Review tool or the Data Edit tool, and complete the required processing as follows:

(1) Import PQDRs received by D-level via command e-mail message into JDRS.

(2) Use the JDRS Data Review tool to verify accurate information has been received from the originator via JDRS Technical Dialog tool. When incomplete or incorrect areas are noted, obtain the necessary information by contacting the originator, make the necessary changes via the Data Review tool, and complete JDRS processing.

(3) Determine if the PQDR category (CAT I or CAT II) assigned by the originator is properly assigned. Using the Data Review tool, the Screening Point may make necessary changes

in category assignment, but must notify and provide justification to the originator via JDRS Technical Dialog tool within five calendar days of the date of change.

(4) Provide an immediate reply, via JDRS Technical Dialog tool, to other participating components (to include engineering FST) and activities when the report concerns safety in peculiar and common use items.

(5) Determine (where possible) if a contract warranty applies or initiates any special actions required. When the deficiency involves an item covered under a reliability improvement warranty, the PQDR must be processed (unless a Warranty Clause governs this workload).

(6) Identify material processed or reworked by another service component, such as Army, Coast Guard, or Air Force. Send the original PQDR to the inter-service PQDR Quality Team Action Point via JDRS Data Review tool. Provide the originator a copy of the request or transmittal.

(7) Forward PQDR, via JDRS, to COMFRC Government Furnished Equipment/In-Production PQDR (ISPT-NAVAIR) when the Screening Point is unknown.

(8) Forward PQDR to the appropriate PQDR Quality Team Action Point, via JDRS, within the following timeframes:

(a) CAT I PQDR within 1 calendar day after Acknowledge Receipt.

(b) CAT II PQDR within 10 calendar days after Acknowledge Receipt.

10.9.6.5.2 PQDR Quality Team Action Point

a. CAT I PQDR Exhibits. Provide an Interim Reply or a Closing/Final Report within 28 calendar days from Acknowledged Receipt for CAT I PQDRs not requiring an exhibit or 45 calendar days after the exhibit has been received.

b. CAT II PQDR Exhibits. Provide an Interim Replay or Closing/Final Report within 45 calendar days from Acknowledged Receipt for CAT II PQDRs not requiring an exhibit or 60 calendar days after the exhibit has been received.

c. Complete JDRS Shipping Instructions (Preliminary Disposition Report) to provide disposition instructions to the Supply Activity holding the PQDR exhibit.

d. Initiate a Tracer Request to the holding activity via JDRS for overdue delivery of requested exhibits or samples. Under normal circumstances, Tracer Requests will be made 20 calendar days after Preliminary Disposition Report release, but the period may be extended if it is known that shipment will take longer than 20 calendar days. At a minimum, the Tracer Request must include action addressees to the PQDR originator, the supply activity holding the exhibit, and the Customer Service Team responsible for receipt of the exhibit.

e. Follow-up on equipment or material related to safety.

f. Determine if the deficiency has been previously reported.

g. Determine if the previously reported deficiency is under investigation or has been resolved.

h. Notify the originator, within the timeframes previously outlined, that the problem is under investigation or has been previously resolved.

i. Determine if a quality investigation should be conducted, what action will prevent recurrence, and what reports of findings will be required from affected support points. Provide affected support points with action copies stating desired support.

j. Initiate appropriate action on CAT I PQDR to inform other activities (to include engineering FSTs), that may have received material with similar defects, and identify specific lot shipment suspected.

k. Initiate appropriate action to the Inventory Control Point (ICP) or Procurement Contracting Officer (PCO) or Administrative Contracting Officer (ACO), which could preclude further procurement or acceptance of deficient material. The ICP and PCO or ACO will request distribution activities, inspect or screen their stock, and issue ALERT notifications (when needed).

l. Provide an immediate reply, via JDRS Technical Dialog tool, to other participating components (to include engineering FST) and activities when the report concerns safety in peculiar or common items.

m. Determine if a contract warranty applies and initiate any special actions required. When the deficiency involves an item covered under a reliability improvement warranty, the PQDR will be processed for information only.

n. Verify CAT I Final Reports are reviewed by the Engineering FST. The Quality Team must send their final draft, via JDRS Technical Dialog tool, allowing the engineering team 24 hours to provide any comments and/or changes.

o. Adhere to the PQDR Process Timeline (Figure 10.9-7).

p. Process assigned FMS PQDR investigations via JDRS. Conduct communications with the FMS customer via NAVSUP WSS and D-level FMS Coordinator, to include requests for additional documentation, funding, exhibits, and material disposition instructions.

10.9.6.5.3 PQDR Support Point

a. When requested, assist the PQDR Quality Team Action Point under the established timeframes. Provide Interim Reply's containing current findings and any additional testing to the Action Point every 30 calendar days after receipt of the exhibit until root cause has been determined.

b. Furnish report of findings as requested by the PQDR Quality Team Action Point.

c. Review and take appropriate action on PQDRs received from cross-component lines (Army, Air Force, Coast Guard, NASA, FMS, etc. source of supply).

10.9.6.6 Technical Publication Deficiency Report Team

a. NATEC (FST HQ Tech Data Dept) Provide a TPDR Clearinghouse function staffed to coordinate TPDR actions, FST responsibilities, reassignment of TPDR between sites, FST, and to monitor, follow up, and ensure responses are provided within prescribed timeframes.

b. Maintain an active and historical record of all technical publication deficiencies within the JDRS website and the TMAPS link on the NATEC website (https://mynatec.navair.navy.mil).

c. Monitor the status of all CAT 1 TPDR and assign an action to the responsible FST, if acknowledgement has not taken place within 1 working day after receipt of a CAT 1 TPDR by the TDA.

d. Coordinate action with responsible technical publication authoring activities (FST, OEMs, or subcontractors) to ensure correction of technical publication(s).

e. Provide TPDR status (as requested).

f. FST must provide the following TPDR support:

(1) Screen and acknowledge all incoming TPDR to ensure they have been submitted using the correct categories (CAT 1, CAT 2, CAT 3, or CAT 4). Change or update status on each within the JDRS Website. TPDR acknowledgement timeframe is defined as:

(a) Acknowledge within 1 working day of receipt of a CAT 1 TPDR.

(b) Acknowledge within 30 working days for receipt of a CAT 2, 3, or 4 TPDR.

(c) Safety triage screening within 5 working days of acknowledgement of CAT 2, 3, or 4 TPDR to ensure TPDR does not contain any safety issue(s) which requires submission as a CAT 1 TPDR.

(2) Provide resolution of TPDRs per the following timeframes:

(a) CAT 1 TPDR. Issue corrective actions within 30 days of receipt of CAT 1 TPDR, corrective action is defined as an IRAC, RAC, change, or revision to applicable technical publication(s).

NOTES: 1. If resolution is not determined within 5 working days of receipt of CAT 1 TPDR, a preliminary response must be provided. In all cases, a response or report must be provided within 5 working days of receipt of a CAT 1 TPDR. Responses may be a preliminary response message or a final report message, including the actual IRAC, or a combination thereof. Responses to CAT 1 TPDR must be via JDRS message format and addressed to the same PLA as the original CAT 1 TPDR.

2. If resolution is not determined within 30 days and for every 30 days thereafter, an interim response(s) must be provided until final resolution.

3. On final resolution, a final report will be provided indicating final disposition and ending/closing action(s). A final report may take the place of a preliminary response, if final resolution is determined within 5 working days of receipt of CAT 1 TPDR.

(b) CAT 2 TPDR. Complete validation and annotate TPDR status within JDRS to indicate validity and additional steps to be taken. Every effort must be made to complete resolution and issue corrective action within 120 days of receipt of CAT 2 TPDRs. Corrective action for CAT 2 TPDRs must include incorporation into a planned technical publication change or revision, issue

as a separate emergent change or revision, or as urgency demands, issue as an IRAC or RAC to the applicable technical publication(s). Multiple CAT 2 TPDRs may be consolidated and resolved in a single corrective action.

(c) CAT 2, 3, and 4 TPDRs. Screen for safety related technical publication deficiencies within 5 working days and acknowledge that the "Safety triage has been completed" within JDRS website.

NOTES: 1. If changing the category of a CAT 2, 3, or 4 TPDR to a CAT 1 TPDR, FST must create a new CAT 1 TPDR within JDRS by selecting the "upgrade" feature, to initiate a Category 1 TPDR Priority Message. FSTs must indicate in the message that the original CAT 2, 3, or 4 TPDR has been upgraded.

2. Before downgrading a CAT 1 TPDR to a CAT 2, 3, or 4 TPDR, FSTs must contact the TPDR originator to discuss the reason(s) for downgrading the TPDR. If the decision to down grade is made, the FST will select the "Downgrade" feature in JDRS, to indicate the TPDR has been downgraded to a CAT 2, 3, or 4.

3. CAT 3 and 4 TPDRs must be held for additional review, validation, and incorporation as funding permits. The FST will attempt to incorporate CAT 3 and 4 TPDR with higher priority manual changes. Program offices will review the volume of CAT 3 and CAT 4 TPDR accumulated against active technical publications biannually and fund their incorporation, at a minimum, once every 3 years.

(3) Provide TPDR status to the ACC, TYCOM, or PMA.

(4) Coordinate with the NATEC TPDR Clearinghouse to resolve problems with the identification of responsibilities, to ensure they are:

(a) Assigned to the correct engineering and data management authorities.

(b) Managed effectively to provide technical publication users timely and accurate corrective actions.

(c) Initiate changes to technical publications under their engineering authority, to correct deficiencies found by the FST or to revise publications by incorporating acquisition related technical data, such as formal TDs. The FST will use JDRS "Fast Track" option to initiate TPDRs for any changes made to their publications, using each TPDR initiated to establish a Technical Manual Source Data Record as the authorized method of effecting a change to a publication.

HMR and PQDR Message Template

Precedence:	Priority for CAT I or Routine for CAT II
FM:	Message Originator PLA
TO:	PLA of NAVAIR FST or Screening Point AIG 423
INFO:	Enter PLAs of other activities, as applicable
SUBJ:	(ex. FA-18 CAT II PQDR)
REFS:	(include COMNAVAIRFORINST 4790.2)
RMKS	(ex. VFA-122/09355)
1. Reporting Custodian/UIC	
2. PLA of FST Unit	(ex. FRCSE NORTH ISLAND CA)
3A. RCN	(ex. R09355-03-0030)
3B. Description of failure/discrepancy	(Narrative Field)
3C. Malfunction Defect Code	(ex. 766, Specification, Out of)
4. Julian Date/Location Deficiency Discovered	(ex. 03126/NAS LEMOORE CA)
5. COG Symbol, NSN, SMIC	(ex. 7RH, 1234-00-123-1234, EY)
6. Nomenclature	(ex. TRANSDUCER, MOTION PICK-UP)
7. Operating time at failure/Measurement Unit	(ex. 0430 FLIGHT HOURS)
8. Manufacturer's Part Number	(ex. 140-203-1)
9. Mfr CAGE, Mfr Name, City, State	(ex. 81982, NOMO MFG CO, ALBANY, NY)
10. Qty Received, Qty Inspected, Qty Deficient, Qty In Stock	(ex. 1, 1, 1, 3)
11. Serial Number, Lot or Batch Number, Haz Mat/Procedure/ DMWR/TM	(ex. 172, N/A, N/A)
12A. New, Reworked, or Repaired	(ex. NEW)
12B. Date Manufactured, Reworked, or Repaired	(ex. DDMMMYYYY)
12C. LRA CAGE, LRA Name, City, State	(ex. 54321, GOOD2GO INC., NEWARK, DE)
13A. Contract Number	(ex. N12345-01-C-1234)
13B. Re-Order Requisition/Turn-in Document Number	(ex. N03300-5032-GD00) (for EIs: enter N/A)

NOTE: For AVDLRs, the Re-Order Requisition/Turn-in Document Number is required for credit or charge reversal.

13C. Purchase Order Number	(ex. N1234599PO1234)
13D. Dollar Value of Deficient Material, Man-Hours to Repair, Estimated Cost/Net Price	(ex. 5790.00 DOLLARS, 3 MHRS, 500.00 DOLLARS)
14. Government Furnished Material? (Yes, No, N/A or UNK)	(ex. NO)
15A. Item under warranty?	(ex. UNK)

Figure 10.9-1 (page 1): HMR and PQDR Message Template

15B. Warranty expiration date	(DDMMMYYYY)
16. WUC	(ex. 13A1210)
17. NHA NSN, Nomenclature, Part Number, Serial Number, CAGE	(ex. 4321-00-321-5432, WHEEL ASSY, 617018, N/A, 81982)
18. End Item NSN, Nomenclature, Part Number, Serial Number, CAGE	(ex. UNK, FA-18E, UNK, 161201, UNK)
19. Action/Exhibit Disposition	(ex. HOLDING EXHIBIT; RELEASED FOR INVESTIGATION; RETURNED TO STOCK; DISPOSED OF; REPAIRED; or OTHER (explain in Block 20B).
20A. Identify Supply Unit to Ship Exhibit	(ex. NAS LEMOORE SUPPLY)
20B. Action/Disposition Narrative	(ex. HOLDING TRANSDUCER PICK-UP EXHIBIT AT NAS LEMOORE SUPPLY PENDING DISPOSITION INSTRUCTION)
21. Requested Exhibit Action (Replacement, Credit, Repair, Other)	(ex. REQUEST CREDIT)
22A. How Safety of personnel or activity mission is affected	(Describe Operational, Safety, Suitability, or Effectiveness Impacts)
22B. Number of similar deficiencies in like items reported by the originating activity	(ex. FIVE IN THE PAST FOUR MONTHS)
22C. How deficiency was detected or confirmed	(ex. DURING ACCEPTANCE INSPECTION)
22D. Storage and handling information	
22E. Indicate if supporting documents will be supplied	(ex. PHOTOGRAPHS AVAILABLE)
22F. Description of incorrectly identified new material	
22G. Recommendations	(EI: N/A; PQDR: Fleet - N/A, Depot - list process recommendations)
22H. Name of Submitting Official	(ex. Name, Phone Number, E-mail address, Deployed)
22I. Aircraft model and bureau number	(ex. SH-60F / 164069)
22JEngine model, Serial number, TSN, TSO	(ex. F404-GE-402, 0360419, 1.5 HOURS, 0 HOURS
22K. TFOA? (Yes or No)	(ex. NO)
22Kl. Date Last Repaired/Replaced	(EI: enter date; PQDR: enter N/A)
22K1. Last maintenance performed	(EI: enter description; PQDR: enter N/A)
22K1. Date of last major inspection (ISO, Phase, HPO, HSC, etc.)	(EI: enter information as required; PQDR: enter N/A)
22K2. Description of damage to TFOA item and any remaining portions attached to aircraft	(EI: enter description; PQDR: enter N/A)
22K3. Type mission and mission profile	(EI: enter description; PQDR: enter N/A)

NOTE: Do NOT display information that will make the DR Classified.

Figure 10.9-1 (page 2): HMR and PQDR Message Template

PRIORITY
FM USS RONALD REAGAN
TO NATEC SAN DIEGO CA//TPDR//NAVAIRWARCENWPNDIV CHINA LAKE CA AIG FOUR TWO THREE
INFO COMSTRKFITWINGSPAC LEMOORE CA
BT
UNCLAS //N04790//
MSGID/GENADMIN/USS USS RONALD REAGAN //
SUBJ/CAT 1 TPDR NES-12 PARACHUTE ASSY//
REF/A/DOC/COMNAVAIRFORINST 4790.2//
REF/B/DOC/NA 13-1-6.2//
NARR/REF A IS NAVAL AVIATION MAINTENANCE PROGRAM.//
REF B IS EMERGENCY PERSONNEL AND DROGUE PARACHUTE SYSTEM MANUAL.//
RMKS/1. USS RONALD REAGAN AIMD/03370
2. NAVAIRWARCENWPNDIV CHINA LAKE CA
3. R20993-96-0014
4. 6010/USS RONALD REAGAN
5. 0513-LP-000-2150
6. THROUGH 21. NA
22. DETAILS
A. NA 13-1-6.2
B. NES-12 PARACHUTE ASSY
C. 01 OCT 95
D. NA
E. NA
F. 15-12C
G. 15-18A-14
H. 15-12C
I. THROUGH K. NA
L. ASSY INDUCTED INTO AIMD FOR SCHEDULED REPACK AND USE AS A TRAINING AID BY PARALOFT PERSONNEL. DURING TRAINING AND ACTIVATION OF THE FOUR LINE RELEASE SYSTEM, THE DAISY CHAIN SECURING LINES 1 AND 2 FAILED TO UNCHAIN. INVESTIGATION REVEALED THAT THE FF THREAD ENTERS AND EXITS THE FLUTE TOO CLOSELY, THE INDIVIDUAL THREADS OF THE FLUTE WEBBING WILL BREAK INSTEAD OF THE FF THREAD. IF THE LAST LOOP OF THE DAISY CHAIN IS NOT PULLED INTO THE FLUTE TO POSITION IT DIRECTLY UNDER THE ENTRY AND EXIT POINTS OF THE FF THREAD IN THE FLUTE, THE THREAD WILL BREAK BUT COULD BE PULLED THROUGH THE FLUTE WEBBING AND BE OF SUFFICIENT LENGTH TO BECOME ENTANGLED IN THE DAISY CHAIN. THIS COULD CAUSE A LOCKING OF THE REMAINING DAISY CHAIN AS IT DID IN THIS CASE. IF THE FF THREAD DOES NOT PIERCE THE LANYARD THROUGH THE CENTER, BUT ONLY CATCHES A PORTION OF THE OUTER CASING, IT IS POSSIBLE TO RUPTURE THE OUTER CASING OF THE LANYARD AND FAIL TO BREAK THE FF THREAD TACKING. PHOTOGRAPHS ARE AVAILABLE UPON REQUEST.
M. RECOMMENDATIONS:
1. RECOMMEND FOLLOWING WARNING BE INSERTED BETWEEN STEPS 13 AND 14 OF PARA 15-18A OF REF B: WARNING - ENTRY AND EXIT POINTS OF THE FF THREAD ARE AT LEAST 1/4 INCH APART. THE LAST LOOP OF THE DAISY CHAIN IS PULLED FAR ENOUGH INTO THE FLUTE TO POSITION IT DIRECTLY BENEATH THE ENTRY AND EXIT POINTS OF THE FF THREAD.
2. RECOMMEND FIG 15-12C BE CHANGED TO SHOW EMPHASIS ON SEPARATION OF ENTRY AND EXIT POINTS OF THE FF THREAD AND POSITIONING OF THE LAST LOOP.
N. J. P. TURNER, PRCM, ALSS LCPO, DEPLOYED//
BT

Figure 10.9-2: Category 1 Technical Publication Deficiency Report (Example)

PRIORITY
FM STRKFITRON TWENTY TWO
TO COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA-265//
INFO COMNAVAIRFOR SAN DIEGO CA
COMSTRKFITWINGPAC LEMOORE CA
FRC SAN DIEGO CA//
BT
UNCLAS //04790//
MSGID/GENADMIN/VFA-22//
SUBJ/BASELINE TROUBLE REPORT FOR F/A-18C TD PPC 117//
REF/A/DOC/COMNAVAIRFORINST 4790.2/15FEB08//
AMPN/REF A IS NAVAL AVIATION MAINTENANCE PROGRAM//
RMKS/1. VFA-22/PA3/09561
2. F/A-18C/PMA-265.
3. BTR VFA-22 CALENDAR DATE/SN
4. 00118/NAS LEMOORE CA
5. F/A-18C/96406/3103821-01
6. PPC 117
7. COMNAVAIRFOR 291630Z APR 04
8. N/A
9. TD PPC 117 IS MISSING FROM IN THE OPTIMIZED OMA BASELINE.
10. CHANGE BASELINE TO REFLECT PPC 117.
11. J. L. TACKETT, AMCS, LCPO, DSN 949-1111, COMM 409-998-1111
BT

Figure 10.9-3: Baseline Trouble Report Message (Sample)

Discrepancy Report Workload Priority

Priority Number & Type of Work Load

1. Special Projects. Reserved for specific assignment by COMNAVAIRSYSCOM to fulfill emergency requirements of the CNO. Examples: Investigations required by aircraft accident boards, boards of investigations, boards of inquiry, or safety DRs (CAT I EIs and CAT I PQDRs) under JDRS.

2. CAT II PQDRs under JDRS. Prototypes and projects of an urgent nature directed by COMNAVAIRSYSCOM.

a. Component Level Schedule Level One B08.

b. Emergency in-use SE requirements (carrier deployments, aircraft down for SE).

3. Acceptance and transfer of aircraft/missiles in delivery. Aircraft in COMNAVAIRSYSCOM field activity custody awaiting delivery and requiring correction of discrepancies/compliance with mandatory technical directives (including modifications).

a. Manufacturing, B08 weekly level two (including SE components).

b. Emergency repairs to missiles, aircraft, power plants, components, and customer services to meet operational requirements established by command authority.

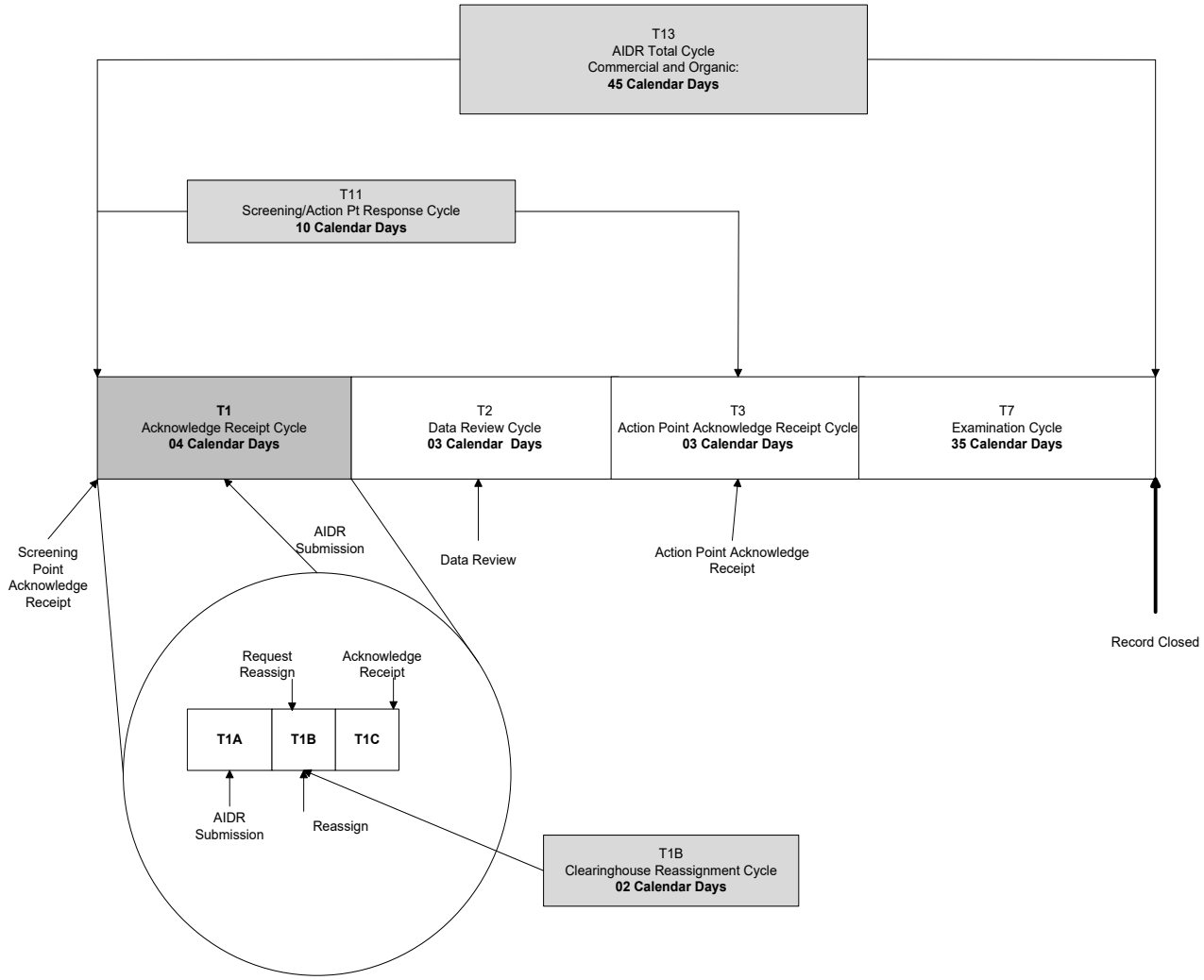
c. Regularly scheduled in- use SE requirements, including calibration and related support activities.

d. Industrial field team modifications and on-site SE (including calibration) industrial field team support.

4. Programmed D-level industrial workloads. Aircraft SDLM; rework of missiles, power plants, B08 weekly three or four level requirements (including SE components), SE and related routine supporting programs. Routine prototypes and projects not specified under priority 2 above.

5. Preparation of aircraft for delivery to long term storage points. Salvage and reclamation.

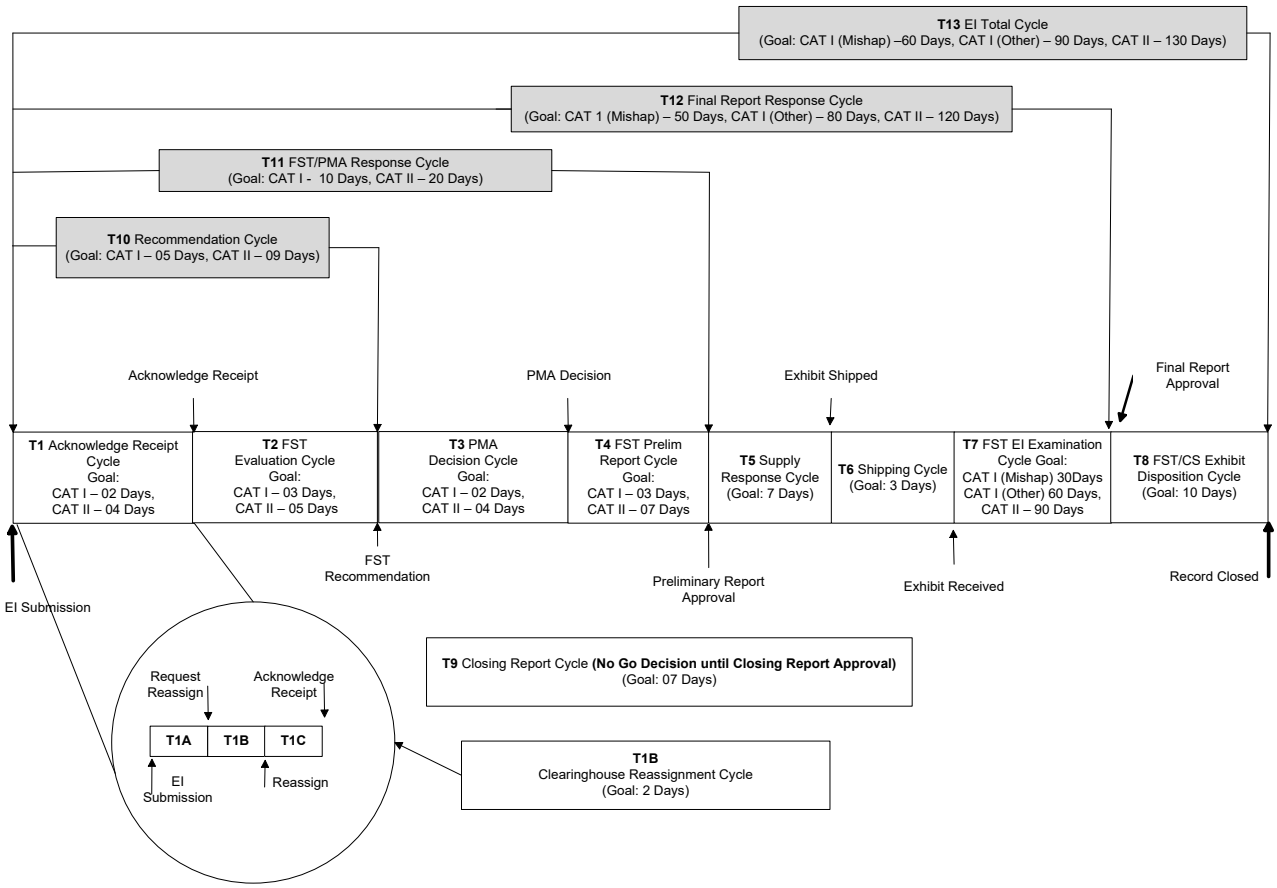
Figure 10.9-4: Discrepancy Report Workload Priority



NOTES: 1. AIDR process timeframes may be extended for a thorough quality investigation to be performed. A "Technical Dialog" will be submitted informing the originator of the progress of the investigation every 45 days after receipt of an AIDR.

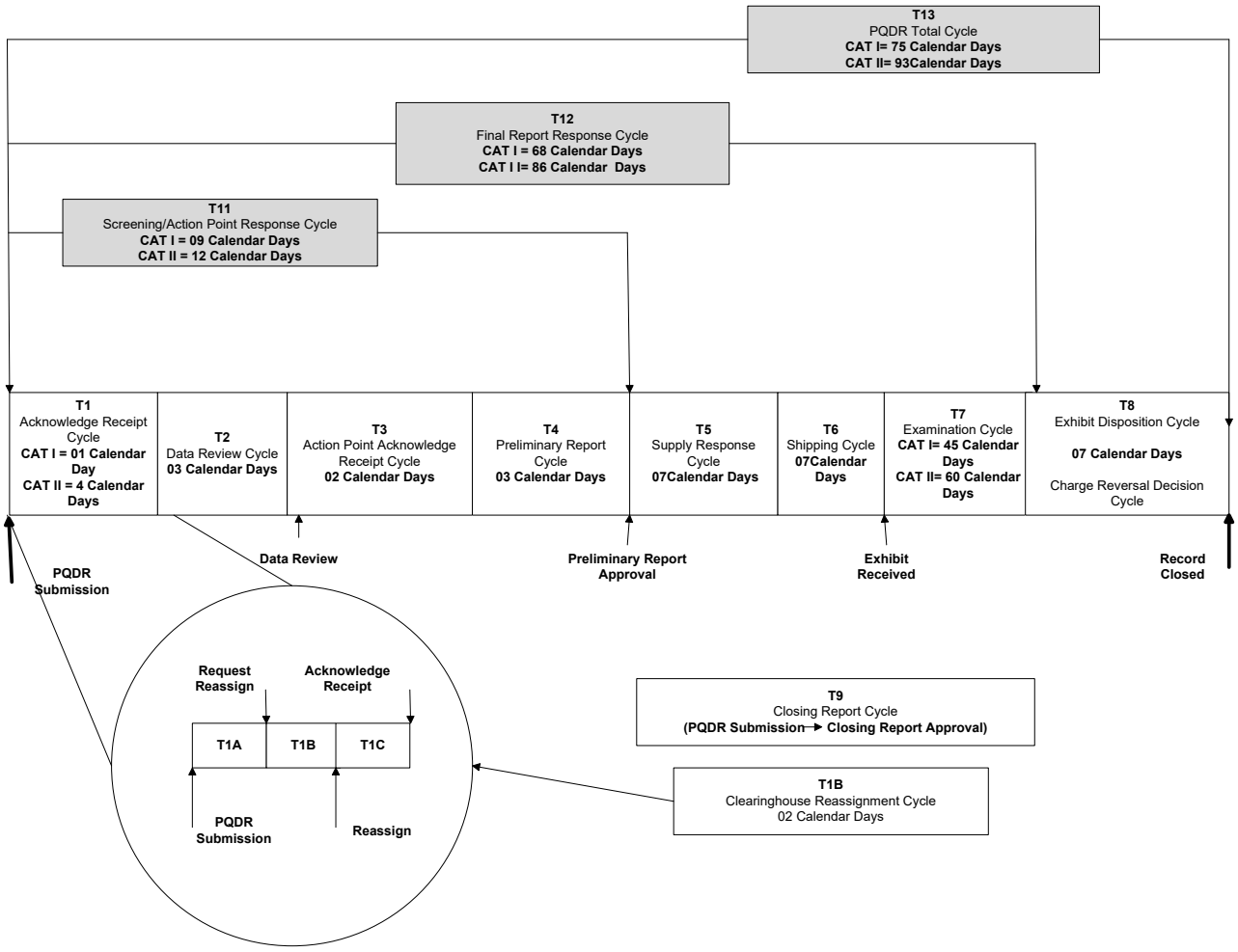
2. AIDR process timeframes do not include scheduled facility shutdown periods (weekends/holidays).

Figure 10.9-5: AIDR Process Timeline



NOTE: Goals deployed on timeline reflect the average TAT goal for each process step and include additional time to allow for weekends and holidays.

Figure 10.9-6: EI Process Timeline



NOTES: 1. PQDR process timeframes may be extended for a thorough quality investigation to be performed. An "Interim Report" will be submitted informing the originator of progress of the investigation every 45 days after receipt of a CAT I exhibit, or 60 days after receipt of a CAT II exhibit.

2. PQDR process timeframes do not include scheduled facility shutdown periods (weekends/holidays).

Figure 10.9-7: PQDR Process Timeline

Partial Listing of Fleet Support Teams

Program Manager	Fleet Support Team	Equipment Supported
PMW-187	NAV FST	Navigation Systems, GPS
PMA-201	CSW FST	Conventional/Precision Strike Weapons, LCDB, JDAM, JSOW, SLAM-ER, SDB II, DMLGB, LGB, and General Purpose Bombs
	CAD FST	Explosive Cartridges, CADs, PADs, Rockets, JATO, NACES
	AAE FST	Thermal Batteries
		Bomb Racks, Aircraft Missile Launchers
PMA-202	AECS FST	Aircrew Escape and Crashworthy Systems (AECS), GRU-EA7, SJU-5/6, SJU-4/13/14, NACES Ejection Seats, Parachute Systems, Fixed/Rotary Wing Crashworthy Systems, Crashworthy Seating
	AOS FST	Systems
		Aircrew Oxygen System (AOS), LOX Converters, O2 Regulators, O2 cylinders, O2 Hoses, OBOGS, OBOGS Support Equipment,
	LSS FST	Smoke Masks, Emergency O2 Systems (including seat pan emergency O2), Portable Fire Extinguishers
	NVS FST	Life Support Systems (LSS), Survival Equipment, Bail Out
	CB FST	Parachutes, Radio/Survival Electronics
		Night Visions Systems (NVS), AN/AVS-9, SNVS
		Chemical Biological (CB) Aircrew Protective Chemical Biological Equipment
PMA-205	TS FST	Aviation Training Equipment/Devices
PMA-207	CA FST	Commercially Supported Aircraft/Engines. TC-4C, C-9B, C-12,C-20, C-26, UC-35, C-37, CT-39G, T-39N, C-40, DC-130, C-130J, MD-369, T-34C, T-44A, TH-6B, TH-57, JT8D, PT6A, JT12, MK511, MK5298X, MK611, T56-A-9, 250-20N, AE2100D3
PMA-208	TRGT FST	Aerial Targets and Decoys Systems
PMA-209	ACE FST	Air Combat Electronics (ACE), ARC-182, ARC-210, AYK-14,
	ACE/OOP FST	APX-100, GPWS
		Out of Production ACE Systems
PMA-213	ATC/LS FST	Air Traffic Control and Landing Systems
PMA-225	WWMM FST	Worldwide Multi-Mission Systems, AGM-65, AGM-88, AGM-114, BGM-71
PMA-226	H-46 FST	H-46, T58
	F-4 FST	QF-4
PMA-231	E-2/C-2 FST	E-2/C-2, ATDS

Figure 10.9-8 (page 1) Partial Listing of Fleet Support Teams

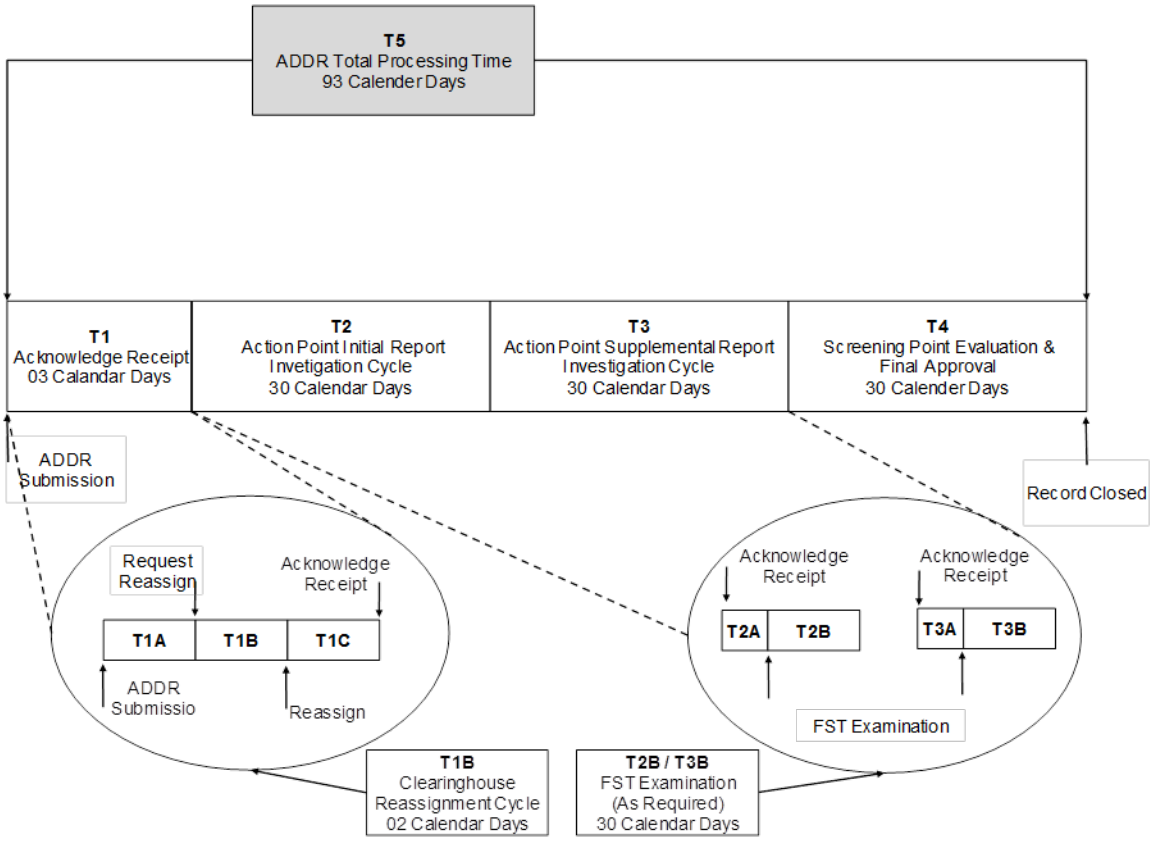
PMA-233	MPS FST	Mission Planning Systems, JMPS, TAMPS
PMA-234	EA-6B FST	EA-6B, J52-P-408
PMA-242	DSS FST	Defense Suppression Systems, AGM-65, AGM-88, AGM-114, BGM-71
PMA-248	TTR FST	Tactical Training Range Systems, KGV-23, JTCTS, LATR, TACTS
PMA-251	ALRE FST	Aircraft Catapults and Arresting Gear, Helicopter Landing Systems, Visual and Optical Landing Aids, Shipboard Aviation Data Management Systems, Wind Measuring Systems, Shipboard Aviation Marking and Lighting, USMC Expeditionary Airfield Equipment, Afloat Navy Aircraft Fire-Fighting Equipment
PMA-257	AV-8 FST	AV-8B, TAV-8B, F402
PMA-258	SOAD FST	Standoff Missile Systems, AGM-84, AGM-119
PMA-259	AAW FST	Air to Air Weapons, AIM-7, AIM-9
PMA-260	SE FST	Aviation Common Support Equipment, CASS
PMA-261	H-53 FST	CH-53, MH-53, T64
	EXHELO FST	VH-60, VH-3
PMA-262	UAS FST	Persistent Maritime UAS
PMA-263	UAS FST	Small Tactical UAS
PMA-264	ASW FST	Air ASW Systems, Sonobouy, Sensors, GASS
PMA-265	F/A-18 FST	EA-18, F/A-18, F404, F414
PMA-266	UAS FST	Multi-Mission UAS
PMA-268	UAS FST	NUCAS
PMA-271	ASC FST	Airborne Strategic Communications Systems, E-6, TC-18, CFM56
PMA-272	EWS FST	Tactical Aircraft Electronic Warfare Systems, ASPJ, IDECM, ALR-67, AAR-47, ALE-29, ALE-39, ALE-47, MWS, and IRCM
PMA-273	T-45 FST	T-45 TS, T-6, F405
	T-6 FST	T-6
PMA-275	V-22 FST	V-22, T406 (AE1107C)
PMA-276	H-1 FST	AH-1/UH-1, T400, T700
PMA-280	TOMAHAWK FST	Tomahawk Cruise Missile
PMA-281	CM FST	Cruise Missiles
	CMCC FST	Cruise Missile Command and Control Systems
PMA-282	WCS FST	Tactical Weapons Control Systems
PMA-290	P-3 FST	Maritime Surveillance Aircraft. P-3, EP-3, T56
	S-3 FST	S-3, ES-3, TF34, P-8
	ARS FST	Aerial Refueling Systems
PMA-299	MMH FST	Multi-Mission Helicopters. H-60, SH-2G
PMS-210	AMCM FST	Airborne Mine Countermeasures
Various	TM FST	Technical Publications
Programs	BAT FST	Aircraft Batteries
	APU FST	APU, Auxiliary Power Units, GTC, GTCP
	ATS FST	Air Turbine Starter (ATS), Ram Air Turbine, Starters, Cooling Turbines, Valves/Regulators, Heat Exchangers
	PROP FST	Propellers
	XMSN FST	Gearbox Bearings, Transmissions

Figure 10.9-8 (page 2): Partial Listing of Fleet Support Teams

Maintenance Technologies Points of Contact

FRCE CHERRY POINT NC	
Aircraft Confined Space	(252) 464-7345; DSN 451
Composite Repair	-7159
Elastomeric Materials	-9341
Failure Analysis	-9889
Fluid Contamination	-9767
Inorganic Coatings	-7154
Welding/Brazing	-8999
FRCSE JACKSONVILLE FL	
Materials Testing (Mechanical Testing & Chemical Analysis)	(904) 790-6402; DSN 942
Paint/Organic Coatings	-6398
Thermal Spray	-6417
FRCSW NORTH ISLAND CA	
Adhesive Bonding/Sealants	(619) 545-9732; DSN 735
Bearings	-0027
Canopies/Transparencies	-9732
Corrosion Prevention/Control	-0027
Heat Damage Evaluation	-9732
Heat Treating	-9732
Nondestructive Testing/Inspection	-9732
Preservation	-0027
Tires	-8675/9732
COMNAVAIRSYSCOM PATUXENT RIVER MD	
Aircraft Wiring	(301) 342-0810; DSN 342
Fiber Optics/Networks	-9115
NAVAIRWARCENACDIV PATUXENT RIVER MD	
Engine Composites	(301) 342-8010; DSN 342
Fuels	(301) 757-3406; DSN 757
Lubricants	-3413
NAVAIRWARCENWPNDIV CHINA LAKE CA	
Airborne Weapons Materials	(760) 939-2060; DSN 437
NAVAIRWARCENWPNDIV POINT MUGU CA	
Airborne Weapons and Targets Maintenance/Handling	(805) 989-5380; DSN 351
NAVSURFWARCENDIV CRANE IN	
Energy, Power and Interconnect Technologies Division	(812) 854-4103; DSN 482
Electrical/Electronic Assemblies/Electrostatic Discharge	-1973

Figure 10.9-9: Maintenance Technologies Points of Contact



NOTES: 1. ADDR process timeframes may be extended to enable a thorough investigation to be performed. A "Technical Dialog" will be submitted informing the originator of the progress of the investigation every 30 days after receipt of an ADDR.

2. ADDR process timeframes do not include scheduled shutdown periods (weekends/holidays).

Figure 10.9-10: ADDR Process Timeline

10.10 Technical Directive (TD) Compliance Program (NAMPSOP)

10.10.1 References

a. NAVAIR 00-25-300, Naval Air Systems Command Technical Directives System.

b. OPNAVINST 8000.16, Naval Ordnance Management Policy Manual.

c. NA500C Aeronautical Technical Directive Index Report.

d. DECKPLATE-TDRS, NAT02, SE TD Listing.

e. DECKPLATE-TDRS, NAT04, Aviation Aircrew Equipment TD Listing.

f. DECKPLATE-TDRS, REP07, Technical Directive Compliance Report.

g. DECKPLATE-TDRS, LIST01, Technical Directive Applicability Listing.

h. DECKPLATE-TDRS LIST 02, TD Requirements.

i. DECKPLATE-TDRS LIST 04, Incorporation (INC) Listing for Equipment.

j. DECKPLATE-TDRS LIST 04H, Historical INC Listing for Equipment.

k. NATEC San Diego, COMFRC FST HQ Technical Data Department, Weekly Summary for Issued TDs.

l. NAVAIRINST 13100.17, Red Stripe Memorandum System.

m. NAVAIR 00-25-100, Naval Air Systems Command Technical Publications Library Management Program.

n. CNAP/CNAL 13700.1 Aircraft Engine Pool Allowances and Issuance Priorities

10.10.2 Introduction

The Technical Directive (TD) Compliance Program directs procedures for TD compliance by O-Level and I-Level activities. All TD configuration changes, i.e. installation, removal, deconfiguration, and modification, will be issued as a TD by the Commander, Naval Air Systems Command (NAVAIR). No configuration changes will be made to naval aviation systems including aircraft, engines, airborne weapons, airborne systems and system components, aircraft launch and recovery equipment (ALRE), aviation SE, and training systems, unless directed by a TD.

NOTE: For Depot Technical Directive (TD) Compliance Program see Chapter 12.

10.10.2.1 NAVAIR issues TDs for inspecting or altering the configuration of aircraft, engines, systems, weapons, or equipment. As required, NAVAIR engineers will also issue verification, validation or concurrent VAL/VER to be performed by an organic depot, contractor facility or on occasion, by an operational site with concurrence from ACC or TYCOM. NAVAIR 00-25-300 is the guiding instruction for creating, approving, and issuing TDs.

NOTE: OPNAVINST 8000.16 is the guiding instruction for TDs applicable to weapons.

10.10.2.2 TDs are assigned to four categories based on type, urgency, and purpose:

a. Immediate Action - Assigned when unsafe conditions exist which, if uncorrected, could result in fatal or serious injury to personnel, or extensive damage or destruction of valuable property; and the conditions embody risks calculated to be unacceptable. Immediate Action TDs require compliance prior to next flight, next use of equipment, or within the next 10 flight hours.

NOTE: **Immediate Action Bulletins, which restrict flight operations by requiring inspection prior to further flight, preflight, turn-around, daily inspection, next equipment use, or within the next ten flight hours, are referred to as "Grounding Bulletins." Because of their operational impact, Grounding Bulletins require special coordination before being released. For details concerning the Grounding Bulletin process, refer to the NAVAIRINST 13100.17 series.**

b. Urgent Action - Assigned when factors of combat necessity present hazardous conditions that could result in personal injury or damage to valuable property; when unacceptable reductions in operational readiness exist; and when such conditions, if uncorrected, compromise safety or embody risks that are calculated to be acceptable within defined time and or performance limits. Urgent Action TDs will require compliance within specified time limits. Assignment of this TD category is based on a timeframe greater than 10 flight hours to 36 months but is not to be used to assign a compliance statement.

c. Routine Action - Assignment of Routine Action is appropriate when conditions exist which embody degrees of risk calculated to be acceptable within broad time limits. Assignment of this TD category is based on the timeframe of greater than 36 months but is not to be used to assign a compliance timeframe.

d. Record Purpose - Assigned to Formal Change TDs issued to document configuration changes that were incorporated in all affected equipment by the change designer or originator before the TD was issued. The Record Purpose TD serves as the official record of an engineering change in the Technical Directive Reporting System (TDRS) database.

10.10.2.3 NATEC San Diego, COMFRC HQ Technical Data Department, publishes the Weekly Summary for Issued Technical Directives of all TDs issued during the previous week. The TD Weekly Summary is available under the TD section link on the NATEC website (https://mynatec.navair.navy.mil).

10.10.2.4 The primary DECKPLATE TDRS reports and lists used in managing TD compliance are:

a. TDRS reports:

(1) NA500C, Aeronautical TD Index Report, provides a list of active TDs, applicable to each type/model/series (T/M/S) aircraft and engine.

(2) NAT02, SE TD Listing (with index codes B and D), provides information by Type Equipment Code and is used to screen for active and completed Support Equipment (SE) TDs.

(3) NAT04, Aviation Aircrew Equipment TD Listing (with index codes B), is used to screen for active and completed Aviation Life Support Systems (ALSS) TDs.

(4) REP07, TD Compliance Report, provides a complete list of incorporated TDs for specific component serial numbers (S/N), used to validate prior incorporations.

NOTE: REP07 can be used to force complete tasks within OOMA and make entries of compliance.

b. TDRS lists:

(1) LIST01, TD Applicability Listing, provides a quick reference to Airframe Change (AFC) and Airframe Bulletin (AFB) TDs based on applicability range and series information for specific T/M/S aircraft.

(2) LIST02, TD Requirements Listing, provides a list of Not Incorporated (NINC) AFBs and AFCs for individual aircraft, and Power Plant Bulletins (PPB) and Power Plant Changes (PPC) for engines.

(3) LIST04, Incorporation (INC) Listing for Equipment, provides a list of Incorporated (INC) AFBs and AFCs for individual aircraft; and PPBs and PPCs for engines.

(4) LIST04H, Historical Incorporation Listing for Equipment, provides a list of historical INC AFBs and AFCs for individual aircraft, and is used to validate prior compliance.

10.10.3 Requirements

10.10.3.1 Configuration Changes

No configuration changes will be made to naval aviation systems including aircraft, engines, airborne weapons, airborne systems and system components, aircraft launch and recovery equipment, aviation SE, and training systems, unless directed by a TD. Exceptions:

a. Aircraft Controlling Custodian (ACCs) and Type Commander (TYCOMs) may authorize one prototype installation of a proposed change. Approval to do more than one prototype requires COMNAVAIRSYSCOM concurrence.

b. COMNAVAIRSYSCOM may authorize Record Purpose TDs for incorporation prior to approval of the Formal Change TD.

c. Activities tasked with accomplishing a prototype installation, verification, validation or concurrent VAL/VERs will follow NAVAIR 00-25-300 guidance for completing all tasks.

(1) Activities will document man hours and actions on a one-time conditional “OX” WO/MAF, and make a Miscellaneous History entry using the subject and PART NO identification data of the VAL/VER.

(2) If activities require ordering additional parts from supply, i.e. consumables, HAZMAT, etc., which are required but not delivered as part of the VAL/VER installation kit, the activity will use a one-time inspection fix phase “OF” WO/MAF. The WO/MAF will cite the subject and PART NO identification data of the VAL/VER. Upon receipt of the parts, the activity will sign off the “OF” WO/MAF as parts received and refer to the JCN/MCN of the VAL/VER “OX” one-time conditional inspection WO/MAF.

(3) When the Formal TD is issued, those activities tasked with completing prototype installations, verification, validation, or concurrent VAL/VERs will document the formal TD as PINC on a WO/MAF per Chapter 15 or Chapter 16, and make appropriate entries.

NOTE: A Notice of Ammunition Reclassification (NAR) is not an authorized medium for directing or authorizing the removal/replacement of installed aircraft ALSS, cartridges, pyrotechnics, CADs, PADs or for affecting aircraft availability. The TD system was established for that purpose. If a TD has not been received within three days of receipt of a NAR affecting CADs, PADs, or aircraft availability, the reporting custodian will request assistance from the ACC or TYCOM who in turn will request status from COMFRC FST HQ Technical Data Department.

10.10.3.2 TD Compliance

Aircraft, engines, SE, equipment, and components will be restricted from use if assigned TD category (Immediate Action, Urgent Action, or Routine Action) are not complied with before expiration of the specified compliance due date, time, or event stated in the TD. TD compliance will be calculated from the date on the actual TD in NATEC.

NOTES: 1. The Target Completion Date (TCD) listed on a TD is an administrative entry of the issuer's estimate of when the TD will be completed for all affected equipment across the NAE. Expiration of the TCD does not invalidate the TD, and does not require a deferral or any other action by Fleet activities. This date will not be used to calculate TD due date, time, or event at the local activity.

2. Upon receipt of new production aircraft (DD-250) verify TDs from receipt paperwork. Perform acceptance "BASELINE" NA500C verification and create TD review checklist for TDs determined to be applicable.

3. Newly established or squadrons transitioning to a new T/M/S will perform an acceptance "BASELINE" NA500C verification and create TD review checklist for TDs determined to be applicable.

a. Immediate Action TDs require compliance prior to next flight, next use of equipment, or within the next 10 flight hours.

b. (I-Level) Immediate Action TDs affecting RFI spare engines, modules, SE, equipment, and components must be complied with prior to issuance of the item, unless the using activity is the level designated to incorporate the TD. For example, an I-Level activity does not have to incorporate Immediate Action and Urgent Action O-Level TDs before declaring the item RFI.

c. Urgent Action TDs affecting operational aircraft must be complied with prior to launching the aircraft on a mission that will exceed the compliance due date, time or event. Urgent Action TDs will require compliance within specified time limits. Assignment of this TD category is based on a timeframe greater than 10 flight hours to 36 months.

NOTE: I-Level activities may submit requests to the ACC or Equipment Class Desk to incorporate D-Level TDs if material, tools, technical data, and skills are available.

d. Unless directed by the ACC, D-Level activities will only incorporate O-Level and I-Level TDs if the aircraft or item is sufficiently disassembled during normal D-Level processing, incorporation does not require a controlled kit, parts are readily available, and compliance adds no additional direct man-hour cost. D-Level activities will comply with O-Level and I-Level TDs if incorporation is needed in order to modify a part required to complete depot rework. Rapid Action Minor Engineering Changes (RAMEC) will not be incorporated during depot rework, unless directed by the ACC.

e. O-Level Inspection TD Compliance. Aircraft currently undergoing a Phase or Special Inspection at the time of TD issuance, with a compliance due of that type inspection, will adhere to the following:

(1) Immediate Action TDs issued while an aircraft is undergoing a Phase or Special inspection must be incorporated regardless of whether or not completed work has to be redone.

(2) Urgent Action TDs with safety impact issued while an aircraft is undergoing a Phase or Special inspection must be incorporated regardless of whether or not completed work has to be redone. A request for authorization to defer until next like inspection will be sent to the ACC for approval. Deferral procedures of 10.10.3.5 apply.

(3) Urgent Action TDs without safety impact and Routine Action TDs issued while an aircraft is undergoing a Phase or Special inspection will be incorporated only if no completed work has to be redone. If incorporation of the TD requires unnecessary rework and will not be incorporated during the inspection, the compliance due will be the next like inspection. Activities that desire deferral of Routine TDs due to operational necessity may submit a one-time deferral. Deferral procedures of 10.10.3.4.b. apply.

f. I-Level TD Compliance. Components (engine and engine components refer to 10.10.3.3) currently undergoing Repair or Inspection at the time of TD issuance, with a compliance due of that type of Repair or Inspection, will adhere to the following:

(1) Immediate Action TDs issued while an item is undergoing disassembly, repair, reassembly, or test must be incorporated regardless of whether or not completed work has to be redone.

(2) Urgent Action TDs with safety impact that are issued while an item is in the repair, reassembly, or test cycle must be incorporated regardless of whether or not completed work has to be redone. A request for authorization to defer until next like inspection will be sent to the ACC for approval. Deferral procedures of 10.10.3.4.c apply.

(3) Urgent Action TDs without safety impact and Routine Action TDs issued while an item is in the repair, reassembly, or test cycle will be incorporated only if no completed work has to be redone. If incorporation of the TD requires unnecessary rework and will not be incorporated during the inspection, the compliance due will be the next like inspection.

NOTE: For aircraft or items with "until next like inspection or repair" under 10.10.3.2.e. or 10.10.3.2.f, the reporting custodian will make a logbook entry indicating deferral with compliance of next like inspection or repair following procedures of 10.10.3.4. The ACC or Equipment Class Desk deferral will be retained in the historical file by the TDPC until the TD is complete.

10.10.3.3 I-Level Engine TD Compliance

a. Immediate Action TDs issued while an engine or engine module is undergoing disassembly, repair, reassembly, or test must be incorporated regardless of whether or not completed work has to be redone.

b. Urgent Action TDs with safety impact that are issued while an engine or engine module is in the repair, reassembly, or test cycle must be incorporated regardless of whether or not completed work has to be redone. If not specifically addressed in the TD, a request for direction to incorporate or not incorporate an Urgent Action TD issued while an engine is in the post-assembly test cycle will be sent to the ACC Engine Class Desk.

c. Urgent Action TDs without safety impact and Routine Action TDs issued while an engine or engine module is in the repair, reassembly, or test cycle will be incorporated only if no completed work has to be redone.

10.10.3.4 TD Deferral Procedures

a. Operational Immediate Superior In Command (ISIC), for example, ACE or CVW, may authorize deferral of compliance for Immediate Action, Urgent Action, and Routine Action TDs, if required due to combat operational necessity. Deferral procedures of paragraph 5.3.10.6 apply.

b. O-Level Commanding Officers (COs) may approve Routine Action TDs that are applicable to the O-Level for a one-time deferral of compliance if parts or kits are on order, but not received, or if the ability to accomplish mission-essential flight operations will be affected by downing the affected aircraft or equipment. Deferrals must meet the following requirements:

(1) Deferral will be granted to a specific bureau number (BUNO) aircraft or serial number (SERNO) equipment or component.

(2) The affected aircraft, equipment, or component has not already been granted a compliance deferral for the subject TD.

(3) Deferral cannot exceed the next compliance due date, time, or event. For example, next Phase Inspection.

(4) A Miscellaneous History entry per 10.10.3.5.c signed by the TDPM.

c. ISIC or CO will send official correspondence to the ACC to inform them of the contingency deferral. The correspondence will contain details on the conditions of the deferral, to include:

(1) T/M/S and BUNO (aircraft) or nomenclature, model number and serial number (equipment).

(2) TD number and a summary of the TD requirement.

(3) Compliance due date, time, or event specified on the TD and when due for the affected aircraft or equipment.

(4) Circumstances necessitating the deferral, for example “COMPLIANCE DEFERRAL IS REQUIRED DUE TO LACK OF PARTS.” or “COMPLIANCE DEFERRAL IS REQUIRED TO MEET MISSION ESSENTIAL FLIGHT OPERATIONS DURING COMBAT.” If deferral is

needed due to lack of parts or kits, the NIIN and part number, requisition number, and estimated delivery date will be included.

(5) Length of time deferral is needed, for example "TD WILL BE COMPLIED WITH UPON RECEIPT OF PARTS" or "TD WILL BE COMPLIED WITH NO LATER THAN NEXT PHASE (use actual due date, time or event."

NOTE: 1. CO will inform their ISIC of any deferrals via official correspondence.

2. An extension in excess of the CO's one-time deferral allowance requires a deferral requested from the ACC or Equipment Class Desk via naval message per 10.10.3.5.b. The approved ACC or Equipment Class Desk deferral will be retained with the historical file until the TD has been accomplished.

10.10.3.5 TD Compliance Deferral - Aircraft Controlling Custodian or Equipment Class Desk

a. A TD compliance deferral must be requested by Fleet activities if a TD cannot be complied with prior to the due date time or event, but exceed the criteria for Operational ISIC or CO deferrals.

NOTE: The ACC or Equipment Class Desk approval response will be retained with the historical file until the TD has been completed.

b. Compliance deferrals will be recorded in the Miscellaneous History of the CM ALS, Aeronautical Equipment Service Record (AESR), Module Service Record (MSR), Repair/Rework/Overhaul/Exceedances section of the Assembly Service Record (ASR), maintenance record of the Equipment History Record (EHR), or repair/rework/overhaul section of the Scheduled Removal Component (SRC) card. SE TD compliance deferrals will be documented in Section VI Miscellaneous History record or the CM ALS. Entries must include the name and title of the approving activity, and the S/N and Date Time Group (DTG) of the authorization letter or message. Activities with Aircraft Component Tracking System (ACTS) must also make the entry in the ACTS component record.

Example 1 – Routine Action PPC 123 deferred for compliance due to lack of parts, in accordance with COMNAVAIRFORINST 4790.2E Commanding Officer one-time deferral authority. Reference message STRKFITRON ONE TWO THREE 310001Z OCT 24.

Example 2 – Routine Action SEC 6244 was deferred for compliance due to lack of parts, in accordance with COMNAVAIRFORINST 4790.2E Commanding Officer on-time deferral authority. Type Wing acknowledged deferral via official correspondence.

Example 3 – Urgent Action ASC 490 was approved for deferral in accordance with COMNAVAIRFORINST 4790.2E Operational ISIC deferral authority. Reference official correspondence of the ACC or Equipment Class Desk.

Example 4 – Routine Action PPC 123 NINC due to issuance while engine was in the reassembly stage. Deferral granted until next induction to I-Level or D-Level for repair, per COMNAVAIRLANT N421M Engine Class Desk message COMNAVAIRLANT NORFOLK VA 150001Z NOV 24.

Example 5 – Routine Action AFC 456 was approved for deferral due to compliance exceeding the Commanding Officer's one-time deferral allowance. Deferral was approved by ACC until next removal of fuel tank but NLT next 84-Day inspection per ACC Naval Message response.

Example 6 – Urgent Action AFC 026 was approved for deferral per 10.10.3.2.e. O-Level Inspection TD Compliance Urgent Action TD without safety impact. Type Wing acknowledged deferral via official correspondence.

c. ALSS TD compliance deferral will be documented by attaching a copy of the deferral approval message to the Parachute Record (OPNAV 4790/101), Seat Survival Kit Record (OPNAV 4790/137), Aircrew Systems Record (OPNAV 4790/138), or Aircrew Personal Equipment Record (OPNAV 4790/159), and entering the information in the CM ALS Miscellaneous History section.

10.10.3.6 TD Compliance Verifications

a. The following reports will be utilized and reviewed during verifications. These reports are available at https://deckplate.navair.navy.mil/#/:

(1) NA500C

(2) NAT02

(3) NAT04

(4) LIST02

(5) LIST04

b. (O-Level and I-Level) A "BASELINE" NA500C or NAT02 or NAT04 TD compliance verification must be conducted upon receipt of aircraft, engines, components, AAS, SE, AWSE, and ALSS physically assigned to the activity's custody.

NOTE: Engine pool reporting custodians with no local repair capability refer to CNAP/CNAL 13700.1 for TD compliance verification.

c. After completion of the BASELINE verification, "SUBSEQUENT" TD compliance verifications will be completed every 12 months (at a minimum) of all TDs issued, incorporated, or cancelled in the previous 12 months. After completion of a SUBSEQUENT verification, the applicable TDRS report will be updated with current status and labeled "SUBSEQUENT". The most recent SUBSEQUENT report will be filed on top of the BASELINE report in the aircraft historical file or AESR manila envelope, or other location directed by the TD Compliance Program Manager.

NOTE: NA (administrative) amendment TDs in the "BASELINE" report do not have to be reviewed during the "SUBSEQUENT" review.

d. A verification of NINC TD compliance due dates will be completed prior to each aircraft phase inspection and prior to transfer. After completion of the transfer verification, the applicable TDRS report will be updated with accurate status and labeled "TRANSFER". The report will be filed in the aircraft historical or AESR manila envelope.

NOTES: 1. Activities utilizing NTCSS Optimized OMA NALCOMIS (OOMA), will verify the Outstanding TD Report upon completion of aircraft NA500C verification. All

discrepancies will be corrected and the report will be retained with the BASELINE verification as a permanent document.

2. Removal of a TD from TDRS reports does not relieve reporting custodians of responsibility to verify the status of the TD. Cancelled, completed (process of removing TDs from TDRS reports), or superseded TDs will not be deleted from the equipment record until the item the TD applies to has been replaced with a new part number or removed due to obsolescence.

e. In coordination with the TDPC, NA500C, LIST02 and LIST04 for T/M/S aircraft and engines, NAT02, NAT04, verifications will be performed. If there are discrepancies in the compliance documentation, research the historical files and REP07. For TDs verified with the REP07 make TD entries as Previously Incorporated (PINC). If compliance documentation cannot be verified, notify the TDPC to ensure a WO/MAF is issued for up line reporting.

f. (Aircraft and Engines) NA500C, List 02 and List 04 report verification procedures:

(1) Download the NA500C report from DECKPLATE (https://deckplate.navair.navy.mil/#/). Select the NA500C and applicable T/M/S from the drop down menu, and enter the fourth digit of the TEC in the TEC series block to obtain specific T/M/S NA500C reports.

(2) Annotate NA500C report with TD status as INC (Incorporated), PINC (Previously Incorporated), NINC (Not Incorporated), CANX (Cancelled), or NA (Not Applicable) next to each TD. Figure 10.10-1 is an example of an annotated NA500C report.

(3) Download List 02 and List 04 from DECKPLATE (https://deckplate.navair.navy.mil/#/). Select the List 02 and List 04 and applicable TEC/TM from the drop down menu, and enter the bureau or serial number to obtain specific List 02 and List 04 reports.

(4) Annotate List 02 report with TD stats as C (Completed), P (Previously Complied) and D (Does not apply)

(5) NA500C reports will be utilized for verification of List02/List04 and List04H as follows:

(a) (O-Level) Verify List02 and List04 quarterly per 10.10.4.12

(b) (O-Level, I-Level) Verify List04H annual per 10.10.4.12

(c) (I-Level) Verify List02 and List04 on AESRs upon receipt, RFI, and transfer

NOTES: 1. TDs logged on specific EHR, SRC, ASR, MSR, and AESR must include the following annotation on the NA500C report: "Refer to (nomenclature) (respective cards)." Examples: "Refer to O2 Concentrator EHR card" or "Refer to Aileron SRC card." A final TD status is still required such as INC, NINC, NA (with reason for NA).

2. For INC TDs that are not on LIST04/04H, a PINC WO/MAF is required to ensure data replicates up line to DECKPLATE.

(6) File the completed NA500C report in the aircraft historical file or AESR manila envelope, or other location directed by the TD Compliance Program Manager.

g. (SE) NAT02 Report verification procedures:

(1) Download the NAT02 report each month from DECKPLATE (https://deckplate.navair.navy.mil/#/). Select the NAT02 report with Index Codes B and D. Compare this report to the previous report research any differences noted.

(a) For the initial command verification annotate TD status applicability to specific equipment held within the activity. Annotation can be accomplished electronically or by hard copy.

(b) Subsequent verifications will be completed as follows:

1. Identify TDs by issue date that are applicable to the command for current month.

2. Route TDs that have not been previously routed to QA for verification of applicability.

3. Quantify command status of completion, for example, TD routed, MAF/WO issued or completed.

4. Add any outstanding TDs into the command compliance plan for tracking.

(c) Maintain the current and previous month annotated NAT02 in the location directed by the TD Compliance Program Manager.

(2) Document performance of NAT02 "BASELINE" verification with Index Code B and D and annual "SUBSEQUENT" verification with Index Code B upon acceptance and transfer. A Miscellaneous History entry is required in the NALCOMIS OOMA CM ALS. Additionally, if applicable, make an entry on the SE Custody and Maintenance History Record (OPNAV 4790/51). The following applies to "BASELINE" and "SUBSEQUENT" verifications:

(a) Annotate "BASELINE" and "SUBSEQUENT" NAT02 reports with TD status as INC (Incorporated), PINC (Previously Incorporated), NINC (Not Incorporated), CANX (Cancelled), or NA (Not Applicable) next to each TD.

(b) File "BASELINE" and "SUBSEQUENT" reports in the SE Historical File per 10.17.3.7.

NOTE: For all "BASELINE" and "SUBSEQUENT" verifications (NA500C and NAT02) NA annotations must include a reason, for example, "NA this BUNO," "NA this Part Number," "extends TCD," or "Updates COG" ("Admin Change" is not authorized).

h. (ALSS) TDRS NAT04 Report verification procedures:

(1) Download the NAT04 report each month from DECKPLATE (https://deckplate.navair.navy.mil/#/). Select the NAT04 report with Index Code B. Compare this report to the previous report and research any differences noted.

(a) For the initial command verification, annotate TD status applicability to specific equipment held within the activity. Annotation can be accomplished electronically or by hard copy.

(b) Subsequent verifications will be completed as follows:

1. Identify TDs by issue date that are applicable to the command for current month.

2. Route TDs that have not been previously routed to QA for verification of applicability.

3. Quantify command status of completion, for example, TD routed, MAF/WO issued or completed.

4. Add any outstanding TDs into the command compliance plan for tracking.

(c)Maintain a current and previous annotated NAT04 in the location directed by the TD Compliance Program Manager.

10.10.3.7 TD Applicability Reviews

O-Level and I-Level activities will use the Technical Directive Review Checklist (Figure 10.10-2) to document the review of newly received TDs per 1.2.1.2 NOTE.

10.10.3.8 TD Compliance Documentation

a. A WO or MAF will be used to document TD compliance, per Chapter 15 and Chapter 16 procedures. The WO or MAF will be originally issued to Work Center 021, until directed by Maintenance or Production Control to issue to work center. I-Level activities operating satellite Production Controls may utilize the satellite PC work center code per Appendix E. Once all kits and parts are received, TDPC will update WO or MAF to work center(s) for compliance as directed by Maintenance or Production Control. If more than one work center is involved, a separate TD Assist WO or MAF must be issued, when directed by Maintenance or Production Control, for each assist work center to document their portion of the TD. If the TD has multiple parts, a separate WO or MAF must be initiated for each part.

b. TD compliance will be calculated from the date on the actual TD in NATEC. For example, for TDs requiring compliance based on flight hours, determine the time since new of the aircraft or component as of the date of the TD and add the comply NLT flight hours to calculate the compliance deadline. The WO or MAF will be annotated as follows:

(1) The Discrepancy block will be annotated with the actual due NLT compliance date, time or event, for example, “Comply with NLT next Phase inspection at Phase B A7227.0” or “Comply with NLT next 10 flight hours at A1536.5” or “Comply with NLT next 180 day on DDMMMYYYY”. If compliance is based on an operating time (such as operating hours or number of arrested landings), annotate the actual “Due NLT” time at which point the aircraft or equipment is restricted from flight or use. For example, if operating-hours from date of the TD are = 4321 and the specified compliance time is NLT 10 hours from date of the TD, the Due NLT compliance time is 4321 + 10 = 4331 maximum aircraft or equipment hours before the TD is due.

(2) Annotate date, time or event compliance in the system reason block (up to 25 characters). Example: “AFB 566/DUE NLT: 15JAN2025” or “AFC 771/NXT PHS B A7227.0”.

NOTE: Target Completion Date (TCD), as published in the TD or in OOMA baseline, will not be used to calculate compliance due date, time, or event at the local activity.

c. Removal (deconfiguration) of a previously-completed TD modification is not authorized unless directed by a TD, and will be documented in the same manner as TD incorporation, except

for block A35 and the (H-Z) record. TD Status Code Q will be entered in block A35 and the (H-Z) record will be left blank per Chapter 15 and Chapter 16.

NOTES: 1. A TD Compliance WO or MAF is not required for TDs specified as action for a different level of maintenance. For example, O-Level activities do not have to issue a WO for TDs specified for I-Level or D-Level action.

2. SE being documented by "lot" will have a separate WO or MAF for each item of SE requiring a TD action per paragraph 10.17.3.4.b NOTE. Activities are not authorized to issue a single WO or MAF to incorporate a TD on an entire lot. Review the SE PMS NAMPSOP paragraph 10.17.3.4 for further information on "lot" documentation procedures.

d. The following Transaction Codes will be used:

(1) Transaction Code 41 - Used for compliance with no P/N change or for non-serialized components.

(2) Transaction Code 47 - Used for compliance on all serialized components, regardless of whether there is a P/N change. Use of Transaction Code 47 requires the (E) and (G) sections of the WO or MAF to be completed.

e. Compliance logbook, record, and report entries:

(1) TD compliance will be documented on TDRS LIST02 and LIST04, in the SE Custody and Maintenance History Record (OPNAV 4790/51), Auto Log Sets, or component history cards per Chapter 8.

(2) New AFC and AFB TDs will be added to TDRS LIST02

NOTES: 1. If any item of SE documented as part of a lot which did not receive the required TD action, annotate (in pencil) the reason for noncompliance on the SE Custody and Maintenance History Record (OPNAV 4790/51) (if required) in Column B of Section VI (Miscellaneous History section) (next to the S/N for that item). Once the TD has been complied with, erase the reason for noncompliance from Section VI (Miscellaneous History section) and record the item S/N in the remarks column of Section IV (TD Section).

2. A TD entry is required for each specific S/N on all SE maintained in the OOMA database upon incorporation of the TD.

10.10.4 Responsibilities

10.10.4.1 COMNAVAIRSYSCOM Program Offices

a. Thoroughly validate and verify TDs per the requirements of NAVAIR SOP 00-25-300 prior to issuing the TD.

b. Follow the procedures of NAVAIRINST 13100.17 when issuing Grounding Bulletins.

c. Validate the currency of the NA500C every six months, and as required coordinate with Type Wings or MAWs and ACC or Equipment Class Desks to verify data accuracy.

10.10.4.2 ACC or Equipment Class Desks

a. Coordinate TD verifications prior to releasing to the Fleet for compliance. Verification will include:

(1) Testing by at least one Fleet activity to confirm adequacy and clarity of technical content, verify activities have the equipment and manpower to accomplish the TD, and to verify the man-hours required. TDs that contain separate O-Level and I-Level actions will be sent to both a squadron and an I-Level activity for validation.

(2) Confirmation of the availability of parts or kits, consumable materials, SE, technical manuals, manpower, and funding required to accomplish the TD.

(3) Operational impact of out of service time and man-hour requirements.

(4) Feasibility of meeting the compliance due time or event.

(5) A written response (email, letter, or message) to the Program Office on concurrence or non-concurrence and any changes required.

b. Maintain a current schedule of the estimated compliance date or event, by BUNO, for aircraft TDs with TYCOM directed compliance. The schedule will be provided to applicable Type Wings and MAWs.

c. Coordinate with the Program Office on TD abeyance and amendment or revision messages.

d. Formally respond to TD compliance deferral requests via letter or naval message.

e. Act as final approver for requests to perform one-time prototype changes.

f. Coordinate with Program Office on issuance of Grounding Bulletins. Direct Fleet compliance via naval message when a Grounding Bulletin has been posted to NATEC.

10.10.4.3 NATEC

NATEC supports all program logistics personnel for TDs and their supplemental data. Ensures digital copies of all TDs and messages are provided in accordance with the requirements posted on the NATEC website. NATEC maintains the only official NAVAIR master repository of active, superseded, completed, and cancelled TDs, both formal and those issued by message, along with any supporting supplemental data. NATEC will:

a. Post approved TDs on the NATEC website (https://mynatec.navair.navy.mil)

b. Post the weekly summaryeach week for all TDs posted during the previous week.

10.10.4.4 Type Wing or MAW

Type Wing or MAW will designate a Wing TD Compliance Program Manager to:

a. Coordinate with the ACC Class Desks to assign Fleet activities to accomplish TD verifications.

b. Track TD compliance and assist activities to resolve logistical constraints.

c. Coordinate with ACCs, I-Level activities, D-level activities, and Supply to obtain and prioritize support for O-Level TD compliance.

d. Coordinate with ACC Class Desks on planning compliance date or event for TDs with TYCOM directed compliance, and provide subordinate commands with information on the estimated compliance date or event for assigned BUNOs.

10.10.4.5 Commanding Officer (CO)

a. Review and act as final approval or disapproval authority for one-time Routine Action TD compliance deferrals meeting the requirements of paragraph 10.10.3.4.

b. Review and approve the release of requests for TD compliance deferral per paragraph 10.10.3.4.

c. Notify ISIC for all TD deferrals. When deployed notify CVW or ACE as applicable.

10.10.4.6 Maintenance Officer (MO)

Designate the Maintenance Material Control Officer (MMCO) or Production Control Officer as the TD Compliance Program Manager (TDPM) per 10.1.2.9.

10.10.4.7 TD Compliance Program Manager (MMCO or Production Control Officer

a. Perform an audit of the TD Compliance Program within 60 days of designation as Program Manager and annually thereafter per paragraph 10.7.5.8.

b. Designate a collateral duty Technical Directive Program Coordinator (TDPC) per 10.1.2.9. The TDPC must be an E-6 or above or civilian equivalent assigned to Maintenance or Production Control.

NOTE: I-Level activities operating satellite Production Controls and Logs and Records within divisions, for example, Power Plants and Support Equipment divisions, the TDPM will designate Divisional TDPCs responsible for TDPC duties within the satellite Production Control per 10.1.2.9.

c. Ensure review and routing of all applicable TDs are in accordance with the following:

(1) Grounding Bulletin and Immediate Action TDs are reviewed upon receipt and routed immediately, but no later than 24 hours. Urgent Action TDs, are reviewed upon receipt and routed without delay, but no later than 48 hours. Once the Technical Directive Review checklist is complete return to QA for filling.

(2) Routine TDs are reviewed and routed within 5 working days. Once the Technical Directive Review checklist is complete return to QA for filling.

d. Ensure TDPC has initiated a WO or MAF for each applicable TD, with correct compliance due date, time or event.

e. Sign logbook entries for TDs that have been approved by the CO for deferrals.

f. Publish the outstanding TD report from the activity's Management Information System (MIS), for inclusion into the MMP, by BUNO or type equipment. The list will contain any TD

requiring action by the activity's assigned maintenance level, and the compliance due date, time, or event for compliance.

g. Approve the TD compliance plan developed by the TDPC.

h. Review, sign, and date completed NA500C report verifications.

NOTE: TDPM may delegate the NA500C report verification to any E-7 and above or civilian equivalent assigned to Maintenance or Production Control. NA500C report verification is required to be signed and dated by the reviewer. NA500C may be performed by the TDPC, however, the review will be signed by the TDPM or delegated individual.

i. Request assistance from the Type Wing or MAW to resolve TD compliance problems.

j. Verify a QAR has determined a TD to be not applicable (NA) and has signed the TD Review Checklist (Figure 10.10-2) before a TD is documented as NA in the aircraft or equipment logbook.

k. Inform supporting Supply Departments and I-Level activities of aircraft configuration changes caused by TDs, for example, requirement to purge existing stock of items requiring modification or replacement.

l. (O-Level) Inform the Type Wing or MAW if parts or equipment needed to comply with a TD are not available.

m. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic, for example, deferrals and correspondence from Type Wing, MAW, or ACC or Equipment Class Desk concerning TYCOM directed and scheduled TD incorporations

(3) Reference or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.10.4.8 TD Compliance Program Coordinator (TDPC)

a. Complete Maintenance Control or Production Control PQS (designation is not required) and the following CNATT courses: (O/I-Level) C-555-0059 Configuration Management for Organizational and Intermediate Activities, (O-Level) C-555-0053 Naval Aviation Maintenance Control Management for Optimized Organizational Maintenance Activity or (I-Level) C-555-0043 Intermediate Maintenance Activities Production Control Procedures.

NOTE: I-Level activities utilizing TDPCs in satellite Production Controls will complete all requirements of 10.10.4.8.a.

b. Provide NAMP indoctrination on TDs per 10.1.4.7. Verify personnel receive TD familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs

c. Upon receipt of TDs from QA, ensure all steps are completed for the TD Review Checklist and perform one of the actions below:

NOTE: No TD Routing Checklist, WO or MAF is required for a TD that QA determines to be NA to the activity's T/M/S or TEC.

(1) (O-Level) TD applies to the activity's T/M/S or TEC and assigned level of maintenance; verify TD configuration file in OOMA and initiate WO to Work Center 021.

(2) (I-Level) TD applies to the activity's TEC and assigned level of maintenance; enter TD information into the TD configuration file in OIMA and initiate MAF to Work Center 021 or satellite Production Control.

(3) TD is applicable to the activity's T/M/S or TEC, but not assigned level of maintenance; continue routing for awareness, pre-logging of carded components, and validate the task was loaded into the baseline (must be updated to active prior to transfer).

(4) TD is NA (amendments or revisions that add no work), even though it is applicable to the activity's T/M/S or TEC, it is administrative only and does not add work; route for awareness and Logs and Records entries.

d. Create a compliance plan for the TDs determined to be applicable by QA and submit to TDPM for approval. This TD compliance plan will align operational commitments with the most advantageous time for completion of TDs while minimizing aircraft or equipment downtime. The TD compliance plan, at a minimum will include:

(1) Individual BUNO or SERNO of the affected aircraft or equipment

(2) The TD's actual compliance due date, time or event

(3) Status of parts or kits, if required

(4) Estimated due date, time or event in which activity will comply with the TD

(5) Ensure all outstanding TDs found during screening, acceptance or monthly NAT02 and NAT04 verification are added to the TD compliance plan

e. (O-Level) Upon receipt verify the TD configuration file has been updated by the T/M/S Baseline Manager. If the baseline has not been updated, direct the System Administrator to submit Baseline Trouble Report (BTR). Attach the task to the CM Module then initiate Work Orders.

f. (I-Level) Upon receipt enter the TD information into the TD Configuration file to establish the baseline. If any discrepancies are found during this process, contact the POC in the TD.

g. Ensure a WO or MAF is issued to Work Center 021 or satellite Production Control work center code for TDs determined to be applicable per paragraph 10.10.4.9.b. Upon receipt of kits or parts, and when directed by Maintenance Control or Production Control, update WO or MAF to the applicable work center(s) per paragraph 10.10.3.8. If more than one work center is involved, initiate a separate assist TD WO or MAF for each work center to document their portion of the TD. The primary work center involved in compliance will be issued the TD Compliance WO or MAF.

NOTE: TDs for components with CM ALS that have S/Ns of "XXX" must be physically verified prior to determining applicability, provided verification is within the activity's level of maintenance.

h. Order TD parts and kits for affected aircraft or equipment and verify Material Control assigns a Document Date and Serial Number (DDSN). Review the status of parts or kits requisitions at least once per week. Upon receipt, verify the correct parts or kits were received and are complete, label them with the BUNO or SERNO they are for (if applicable), and control parts and kits until ready for installation.

NOTES: 1. Excess or spare parts and kits are not authorized. Activities will order only the number required to comply with the aircraft and equipment in their custody.

2. Contact Naval Air Warfare Center Aircraft Division (NAWC AD) Air System Group, Logistics Department, Supply and Materials Division, Operating Materials and Supplies/Kit Management Branch for assistance in resolving availability issues with whole kits and individual kit parts.

i. (I-Level) Issue a Supply Asset Technical Directive Review Checklist (Figure 10.10-3) when supply assets need to be screened for I-Level TD compliance. If supply assets require an I-Level TD:

(1) Document the S/Ns of affected components on the Supply Asset Technical Directive Review Checklist (Figure 10.10-3) and provide the checklist to Production Control.

(2) Production Control will update the TD Configuration File for those S/Ns listed.

(3) Initiate a TD MAF to Work Center 021 or satellite Production Control for each affected component using Supply job control number (JCN).

j. Coordinate with Logs and Records to review and verify compliance status of applicable TDs.

k. Review the TD Weekly Summary on NATEC per paragraph 10.10.2.3 for issued T/M/S, TEC, and General Series TDs. Coordinate with the TDM to obtain applicable TDs that have not been received.

l. Verify Maintenance or Production Control changes TD WO or MAF status to “down” as soon as the compliance time or event becomes due.

m. (O-Level) Prior to a deployment, coordinate with the Material Control Officer to either cancel TD material requisitions or make arrangements with station Supply Department to have them shipped to the deployment site. A cut-off date must be established to terminate shipment, for example, 45-60 days prior to the return of the squadron.

10.10.4.9 Quality Assurance (QA) Officer

a. Ensure message traffic is screened for any applicable Grounding Bulletin notifications.

b. Ensure SME QARs or CDQARs screen TDs utilizing the detailed applicability descriptions below to determine course of action for the activity and complete the QA Review of the TD Checklist (Figure 10.10-2):

(1) Applicable to the activity’s T/M/S or TEC and assigned level of maintenance or amendments that add work; select “TD APPLIES” and route TD for compliance.

(2) Applicable to the activity's T/M/S or TEC, but not assigned level of maintenance; select "TD APPLIES" and circle the level of maintenance assigned on the TD Review Checklist, route for awareness, pre-logging of carded components, and validate task was loaded into the configuration file or baseline in pending or active status (baseline must be updated to active prior to transfer).

(3) Applicable to the activity's T/M/S or TEC, but is administrative only and does not add work; select "TD DOES NOT APPLY" and route for awareness and Logs and Records entries.

NOTE: TD Routing Checklists and WO or MAF, are required for applicable TDs to the activity's T/M/S or TEC as determined by QA.

c. Ensure all SME QARs or Collateral Duty Quality Assurance Representatives (CDQARs) review the TD Weekly Summary on NATEC for issued T/M/S, TEC, and General Series TDs.

NOTE: 1. Grounding Bulletin, Immediate Action, and Urgent Action TDs will be reviewed upon receipt in NATEC and routed without delay. Once the Technical Directive Review checklist has been completely signed return to QA for filing.

2. The review and completed routing of Routine Action TDs will be completed within 5 working days of receipt in NATEC and returned for filing within QA.

10.10.4.10 Technical Data Manager (TDM)

a. Upon receipt of a new TD, initiate a Technical Directive Review checklist (Figure 10.10-2), this can be accomplished either on paper or electronically.

(1) Apply a control stamp either physically on paper or electronically, for example, by adding the stamp to a PDF, at the top of all copies with the activity, copy number, location, and the date the TD was received, per NAVAIR 00-25-100, WP 013 00:

VMFA-323

COPY NUMBER 001

LOCATION "NATEC" or 04A MASTER"

NOTE: For command with reliable connectivity to either NATEC or Joint Technical Data Integration (JTDI) Joint Delivery Management System (JDMS), copy 001 of the TD location can reference the respective website and the routed TD will be assigned and stamped as copy 002. For commands with unreliable connectivity to either NATEC or JTDI JDMS a standalone Master File will be created.

(2) Create records in the Enhanced Library Management System (ELMS) program utilizing the naming convention found on NATEC for files. For example, FA-18-AFC-751 for the master copy and any additional copies requested for work centers as needed.

(3) Deliver the checklist and a copy of the TD to a QAR or CDQAR with rating or MOS expertise of the TD.

b. Issue controlled copies of Aviation Life Support System (ALSS) TDs to the ALSS work center for inclusion with the applicable technical publication.

NOTES: 1. For new production aircraft (received with DD-250) create TD review checklist for TDs determined to be applicable during acceptance "BASELINE" NA500C verification.

2. Newly established squadrons, and squadrons transitioning to a new T/M/S aircraft will only create TD review checklists for TDs determined to be applicable during the acceptance "BASELINE" NA500C verification.

c. Retain either physically on paper or electronically in PDF the completed Technical Directive Review Checklist (Figure 10.10-2). The naming convention of the electronic file will match the ELMS entry for the TD, for example, FA-18-AFC-751.

d. Upon return of TDs from the work center(s), update the ELMS TD records per the procedures of NA 00-25-100 and destroy work center copies per local guidance.

e. Verify reviewed copies of the TD Weekly Summary are annotated by the TDPC and SME QAR/CDQAR per paragraph 10.10.4.9.c. Retain on file for a period of 6 months.

f. Each day perform verification of the TDs posted since last summary on NATEC in the Technical Directives Section.

NOTES: 1. TD Review Checklist, TDs, and TD Weekly Summary may be kept in a paper file or electronically maintained on an Government Furnished Equipment external hard drive or 04A PEMA. All requirements for annotation remain in effect.

2. Copies of historical TDs (no longer on active TDRS reports) are not required to be kept on file, however the TD entry must remain in ELMS. TDs will automatically delete from ELMS history ("dead") file after 6 months.

3. If paper copies of TDs and TD Review Checklists are kept, master copies must be filed in binders by T/M/S in TD number sequence, with the most current on top.

4. For electronic copies of TDs and TD Review Checklist utilize the naming convention found on NATEC for files, for example, FA-18-AFC-751 or FA-18-AFC-751 Checklist.

10.10.4.11 Supply Department

a. Coordinate with the supported I-Level activity to determine applicability of TDs to shelf stock and take action as specified in the TD per Figure 10.10-3.

b. Remove RFI shelf stock that requires I-Level TD action and induct into the I-Level activity for compliance, using a Supply JCN.

c. Coordinate with deploying activities to determine disposition of outstanding TD requisitions. TD materials sent to deployed activities will be shipped by traceable means. TD materials that are not shipped to the deployed activity must be retained by the Supply Department until the activity returns.

10.10.4.12 Logs and Records Clerk (Navy) or Maintenance Data Specialist (Marine Corps)

a. (I-Level activities) Add applicable TDs to the NALCOMIS TD Configuration file.

b. (O-Level activities) Update CM Inventory Explorer by removing non-applicable and administrative TD tasks that do not apply.

NOTES: 1. O-Level activities cannot remove AFBs or AFCs because they are written against a specific BUNO and can only be removed by the Baseline Manager, via submission of a Baseline Trouble Report (BTR).

2. TD tasks for a different level of maintenance are required to be activated prior to transfer for incorporation.

c. Make logbook, record, and report entries for signature specified in paragraph 10.10.3.6.

NOTE: NA status will not be entered in the logbook or AESR unless verified as NA by QA and documented NA on the Technical Directive Review Checklist (Figure 10.10-2).

d. Add new AFC and AFB TDs to TDRS List 02.

NOTE: Production equivalent modifications performed on the aircraft by the manufacturer are not presently covered by the TDRS Program and will not appear on the LIST02 and LIST04, therefore, any Technical Directives page with production equivalent entries must be maintained for historical reasons per 8.5.5.

e. Upon receipt and transfer of aircraft, engines, components, SE, AWSE, and ALSS:

(1) Perform a "BASELINE" verification utilizing NA500C, NAT02 or NAT04 and compare TD requirements listed in the applicable LIST02 and LIST04 (aircraft/engine AESR only), SE Custody and Maintenance History Record (OPNAV 4790/51) as required, CM Auto Log Sets, and component cards.

(2) Notify the TD Compliance Program Coordinator of any discrepancy requiring compliance action, such as an applicable TD that was not listed or a TD recorded as NA that is applicable.

f. (O-Level) (Aircraft/engine) Download new TDRS LIST02 and LIST04 each quarter in January, April, July, and October, compare the new LIST02 and LIST04 against the previous lists, additional information can be found in Chapter 8, paragraph 8.5.5. Return the updated copy of the new TDRS List 02 to NAVAIR HQ Sustainment Group, Configuration Management/Data Management Department, Technical Directives/Bulletins at AIR685TDManagers.gm.fct@navy.mil within 30 days of download.

g. (I-Level) (Engine) Download new TDRS LIST02 and LIST04 upon receipt, RFI, and transfer, compare the new LIST02 and LIST04 against the previous list, additional information can be found in Chapter 8, paragraph 8.5.5. Return the updated copy of the new TDRS List 02 to NAVAIR HQ Sustainment Group, Configuration Management/Data Management Department, Technical Directives/Bulletins at AIR685TDManagers.gm.fct@navy.mil within 30 days of download.

h. (Aircraft/engine AESR) (O-Level and I-Level) Download a new TDRS List 04H Mailing Report each year in January. Verify the accuracy of the new List 04H and insert it into the aircraft logbook. Remove and destroy the old list.

i. In coordination with the TDPC, TD verifications, i.e. NA500C, LIST02 and LIST04 for T/M/S aircraft and engines, NAT02, NAT04, verifications will be performed. If there are discrepancies in compliance documentation, research the historical files and the REP07. For TDs verified with the REP07 make TD entries as PINC. If compliance documentation cannot be verified, notify the TDPC to ensure a WO/MAF is issued for up line reporting.

10.10.4.13 Work Center Supervisors

a. Verify personnel receive TD Compliance Program indoctrination training per 10.1.4.7. Training must include TD compliance responsibilities specific to their job.

b. Be aware of all TDs affecting aircraft and equipment repaired by the work center, and validate the TD currency of equipment and components repaired or used to perform repairs.

c. Direct CDIs during receipt and transfer of aircraft, engines, components, SE, AWSE, and ALSS to perform a physical verification of the item for TD configuration and notify Logs and Records of current configuration.

NOTE: Work centers will coordinate with Logs and Records to validate TD configuration.

d. Coordinate with the TDPC to assist in the to development the TD plan.

e. Document completion of TDs on WOs or MAFs per paragraph 10.10.3.8.

f. Track accomplishment of TDs utilizing the Outstanding Work Load report, and notify Maintenance Control or Production Control and the TDPC if a TD cannot be incorporated.

NA500C Aeronautical Technical Directive Index

BUNO: 165668 ***BASELINE***

NA500C Aeronautical Technical Directive Index
NA500C Page 1 of 25 TEC/TM: AMA/ FA-18 Series: J Sep 30, 2021 at 2:25:25 PM
FA-18F

TDPM Signature:

STATUS	TD Cd	Basic	I	R	A	Pt	Subject	Prt	ML	ECP	TC	Iss Date	NAMT	WUC	NOTES
INC	50	0313					ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	MDCFA1806052	12/24	02/00		10	
INC	50	0313				02	ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	MDCFA1806052	12/24	02/00		10	
INC	50	0313				03	ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	MDCFA1806052	12/24	02/00		10	
INC	50	0313				04	ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	MDCFA1806052	12/24	02/00		10	
INC	50	0313				05	ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	MDCFA1806052	12/24	02/00		10	
NA	50	0313			1		AIRCRAFT IDENTIFICATION LIGHTING SYSTEM, MODIFICATION	T	3	06052	12/24	08/16		10	EXTENDS TCD. ADD WARNING
NA	50	0313			1	02	AIRCRAFT IDENTIFICATION LIGHTING SYSTEM, MODIFICATION	T	3	06052	12/24	08/16		10	EXTENDS TCD. ADD WARNING
NA	50	0313			1	03	AIRCRAFT IDENTIFICATION LIGHTING SYSTEM, MODIFICATION	T	3	None	12/24	08/16		10	EXTENDS TCD. ADD WARNING
NA	50	0313			1	04	AIRCRAFT IDENTIFICATION LIGHTING SYSTEM, MODIFICATION	T	3	06052	12/24	08/16		10	EXTENDS TCD. ADD WARNING
NA	50	0313			1	05	ACFT I.D. LIGHTING SYSTEM, MODIFICATION OF	T	5	06052	12/24	08/16		10	EXTENDS TCD. ADD WARNING
NA	50	0327			A		TACTICAL AIRCRAFT MOVING MAP CAPABILITY, INST	R	3	MDCFA1800563	12/21	07/07		73	NOT THIS BUNO
NA	50	0327			A	1	TACTICAL AIRCRAFT MOVING MAP CAPABILITY, INST	R	3	None	12/21	01/14		73	CORRECTS APPLICABLE A/C
NINC	50	0339			A		ECS OVERHEAT-EXHAUST STACKS, REPLACEMENT OF	T	3	MDC-06106R1	06/14	05/06		11	
NA	50	0339			A	1	ECS OVERHEAT-EXHAUST STACKS, REPLACEMENT OF	T	3	None	06/14	05/08		11	CORRECTS DISTRUBION/SUPPLY
NA	50	0349					IDECM COMMON PRE-AMP, AM-7586 ALQ AMP, INSTAL	T	1	MDCFA1806034	06/20	08/03		10	NOT THIS BUNO
NA	50	0349				1	IDECM COMMON PRE-AMP, AM-7586 ALQ AMP, INSTAL	T	1	06034	06/20	02/18		10	EXTENDS TCD
INC	50	0358					Y541 LIMITED LIFE SHELF AND FORMER, MODIFICATION OF (WUC 11B3Q/OOMA	R	5	MDCFA1806111	06/13	06/03		10	
NA	50	0358				1	Y541 LIMITED LIFE SHELF AND FORMER, MODIFICATION OF (WUC 11B3Q/OOMA	R	5	None	06/13	08/04		10	CORRECTS APPLICATION, MAN HOURS
NA	50	0358				2	Y541 LIMITED LIFE SHELF AND FORMER, MODIFICATION OF (WUC 11B3Q/OOMA	R	5	MDCFA1806111	06/13	11/11		10	UPDATES TCD. TD CODE. WUC

NOTE: The recommended method for annotating NA500C review is to download the report and save it as an MS Excel or MS Word document, and enter the information into the electronic file. Handwriting the information directly on a hardcopy NA500C is also acceptable. Annotate the NA500C Report as follows:

(1) At the top of the report, write the word "BUNO or SERNO" and enter the BUNO or SERNO of the aircraft or equipment that was reviewed.

(2) To the right of the BUNO or SERNO, write the word "Baseline" or the word "Subsequent" to indicate which type of verification was performed.

(3) To the left of the report column labeled "TD Cd", write the word "Status", and then enter the status next to each TD listed on the report. TD status can only be entered in one of four ways: NA (not applicable), INC (incorporated), NINC (not incorporated) or CANX (cancelled).

(4) Near the top, write the words "TDPM signature", and then sign the report. The TDPM (TD Program Manager) is the only required signature. The signature must contain name and rank of the TDPM. If the TDPM delegated the verification review, the individual that performed the verification must sign the report.

Figure 10.10-1: Baseline Deckplate TDRS Report (Sample)

TECHNICAL DIRECTIVE REVIEW CHECKLIST

TD number and subject: _____

Date issued (DTG/date on message/letter): _____

1. TDM:

a. Stamp and date original TD, then file as the master copy.

b. Stamp and date a copy of the TD, then route TD review checklist to QA for review.

TDM Certification:

Date: _____

Name: _____

Signature: _____

---

2. QA Review:

a. (circle one) TD APPLIES (continue to c.) TD DOES NOT APPLY (continue to b.).

NOTE: TD Review Checklist required to be completed.

b. Reason TD does not apply: _____

c. TD applies to the following Aircraft/Equipment in custody:

Aircraft/Equipment T/M/S: _____

BUNOs/SERNOs: _____

d. Level of maintenance: O I D

e. Compliance due no later than: _____

f. Comply subsequent to or concurrent with (refer to “TD Application" section of the TD):

_____

g. Additional information: _____

QAR/CDQAR Certification:

Date: _____

Name: _____

Signature: _____

---

3. TD Compliance Program Coordinator:

a. For OOMA: Verify the TD configuration file has been updated by the T/M/S Baseline Manager. If the baseline has not been updated, direct the System Administrator to submit Baseline Trouble Report (BTR). Attach the task to the CM Module then initiate WO to 021 until directed to issue to work center(s).

b. For OIMA: Enter the TD information into the TD Configuration file to establish the baseline, and initiate MAFs to 021 until directed to issue to work center(s).

Figure 10.10-2 (page 1): Technical Directive Review Checklist (Example)

c. Order parts and kits. Once kits are received and maintenance control/production control directs update WO or MAF to work center(s) for compliance.

d. I-Level only: Submit Supply Asset Technical Directive Review Checklist.

TD Compliance Program Coordinator Certification:

Date: _____

Name: _____

Signature: _____

---

4. Maintenance Control/Production Control:

a. Review the incorporation plan with the TDPC and verify WOs/MAFs have been issued.

b. Notify affected Work Center Supervisors and direct actions for incorporation.

Maintenance/Production Control Certification:

Date: _____

Name: _____

Signature: _____

---

5. TD Compliance Program Manager:

a. Update the list of outstanding TDs in the MMP.

b. (Squadron) Screen for Weight and Balance affects.

TD Compliance Program Manager Certification:

Date: _____

Name: _____

Signature: _____

---

6. Logs & Records Clerk (Navy)/Maintenance Administration (USMC):

Add applicable TDs to the corresponding MSR, ASR, SRC, EHR Cards, and SE Custody and Maintenance History Record with appropriate status, for example "NINC" (until incorporated). Activities with Aircraft Component Tracking System (ACTS) must also make the entry in the ACTS component record. Return the TD and completed TD review checklist.

Logs & Records Certification:

Date: _____

Name: _____

Signature: _____

Figure 10.10-2 (page 2): Technical Directive Review Checklist (Example)

Date: _____

From: _____ Technical Directive Compliance Program Manager
(I-Level activity)

To: _____ Supply Department
(NAS/MALS/CVN/L-Class)

Subj: SUPPLY ASSET TECHNICAL DIRECTIVE REVIEW

1. The following TD applies to items stocked by the Supply Department. Any RFI assets requiring the TD must be inducted for incorporation.

a. TD Number: _____

b. Purpose: _____

c. Applies to: Part Number: _____

NIIN: _____

2. Point of contact for any questions is _____, _____, _____.
(Rate/Rank Name, Division/work center, Phone number)

Signature: _____ Date: _____

Date: _____

From: _____ Supply Department
(NAS/MALS/CVN/L-Class)

To: _____ Technical Directive Compliance Program Manager
(I-Level activity POC)

Subj: SUPPLY ASSET TECHNICAL DIRECTIVE REVIEW

1. The following stock assets require the TD and will be inducted for incorporation:

SERNO _____ SERNO _____ SERNO _____

SERNO _____ SERNO _____ SERNO _____

SERNO _____ SERNO _____ SERNO _____

2. Point of contact for any questions is _____, _____, _____.
(Rate/Rank Name, Division/work center, Phone number)

Signature: _____ Date: _____

Figure 10.10-3: Supply Asset Technical Directive Review Checklist (Example)

10.11 Foreign Object Damage (FOD) Prevention Program

10.11.1 Reference

a. OPNAVINST 3750.6, Naval Aviation Safety Management System

b. COMNAVSURFOR/COMNAVAIRFOR/MARINE CORPS ORDER 4790.3, Prevention of Foreign Object Damage on CVN and LHD/LHA Class Ships

10.11.2 Introduction

10.11.2.1 The FOD Prevention Program directs actions to identify, eliminate, and report the causes of FOD. FOD presents a risk to aircraft, equipment and personnel, wastes maintenance man-hours and reduces operational readiness. Preventing FOD is a command wide effort and must be supported by individuals involved with naval aviation, regardless of their duty assignment.

NOTE: For Depot Foreign Object Damage (FOD) Prevention Program see Chapter 12.

10.11.2.2 Potential FOD is a condition where a foreign object is in a position to cause damage when a product or system is used. FOD can be attributed to poor housekeeping, improper maintenance practices, or carelessness, to include:

a. Tools, aircraft hardware, rags, and other foreign objects left near, or in the migratory path of engine inlets, or in flight control areas (cockpit and other areas where flight control rods or actuators move).

b. Tools, hardware, or debris left near, or in aircraft operating areas, such as runways, ramps, taxiways, engine test cells, and hush houses.

c. Tools, hardware, or debris left near, or in the migratory path of the steering system for self-propelled support equipment (SE).

d. Metal or wire clippings, solder balls, and other debris left near, or in electrical terminals, circuitry, connectors, or components.

10.11.2.3 Primary actions for reducing FOD are:

a. Strict accounting of tools, equipment and materials used in performing maintenance tasks.

b. Thorough post maintenance cleaning and inspection of work performed and work areas.

c. Pre-operational inspections of engine inlets and flight control areas.

d. Periodic FOD Walk Downs to collect debris.

10.11.3 Requirements

10.11.3.1 All Navy and Marine Corps activities, commercial and other government activities operating naval aircraft, directly supporting flight operations, or repairing or maintaining aircraft, engines, components, or SE must comply with the FOD Prevention Program.

10.11.3.2 Activities operating naval aircraft or conducting aircraft, engine, or SE maintenance must have a FOD Prevention and Investigation Team. The team will consist of the FOD Prevention

Program Manager, Quality Assurance (QA) FOD Program Monitor, Power Plant Supervisor, and a Safety Department Representative. Air capable ships and air stations will have a FOD Prevention and Investigation Team that includes at least one person from each ship or station department that works in areas where aircraft operate or are maintained.

10.11.3.3 Activities operating aircraft must inspect assigned hangar and flight line or flight deck areas prior to the first flight of the day and throughout the day, as needed, to sustain a FOD free operating environment.

10.11.3.4 I-Level activities that repair aircraft engines must inspect engine repair areas and engine test facilities for potential sources of FOD at the beginning of each shift. Additionally, a Quality Assurance Representative (QAR) or Collateral Duty Inspector (CDI) inspection for potential sources of FOD in engines, modules, components, and SE prior to certifying Ready For Issue (RFI).

10.11.3.5 Aviation capable ships must inspect the flight deck and hangar bays for potential sources of FOD prior to commencement of flight operations and periodically throughout the day to sustain a FOD free flight deck and hangar bays.

10.11.3.6 Air stations and other commands supporting shore based aircraft operations must inspect runways and taxiways for potential sources of FOD prior to opening the airfield for take offs or landings.

10.11.3.7 Aircraft that have not flown for 30 days or more must be inspected for potential sources of FOD by a QAR or CDQAR personnel prior to releasing aircraft Safe for Flight. The inspection must be documented on a work order (WO).

10.11.3.8 Aircraft compartments and migratory routes must be inspected for potential sources of FOD by QAR or CDI personnel prior to closure. FOD free certification is voided if additional maintenance is performed in the area after the QAR or CDI inspection.

NOTE: Inaccessible areas that contain foreign objects that cannot be removed will be noted by an entry in the Miscellaneous History Section of the logbook or auto log-set (ALS).

10.11.3.9 Tools, equipment, hardware, parts and other materials must be inspected, inventoried, and accounted for prior to, during, and after maintenance completion.

NOTES: 1. Missing fasteners on aircraft, engines, SE, and other equipment used for aviation maintenance and support must be marked and documented on a WO or Maintenance Action Form (MAF).

2. Loose fasteners that present a FOD hazard must be removed and replaced per T/M/S maintenance technical manuals. Loose fasteners determined by QA not to be a FOD hazard must be marked and documented on a WO or MAF.

10.11.3.10 Work spaces will be kept free of debris to minimize the risk of foreign objects migrating to areas where aircraft or engines are operated.

10.11.3.11 Training Requirements. Indoctrination training on the FOD Prevention Program will be given to all newly reporting personnel, and refresher training will be given to all personnel at least

once per year, per the Aviation Maintenance In-Service Training NAMPSOP paragraph 10.1.4.7 and 10.1.4.8. FOD Prevention Program training will be conducted using a standardized FOD training syllabus. The syllabus must include:

a. Types of FOD, how and where FOD occurs, and consequences of FOD.

b. Identification of FOD prone areas specific to the types of aircraft, engines, and equipment operated/supported.

c. Identification of FOD hazards specific to the command's operational and maintenance environment.

d. FOD prevention methods, with emphasis on the individual's specific job assignment.

NOTE: FOD prevention training must be included in the training syllabus of personnel that operate motor vehicles or self-propelled SE on the flight line or flight deck.

10.11.3.12 Engine FOD Incident Investigation and Reporting.

10.11.3.12.1 Engine FOD Incident Reports are used to notify Wing, Aircraft Controlling Custodian (ACC), and Fleet Support Team (FST) staff of major engine damage caused by foreign objects. The intent of these reports is to determine if changes to aircraft or equipment configuration or maintenance procedures are required to minimize the potential for FOD. FOD Incident Reports (FOD-IR) are submitted via the Joint Deficiency Reporting System (JDRS) website (https://jdrs.mil/), which facilitates automatic routing of the report to the cognizant Wing/MAW, FST, FRC/MALS, PMA APML, and TYCOM Engine Class Desk.

NOTE: Naval message FOD Incident Reports (Figure 10.11-1) will only be submitted if JDRS connectivity is unavailable.

10.11.3.12.2 Engine FOD is defined as damage caused by ingestion of objects not organic to the engine (including FOD due to natural causes, such as birds or ice) while operating in an aircraft or on a test cell or stand.

NOTES: 1. Damage caused by failure of internal engine components is not FOD. Internal engine failures must be documented per Chapter 15 (O-Level) or Chapter 16 (I-Level) procedures. If flight safety is involved, the internal failure must be reported via Hazardous Material Report (HMR) per Chapter 10.9 procedures. A mishap report may also be required per OPNAVINST 3750.6.

2. Minor roughness or erosion of blades/vanes within serviceable limits are not FOD.

10.11.3.12.3 Engine FOD is categorized as reportable and non-reportable:

a. Reportable engine FOD requires removal of the engine or an engine module, or replacement of an engine fan blade, or turbine.

b. Non-reportable engine FOD does not require engine or module removal, or replacement of any engine fan blade, or turbine.

10.11.3.12.4 The FOD Prevention and Investigation Team must investigate all incidents of engine FOD, regardless of reportable or non-reportable categorization. Procedures:

a. If determined to be reportable FOD, submit an Engine FOD Incident Report via JDRS website (https://jdrs.mil/) within 5 working days of discovery. Submit Supplemental Engine FOD Incident Reports whenever additional information becomes available after the initial Engine FOD Incident Report.

NOTES: 1. If two or more engines on a multi-engine aircraft incur reportable FOD during a single incident, report all affected engines on a single Engine FOD Incident Report.

2. If warranted, submit a Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) Report (Hazardous Material Report (HMR), Product Quality Deficiency Report (PQDR), or Technical Publications Deficiency Report (TPDR)) on material defects or technical publication deficiencies that resulted in a FOD incident.

3. An Engine FOD Incident Report does not satisfy mishap reporting requirements of OPNAVINST 3750.6. A separate mishap report may also be required.

4. A copy of the Engine FOD Incident Report must accompany each part removed and turned in for repair with FOD.

5. Reportable FOD must be documented in the Aeronautical Equipment Service Record (AESR)/Module Service Record (MSR)/ALS Miscellaneous History section of the engine or module. Entry must include extent, cause, and disposition of the engine or module job control number (JCN) of the WO or MAF, serial number, and date time group (DTG) of the Engine FOD Incident Report (Figure 10.11-1).
Reportable FOD must be documented in the Aeronautical Equipment Service Record (AESR)/Module Service Record (MSR)/ALS Miscellaneous History section of the engine or module. Entry must include extent, cause, and disposition of the engine or module job control number (JCN) of the WO or MAF, serial number, and date time group (DTG) of the Engine FOD Incident Report (Figure 10.11-1).

b. If determined to be non-reportable FOD, submit a written report of the incident. The report must contain the elements required in an Engine FOD Incident Report naval message (Figure 10.11-1). The report must be signed by the Maintenance Officer (MO) and reviewed by the Commanding Officer (CO). The written report will be retained by QA until the engine is transferred.

10.11.3.12.5 I-Level repair facilities must inspect all engines/modules entering the repair or maintenance cycle for evidence of FOD. If an engine or module is found to have reportable FOD that was not documented on an Engine FOD Incident Report by the last operating activity, the repair facility must submit an initial Engine FOD Incident Report and include the last engine operating activity as an information addressee. If the last engine operating activity submitted an Engine FOD Incident Report, the repair facility must submit a Supplemental Engine FOD Incident Report that cites the actual or evident cause of the FOD, foreign objects involved, residual material recovered, location, pattern, distribution, type and extent of damage, and estimated cost to repair.

10.11.3.12.6 When FOD is a direct result of an aircraft mishap, the WO for engine or module removal will use Malfunction Description Code (MAL) 030 (mishap damage). The aircraft mishap report must state justification for assigning MAL 030, and provide details of the damage the engine or module sustained, per OPNAVINST 3750.6.

10.11.4 Responsibilities

10.11.4.1 Air Field and Air Capable Ships Commanding Officer (CO)

a. Designate a FOD Prevention Program Manager and FOD Prevention and Investigation Team, in writing, per paragraph 10.11.3.2 and 10.1.2.9.

b. Review and trend FOD incidents attributed to foreign objects on flight decks, runways, and taxiways, and direct actions to correct deficiencies in FOD prevention.

c. (Air Fields) Publish local command procedures (LCP) per Appendix D to direct specific FOD prevention procedures related to airfield operations.

d. (CVN and L-Class Ships) Comply with the shipboard FOD prevention procedures of COMNAVAIRFOR/COMNAVSURFOR Instruction 4790.3.

10.11.4.2 Aircraft Controlling Custodians (ACC)

a. Conduct rolling 24 month trending of the FOD rate per flight hour for each T/M/S aircraft operated, to include specifics on causal factors.

b. Coordinate with NAVAIR Program Offices to correct deficiencies in aircraft or material design or maintenance procedures considered to be causal factors to FOD.

10.11.4.3 Type Wings or Marine Aircraft Wing (MAWs)

a. Designate a FOD Prevention Program Manager, in writing.

b. Publish an LCP per Appendix D to direct specific geographic, T/M/S, operational, or other FOD prevention actions not addressed in this NAMPSOP.

c. Publish a FOD training syllabus covering the elements of paragraph 10.11.3.11, for each T/M/S aircraft supported.

d. Conduct rolling 24 month trending of the FOD rate per flight hour for each T/M/S aircraft supported, to include specifics on causal factors, command, and operational site of the FOD. Type Wings or MAW will:

(1) Provide the FOD trend to commands and ACC with recommendations for actions to reduce the potential for FOD.

(2) Coordinate with CO of air stations to reduce FOD incidents that occur on runways, taxiways, or other aircraft operational areas that are not the responsibility of the squadrons to maintain.

(3) Coordinate with the ACC T/M/S Aircraft Class Desk to correct deficiencies in aircraft/material design or maintenance procedures considered to be causal factors to FOD.

NOTE: Training Wing (TRAWING) FOD Prevention Officers serve as the point of contact (POC) on all matters pertaining to FOD, and will liaison with the local Chief of Naval Air Training (CNATRA) Detachment to verify program and contractual compliance.

10.11.4.4 Navy Carrier Air Wing (CVW), Marine Corps Air Combat Element (ACE), and Other Composite Aviation Units

a. Designate a FOD Prevention Program Manager to lead FOD prevention efforts while conducting composite unit training or deployed operations per 10.1.2.9.

b. Organize and lead a FOD Prevention and Investigation Team comprised of members from each assigned aviation activity.

c. Publish LCP per Appendix D to direct specific FOD prevention procedures related to the unit's ship/shore operational environment.

d. Review and trend FOD incidents occurring during unit operations, and direct actions to correct deficiencies.

10.11.4.5 Maintenance Officer (MO)

a. Designate a FOD Prevention Program Manager and a FOD Prevention and Investigation Team per paragraph 10.11.3.2 and 10.1.2.9.

b. Publish an LCP per Appendix D, if required to direct geographic, T/M/S specific, or other FOD prevention procedures not addressed in this NAMPSOP or Type Wing/MAW LCP. Command LCP must be submitted to the Type Wing or MAW for review.

c. Approve the release of aircraft that Maintenance Control has specifically restricted from flight due to the potential for FOD from missing objects (tools, fasteners, etc.), for example, fasteners found missing forward of the intake or within areas containing flight controls. Aircraft will be released only after the QA investigation is complete and the missing objects are determined to not be a threat to airworthiness. Completion of the investigation and the MO's release of the aircraft will be documented in the corrective Action Block of the WO required by paragraphs 10.11.4.9b and 10.12.3.8.c (2).

NOTE: The AMO will assume MO responsibilities if the MO is not available.

d. Promote all hands participation in FOD Walk Downs.

e. Review FOD trend charts and FOD Program audits, and direct actions to correct deficiencies.

10.11.4.6 FOD Prevention Program Manager

a. Perform an audit within 60 days of designation as Program Manager and annually thereafter, per paragraph 10.7.5.8.

b. Use the Type Wing or MAW training syllabus to provide FOD indoctrination and annual refresher training per 10.1.4.7 for all command personnel, regardless of their rate. Verify personnel receive FOD familiarization prior to performing maintenance while assigned to the work center.

Training must be specific to the duties the individual performs. Provide feedback to the Type Wing or MAW on areas deemed deficient.

c. Coordinate actions of the FOD Prevention and Investigation Team in completing FOD investigations and reports, per paragraph 10.11.3.2.

d. Conduct spot checks of FOD prone areas, such as parking ramps, engine turn-up areas, work spaces, test cells, hangar bays, runway, or flight deck, or taxiway, catwalks, and SE for evidence of compliance with FOD prevention practices.

e. Serve as POC to the Air Station or Ship FOD Prevention Officer for coordinating unit participation in Ship or Station FOD walk downs.

f. Assist QA in determining the source of foreign objects found during FOD Walk Downs, and coordinate actions to correct the sources of foreign objects.

g. Monitor participation in FOD walk downs and inform the MO of lack of participation by any department.

h. Maintain a program file to include:

(1) Copies of reportable and non-reportable Engine FOD Incident Reports and Supplemental Engine FOD Incident Reports (retain for two years)

(2) POCs

(3) Program references, or cross-reference locator sheets, correspondence, messages, and lesson guides

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.11.4.7 Quality Assurance (QA) Officer

a. Designate a QAR as the FOD Prevention Program Monitor per 10.1.2.9.

b. Provide the MO with a recommendation to release or not release affected aircraft or engines for operation whenever missing objects are a threat to airworthiness and are not found.

10.11.4.8 QA FOD Program Monitor

a. Perform program audits per paragraph 10.7.5.7

b. Brief contractor and depot field maintenance teams on FOD Prevention Program requirements and periodically spot check work in progress to verify compliance.

c. Document material collected during FOD Walk Downs on a locally developed FOD Walk Down Diagram (Figure 10.11-2). Documentation will include:

(1) Location found (flight line, flight deck, hangar bay, taxiway, on or under aircraft, on or under SE, work space, etc.)

(2) Type (screw, bolt, nut, safety wire, electrical wire, tool, rag, etc.)

(3) Number of each type of item collected

(4) Probable source (poor maintenance practices, failure to perform post-maintenance inspection, deteriorating facility, detached from aircraft, broken or worn equipment, etc.)

NOTE: Collected foreign objects will be retained for five calendar days or until investigation of the source is complete, whichever occurs first.

d. Conduct rolling 90 day trending of foreign objects collected during FOD Walk Downs. The trend data must contain the total number of all objects collected by category.

e. Periodically, conduct spot checks of workspaces and work in progress for compliance with FOD prevention practices.

f. (O-Level only) Maintain a database of missing fasteners to include the following: aircraft BUNO and MODEX (or equipment serial number), location of the missing fastener, and WO MCN and JCN. For example: BUNO 165161, MODEX 001, panel 12L, MCN L7Q7N7Q, and JCN QL0286001. Whenever a trend is noted, for example, recurring missing fasteners on a particular panel, investigate the cause and provide corrective action recommendations to the Program Manager, on a particular panel, investigate the cause and provide corrective action recommendations to the Program Manager.

10.11.4.9 Maintenance Control

a. Direct Maintenance Department personnel to participate in FOD walk downs to inspect assigned hangar and flight line or flight deck areas prior to the first flight of the day and throughout the day, as needed, to sustain a FOD free operating environment. .

b. Issue a downing discrepancy WO against affected aircraft whenever missing objects are determined to be a potential threat to airworthiness, for example, when tools used to perform maintenance on the aircraft are missing or when fasteners are found to be missing forward of the intake or within areas containing flight controls. Aircraft will be released only after the QA investigation is completed and the missing objects are determined not to be a threat to airworthiness. Completion of the investigation and the MO’s release of the aircraft will be documented in the Corrective Action block of the WO.

c. Issue a downing discrepancy “FOD Free” Inspection WO for aircraft that have not flown for 30 days or more.

d. Verify pre-closure FOD inspections are being performed and documented on WO.

10.11.4.10 Division Officers

a. Periodically inspect division workspaces and work in progress to verify compliance with FOD prevention requirements.

b. Promote participation in FOD walk downs by all members of the division.

10.11.4.11 Work Center Supervisors

a. Train personnel on how their job relates to the FOD Prevention Program. Document initial job-related and annual refresher training in the individual's qualification/certification record or ASM.

b. Direct work center personnel to participate in FOD walk downs.

c. Report FOD hazards to Maintenance Control or Production Control and FOD Prevention Program Manager.

d. Control uninstalled parts (panels, components, lines, etc.) and fasteners (screws, bolts, washers, quick disconnect pins, etc.) stored in the work center or in the hangar bay during work stoppage or during complex, long repair processes such as engine changes or major inspections. Stored components must be identified with local tags and loose parts or hardware must be stored in MAF bags or other means allowing attachment to the component, and must be marked with the following information:

(1) Work Center

(2) Aircraft BUNO or SE SERNO the component goes on.

(3) Hardware bags will contain nomenclature and count. Example: "Door fasteners, 10 pieces" or "Hydraulic pump hardware, 4 nuts with washers."

(4) Name of CDI certifying fastener count.

e. (I-Level) Verify SE is being inspected for hardware integrity prior to temporary issue. If any hardware is missing and cannot be replaced prior to issue, the area will be marked with a red grease pencil or marker. The discrepancy will be documented on a MAF and a copy kept with the SE history record until the SE is returned and the missing hardware is replaced. Using the OPNAV Form 4790/64 SE Transaction Report from NALCOMIS OIMA the discrepancy must also be annotated.

f. Immediately initiate a search and notify Maintenance Control and QA whenever tools, fasteners or other items used in a maintenance task are discovered missing.

10.11.4.12 Maintenance Personnel

a. Immediately remove or correct FOD hazards, such as foreign debris on the flight line or flight deck or hangar deck, and loose fasteners on aircraft or equipment. If unable to correct the hazard, report it to supervisors.

b. Control all tools, equipment, hardware, and other materials used during a maintenance task. As a minimum:

(1) Maintain positive control of removed components, hardware, and materials while work is ongoing.

(2) Identify missing or uninstalled fasteners on SE, aircraft components and panels with a "red circle" utilizing a grease pen or marker.

NOTE: An "uninstalled" fastener is not a missing fastener; the fastener was removed and not reinstalled for some reason. The reason for not installing the fastener must be documented on a WO or MAF, for example "Damaged nut plate in left hand upper corner of Door 19. Fastener removed and will not be reinstalled until nut plate is replaced. Fastener stored in W/C 120." When the fastener is replaced, the grease pen "red circle" must be removed.

c. Prior to QAR or CDI inspection of a maintenance task, account for all materials used and thoroughly inspect the compartment in which maintenance was performed and in adjacent areas. Immediately notify supervisors, if anything used during the maintenance task is missing.

d. Inspect engine ducts, plenum chambers, crevices, and cavities prior to engine start.

e. Perform pre and post-operational inspections of SE to verify material integrity.

f. Install doors, panels, duct covers, and other protective devices when not actively engaged in maintenance on or adjacent to gas turbine engines.

g. Submit a WO or MAF to document missing or loose fasteners on aircraft and SE.

h. Inspect personal equipment for missing or loose parts prior to entering and after leaving the flight line or flight deck.

NOTE: Naval message FOD Incident Reports (Figure 10.11-1) will only be submitted if JDRS connectivity is unavailable.

FM ORIGINATOR
TO AIRCRAFT CONTROLLING CUSTODIAN
TYPE WING or MAG
CVW (If assigned.)
INFO COMNAVAIRFOR SAN DIEGO CA//N42/N421//
COMNAVAIRSYSCOM PATUXENT RIVER MD//NAWC AC PLATFORM LOGISTICS INTEGRATION DIVISION//
COMNAVSAFECEN NORFOLK VA//12//
CTF/CSG/FMF/MEU
COMFAIRFWD ATSUGI JA//N42// (If deployed in WESTPAC.)
SHIP/NAS/MCAS (Where the FOD occurred.)
SURFPAC SAN DIEGO CA//N42// or SURFLANT NORFOLK VA//N42// (If FOD occurred onboard a ship)
SUPPORTING INTERMEDIATE MAINTENANCE ACTIVITY
DEPOT REPAIR POINT
BT
UNCLAS//N04790//
MSGID/GENADMIN/-//
SUBJ/(COMMAND) ENGINE FOD INCIDENT REPORT SERIAL NUMBER (Sequential number within each calendar year, followed by the last two digits of the calendar year. Use sequential numbering regardless of whether this is an initial or supplemental report.) Example: VFA-123 ENGINE FOD INCIDENT REPORT SERIAL NUMBER 03-16//
REF/A/DOC/COMNAVAIRFORINST 4790.2C
AMPN/REF A IS THE NAMP.//
POC/NAME/RANK/CODE/PHONE/EMAIL (POC will be the Senior Member of the FOD Investigation Team)//
RMKS/1. SUMMARY (Summarize the contents of the report in 2 lines or less.)
2. DATA:
A. AIRCRAFT
(1) TYPE/MODEL/SERIES (“N/A” if FOD occurred on a test cell)
(2) BUREAU NUMBER (“N/A” if FOD occurred on a test cell)
B. ENGINE(S)
(1) TYPE/MODEL/SERIES
(2) SERIAL NUMBER(S)/PSSN(S)(If applicable)
(3) INSTALLED POSITION(S) AT THE TIME OF FOD (“Test Cell” if FOD occurred on a test cell)
C. JULIAN DATE(S)/TYPE OF LAST MAINTENANCE
(1) ON AIRCRAFT (“N/A” if FOD occurred on a test cell)
(2) ON ENGINE(S)/MODULE(S)

Figure 10.11-1 (page 1): Engine FOD Incident Report Format

D. LOCATION OF ENGINE(S) AT TIME OF FOD (Example: MCAS MIRAMAR, NAS OCEANA, CVN-72 or FRCSE JACKSONVILLE TEST CELL)

E. EMPLOYMENT OF UNIT AT TIME OF FOD (Example: FLEETEX, WEAPONS DET, or I-LEVEL REPAIR ACTIVITY)

F. JULIAN DATE FOD DISCOVERED

(1) WHERE DISCOVERED (Example: FLIGHT LINE, FLIGHT DECK, WORK CENTER 41U)

(2) HOW DISCOVERED (Example: DAILY, TURNAROUND, PRE-INDUCTION INSPECTION)

G. DISPOSITION OF ENGINE(S)/MODULE(S)(Example: BLENDING, I-LEVEL TURN IN, RETURN TO DEPOT)(If turned in, list the receiving activity)

H. PREVIOUS ACTIVITY OPERATING ENGINE(S)/MODULE(S). (State only if a factor, for example: FOD DISCOVERED UPON RECEIPT FROM VFA-XXX)

I. OTHER REFERENCE(S) TO SAME FOD INCIDENT

(1) ETR SERIAL NUMBER(S)(Ensure the Engine FOD Incident Report Serial Number is included in Remarks Section of the original ETR, listing Reason for Removal Code 5C OR 5D.

NOTE: Reason for Removal Code 3Q will not be used for engines damaged by ingestion of foreign objects.

(2) JCN(S) (Ensure the Engine FOD Incident Report Serial Number is included in the Discrepancy Field of the Turn-in Work Order.)

(3) OTHER APPLICABLE MSG DTG (List each separately)

3. COST DATA

A. ENGINE(S) REPAIR COST (Based on current NAVSAFECEN Reportable Engine Repair Cost)

B. AIRCRAFT DAMAGE COST (Based on P&E Report, if beyond O/I-Level to repair.)

C. TOTAL INJURY COST (Refer to APPENDIX 4B OF OPNAVINST 3750.6)

D. OTHER PROPERTY DAMAGE COST

E. TOTAL COST (Total of A, B, C, AND D above)

4. INVESTIGATION

A. WHEN FOD OCCURRED (Example: "IN FLIGHT" or "DURING GROUND TURN").

B. CAUSAL FACTORS (Describe what caused the FOD, for example, "FASTENER FROM PANEL 4L CAME OUT DURING GROUND ENGINE RUN", "TOOL LEFT IN INTAKE")

C. ACTUAL FOREIGN OBJECT INGESTED (NSN and Part Number. If not known, use "UNKNOWN")

D. SUSPECTED FOREIGN OBJECT INGESTED (Use "N/A" if actual object is reported in 4.c.)

5. DATE/SERIAL NUMBER OF LAST FOD INCIDENT MESSAGE

Figure 10.11-1 (page 2): Engine FOD Incident Report Format

6. CORRECTIVE ACTION

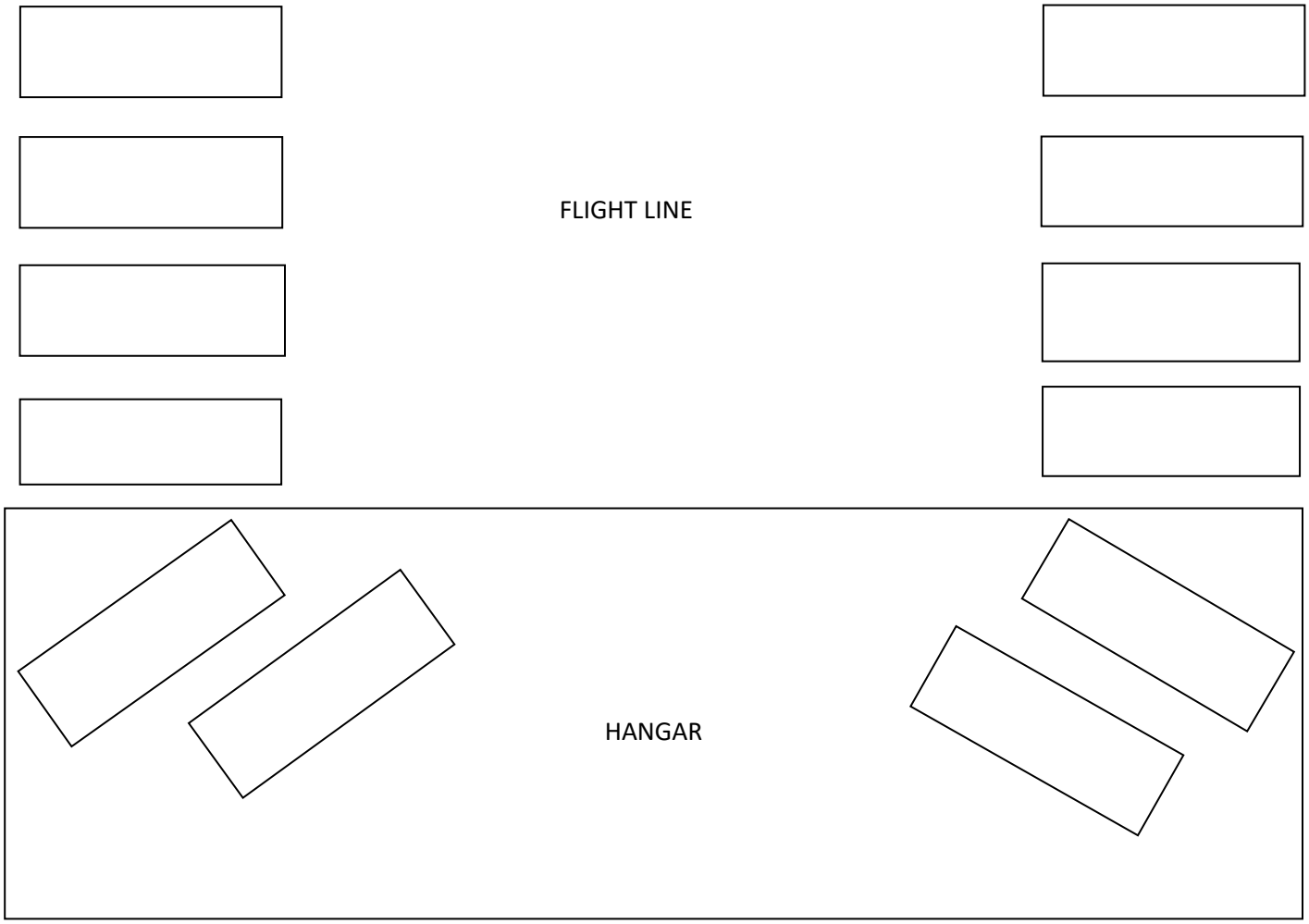
A. CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE

B. RECOMMENDED CORRECTIVE ACTION (If corrective action is beyond the capability of the originator to implement.)

7. COMMANDING OFFICER'S COMMENTS//

Figure 10.11-1 (page 3): Engine FOD Incident Report Format

FOD Walk Down Date _____Time_____



Number Category	Found	Comments
1. Aircraft hardware (nut, screw, bolt, washer, etc.)		
2. Maintenance debris (safety wire, rags, etc.)		
3. Non-aircraft hardware (SE bolt, etc.)		
4. Facility debris (ceiling/roof material, etc.)		
5. Environmental (rocks, tree limbs, etc.)		
6. Personal Trash (soda cans, coins, etc.)		
7. Other _____		

Total: _____

Investigation:_____
_____
_____
_____

Figure 10.11-2: FOD Walk Down Diagram (Example)

10.12 Tool Control Program (TCP) (NAMPSOP)

10.12.1 Reference

NAVAIR 17-1, Tool Control Manual (series)

10.12.2 Introduction

10.12.2.1 The Tool Control Program (TCP) NAMPSOP establishes minimum requirements for controlling tools used by Navy and Marine Corps O-Level and I-Level and commercial activities performing maintenance on naval aviation aircraft, engines, components, and equipment.

NOTE: For Depot Tool Control Program (TCP) see Chapter 12.

10.12.2.2 The primary objective of the TCP is the elimination of foreign object damage (FOD) to aircraft and equipment caused by misplaced tools.

10.12.2.3 The basic principles of the TCP are:

a. Standardization of tools and the configuration of tool containers.

b. Traceability of tools through the use of unique identification numbers etched, stamped, or marked on each tool and each container.

c. Strict accounting of tools:

(1) Maintaining accurate inventory lists of all tools on hand.

(2) Inventorying tools at the beginning and end of work shifts, and before, during, and after performing maintenance.

(3) Documenting who has control of the tool and what aircraft or equipment the tool was used on.

(4) Securing tools when not in use.

(5) Prompt and thorough investigation of missing tools.

10.12.2.4 The NAVAIR 17-1 Tool Control Manual (TCM) provides standardized tools and tool container configuration for most type/model/series (T/M/S) aircraft. Naval Air Warfare Center Aircraft Division (NAWC AD), SE and ALRE Installation Branch, is the Fleet Support Team (FST) for T/M/S aircraft TCMs. Address: NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION, SE and ALRE Installation Branch, HWY 547, LAKEHURST, NJ 08733-5091, Phone: DSN 624-7374/COMM (732) 323-7374.

10.12.3 Requirements

10.12.3.1 Tool Control Manuals (TCM)

a. O-Level activities must use the NAVAIR 17-1 TCM for the T/M/S aircraft they maintain. If a TCM does not exist for the T/M/S aircraft assigned, the operating activity must develop a TCM using a similar NAVAIR 17-1 T/M/S TCM as a guide and submit it to their Type Wing or MAW

for approval. Once approved, the Type Wing or MAW will forward the TCM to NAWCAD per paragraph 10.12.2.4 for decision on adding the TCM to NAVAIR 17-1.

b. Recommendations for changes to NAVAIR 17-1 T/M/S TCMs will be submitted by naval letter to the Type Wing or MAW (Figure 10.12-1). If the Type Wing or MAW concurs with the change, they will submit the recommendation to NAWCAD per paragraph 10.12.2.4 as a Technical Publication Deficiency Report (TPDR), per paragraph 10.9.3.11.

NOTES: 1. Activities will not make changes until NAWCAD approves the TCM change.

2. Special tools are locally manufactured tools or tools modified from their original configuration. Special tools listed in the T/M/S aircraft TCM, Interactive Electronic Technical Manual (IETM), manufactured by Work Center 550 (I-Level) with approved Additive Manufacturing (AM) Technical Data Packages (TDPs) as per NAVAIRINST 4790.41 Policies and Procedures for the Implementation and Execution of Additive Manufacturing for the Naval Aviation Enterprise, and related technical manuals are authorized and do not require a deviation approval. Special tools are subject to the same tool control and inventory requirements as standard tools.

3. Job Aids (defined in NAVAIRINST 4790.41) are manufactured by Work Center 550 (I-Level) and will not be included in any TCM without written deviation authorization from the PMA attached to the Job Aid form and posted on JTDI.

4. I-Level activities will use a TCM Change Recommendation form (vice letter) similar to Figure 10.12-1. The form must include documentation of final disposition.

c. Requests to deviate from a TCM must be submitted by naval letter to the Type Wing or MAW for approval (Figure 10.12-2). Deviation from T/M/S TCM specifications will only be granted if required to support maintenance or operational requirements that are different than other activities maintaining the same T/M/S aircraft.

NOTES: 1. COMNAVAIRFOR O-Level activities without an assigned Type Wing or MAW will submit TCM change requests and deviation requests to COMNAVAIRFOR Code N422.

2. COMNAVAIRSYSCOM assigned O-Level activities will submit TCM change requests and deviation requests to their assigned Test Wing. Activities not assigned to a Test Wing will submit requests to COMNAVAIRSYSCOM Code Aviation Maintenance Management Branch.

d. I-Level activities must publish a TCM tailored to their operational needs. I-Level TCMs will be formatted similar to a NAVAIR 17-1 TCM, and must include test station drawers, wall lockers used for tool or equipment storage, roll around tool containers, and portable tool containers.

e. TCMs will be managed and controlled as technical data, per paragraph 10.8.

10.12.3.2 Tool Marking and Serial Numbers

a. All tools must be marked with a serial number containing the activity's organization code as listed in DECKPLATE, the work center responsible for the tool, and the number of the container the tool is assigned to, for example, AC9-110-1.

b. Tools will be marked by mechanical etching. Face shields, goggles, lenses, batteries, and other tools unsuitable for etching will be marked using a permanent marker or indelible ink.

WARNING: BERYLLIUM TOOLS WILL NOT BE ETCHED, CUT, MELTED, WELDED, GROUND, OR OTHERWISE MODIFIED DUE TO THE RISK OF CREATING BERYLLIUM DUST, WHICH IS A HEALTH HAZARD. TOOL CONTAINER INVENTORIES MUST IDENTIFY ANY TOOL CONTAINING BERYLLIUM ALLOYS BY ANNOTATING THE WORD "BERYLLIUM" NEXT TO THE TOOL.

c. Multiple piece tool sets with individual pieces that are removed during use, and tools with parts that are routinely replaced during use, will have each piece serialized. Examples include Allen wrench sets, feeler gauge sets, stamping dye sets, and flashlights.

d. Tool tags maintained in a tool container will be etched in the same manner as the tools in the container, with the addition of a tag number. For example, tool container AC9-110-1 has two tool tags: One tool tag will be numbered AC9-110-1 (1) and the other will be numbered AC9-110-1 (2).

e. Tools that are too small to be marked must be identified per the procedures of 10.12.3.4.2.

f. Markings will be restored as they become unreadable.

10.12.3.3 Tool Containers

10.12.3.3.1 O-Level activities must use the exact tool container configuration directed in the NAVAIR 17-1 TCM for the T/M/S aircraft they support, with the following exceptions:

a. Air Station Operations Departments and squadrons supporting more than one T/M/S aircraft may consolidate tool containers from each T/M/S TCM, as deemed most efficient for conducting maintenance.

b. An approved TCM deviation per paragraph 10.12.3.1.c. is required to modify tools or equipment.

10.12.3.3.2 Tool containers must be numbered with the activity's organization code, work center code, and a unique container number, for example, AC3-110-2. If the work center is authorized more than one of the same type tool container, the additional containers must be identified with a numerical suffix, for example, AC3-110-2-1.

10.12.3.3.3 Tool container hardware placement (clips, brackets, holes for tools, etc.) must be exactly as indicated in the TCM drawing.

NOTE: If a tool is not available at the time the container is constructed, the associated clips, brackets, and holes will not be installed or cut until the tool becomes available. The uninstalled tool will be recorded on the Tool Container Shortage List (Figure 10.12-3).

10.12.3.3.4 The position of each tool must be silhouetted against a contrasting background to highlight its location within the container. Silhouetting may be accomplished by use of paint, etching, or other method that does not cause a risk of FOD. Each tool location will be numbered to correspond with the tool's number on the inventory list.

10.12.3.3.5 Tool pouches must be fabricated to hold individual tools in separate positions. Each tool pouch will have a flap cover that attaches securely on all edges to prevent tools from falling out.

10.12.3.3.6 The outside of the container must be stenciled with applicable warnings, for example, "CONTAINS TOOLS TOO SMALL TO ETCH", "CONTAINS TOOLS UNSUITABLE FOR ETCHING", or "OXYGEN USE ONLY".

10.12.3.3.7 Wall boards and lockers may be used to provide rapid inventory of work equipment not specified to be in a container, for example, communications cords, electrical cords, and PPE. Items assigned to wall boards and lockers must be silhouetted and marked per the procedures noted in paragraph 10.12.3.3.4.

10.12.3.3.8 Each tool container, board and locker will have a Tool Inventory List per paragraph 10.12.3.4 with the diagram specified in the TCM, and a Tool Container Shortage List (Figure 10.12-3). Lists and diagrams will be firmly attached to eliminate the possibility of FOD.

NOTE: To reduce the possibility of FOD, lists and diagrams for tool pouches and for tools used in ESD work centers will be kept in a folder separate from the tool container or tool pouch.

10.12.3.3.9 Tools, tool containers, and tool lockers will be kept FOD free and clean of contaminants such as grease, oil, hydraulic fluid, dirt, fuel, and corrosion.

10.12.3.3.10 Tool containers and lockers will not be used to store any materials or equipment not on the inventory list.

10.12.3.4 Tool Inventory Lists

10.12.3.4.1 Tool inventory lists will identify each tool by item number, nomenclature, and quantity. Tools with multiple pieces will be identified on the list by annotating the number of pieces on the right hand side next to the item, for example, "Flashlight, plus 1 spare lens and 2 batteries = 4 total pieces", "Stamping dye set, 10 pieces plus 2 piece case = 12 total pieces", "Feeler Gauge with 14 blades" and "hacksaw with blade".

10.12.3.4.2 Tools too small or unsuitable to be etched or marked will be identified on the Inventory List by placing an asterisk (*) on the left hand side of the item's nomenclature, for example "*Jewel Scribe". If the item is a multiple piece tool and only some of the pieces are too small to etch, the inventory will specify each non-etched piece. For example, in a 10 piece Allen Wrench set where the 3/32 wrench is the only piece too small to etch, the nomenclature would be annotated "Allen Wrench Set,10 pieces plus case = 11 pieces * 3/32".

10.12.3.4.3 Tools requiring hardware to be secured to prevent potential FOD (for example, the lock nut on a hex key set or pliers) will be identified on the inventory list by annotating the securing method (such as "SPOT WELDED", "PEENED", or "ADHESIVE") next to each affected item.

10.12.3.4.4 Tool Container Shortage Lists (Figure 10.12-3) will be used to document any tools missing from the container. Procedures:

a. For tools on order:

(1) Annotate the nomenclature, drawer, panel, and item number of the tool.

(2) Annotate the number from the Missing Tool Report (Figure 10.12-4) or Broken/Worn Tool Report (Figure 10.12-5) on the tool container shortage list (Figure 10.12-3). If the tool has never been in the container, annotate "INITIAL ISSUE".

(3) Annotate the requisition document number received from the TCP Coordinator. If the tool will be purchased from SERVMART or open purchased, annotate "SERVMART or Open Purchase" and the date the TCP Coordinator plans to obtain the tool.

(4) The Work Center Tool Control Representative will initial the entry to certify the tool has been placed on order.

(5) When the tool is received, the Work Center Supervisor must personally verify the tool has been placed in the container, enter the date replaced, and initial the form.

b. For tools in calibration:

(1) Annotate the nomenclature, drawer, panel, and item number of the tool being calibrated.

(2) The Work Center Tool Control Representative will annotate the date the tool was turned in for calibration and initial the form.

(3) When the tool is received from calibration, the Work Center Supervisor must personally verify the tool has been placed in the container, enter the date replaced, and initial the form.

10.12.3.5 Tool Security and Checkout Procedures

10.12.3.5.1 Tools must be secured in the assigned container, wall board, or locker when not in use. Tools not assigned to a work center must be stored in the tool room.

10.12.3.5.2 A tool log will be used to check out portable tool containers, individual tools from the Tool Room, shop container, shop support box, tool pouches, PPE, and consumable tools (acid brushes, wire brushes, razor blades, sand paper, rags, etc.). As a minimum, tool logs must contain the following information:

a. Name of person to whom the tool is being issued

b. Assigned container, locker, or wall board number, and the inventory item number

c. Job control number (JCN), MAF control number (MCN), or job order number (JON) for which the tool is being used

d. Date and time checked out, and Supervisor or CDI Signature

e. Date and time checked in, and Supervisor or CDI Signature

NOTE: Portable tool containers checked out for an entire shift will be used for performing maintenance on only one aircraft or piece of equipment at a time.

10.12.3.5.3 Tool tags will be used whenever an individual tool is checked out from a tool container. Tool tags may also be used to check out individual items of PPE or equipment. Procedures:

a. Tools, PPE, or equipment will be issued in exchange for a tool tag on a one-for-one basis.

b. The individual checking out the tool must provide a tool tag from a container personally assigned or checked out to them.

c. The tool tag will be placed in the checked out item's designated location.

d. If a tool is checked out from a container by an individual without access to a tool tag, the checkout will be logged in the Work Center Tool Control Log per paragraph 10.12.3.6.1.

NOTES: 1. Tool pouches and "OXYGEN USE ONLY" containers will not have tool tags.

2. Tools from portable containers will not be checked out for simultaneous maintenance on multiple aircraft or equipment.

10.12.3.5.4 Tools issued with flight packets must be controlled and accounted for. Each flight packet will have a Controlled Equipage Custody Record (NAVSUP 306), an inventory list, and a tool diagram.

10.12.3.6 O-Level and I-Level Tool Inventories

10.12.3.6.1 Tool containers, wallboards, special tools, and PPE must be sight inventoried at the beginning and end of each shift by the Work Center Supervisor or Shift Supervisor. Shift inventories will be documented in a work center tool control log that lists each container and the legibly printed name and signature of the individual that performed the inventory. Work center tool control logs will be retained for a minimum of 30 days after the last entry.

10.12.3.6.2 The tool container number must be annotated in the WO or MAF tool box block upon task assignment. The supervisor or a CDI and the technician assigned to the task will jointly conduct an inventory and inspection of the tool container and its contents prior to starting work on the task and at each work stoppage.

NOTE: NTCSS Optimized OMA NALCOMIS permits personnel with a QAR, CDI, or Work Center Supervisor SMQ to correct the tool box number and initials data fields. Work Center Supervisors, QARs, and CDIs will strictly control changes to the tool box data field.

10.12.3.6.3 A wall-to-wall sight inventory of all tools, tool containers, and wall boards in work centers and the tool room must be conducted every six months (semi-annually) by the TCP Coordinator, to include a comparison of work center inventory lists to the master inventory record to verify no unauthorized additions or deletions have occurred. The inventory will be documented on the Controlled Equipage Custody Record (NAVSUP 306) form that documented issuance of the tools to the work center or tool room, per paragraph 10.12.4.4.e.

10.12.3.7 Broken/Worn Tool Procedures

a. Broken or worn tools will be removed from service and replaced as soon as discovered.

b. All broken or worn tools will be given to the activity's Tool Control Coordinator along with a Broken/Worn Tool Report (Figure 10.12-5).

c. Replacement tools will not be issued without a completed Broken/Worn Tool Report (Figure 10.12-5).

NOTE: A tool with missing pieces must be investigated as a missing tool per 10.12.3.8.

d. If a replacement tool is not immediately provided, an entry will be made on the applicable Tool Container Shortage List (Figure 10.12-3).

e. All unserviceable tools will be sent to the local Defense Logistics Agency Disposition Services (DLADS) center. If there is no local DLADS, unserviceable tools will be sent to the servicing Supply Department for disposal. Receipts will be kept on file for one year.

10.12.3.8 O-Level and I-Level Missing Tool Procedures

a. Technicians will immediately stop work and notify their Work Center Supervisor as soon as they discover a tool is missing.

b. Work Center Supervisor actions:

(1) Immediately notify Maintenance or Production Control that a tool is missing and provide information on any aircraft, engines, or equipment that may be affected.

(2) Personally coordinate a thorough search of the work area.

(3) Initiate a Missing Tool Report (Figure 10.12-4) if the tool is not found during the initial search.

c. Maintenance or Production Control actions:

(1) Verbally notify the Maintenance Officer (MO), Assistant Maintenance Officer (AMO), Maintenance Material Control Officer (MMCO), and Quality Assurance (QA) that a tool is missing. If embarked, also notify the CVW MO or Air Combat Element MO and Flight Deck Control.

(2) Quarantine affected aircraft, engines, equipment, and components, and initiate a downing WO or MAF with the discrepancy "Potential FOD from missing (tool nomenclature and serial number)". I-Level will flag the work center status board and stop production for the job involved.

(3) (I-Level) Notify ASD/S6 Division if any engine, equipment, or component with potential to have the missing tool was returned to Supply for issue. If a suspect item was issued, notify the receiving activity that the item is NRFI due to potential FOD and must be turned in with a work request for FOD check. The I-Level QAR or CDI that inspects the suspect item will complete the work request with the remark "CERTIFIED FOD FREE".

(4) Fill in the Maintenance or Production Control section of the Missing Tool Report and forward it to QA.

d. QA actions:

(1) Immediately assign a QAR to investigate the missing tool. The investigator will personally conduct a search for the tool. Whether or not the tool is found, the investigator must fill in the details on the Missing Tool Report and brief the QA Officer.

(2) The QAR that conducted the investigation will complete the WO or MAF that downed the aircraft, engine, or equipment for potential FOD. If the tool was found during the QA investigation the corrective action block will read "Missing tool investigation completed. Tool found." If the tool was not found, the corrective action block will read "Missing tool investigation completed. Tool not found."

(3) If the tool was not found, the QA Officer will take the Missing Tool Report to the MO and provide a recommendation for the affected aircraft, engine, equipment, or component.

e. MO actions:

(1) Release aircraft, engines and equipment for flight or operation only after a thorough investigation is completed, and only if satisfied the tool does not present a FOD hazard.

(2) Brief the CO on missing tool incidents.

NOTE: The AMO will assume MO responsibilities for missing tools if the MO is not available.

f. If tools are discovered missing during flight or while operating away from home base, the aircrew must:

(1) Notify the pilot in command and conduct a thorough search of the aircraft. If the tool is not found, the flight engineer, crew chief, or senior maintenance technician (in the absence of an assigned crew chief) must initiate a Missing Tool Report (Figure 10.12-4). The senior maintenance technician will act as Work Center Supervisor, Maintenance Control, and QA investigator; and the pilot in command will act as the Maintenance Officer.

(2) If not airborne, the aircraft will be grounded until completion of the missing tool investigation. The pilot in command will not release the aircraft for flight until the investigation is completed, and only if satisfied the tool does not present a FOD hazard.

(3) Upon return to home station, the aircrew will give the completed Missing Tool Report to Maintenance Control.

10.12.3.9 Special Procedures for Aviation Life Support Systems (ALSS)

a. ALSS tools will be kept clean and free of oil and grease at all times.

b. ALSS tools used on oxygen components must be segregated in a separate container marked "OXYGEN USE ONLY."

c. ALSS long bars and paracord stitching fids will not be etched due to potential to snag canopy material.

d. Tools used on ALSS that cannot be functionally checked prior to use, such as parachutes and floatation equipment, must be accounted for after the repack or inspection of each item. The QAR or CDI signing the WO or MAF "Inspected By" block is certifying all tools were accounted for.

10.12.4 Responsibilities

10.12.4.1 Type Wing or MAW

a. Research TCM change recommendations and submit valid recommendations to NAWCAD Lakehurst, NJ per paragraph 10.12.3.1.b.

b. Formally respond to squadron TCM deviation requests per paragraph 10.12.3.1.c and submit a TCM change recommendation per paragraph 10.12.3.1.b for deviations with fleet-wide applicability.

NOTE: Type Wings and MAWs may designate a non-deploying squadron as T/M/S TCM Model Manager, with authority to approve or disapprove TCM change recommendations and deviation requests.

10.12.4.2 Maintenance Officer (MO)

a. Develop local command procedures per Appendix D, if required, to direct geographic, T/M/S, or command actions for the Tool Control Program that are not addressed in this NAMPSOP. Command LCPs will be submitted to the Wing or MAW for consideration of developing a Wing LCP.

b. Designate the Material Control Officer as the TCP Manager per 10.1.2.9.

NOTE: If no Material Control Officer is assigned, the MO will assign the MMCO or Production Officer or a Quality Assurance Representative (QAR) as TCP Manager.

c. Establish a Tool Room or Tool Control Center to manage tools not issued to work centers.

d. (O-Level) Review TCM change recommendations and deviation requests prior to submission to the Wing or MAW.

e. Strictly adhere to the procedures for releasing aircraft or equipment for flight or operation when tools are missing per paragraph 10.12.3.8.

f. Coordinate with the NATOPS Officer to train aircrew personnel in TCP procedures.

10.12.4.3 Tool Control Program Manager

a. Perform a Program Manager audit within 60 days of designation as the Program Manager and annually thereafter per paragraph 10.7.5.8.

b. Provide NAMP indoctrination and refresher training on Tool Control Program per 10.1.4.7 and 10.1.4.8. Verify personnel receive Tool Control familiarization prior to performing maintenance while assigned to the work center and semi-annually thereafter. Training must be specific to the duties the individual performs.

c. Designate a Tool Control Program Coordinator (normally the Tool Room Supervisor) to assist with managing the TCP per 10.1.2.9.

d. Plan and budget funds for the procurement of tool containers and hand tools.

e. Review SERVMART, Open Purchase, and supply system requisitions for purchasing tools, and verify only authorized tools and quantities are being ordered, and review lists at the completion of shopping to verify only authorized tools and quantities were purchased.

f. (O-Level) Review TCM change recommendations and deviation requests prior to submission to the MO.

g. I-Level TCP Managers:

(1) Publish a TCM per paragraph 10.12.3.1.d.

(2) Be the approving authority for TCM Change Recommendations (Figure 10.12-1).

10.12.4.4 Tool Control Program Coordinator

a. Supervise the operations of tool rooms and tool control centers.

b. Maintain an accurate tool inventory list (10.12.3.4) of all replacement tools on hand or on order. Requirements:

(1) The tool inventory list must include the NSN/PN, nomenclature, and current quantity on hand for each authorized replacement tool.

(2) Replacement tools that are unsuitable to be etched, or have multiple pieces, or have been peened, spot-welded or have hardware secured with adhesive will be identified on the replacement tool inventory per paragraph 10.12.3.4.

(3) The missing tool or broken/worn tool report number, tool container number, requisition number, and current status must be annotated for all replacement tools on order.

(4) The inventory must be updated upon receipt and issuance of replacement tools.

(5) Tools must be removed from packaging and etched or marked with the activity ORG code as soon as received.

c. Upon receipt, peen or spot weld tool hardware that can come loose (for example, the lock nut on a hex key set or pliers) to eliminate the possibility of FOD. Industrial adhesive will be used when peening or spot welding would cause damage or affect calibration.

d. Prior to issue, mark replacement tools with the complete identification number (ORG code, work center, and tool container number).

NOTE: A completed Missing Tool Report (Figure 10.12-4), Broken/Worn Tool Report (Figure 10.12-5) is required before issuing a replacement tool.

e. Issue tool containers by number to the Work Center Supervisor. Tool containers must be issued on a Controlled Equipage Custody Record (NAVSUP 306), one container per record. Work Center Supervisors will sign the front page of the Controlled Equipage Custody Record (NAVSUP 306) to acknowledge receipt.

f. (O-Level and I-Level) Conduct semi-annual tool container inventories with each Work Center Tool Control Representative per paragraph 10.12.3.6.3. Completion of the semi-annual inventory will be documented by legibly printing and signing the name of the person that performed

the inventory and on the back page of the Controlled Equipage Custody Record (NAVSUP Form 306).

g. Submit SERVMART, Open Purchase, and supply system requisitions to the TCP Manager for approval prior to placing tools on order, and for review after receipt.

h. (O-Level and I-Level) Review and update the status of outstanding tool requisitions each month.

i. Dispose of broken/worn tools per the procedures of paragraph 10.12.3.7. Prior to disposal, broken/worn tools will be segregated from RFI tools by placing them in a locked container clearly marked "NRFI TOOLS".

j. Review work center TCM change and deviation requests, and prepare the final request for submission to the TCP Manager.

k. Provide TCP NAMP indoctrination training or verify the indoctrination training is being completed by a subject matter expert per 10.1.4.7.

l. Maintain a program file to include:

(1) Completed Missing Tool Reports (Figure 10.12-4) and Broken/Worn Tool Reports (Figure 10.12-5). Reports will be kept on file for a minimum of one year.

(2) List of primary and alternate Tool Control Representatives.

(3) Outstanding and completed change and deviation requests as long as they are in effect.

(4) The master copy of each individual tool container inventory, layout photograph or diagram, and copy of Controlled Equipage Custody Record (NAVSUP 306). One master copy may be maintained for multiple identical tool containers used by the same work center.

(5) The master copy of the TCM.

(6) Current Aviation Maintenance Advisories (AMA) for the TCP.

(7) Copy of the most current Program Manager audit and QA Audit.

10.12.4.5 QA Officer

The QAO will designate a QAR as the TCP Monitor per 10.1.2.9.

10.12.4.6 QA TCP Monitor

a. Perform audits per the procedures of paragraph 10.7.5.7.

b. Coordinate QA actions for missing tool investigations per paragraph 10.12.3.8.

c. Maintain a log and assign a report number to each missing tool and broken/worn tool report. A sequential numbering system will be used, consisting of the year, type of report, and serial number, for example, 16-M001 (M = missing), 16-B002 (B = broken), or 16-W003 (W = worn). The logbook must contain the following information: report number, calendar date initiated, work center, tool nomenclature, serial number, BUNO/Serial Number of last aircraft/equipment the tool

was used on, investigator assigned, and whether or not the tool was found. The log may be in paper or electronic format.

d. Report defective or poor quality tools per paragraph 10.9.

e. Brief assisting contractor and depot field maintenance teams on tool control and FOD prevention procedures upon initial arrival at the job site. Inspect and inventory all field team tools, equipment, PPE, and consumables prior to the field team initially beginning work and at the completion of the job. The in-brief, initial inventory, and final inventory will be documented on a Contractor/Depot Field Maintenance Team Brief (Figure 10.12-6). Monitor will maintain completed briefs on file for one year plus the current, the file maybe either hardcopy or electronic.

f. Randomly monitor work center tool containers and work in progress to verify compliance with the TCP.

10.12.4.7 Division Officer

a. Review TCM change requests and deviation requests prior to forwarding to the TCP Manager.

b. Inspect tools and related documentation during work center audits to verify compliance with TCP procedures.

c. Review missing tool incidents and the results of TCP audits and direct remedial training, if warranted.

10.12.4.8 Work Center Supervisor

a. Sign for custody of work center tools per paragraph 10.12.4.4.e.

b. Train work center personnel on their TCP responsibilities.

c. Assign Primary and Alternate Work Center Tool Control Representatives.

d. Randomly spot-check work in-progress to verify TCP procedures are being complied with.

e. Immediately correct tool control discrepancies discovered during work center audits.

f. Supervise the work center's actions when tools are missing per paragraph 10.12.3.8.

NOTE: The flight engineer, crew chief, or senior maintenance technician (in the absence of an assigned crew chief) assumes Work Center Supervisor TC responsibilities for in-flight maintenance.

10.12.4.9 Work Center Tool Control Representative

a. Assist the Work Center Supervisor in managing the TCP.

b. Maintain tools and tool containers in serviceable condition, and verify containers are FOD free and clean.

c. Conduct semi-annual tool container inventory reconciliations with the TCP Coordinator per paragraph 10.12.4.4.f.

d. Maintain a TCP file, to include:

(1) Copies of work center tool container inventories and layout photographs or diagrams.

(2) Copies of TCM change requests and deviation requests.

From: (Requesting activity)
To: Type Wing or MAW

Subj: (T/M/S) TOOL CONTROL MANUAL CHANGE RECOMMENDATION

Ref: (a) COMNAVAIRFORINST 4790.2
(b) NAVAIR 17-1 (T/M/S) Tool Control Manual

Encl: (1) (Pictures or drawings needed to illustrate the change).

1. Per reference (a), recommend the following change to reference (b):

   a. TCM Container No.:

   b. Change:

   c. Justification: (Provide a detailed justification of the need for the change).

2. Point of Contact: (Rank and name, DSN number, commercial number, and email of command POC).

M. E. VANOVER

NOTES: 1. If the Type Wing or MAW concurs with the change, they will submit it to NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION, SE and ALRE Installation Branch as a Technical Publication Deficiency Report (TPDR), per the procedures of 10.9.

2. IMAs and Depots must develop a form for requesting and documenting approval or disapproval of change recommendations to their TCM.

Figure 10.12-1: Tool Control Manual Change Recommendation (Example)

From: (Requesting activity)

To: (Wing or MAW)

Subj: (T/M/S) TOOL CONTROL MANUAL DEVIATION REQUEST

Ref: (a) COMNAVAIRFORINST 4790.2
(b) NAVAIR 17-1 (T/M/S) Tool Control Manual

Encl: (1) (Pictures or drawings needed to illustrate the deviation).

1. Per reference (a), request the following deviation to reference (b):

a. TCM Container No.:

b. Deviation:

c. Justification: (Provide a detailed justification of the operational need for the deviation).

2. Point of Contact: (Rank and name, DSN number, commercial number, and email of command POC).

M. E. VANOVER

Figure 10.12-2: Tool Control Manual Deviation Request (Example)

TOOL CONTAINER SHORTAGE LIST

Tool Container No:

NOMENCLATURE DRAWER/PANEL/ITEM	TOOL REPORT NO.	DOC NO.	TOOL CONTROL REPRESENTATIVE INITIALS	DATE REPLACED	WC SUPERVISOR INITIALS

Figure 10.12-3: Tool Container Shortage List (Example)

MISSING TOOL REPORT

Date _____ Time _____
Report Originator _____ Signature _____
Work Center _____
Tool Nomenclature and Serial Number_____
Inventory Item Number _____
Aircraft BUNO/Equipment SERNO Tool was used on _____
Circumstances:_____
_____
_____
Work Center Supervisor _____ Signature _____
Maintenance/Production Control
1. Notify: MO___ AMO___ MMCO___ QA___ Air Wing MO (afloat)___
Flight Deck/Hangar Deck Control (afloat)___
2. O-Level: Initiate a downing WO for affected aircraft, place in the ADB, and update aircraft status to "Down" in OOMA.
I-Level: Flag the work center status board and stop production for the job involved.
WO/MAF MCN _____
Remarks:_____
_____
MC/PC _____ _____ Signature_____
Date _____ Time _____
Report Number _____
Investigator Assigned _____
Investigation Results:
a. Tool was found/not found.
b. Details and recommendations: _____
_____
_____
_____
Investigator Signature_____ Date _____ Time _____
Quality Assurance Officer Recommendations: _____
_____
_____
_____
QA Officer _____ Signature_____
Date _____ Time _____
Maintenance Officer
Aircraft/Equipment released for flight/use: Yes_____ No_____
Direction: _____
_____
_____
Maintenance Officer _____ Signature_____
Tool Control Coordinator
Missing Tool replaced from spare? Yes____ No____
Placed on order? Yes____ No____
Requisition Number or SERVMART/Open Purchase Date _____
Replacement tool issued to: _____ Date:_____

Figure 10.12-4: Missing Tool Report (Example)Quality Assurance

BROKEN/WORN TOOL REPORT

Report Number _____

Date/Time _____

Report Originator _____ Signature _____

Work Center _____

Tool Nomenclature _____

Container Number _____

Inventory Item Number _____

Damage: _____

Are all broken pieces accounted for? Yes____ No _____

NOTE: If all pieces are not accounted for, file a Missing Tool Report.

Work Center Supervisor _____Signature _____

Quality Assurance

All pieces sighted.

QAR _____ Signature_____Date _____ Time _____

Recommendation:_____

_____

Tool Control Coordinator

Broken/Worn Tool Received. Signature_____Date _____

Replaced from spare? Yes_____ No_____

Placed on order? Yes_____ No_____

Requisition Number or SERVMART/Open Purchase Date: _____

Replacement tool issued to: Name: _____ Date:_____

Figure 10.12-5: Broken/Worn Tool Report (Example)

From: (Activity) Quality Assurance

To: Contractor/Field Maintenance Team

Subj: CONTRACTOR/DEPOT FIELD MAINTENANCE TEAM TOOL CONTROL AND FOREIGN OBJECT DAMAGE (FOD) PREVENTION BRIEF

Ref: (a) COMNAVAIRFORINST 4790.2

1. Reference (a) requires Quality Assurance brief each contractor/field maintenance team on tool control and FOD prevention requirements, and conduct a joint inventory of tools and equipment prior to the contractor/field maintenance team commencing work.

2. Summary of aircraft/equipment/component work to be done:

_____
_____
_____
_____

3. A Quality Assurance Representative or the QA Supervisor must jointly conduct a tool inventory with the Contractor/Field Maintenance Team Leader prior to starting and upon completion of each maintenance assignment. The Team Leader must notify QA of any additional tools introduced after the initial tool inventory. If the volume of the tools precludes a 100 percent inventory, the Team Leader will list each tool used, and must certify 100 percent are accounted for following work accomplishment.

4. The Contractor/Field Maintenance Team Leader must immediately notify QA or the QA Supervisor of a missing or broken tool. Broken tools will be sighted by a QAR and all pieces accounted for.

5. I have been briefed by the activity QAR/QA Supervisor on the responsibilities of all contractor/field maintenance team personnel with respect to proper TCP and FOD procedures. Copy of tool inventory attached.

Team Leader Printed Name and Signature:

_____/_____ Date: _____

6. Inventories:

a. Completed initial tool and equipment inventory prior to commencement of work.

Team Leader Printed Name and Signature:

_____/_____ Date: _____

QAR Printed Name and Signature:

_____/_____ Date: _____

b. Completed final inventory. All tools and equipment -accounted for.

Team Leader Printed Name and Signature:

_____/_____ Date: _____

QAR Printed Name and Signature:

_____/_____ Date: _____

Figure 10.12-6: Contractor/Depot Field Maintenance Team Tool Control Program and FOD Brief (Example)

10.13 Aircraft and Support Equipment (SE) Corrosion Prevention and Control Program (NAMPSOP)

10.13.1 References

a. OPNAVINST 5100.19, Navy Safety and Occupational Health (SOH) Program Manual for Forces Afloat

b. OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual

c. NAVAIR 17-1-125, Support Equipment Cleaning, Preservation and Corrosion Control

d. NAVAIR 01-1A-509-1, Cleaning and Corrosion Control, Volume I, Corrosion Program and Corrosion Theory

e. NAVAIR 01-1A-509-2, Cleaning and Corrosion Control, Volume II Aircraft

f. NAVAIR 01-1A-509-3, Cleaning and Corrosion Control, Volume III Avionics and Electronics

g. NAVAIR 01-1A-509-4, Cleaning and Corrosion Control, Volume IV, Consumable Materials and Equipment for Aircraft and Avionics

h. NAVAIR 01-1A-75, Airborne Weapons and Associated Equipment Consumable Material Applications and Hazardous Material Authorized Use List

i. NAVAIR 00-80T-123, Aircrew Systems NATOPS Manual

j. NAVAIR 15-01-500, Preservation of Naval Aircraft

k. COMNAVAIRPAC/COMNAVAIRLANTINST 4750.4, Guidance for the Application of Polyurethane Paints on Aircraft and Related Equipment While Embarked Onboard CVNs

l. MIL-STD-2161C(AS), Paint Schemes and Exterior Markings for U.S. Navy and Marine Corps Aircraft

m. OPNAVINST 5215.17, Navy Directives Management Program

n. NAVMC DIR 5100.8, Marine Corps Occupational Safety and Health (OSH) Program Manual

o. COMNAVAIRFORINST 4790.5, Organizational Maintenance Material Condition Inspection

10.13.2 Introduction

10.13.2.1 The Corrosion Prevention and Control Program establishes general policy for preventing and controlling corrosion damage to naval aircraft, engines, components, and support equipment (SE).

NOTE: For Depot Corrosion Prevention and Control Program see Chapter 12.

10.13.2.2 The primary goal of the Corrosion Prevention and Control Program is to prevent corrosion from forming. The secondary goal is to detect and treat corrosion in the earliest stages of development to minimize corrosion damage. The primary elements of the program are:

a. Personnel who are knowledgeable and skilled in corrosion prevention and control.

b. Rigid adherence to the preservation, corrosion prevention, inspection, and treatment procedures specified in the references, and type/model/series (T/M/S) aircraft or equipment maintenance manuals.

c. Data analysis that enables informed decisions on actions required to improve corrosion prevention and control.

10.13.2.3 Aircraft corrosion Focus Area Lists (FAL) are a major element of corrosion prevention and detection. FALs identify T/M/S specific areas that adversely impact the maintenance cost and time required to maintain aircraft readiness. FALs emphasize where corrosion mitigation efforts should be concentrated.

NOTES: 1. All T/M/S listed at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/N42/N422/N422B/SitePages/Corrosion-Class-Desk.aspx are directed to schedule C-MRT visits which will include corrosion identification, mitigation and prevention training. Type Wing or MAW will direct each cognizant activity to schedule a C-MRT assist visit with local NATEC C-MRT at a minimum of one corrosion intensive inspection per quarter. An Electronic Local Assist Request (ELAR) will be sent a minimum of five working days prior to the date of the requested assistance via the NATEC website. Type Wing or MAW will liason with the local C-MRT in order to de-conflict any scheduling problems. Activities will report the scheduled assist visits to their cognizant Type Wing or MAW AMO on a quarterly basis.

2. C-MRT assist visits will not be required when deployed or when more than 50 percent of an activity's PAA is away from home guard for more than 60 consecutive days. C-MRT assist visits will not be done on the same BUNO twice in the same calendar year.

3. Activity deviation requests from quarterly C-MRT assist visit requirements will be submitted to the Type Wing/MAW MO for approval. If approved, Type Wing/MAW will notify CNAF N422B of deviation approval with a brief summary of circumstances via email to (CNAP_N422BCorrosionClassDesk@us.navy.mil). Additional deviation requests in the same calendar year by the same activity must be submitted by the requesting activity CO to CNAF N422 per paragraph 1.2.6.1, accompanied with ISIC or Type Wing/MAW endorsement.

10.13.2.4 Preservation minimizes the deterioration of aircraft, engines and equipment while they are inactive or in shipment. Diligent preservation practices optimize aircraft, engine, and SE availability, service life management, and total ownership costs.

10.13.2.5 The coating systems used on naval aircraft and the colors selected have been developed to provide protection of critical surface material and maximum tactical advantage.

a. The standard paint system for all naval aircraft and SE is an aliphatic polyurethane resin. Polyurethane provides maximum flexibility, weatherability, and resistance to all aircraft fluids.

b. The epoxy polyamide topcoat is an alternate authorized for touch-up of polyurethane at O-Level and I-Level, only when polyurethane is not available, or when prohibited by specific directives. Epoxy has an excellent chemical resistance; however, it has low temperature flexibility and exhibits poor weatherability when exposed to direct sunlight for extended periods.

10.13.2.6 Corrosion Control Fleet Support Team (FST):

a. Aircraft Weapons System Cleaning and Corrosion Control/Preservation: Commanding Officer, FRCSW North Island, Composites and Corrosion Branch, BLDG 469, PO BOX 357058, San Diego CA 92135-7058, DSN 735-9759 or COMM (619) 545-9759

b. Avionics Cleaning and Corrosion Control: Commanding Officer, FRCSW North Island, Composites and Corrosion Branch, BLDG 469, PO BOX 357058, San Diego CA 92135-7058, DSN 735-9756 or COMM (619) 545-9759

c. SE Cleaning and Corrosion Control/Preservation: Commanding Officer, Naval Air Warfare Center Aircraft Division, Material Engineering Branch, Highway 547, Joint Base MDL NJ 08733-5033, DSN 624-2716 or COMM (732) 323-2716

d. Naval Aviation Nuclear, Biological and Chemical Defense: Commanding Officer, Naval Air Warfare Center Aircraft Division, Combat Survivability Division, BLDG 2187, 48110 Shaw Road, Suite 1280-E3, Patuxent River, MD 20670-1906, DSN 342-0202 or COMM (301) 342-8435

10.13.2.7 The NAVAIR and COMNAVAIRFOR Corrosion Management Board are responsible for coordinating corrosion prevention efforts across all ACCs and all T/M/S aircraft.

10.13.3 Requirements

10.13.3.1 General

All naval aviation activities are responsible for maintaining the material condition of the aircraft and equipment under their control, including effective prevention and control of corrosion. Commercial and other government activities performing contract maintenance, production, or other support functions on naval aircraft and equipment are required to meet the same or equivalent standards.

10.13.3.2 Manpower Requirements

a. O-Level activities with an authorized allowance of seven or more aircraft must establish a Work Center 12C (Corrosion Control Shop). Minimum manpower requirements:

NOTE: Expeditionary activities with multiple detachments will either establish a work center 12C or assemble a Corrosion Control Team for periodic and unscheduled maintenance requirements and meet the minimum manpower requirements of 10.13.3.2.b.

(1) One Navy Aviation Structural Mechanic (AM) or United States Marine Corps (USMC) Military Occupational Specialty (MOS) equivalent E-6 or above qualified aircraft painter as Work Center 12C Supervisor.

(2) One additional qualified painter, E-5 or above.

(3) Additional Work Center 12C personnel and qualified painters, as specified by the Type Wing or Marine Aircraft Group (MAG) local command procedure (LCP) per paragraph 10.13.4.3.

b. O-Level activities with an authorized allowance of six or less aircraft should establish a Work Center 12C as manpower allows. If a Work Center 12C is not established, activities with six or less aircraft must assemble a Corrosion Control Team for periodic and unscheduled maintenance requirements. Minimum manpower requirements:

(1) One Navy AM or USMC MOS equivalent E-5 or above qualified aircraft painter.

(2) One additional qualified painter, E-5 or above.

(3) Additional Work Center 12C or Corrosion Control Team personnel and qualified painters, as specified by the Type Wing or MAG LCP per paragraph 10.13.4.3.

NOTE: O-Level activities that send detachments of aircraft on deployment will ensure at least two of the detachment personnel are qualified aircraft painters (of any paygrade).

c. I-Level activity Airframes Division and Support Equipment Division must each have a minimum of two qualified painters, Navy AM or AS rate, or USMC MOS 6062 or 6092. At least one of the painters in each division must be E-5 or above.

10.13.3.3 Training Requirements

a. All O-Level and I-Level personnel engaged in aircraft, engine, component, or SE maintenance must complete one of the following corrosion control training courses:

(1) CNATT Aviation "A" School courses: AD C-601-2011, AM C-603-0175, PR C-602-2043, AME C-602-2033, AT-I C-100-2017, AT-O C-100-2018, AE C-602-2039, AO C-646-2011, or AS C-602-2026.

(2) CNATT Basic Corrosion Control course (CNATT-000-BCC-064-001-C1) or Avionics Corrosion Control course (CNATT-000-ACC-063-001-C1) available at https://my.navy.mil under Quick Links then the Navy eLearning (NeL) tab.

(3) Corrosion Control Basic course (C-600-3180).

(4) Aviation Professional Apprentice Career Track course (U-AN-1000).

NOTES: 1. Personnel that completed Aviation "A" School between April 1992 and October 2005 or Aviation Warfare Apprentice Training (AWAT) course (C-100-2021) between March 2010 and March 2015 received corrosion control training equivalent to that listed in paragraph 10.13.3.3.a.(1).

2. Course information for all NAVAIR and CNATT courses is available on CANTRAC at https://app.prod.cetars.training.navy.mil/cantrac/vol2.html.

b. All O-Level personnel E-6 through O-5 assigned to the maintenance department must complete Corrosion for Managers course (N-701-0039) within 6 months of reporting to an O-Level activity or within 6 months of promotion to the grade of E-6, if not previously completed. Personnel are required to retake the Corrosion for Managers course (N-701-0039) following a subsequent break in organizational level assignment, for example, a tour in an I-Level activity or non-aviation maintenance billet (Recruiter, Instructor Duty, etc.).

c. Personnel assigned to an O-Level Work Center 12C or Corrosion Control Team or to I-Level Work Centers 51B and 92D must complete the Aircraft Corrosion Control course (N-701-0013) or Aircraft Corrosion course (C-600-3183) within 60 days of assignment, if not previously completed.

d. Personnel assigned as painters must complete the Aircraft Paint Touch Up and Markings course (N-701-0014) or Aircraft Paint/Finish course (C-600-3182) prior to performing painting operations. This qualification is valid indefinitely. Completion of Aircraft Corrosion Control course (N-701-0013) or Aircraft Corrosion course (C-600-3183) is a prerequisite for the Aircraft Paint/Finish Course (C-600-3182) and the Aircraft Paint Touch Up and Markings Course (N-701-0014).

NOTE: The use of self-contained Touch-Up pens does not require completion of the Aircraft Paint Touch Up and Markings course (N-701-0014 or C-600-3183).

e. All O-Level Quality Assurance Representatives (QAR), regardless of rate or MOS, must complete the Aircraft Corrosion Control course (N-701-0013) or Aircraft Corrosion course (C-600-3183) within 90 days of designation, if not previously completed. For I-Level activities, at a minimum, Navy AM rate and Marine Corps MOS 6062 or 6092 QARs must complete one of the above courses within 90 days of designation, if not previously completed. Individuals assigned as a QAR while on deployment, must complete the requirements within 90 days after return from deployment.

f. Type Wing or MAG Material Condition Inspectors must complete the Aircraft Corrosion Control course (N-701-0013) or Aircraft Corrosion course (C-600-3183) within 90 days of assignment.

g. O-Level and I-Level activities must conduct quarterly corrosion control training for all maintenance personnel. Training will be T/M/S specific and will include prevention, inspection, detection, identification, treatment, and documentation. Training will be conducted by technicians that have completed Aircraft Corrosion Control course (N-701-0013) or Aircraft Corrosion course (C-600-3183), and will be logged via ASM or equivalent.

h. O-Level and I-Level activities will conduct indoctrination training on corrosion control detection and identification for newly assigned aircrew personnel per 10.1.4.7. Training will be conducted by technicians that have completed the Aircraft Corrosion Control course (N-701-0013) or the Aircraft Corrosion course (C-600-3183), and will be logged via ASM.

i. NATEC can provide on-site training for courses N-701-0013 and N-701-0014. Requests for on-site training will be submitted via the activity's Type Wing or MAG. NATEC representatives providing formal course support are required to be qualified instructors. All logistical and material requirements are the requesting unit's responsibility.

10.13.3.4 Facilities and Environmental Requirements

a. Activities performing aircraft or aeronautical equipment painting must have a current Industrial Hygienist (IH) survey. The survey must cover the requirements specified in OPNAVINST 5100.19, OPNAVINST 5100.23, and NAVAIR 01-1A-509-2, as applicable to the painting operations performed. The survey will include, at a minimum:

(1) Description of operations including tasks and work place processes.

(2) A list of workplace hazardous materials (HM) that present significant risk.

(3) A list of physical hazards in the workplace (noise, ergonomic stressors, non-ionizing radiation, etc.) that present significant risk including a brief description of their sources.

(4) A description of facility controls, for example, industrial ventilation.

(5) Safety requirements, including exposure limits, PPE, and what type and level of respiratory protection is required.

(6) Medical surveillance requirements.

b. Activities must notify the facility IH of any permanent changes to the painting process that may affect the workplace, such as changes to equipment or type of paint being applied, regardless of whether or not isocyanates are involved.

10.13.3.5 Medical and Personal Protective Equipment (PPE) Requirements

a. Activities performing corrosion control must comply with the Respirator Protection Program directed in references OPNAVINST 5100.19 and OPNAVINST 5100.23. A cartridge change schedule must be established for organic vapor cartridges.

b. Personnel assigned duties involving the opening, mixing, or application of coating materials must receive initial and annual refresher training on the health hazards associated with the coating materials they use. The training will also include instruction on prevention measures, including PPE and exposure limits specified in the facility's IH survey.

c. Personnel assigned duties involving exposure to potentially harmful dusts, mists, or vapors must use the personal protective clothing and equipment required by OPNAVINST 5100.19,OPNAVINST 5100.23, NAVAIR 17-1-125, NAVAIR 01-1A-509 SERIES, NAVAIR 01-1A-75, and as specified in the facility IH survey.

d. Unprotected personnel will be restricted from areas with exposure to potentially harmful dusts, mists, or vapors.

e. Unprotected personnel will be restricted from areas where polyurethane or other potentially hazardous coatings are used, including opening, mixing, and application. Refer to Safety Data Sheets and the IH survey to determine the specific hazards.

10.13.3.6 Emergency Reclamation Team (ERT)

a. Activities responsible for operating or supporting aircraft operations must have an ERT. The team will be comprised of all Work Center 12C or Corrosion Control Team members and additional personnel from other work centers as required by the ERT Local Command Procedure (LCP) per 10.13.4.3.

b. The ERT must conduct and document semi-annual training and practical to refresh team members in emergency reclamation actions. The practical will encompass specific O-Level and I-Level emergency reclamation procedures for the T/M/S aircraft, engines, components, and SE supported, to include the procedures for corrosion treatment. ERT practical may be simulated and do not require the physical removal of component, or washing of aircraft, SE or components.

c. I-Level activities will assist O-Level activities by providing emergency reclamation expertise and equipment not authorized for O-Level maintenance.

d. ERT procedures must be specified in an LCP per Appendix D. At a minimum, the LCP must include:

(1) A list of references specific to emergency reclamation corrosion treatment procedures, and references applicable to decontamination procedures for aircraft and equipment exposed to Nuclear, Biological and Chemical (NBC) agents.

(2) A priority removal and treatment list of aircraft components for each T/M/S aircraft supported.

(3) A list of materials, equipment, and PPE required for emergency reclamation and corrosion treatment, per NAVAIR 01-1A-509 SERIES, and other applicable references. The list will also specify which work center is responsible for holding the materials, equipment, and PPE.

(4) A list of ERT manning requirements by work center and rate or MOS.

(5) A list of required PPE, including details on when it must be used.

NOTES: 1. All hazardous material to support emergency reclamation must be retained in a dedicated locker or be available at the local hazardous material center. Material will be inventoried quarterly, jointly by the ERT Leader, and either the CHRIMP site supervisor (afloat) or the Command HMC&M Supervisor (ashore), to verify items are on hand, in the correct quantities, and within prescribed shelf life.

2. Water solution component cleaning and ultrasonic drying will not be used on components and equipment unless specified by maintenance technical manuals specific to the component or equipment being treated.

10.13.3.7 Aircraft, Engine, and Equipment Preservation Requirements

a. Preservation is designed to protect the material condition of aircraft, engines, and equipment that are not expected to be flown or operated for extended periods of time. Maintenance actions in support of preservation process fall into four general categories:

(1) Initial Preservation. Initial preservation is applied within the timeframes listed in NAVAIR 15-01-500 or the applicable MRCs. It includes requirements to prevent deterioration of the aircraft, engine, or equipment while in a non-operating status.

(2) Maintenance While Preserved. Maintenance while preserved includes periodic maintenance requirements that are done after initial preservation is applied. It includes time sensitive requirements that must be done to maintain the initial preservation. Specific intervals are in NAVAIR 15-01-500 or applicable MRCs, and may include intervals such as daily, 7-day, 30-day, 90-day, or 180-day.

(3) Represervation. Represervation is a complete renewal of the initial preservation and is done when a specified length of time has elapsed from the initial preservation date.

(4) Depreservation. Depreservation is done at the time the aircraft, engine, or equipment is returned to operating status. It includes removal of protective materials, equipment, and servicing of systems.

b. NAVAIR 15-01-500 recommends aircraft, aircraft engines, and aircraft components be preserved if nonuse is anticipated for longer than 14 days. However, preservation may be performed at any time, regardless of the material condition reporting status, when it is determined to be in the best interest of the aircraft, engine, or equipment, or the activity. If the T/M/S technical manual does not direct aircraft be preserved if not flown for 30 days or less, the activity must make a determination of when the aircraft is expected to be flown. If the aircraft is expected to exceed 45 days of non-flight, the aircraft must be preserved per the most appropriate level specified in NAVAIR 15-01-500. Factors to consider in determining the level of preservation include whether the aircraft is being actively maintained (repairs are ongoing and scheduled maintenance is being performed), impact to aircraft integrity of missing parts, and environmental conditions (parked inside or outside, temperature and humidity levels, proximity to salt water, etc.). Refer to the Long-Term Down Aircraft Management NAMPSOP (10.25) for direction on aircraft that have not flown for 90 days or more.

c. Aircraft will be preserved per procedures specified in the applicable aircraft maintenance manuals. Aircraft without preservation maintenance manuals will be preserved per procedures specified in NAVAIR 15-01-500.

d. SE, Airborne Weapons Support Equipment (AWSE) and Weight Handling Equipment (WHE) will be preserved per NAVAIR 17-1-125 and applicable equipment technical manuals.

e. Aircraft engines and detachable mission equipment (aircraft armament equipment, troop seats, external cargo hook, pod, etc.) must be preserved as directed in NAVAIR 15-01-500 and applicable technical manuals when not installed or in use.

f. Aeronautical parts and components, regardless of RFI or NRFI status, will be preserved, packaged, and handled in a manner as to prevent corrosive deterioration. In no case will NRFI material not be protected from corrosion while awaiting repair. The P700-CNP website (https://tarp.navsup.navy.mil/) provides preservation and packaging requirements for specific repairable components.

10.13.3.8 Aircraft and Equipment Painting Requirements

a. Aircraft and equipment coating systems will be per NAVAIR 01-1A-509-2, MIL-STD-2161C(AS), and COMNAVAIRPAC/COMNAVAIRLANTINST 4750.4.

b. Aircraft Painting

(1) Squadron logo and insignia are restricted to aircraft tail(s) only.

(2) Squadron logo and insignia on Tactical Paint Scheme (TPS) aircraft will use only the low contrast shade of TPS gray against gray background. Camouflage painted aircraft will use black (color number 37038) against land camouflage background.

(3) Aircraft side numbers and squadron identifier may be painted in flat black or TPS gray.

(4) Aircrew, plane captain, and ship name may be added with letters not exceeding two inches in size in flat black or TPS gray. Lettering size will not exceed requirements in MIL-STD-2161(AS).

(5) Deviations from the specified reference MIL-STD-2161C(AS) paint scheme will only be considered for tactical reasons, for example, to evaluate an alternate paint scheme, and must be approved by the ACC prior to application.

NOTES: 1. One aircraft per squadron (two aircraft for FRS) is authorized to be painted with the squadron or air wing colors. Areas authorized to deviate from TPS include: the tails, alphanumeric characters, national star insignias, and no more than 25 percent of the aircraft fuselage. For example, aircraft side and BUNO numbering, and pilot and plane captain names may be painted in squadron colors to include a shadowing effect (if desired). Squadron colors and logos, such as striping, may be painted on the fuselage. TPS and camouflage integrity must be restored prior to deployment. Non-deploying squadrons transferring aircraft to a deploying squadron must return non-compliant aircraft to TPS prior to transferring the aircraft.

2. Low Observable aircraft will be painted in TPS only, regardless of employment. No squadron or air wing colors are authorized.

(6) Only the painting processes and paints specified in reference MIL-STD-2161C(AS) will be used for aircraft painting. The use of any non-approved process is strictly prohibited. Because state and local government agencies are empowered to restrict the use of maintenance chemicals, paints, and processes, all activities are responsible to be knowledgeable of and comply with these regulations.

(7) Touch-up painting will be restricted to only the amount required to repair damage during the corrosion repair process.

(8) Repainting of aircraft or entire sections of the aircraft by O-Level and I-Level maintenance activities is specifically prohibited, except when authorized in writing by the ACC.

(9) Manufacturer's thinning instructions must be followed to ensure volatile organic compound (VOC) limits are not exceeded. Commands will consult the Station or Ship Safety Officer, Environmental Officer, or IH to determine if coating conforms to local environmental regulations per paragraph 10.19.

c. Support Equipment Painting

(1) Complete repainting of SE or ancillary components is an authorized I-Level maintenance function. Whenever possible, painting will be done in a paint booth.

(2) Approval of the Safety Officer or IH is required when painting in maintenance hangars or spaces afloat.

d. Safety precautions, PPE requirements, exposure limits, and medical qualification requirements in the facility IH survey must be strictly followed.

e. Approval to deviate from using specified painting material and processes must be requested in writing to the ACC prior to use. Copies of changes to the authorized material list must be provided to the host safety office and the responsible IH.

10.13.4 Responsibilities

10.13.4.1 COMNAVAIRPAC (CNAP) N422

a. Lead the NAVAIR and COMNAVAIRFOR Corrosion Management Board.

b. Approve FALs for dissemination to Wings and MAGs.

c. Direct Material Condition Inspection criteria for uniform inspection of each T/M/S per COMNAVAIRFORINST 4790.5.

d. Direct and monitor T/M/S corrosion abatement metrics.

e. Provide instructions and required files for creating CNAP Corrosion Abatement Charts via the CNAP SharePoint under Quick Links at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/.

f. Provide training to Type Wing and MAG staff regarding the creation, interpretation, and use of CNAP Corrosion Abatement Charts. Training will be provided as requested.

g. Approve the T/M/S major corrosion inspection list provided by each Wing/MAG. Lists will be posted to the CNAP SharePoint.

10.13.4.2 COMNAVAIRSYCOM (NAVAIR)

a. NAWC AD Materials Engineering Division. NAVAIR will direct all material and processes used in the maintenance of aircraft and SE paint systems, to include the list of authorized materials for aircraft and SE painting.

b. T/M/S Aircraft FST

(1) Coordinate development of the FAL per Figure 10.13-1 procedures, using the corrosion data from a minimum of the previous 24 months of scheduled and unscheduled D-Level maintenance events. The FAL will be structured per the FAL template (Figures 10.13-2 through 10.13-6).

(2) Validate FALs with Type Wings and MAGs and forward to CNAP N422 for approval.

(3) Coordinate with Type Wings and MAGs to prioritize actions to improve the material condition of corrosion prone areas identified in the FAL.

(4) Review and update the FAL every two years.

c. T/M/S Baseline Manager

(1) Build the NAVAIR 15-01-500 preservation requirements into CM baseline for all aircraft and components (engines, prop assemblies, APUs, aircraft armament systems, etc.) that do not have specific preservation MRCs.

(2) Build the NAVAIR 17-1-125 requirements into CM baseline for SE which do not have specific preservation MRCs.

10.13.4.3 Type Wing or MAG

a. Publish LCPs per Appendix D, specifying:

(1) Any additional Work Center 12C or Corrosion Control Team manning beyond the manning specified in paragraph 10.13.3.2, including number of painters, based on the workload associated with each T/M/S aircraft and the operational environment. Standards may vary based on deployed or non-deployed status.

(2) Emergency reclamation procedures per paragraph 10.13.3.6 must be jointly developed with the supporting I-Level activity.

(3) Mitigation and corrective actions to improve the material condition of specific areas and items identified in the FAL.

(4) Local facility, environmental, and NAVOSH (Navy) and NAVMC DIR 5100.8 (Marine Corps) requirements.

(5) For commands that do not utilize OOMA, establish a process to document the MO's determination regarding the appropriate level of preservation for aircraft exceeding 30 days without a flight as per 10.13.4.5. Documentation will be maintained within the approved applicable T/M/S Management Information System (MIS).

b. Act as final approver for requests to waive or modify preservation requirements in excess of 30 days, but not to exceed 90 days, for aircraft and aeronautical equipment undergoing extensive repairs or modifications when the preservation would adversely affect the completion of the task. The following is required:

(1) A termination date is required for all approved waivers.

(2) Coordinate with FST for waivers and modified preservation requirements.

(3) After the aircraft has been down for more than a total of 90 days, refer to 10.25 Long Term Down Aircraft Management Procedures.

(4) Wing approved waivers will be documented in the aircraft CM ALS Miscellaneous History.

c. Coordinate with the FST to validate T/M/S FAL.

d. Distribute approved FALs to subordinate squadrons.

e. Publish an OJT syllabus for training Wing Material Condition Inspectors and squadron QARs and Collateral Duty Quality Assurance Representatives (CDQAR), and Collateral Duty Inspectors (CDI) on T/M/S specific corrosion prevention, inspection, detection, and treatment, with emphasis on the areas identified in the FAL.

f. Conduct annual FAL training for squadron QARs and CDQARs. Training must be conducted by Type Wing or MAW Material Condition Inspectors, or T/M/S corrosion SMEs such as NATEC Corrosion representatives.

g. Emphasize corrosion control procedures in the Wing training and testing syllabus for QARs, CDQARs, and CDIs per Chapter 7.

h. Inspect and verify aircraft paint schemes conform to the specifications of paragraph 10.13.3.8.

i. Type Wing or MAG Aviation Maintenance Officer must assess subordinate squadron corrosion performance by reviewing the CNAP Corrosion Abatement Charts on a quarterly basis. The analytical points of emphasis (red bold type) embedded into each T/M/S workbook will be used when evaluating squadron corrosion performance.

j. Provide training to squadron AMO, MMCO, MMCPO, QAS, Division LCPOs and Corrosion Prevention and Control Program Managers on how to interpret the CNAP Corrosion Abatement Charts. T/M/S SME(s) such as NATEC representatives may be used to conduct the training.

NOTE: Deviation to defer corrective action for corrosion discrepancies over 28 calendar days may be granted by the Type Wing or MAG. When considering granting deviation authorizations, ensure the corrosion discrepancy is within the O-Level authorized repair capability.

10.13.4.4 CVW and ACE

a. Enforce the requirements of this NAMPSOP during training detachments and deployments.

b. Assess squadron corrosion compliance by reviewing the CNAP Corrosion Abatement Charts on a monthly basis, when deployed. The analytical points of emphasis (red bold type) embedded into each T/M/S workbook will be used when evaluating performance.

NOTE: Deviation to defer corrective action for corrosion discrepancies over 28 calendar days old may be granted by the CVW or ACE if deployed. When considering granting deviation authorizations, ensure the corrosion discrepancy is within the O-Level authorized repair capability.

10.13.4.5 MO

a. Designate a Corrosion Prevention and Control Program Manager per 10.1.2.9.

b. (O-Level) Publish an LCP per Appendix D, if required to address any corrosion control and prevention or emergency reclamation procedures not addressed in this NAMPSOP or MAG LCP. Command LCPs will be submitted to the Type Wing or MAG for consideration of inclusion in the Type Wing or MAG LCP.

c. (I-Level) Publish an LCP per Appendix D, to direct command specific corrosion control and prevention procedures not addressed in this NAMPSOP. The LCP must address:

(1) Any local facility, environmental and NAVOSH (Navy) and NAVMC DIR 5100.8 (Marine Corps) requirements.

(2) Production Control, Division and Work Center responsibilities for emergency reclamation.

(3) Materials for emergency reclamation of components and equipment.

(4) Copies of T/M/S emergency reclamation priority removal lists.

(5) Procedures for onsite emergency reclamation assistance to supported O-Level activities.

d. Designate Emergency Reclamation Team members, per paragraph 10.13.3.6 and 10.1.2.9.

e. (O-Level) Determine and direct the appropriate level of preservation for aircraft exceeding 30 days without a flight, per the criteria of paragraph 10.13.3.7.c. The MO's determination will be documented in the CM ALS Miscellaneous History or MIS.

10.13.4.6 AMO

a. Establish a training plan to qualify personnel to perform corrosion prevention, detection, evaluation, treatment, and reporting. O-Level training plans must include FAL item corrosion identification and prevention requirements.

b. (O-Level) Review the CNAP Corrosion Abatement Charts each month to identify possible corrosion related training deficiencies.

c. Utilize Electronic Local Assist Requests (ELAR) on the NATEC website to request Corrosion MRT site representative assistance to correct and prevent corrosion related training deficiencies.

10.13.4.7 MMCO

a. Schedule adequate time to accomplish corrosion prevention, detection and treatment.

b. (O-Level) Coordinate a monthly review of the CNAP Corrosion Abatement Charts with the MMCPO, QAS, Corrosion Prevention and Control Program Manager, and Division LCPOs. The purpose of the review is to identify actions required to improve corrosion prevention and treatment. The analytical points of emphasis (red bold type) embedded into each T/M/S workbook will be used when evaluating squadron corrosion performance. Inform the AMO when corrosion and material condition related poor performance is suspected to be training related.

c. Implement FAL mitigation and corrective action practices.

d. Verify compliance with the preservation requirements of paragraph 10.13.3.7.

e. Maintain aircraft paint schemes as specified in IL-STD-2161C(AS), and paragraph 10.13.3.8.

10.13.4.8 Program Manager

a. Perform a program audit within 60 days of designation as the Corrosion Control and Prevention Program Manager and annually thereafter, per paragraph 10.7.5.8.

b. Keep current in the requirements of all applicable references cited in this instruction and maintenance technical manuals.

c. Provide technical advice and assistance to work centers in matters pertaining to corrosion prevention and control.

d. Coordinate with the IH to conduct facility surveys and verify the IH survey includes all requirements specified in paragraph 10.13.3.4.

e. Notify the responsible IH of any permanent changes to painting processes or its components that may affect the workplace.

f. Provide NAMP indoctrination and refresher training on Aircraft and SE Corrosion Prevention and Control Program per 10.1.4.7 and 10.1.4.8. Verify personnel receive Aircraft and SE Corrosion Prevention and Control familiarization prior to performing maintenance while assigned to the work center and quarterly thereafter. Training must be specific to the duties the individual performs.

g. Periodically spot check work in progress to verify required PPE is being used by personnel assigned duties involving exposure to potentially harmful dusts, mists, or vapors.

h. Supervise the ERT.

i. Provide indoctrination training to ERT members and supervise the semi-annual practicals per paragraph 10.13.3.6.

j. Conduct a quarterly inventory to verify materials, equipment, and tools required to perform corrosion prevention, treatment, and emergency reclamation are available.

k. (I-Level Program Managers) Provide expertise and assistance to supported O-Level activities during reclamation actions.

l. Verify personnel assigned duties involving the use of paints, primers or chemical conversion coating materials have received pre-placement training, a medical evaluation, and respirator fit testing and use training per paragraph 10.13.3.5, prior to performing coating operations, and verify personnel complete periodic medical surveillance evaluations.

m. (O-Level) Assist the MMCO with the monthly review of the CNAP Corrosion Abatement Charts and coordinate actions to improve corrosion prevention.

n. (O-Level) Brief the MO, AMO, MMCO, and MMCPO each quarter on squadron utilization of Corrosion MRT and NATEC representatives, including any Electronic Local Assist Requests (ELAR) that were submitted.

o. Verify corrosion prevention and treatment is being performed in compliance with T/M/S aircraft and equipment maintenance manuals, NAVAIR 01-1A-509 SERIES, NAVAIR 15-01-500, NAVAIR 17-1-125, NAVAIR 17-35FR-06, and other directives.

p. Maintain a program file to include:

(1) POCs.

(2) Syllabus identifying the activity's corrosion prevention and control and ERT training requirements.

(3) Program related correspondence and message traffic.

(4) References or cross reference locator sheets.

(5) A copy of the current IH survey of the activity's facilities.

(6) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit.

10.13.4.9 Quality Assurance

a. QA Officer: Designate a corrosion control qualified QAR (AM senior petty officer or D-Level SME) as the Corrosion Prevention and Control Program Monitor per 10.1.2.9.

b. QA Supervisor (O-Level):

(1) Verify QARs, CDQARs, and CDIs have completed the FAL training syllabus per paragraph 10.13.4.3.g and annual FAL training per paragraph 10.13.4.3.j.

(2) Assign QARs to periodically spot check FAL items for compliance with MRC or IETMS during scheduled inspections.

c. Program Monitor

(1) Perform program audits per paragraph 10.7.5.7.

(2) Conduct random spot checks of work in progress to determine compliance with corrosion control, prevention, and treatment requirements, and to verify aircraft and equipment are preserved per technical manual procedures.

10.13.4.10 Maintenance Control and Production Control (O-Level and I-Level)

a. (O-Level) Restrict aircraft from flight with corrosion treatment discrepancies over 28 calendar days based on WO received date, for example, corrosion discrepancies found on 1 Jan are required to have a drop dead date of 28 Jan.

NOTES: 1. Corrosion treatment discrepancies: Deviation to defer corrective action for O-Level corrosion discrepancies over 28 calendar days may be granted by the Type Wing or MAG, or by the CVW or ACE if deployed. The deviation reference

number must be cited on the WO and logged in the CM ALS Miscellaneous History or MIS.

2. Bare metal discrepancies: If the permanent repair or painting of bare metal is not feasible within 28 calendar days and a deviation to defer corrective action has been granted, then the discrepant area must be cleaned, inspected, and re-protected at least once every 28 days until the permanent repair can be completed. An in-process inspection will be entered on the discrepancy WO each time the cleaning, inspection and re-protection action is performed. This will allow the WO to be extended as an UP discrepancy for another 28 days.

b. Verify corrosion control is being correctly documented on WOs and MAFs.

c. Direct personnel, material, and equipment resources to the ERT to support rapid processing and corrective action during emergency reclamation.

d. Make a recommendation to the MMCO to preserve or not to preserve an aircraft when it has not flown for 14 or more days.

e. Issue a preservation WO or MAF for aircraft, engines, components, and SE per paragraph 10.13.3.7.

f. Direct all work performed on preserved aircraft, SE, AWSE, or WHE. Refer to T/M/S maintenance technical manuals to determine which, if any, special or conditional inspection tasks must be performed while aircraft are in preservation.

g. (O-Level) Brief FAL items when directing scheduled and unscheduled maintenance actions that include one or more FAL items.

10.13.4.11 Data Analyst (O-Level)

Create CNAP Corrosion Abatement Charts each month at a minimum. Distribute charts to the AMO, MMCO, MMCPO, QAS, and Division LCPOs for review. Instructions and required files for creating Abatement Charts. are available for download from CNAP SharePoint under Quick Links, Corrosion Class Desk at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/.

10.13.4.12 Work Center Supervisors

a. Request class quotas for personnel that do not meet the training requirements specified in paragraph 10.13.3.3.

b. Verify Corrosion Prevention and Control Program and Emergency Reclamation indoctrination training is provided to personnel.

c. Train sufficient numbers of work center personnel in emergency reclamation procedures.

d. Spot check work in progress to verify:

(1) Work Center personnel are complying with PPE requirements.

(2) Only authorized corrosion prevention and control materials are being used.

(3) Cleaning, corrosion prevention, treatment, and preservation are performed in accordance with procedures specified in technical manuals.

e. Review WOs and MAFs to verify personnel are complying with corrosion documentation procedures.

f. Verify personnel are aware of FAL and emphasize the importance of strict adherence to corrosion prevention and control procedures while performing maintenance in these areas.

g. (I-Level) Accomplish internal and external preservation prior to packaging components.

NOTE: The Aeronautical Material Screening Unit (AMSU) will ensure components are adequately protected for routing to the supply or IMA packing and preservation section. For MALS, this is the function of the Supply Shipping Branch of the Repairables Management Division (RMD). The packing and preservation section is responsible for final packing and preservation of components, less engines, prior to storage or shipment. Engines must be packed and preserved by the repairing I-Level or D-Level activity.

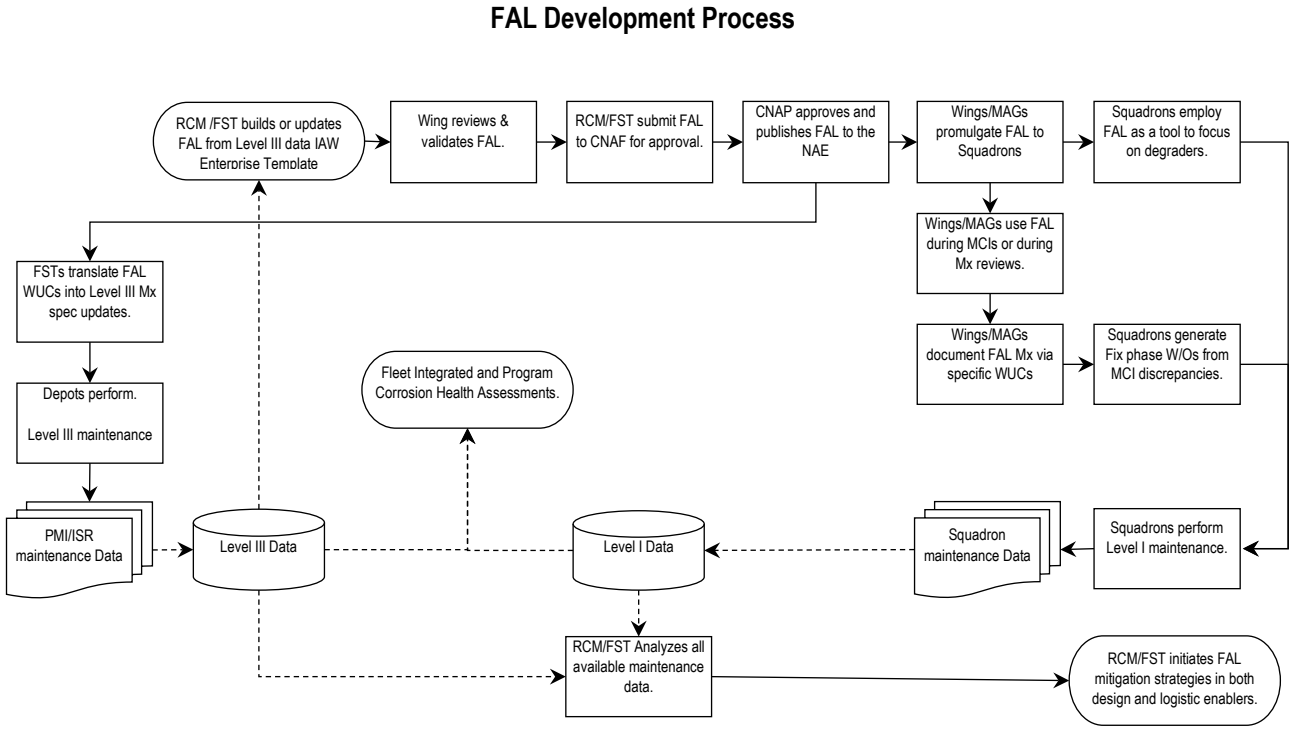


Figure 10.13-1: FAL Development Process

PLATFORM T/M/S

FST ORG RESPONSIBLE
PHYSICAL LOCATION
ADDRESS

From: FST Organization Responsible
To: Squadrons, IMAs, and D-level activities

Subj: GUIDELINES FOR T/M/S SPECIFIC FOCUS AREA LIST

Ref: (a) COMNAVAIRFORINST 4790.2D

Encl: (1) Focus Area List T/M/S Summary
(2) FAL T/M/S Level-II Maintenance Detail
(3) FAL T/M/S LEVEL-III Maintenance Detail
(4) FAL T/M/S Frequency Pareto Chart

1. The purpose of the Focus Area List (FAL) is to focus the Naval Aviation Enterprise on platform corrosion degraders

2. In November 2007 the Naval Aviation Enterprise (NAE) Air Board directed stand-up of a cross-functional Corrosion Management Board (CMB) to attack cost service life and readiness impacts throughout Naval Aviation. The CMB is comprised of COMNAVAIRFOR, NAVAIR, FRCs, FSTs, and Wings. In order for an area to make it on the Focus Area List, either a discrepancy had to occur frequently or it had to be a significant resource consumer during Level III maintenance events. Data used to build the FAL is derived primarily from the maintenance information system of record which is utilized to document discrepancies during PMI events.

3. The FAL is used by all hands as a tool to help improve and validate airframe material condition performance, inspections, and improvements and allow commands to:

a. Prioritize mitigation and Root Cause Analysis efforts of the most significant corrosion degraders across the system.

b. Capture and articulate corrosion related critical aircraft material condition issues to the enterprise.

4. The effective date of the FAL is DDMMMYYYY

5. All previous editions of the FAL are canceled by this instruction.

S. BAREFOOT
By Direction

Figure 10.13-2: FAL Cover Letter

FAL Priority #	WUC	Nomen	Discrepancy	Frequency	Avg MHrs per repair	Total MHrs
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						

Figure 10.13-3: FAL Summary

FAL Priority #	Zone	Task Description(s)	MRC/IETM Reference	Insp. Interval	WUC (left/right if applicable)	Frequency
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

Figure 10.13-4: FAL Level 1 Detail

FAL Priority #	PMI Task #	Zone	Requirement	Insp. Interval	PMI-1 Y/N	PMI-2 Y/N	Frequency	Total MHrs	Avg MHrs per repair	IRCMS Location

Figure 10.13-5: FAL Level 3 Detail

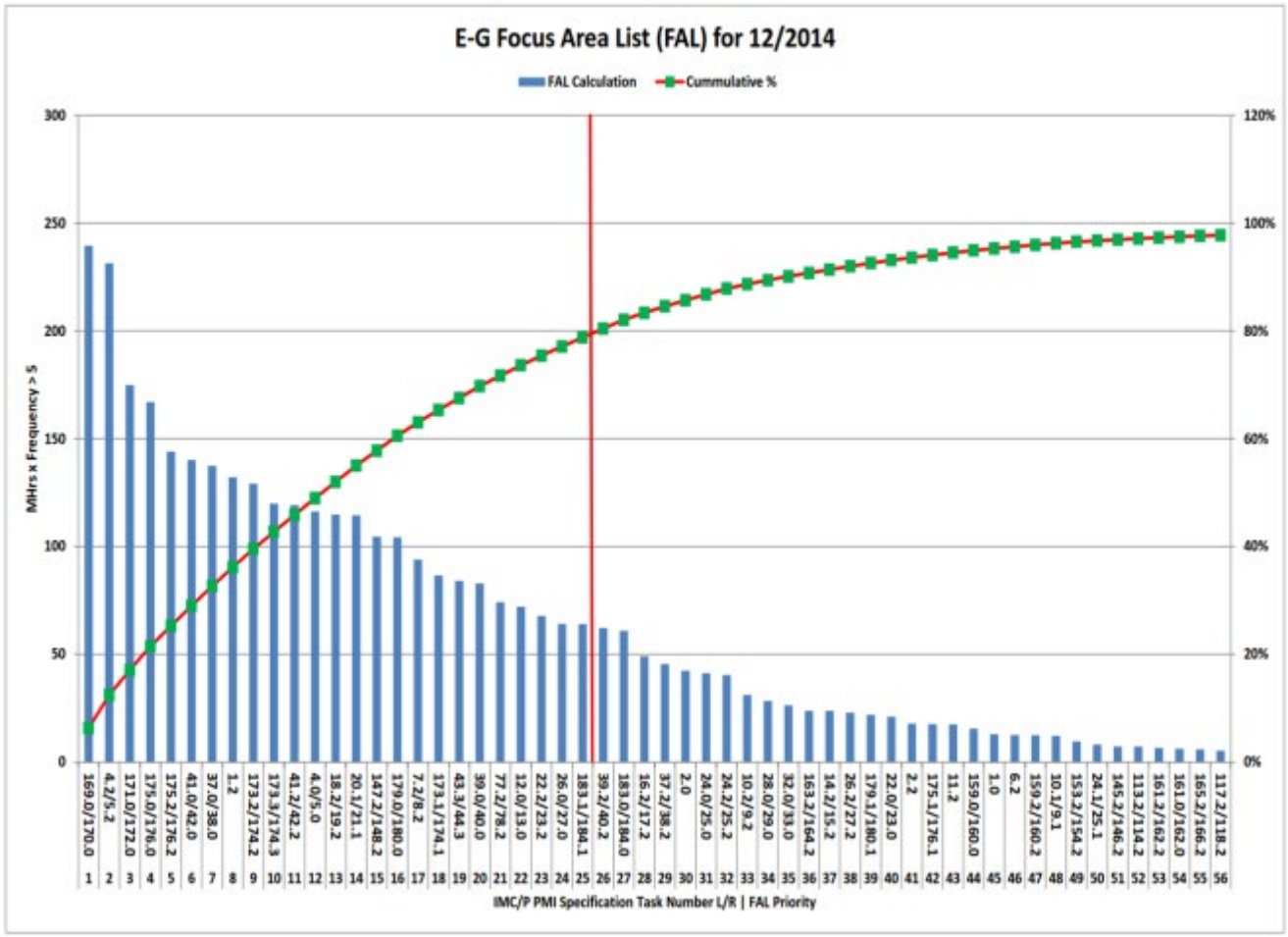


Figure 10.13-6: FAL Pareto Chart (sample)

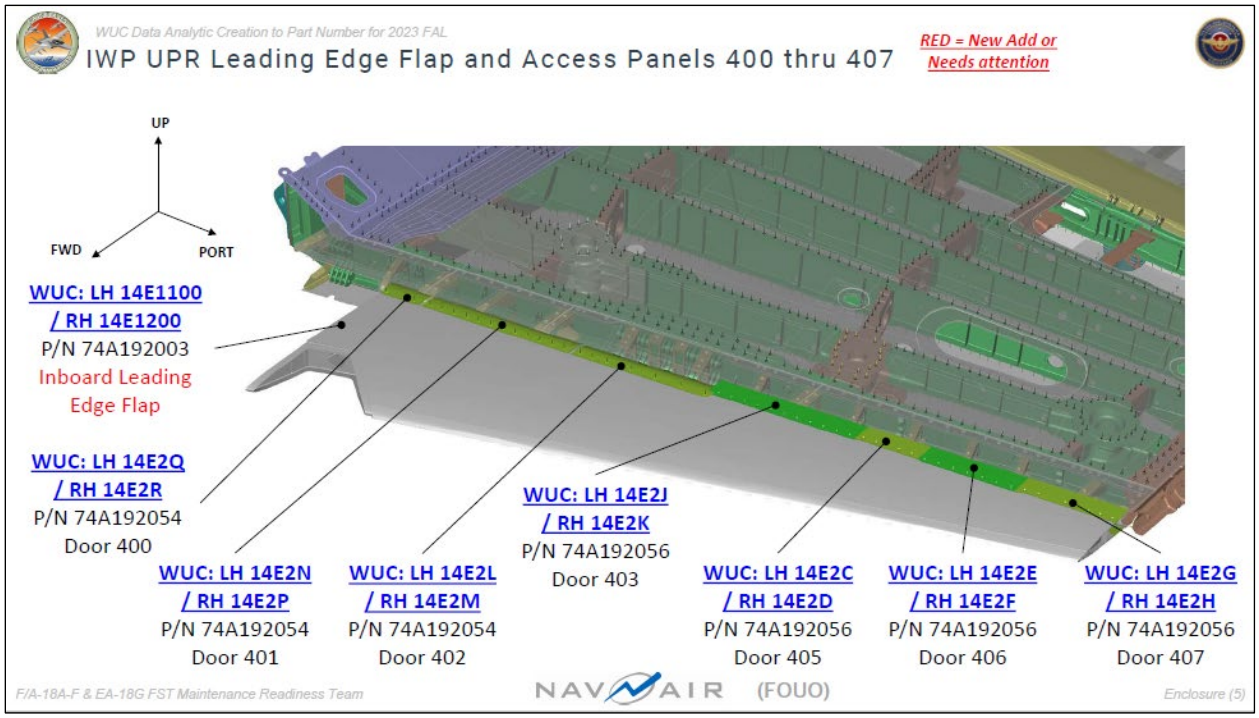


Figure 10.13-7: FAL Item Substructure Figures and Work Unit Codes (Example)

10.14 Plane Captain Qualification Program (NAMPSOP)

10.14.1 References

a. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual.

b. NAVAIR 00-80T-120 CVN Flight/Hangar Deck NATOPS Manual

c. NAVAIR 00-80T-106, LHA/LHD NATOPS Manual.

d. NAVAIR 00-80T-122, Helicopter Operating Procedures for Air-Capable Ships NATOPS Manual.

e. CNAF M-3710.7, NATOPS General Flight and Operating Instructions.

f. NAVAIR 01-1A-17, Aviation Hydraulics Manual.

g. NAVAIR 01-1A-509 (series), Cleaning and Corrosion Control.

h. NAVAIR 04-10-506, Aircraft Tire and Tubes.

i. NAVAIR 17-1-125, Support Equipment Cleaning, Prevention and Corrosion Control.

10.14.2 Introduction

The Plane Captain Qualification Program establishes the minimum procedures for training and qualifying personnel that perform Plane Captain duties. Commercial and other government activities operating naval aircraft are required to meet the same or equivalent standards for their personnel.

NOTES: 1. The title "Plane Captain" is used throughout this NAMPSOP, however, some aircraft communities use different terms for ground maintenance personnel that perform similar duties, such as "Plane Handler".

2. For Depot Plane Captain Qualification Program see Chapter 12.

10.14.3 Requirements

10.14.3.1 Training and Designation

The extent of Plane Captain duties may vary depending on type aircraft and operational environment. Therefore, training must be specific to the duties the individual performs. Prior to initial designation, Plane Captains must:

a. Receive (NAMP) Indoctrination Training on the Plane Captain Program per 10.1.4.7.

b. Complete the Wing or MAW standardized training syllabus.

c. Pass the written examination administered by a Quality Assurance Representative (QAR) with a passing score of 90 percent.

d. Pass the practical examination (CSEC 5700) administered by a QAR that is currently qualified as a Plane Captain.

NOTE: Collateral Duty QARs (CDQARs) are not authorized to administer the initial written or practical examination.

e. Be interviewed and recommended by the Plane Captain Selection Board.

f. Plane Captains will be designated in writing by their Commanding Officer (CO) on the Plane Captain Designation (OPNAV 4790/158) (Figure 10.14-1) located within ASM.

NOTE: Designation as a plane captain does not qualify personnel to perform engine or APU turn-up. Refer to 10.42 for engine and APU turn-up qualification requirements.

10.14.3.2 Naval Aircrewmen

a. In commands where naval aircrewmen (AWF, AWS, AWV, AWR, AWO, crew chiefs, or flight engineers) perform the functions of a Plane Captain, the aircrewman NATOPS training syllabus must include all qualification and requalification requirements for Plane Captain. Completion of the training curriculum and the designation as a naval aircrewman (NATOPS Evaluation Report (OPNAV 3710/7)) qualifies the aircrewman for Plane Captain duties.

b. Naval aircrewmen qualified as Plane Captains, per their NATOPS training syllabus will receive an annual requalification (CSEC 5700) on their NATOPS due date. However, Naval aircrewmen qualified as Plane Captains are not required to take a separate Plane Captain examination, appear before the Plane Captain Selection Board, or be designated on the Plane Captain Designation form within ASM (OPNAV 4790/158) (Figure 10.14-1) are subject to 10.14.3.3.a**.**

c. Commands with naval aircrewmen may designate enlisted NATOPS Instructors, Assistant NATOPS Instructors, or NATOPS Instructor Flight Engineers to perform Plane Captain requalification.

10.14.3.3 Requalification

a. Pass the written examination administered by a Quality Assurance Representative (QAR) or a Collateral Duty Quality Assurance Representative (CDQAR) with a passing score of 90 percent.

b. Pass the practical examination administered by a QAR or CDQAR that is currently designated as a Plane Captain. Practical examinations will be documented using the CSEC 5700 checklist in ASM.

NOTE: Activities operating under detachment concept may allow CDQARs designated as current Plane Captains to administer the annual requalification only.

c. At a minimum, newly assigned personnel that are designated as a Plane Captain in the same T/M/S aircraft from their previous command may be designated as a Plane Captain by their new command if they pass a practical examination (CSEC 5700), and are interviewed and recommended by the new command's Plane Captain Selection Board. Requalification will be documented in writing within ASM.

d. Annual requalification will be completed NLT the last day of the requalification month, and will be documented, in writing, by the Commanding Officer (CO) on the Plane Captain designation form (OPNAV 4790/158) (Figure 10.14-1) within ASM.

e. Personnel who have had their Plane Captain designation revoked will complete initial designation requirements per 10.14.3.1 before being re-designated.

f. Plane Captains temporarily assigned external to the activity for over 90 days without performing Plane Captain duties will pass a practical examination (CSEC 5700), and must be interviewed by the Plane Captain Selection Board prior to returning to their work center or division to resume Plane Captain duties.

g. Plane Captains with an expired annual requalification date or failed requalification must complete a practical examination (5700 CSEC) prior to resuming Plane Captain duties.

10.14.4 Responsibilities

10.14.4.1 Navy Type Wings

a. Publish a standard Plane Captain training syllabus for the training and designation of maintenance personnel, and a separate training syllabus for the training and designation of naval aircrewman. The Type Wing syllabus will address initial designation and requalification requirements following the guidelines of this NAMPSOP. At a minimum, the syllabus will include lesson guides, and practical and written examinations for the T/M/S aircraft for which they are responsible. Personnel Qualification Standards (PQS) prerequisites (when available) must be integrated into the training syllabus. The training syllabus and testing requirements must be sufficient to ensure Plane Captains are knowledgeable and skilled in their duties. The Plane Captain Training Syllabus Topics (Figure 10.14-2) provides a list of areas that may need to be covered for initial designation. The syllabus must be tailored based on actual duties and operational environment, for example, Plane Captains in squadrons that do not deploy aboard ship do not need training in flight deck procedures, and Plane Captains that do not "ride brakes" during aircraft towing do not need training in brake riding.

b. Verify the training syllabus and related forms are available in ASM.

NOTE: Marine activities will use the training and testing syllabus developed by TECOM, per 10.1.4.5 Note.

10.14.4.2 Commanding Officer (CO)

a. Establish a Plane Captain Selection Board, chaired by the Maintenance Officer (MO), consisting of the Quality Assurance Plane Captain Program Monitor, Plane Captain Branch Supervisor, Plane Captain Program Manager, Squadron Safety Officer, and others as deemed necessary.

b. Designate Plane Captains per 10.1.2.9.

c. Revoke designations of Plane Captains who display a disregard for safety or aircraft maintenance/handling procedures. Designations will only be reinstated after the individual has completed the requirements of paragraph 10.14.3.3.d.

NOTE: In squadrons that employ contractors to perform Plane Captain duties, the Contractor Site Manager will designate qualified contractor Plane Captains in writing using the Plane Captain Designation form (OPNAV 4790/158) (Figure 10.14-1) or a locally generated designation form that specifies the procedures and board members required by the contract. The Contractor Site Manager must not delegate this authority.

d. The CO may delegate authority to the MO to designate, revoke, and requalify Plane Captains. COs of squadrons that deploy detachments, in excess of 90 days, may delegate authority to the Detachment Officer in Charge (OIC) to designate, revoke, and requalify Plane Captains while deployed, if all training, testing, and board requirements can be accomplished by the detachment. Delegation of authority must be made in writing by name, to each MO or Detachment OIC. Requirements per 10.14.3.1 and 10.14.3.3 must be met, to include QAR roles for initial qualification.

10.14.4.3 Maintenance Officer (MO)

a. (O-Level) Designate the Line or Power Line Division Officer as the Plane Captain Qualification Program Manager per 10.1.2.9. Commands that use aircrewmen to perform Plane Captain duties may designate the Aircrew Division Officer as the Plane Captain Qualification Program Manager.

NOTES: 1. Maintenance Officer (MO) is Equivalent to Aircraft Maintenance Officer (AMO) for the Marine Corps.

2. Activities that employ contractors to perform Line or Power Line duties, the MO will designate a Division Officer within the maintenance department as the Plane Captain Qualification Program Manager/Coordinator to manage the program for those military personnel assigned to production work centers requiring Plane Captain qualifications. The contractor site manager will only designate qualified contractor Plane Captains.

b. Chair the Plane Captain Selection Board. The board will personally review training documentation and interview Plane Captain candidates. The interview must cover all areas of the T/M/S Plane Captain Training Syllabus to verify candidates are fully qualified.

NOTE: When a Detachment OIC is delegated Plane Captain designation authority, the OIC will chair the Plane Captain Selection Board while on detachment.

c. Recommend revocation of Plane Captain Designations to the CO.

10.14.4.4 Plane Captain Qualification Program Manager

a. Perform a Plane Captain Program audit per paragraph 10.7.5.8 within 60 days of assignment and annually thereafter.

b. Provide NAMP indoctrination training on Plane Captain Qualification Program per 10.1.4.7. Verify personnel receive Plane Captain Qualification familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Conduct the Plane Captain Training Program per the Wing or MAW syllabus.

d. Assign a designated Plane Captain to each trainee. The designated Plane Captain will serve as an instructor and supervisor for the trainee and is responsible for ensuring each element of the training syllabus is thoroughly covered.

e. Initiate the Plane Captain Designation (OPNAV 4790/158) (Figure 10.14-1) within ASM, and request a Plane Captain Selection Board once the trainee has completed all training

requirements, passed the written and practical examinations, and is deemed fully prepared and capable of assuming the responsibilities of a Plane Captain.

f. Restrict personnel from Plane Captain duties if they have not performed Plane Captain duties for over 90 days, are overdue, or fail their requalification examination per 10.14.3.3.

g Reinstate designated Plane Captains assigned external to the activity for over 90 days without performing Plane Captain duties per 10.14.3.3.f.

NOTE: Plane Captains that have been restricted will be placed "Not in Use" in ASM. The working copy of the MPP will be updated, and the Plane Captain's SMQs removed from OOMA. Once the requirements for requalification per 10.14.3.3 have been completed, update ASM, the Maintenance Personnel Plan designations list, and re-instate SMQs.

h. Monitor the number of personnel under instruction to compensate for Plane Captain attrition.

i. Review CSEC reports (provided by the Program Monitor) to identify areas of concern and take corrective action to improve the program.

j. Submit a verified list containing all currently designated Plane Captains and the due date of their next annual requalification to the Aviation Maintenance Training Program Manager for the Maintenance Personnel Plan per 10.1.5.3.e.

k. Maintain a program file to include:

(1) POCs

(2) Program-related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.14.4.5 Quality Assurance (QA) Officer

(O-Level) Designate a QAR as Plane Captain Qualification Program Monitor per 10.1.2.9. The Program Monitor must be currently qualified as a Plane Captain. Commands that utilize naval aircrewmen to perform Plane Captain functions may assign a NATOPS Instructor, assistant NATOPS Instructor, or Instructor Flight Engineer as the Plane Captain Qualification Program Monitor. The QA Officer may allow other QARs or CDQARs currently designated as a Plane Captain to administer the annual requalification.

10.14.4.6 Plane Captain Program Monitor

a. Perform audits per paragraph 10.7.5.7.

b. Administer written and practical examinations (utilizing the CSEC 5700 checklist) for Plane Captain designation and requalification. Passing score on the written examination is 90 percent.

c. Verify qualifications and schedule requalification of Plane Captains and naval aircrewmen per paragraph 10.14.3.

d. Notify the Plane Captain Qualification Program Manager when Plane Captains have failed qualification requirements.

e. Utilize the CSEC 5700 checklist to conduct Plane Captain Practical Examinations to ensure all practical examination steps have been met. The 5700 checklist will be routed through QA for follow-up action. Practical examinations will be retained on file, at a minimum, one full year.

10.14.4.7 Plane Captains

a. Maintain currency and practical proficiency in all areas covered in the Plane Captain training syllabus.

b. Closely supervise the training of assigned Plane Captain trainees.

NOTE: During the training cycle, responsibility for conducting and signing off inspections lies with the designated Plane Captain.

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

PLANE CAPTAIN DESIGNATION

PART I

1. NAME - LAST, FIRST, MIDDLE INITIAL:	2. RATE/GRADE:	3. DEPARTMENT/DIVISION:

4. AIRCRAT TYPE MODEL/SERIES:	5. TYPE DESIGNATION: ☐ INITIAL DESIGNATION ☐ REQUALIFICATION

6a. DATE OF WRITTEN EXAM:	6b. GRADE:	7a. DATE OF PRACTICAL EXAM:	7b. GRADE:

PART II

I certify that I understand my responsibilities as set forth in the current COMNAVAIRFORINST 4790.2 (Series).

8a. PRINTED NAME OF MEMBER:	8b. SIGNATURE DATE:	8c. SIGNATURE OF MEMBER:

9a. PRINTED NAME OF OFFICIAL RECOMMENDING DESIGNATION:	9b. SIGNATURE DATE:	9c. SIGNATURE OF OFFICIAL RECOMMENDING DESIGNATION:

PART III

Candidate has appeared before the Plane Captain Selection Board, and is fully qualified and recommended for designation as a Plane Captain.

10a. PRINTED NAME OF QUALITY ASSURANCE PLANE CAPTAIN PROGRAM MONITOR:	10b. SIGNATURE DATE:	10c. SIGNATURE OF QUALITY ASSURANCE PLANE CAPTAIN PROGRAM MONITOR:

11a. PRINTED NAME OF PLANE CAPTAIN BRANCH SUPERVISOR:	11b. SIGNATURE DATE:	11c. SIGNATURE OF PLANE CAPTAIN BRANCH SUPERVISOR:

12a. PRINTED NAME OF PLANE CAPTAIN QUALIFICATION PROGRAM MANAGER:	12b. SIGNATURE DATE:	12c. SIGNATURE OF PLANE CAPTAIN QUALIFICATION PROGRAM MANAGER:

13a. PRINTED NAME OF SAFETY OFFICER:	13b. SIGNATURE DATE:	13c. SIGNATURE OF SAFETY OFFICER:

14a. PRINTED NAME OF MAINTENANCE OFFICER:	14b. SIGNATURE DATE:	14c. SIGNATURE OF MAINTENANCE OFFICER:

PART IV

DESIGNATED AS A PLANE CAPTAIN EFFECTIVE THIS DATE.

15a. PRINTED NAME OF COMMANDING OFFICER:	15b. SIGNATURE DATE:	15c. SIGNATURE OF COMMANDING OFFICER:

PART V

DESIGNATION HAS BEEN ENTERED IN THE MEMBERS' SERVICE RECORD.

16a. PRINTED NAME OF MILITARY PERSONNEL OFFICER:	16b. SIGNATURE DATE:	16c. SIGNATURE OF MILITARY PERSONNEL OFFICER:

ORIGINAL TO: Individual's Qualification/Certification Record.

OPNAV 4790/158 (Rev 08/2016)

Figure 10.14-1: Plane Captain Designation (OPNAV 4790/158) (Sample)

PLANE CAPTAIN TRAINING SYLLABUS TOPICS

NOTE: This is a list of areas that might need to be covered for initial designation. The syllabus must be tailored based on actual duties and operational environment, for example, Plane Captains in squadrons that do not deploy aboard ship do not need training in flight deck procedures and Plane Captains that do not "ride brakes" during aircraft towing do not need training in brake riding.

1. Indoctrination interview
2. Required reading (applicable sections)
   a. COMNAVAIRFORINST 4790.2D
   b. NAVAIR 00-80T-120, CVN NATOPS Manual
   c. NAVAIR 00-80T-106, LHA/LHD NATOPS Manual
   d. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual
   e. NAVAIR 00-80T-122, Helicopter Operating Procedures for Air-Capable Ships NATOPS Manual
   f. NAVAIR 01-1A-17 Aviation Hydraulics Manual
   g. NAVAIR 01-1A-509 (series), Cleaning and Corrosion Control
   h. NAVAIR 04-10-506, Aircraft Tire and Tubes
   i. NAVAIR 17-1-125, Support Equipment Cleaning, Prevention and Corrosion Control
3. Safety Ashore and Afloat PQS
4. Flight Deck Familiarization
5. Egress/Explosive System Checkout Program
6. Flight Line/Flight Deck Safety
7. Noise Hazards
8. Exhaust Blast Hazards
9. Propeller or Rotor Hazards
10. Tire and Wheel Maintenance Safety Program
11. General or Avionics Corrosion Control Course
12. FOD Prevention Program
13. Tool Control Program
14. Fuel Surveillance Program
15. Navy Oil Analysis and Consumption Monitoring Program
16. Hydraulic Contamination Control Program
17. Hazardous Material Control and Management Program
18. Technical Publications
19. 3M Documentation
20. Support Equipment Operator Training and Licensing Program
21. Fire Fighting Procedures and Responsibilities
22. Moving Aircraft
23. Towing Aircraft
24. Brake Riding
25. Cleaning Aircraft
26. Aircraft Preservation

Figure 10.14-2 (page 1): Plane Captain Training Syllabus Topics (Example)

27. Duct Diving
28. Aircraft Fastener Integrity Inspection
29. Daily and Turnaround Inspections
30. Special Inspections
31. Conditional Inspections
32. Fueling and Defueling
33. Nitrogen System Servicing
34. Hydraulic System Servicing
35. Engine/Transmission Oil System Servicing
36. Liquid Oxygen Converter Handling Safety
37. Aircraft Ordnance
38. CADs
39. T/M/S NATOPS Procedures
40. Hand Signals
41. Launch/Recovery Procedures
42. Hot Brake Procedures
43. Aircraft Alert Posture Procedures
44. Flight Controls
45. Cockpit Instrumentation
46. Support Equipment Misuse and Abuse
47. T/M/S Standard Emergency Procedures
48. T/M/S PQS (if applicable)
49. Aircraft security, tie-down, and heavy weather procedures
50. Aircraft ordnance and armament equipment

Figure 10.14-2 (page 2): Plane Captain Training Syllabus Topics (Example)

NOTE: This is an example of areas that might need to be covered for refresher training . The syllabus must be tailored based on actual duties and operational environment, for example, Plane Captains in squadrons that do not deploy aboard ship do not need training in flight deck procedures and Plane Captains that do not "ride brakes" during aircraft towing do not need training in brake riding.

Plane Captain
Name: _____ Rate/Rank: _____ Date _____

1. Egress/Explosive System Checkout	AME Supervisor Date
2. Review Danger Areas	P/C Supervisor Date
3. Review Brake Rider Qualifications	P/C Supervisor Date
4. Review Duct Diver Qualifications	P/C Supervisor Date
5. Review Emergency Procedures	P/C Supervisor Date
6. Review Lox Converter Qualifications	P/C Supervisor Date
7. Review Oil System Servicing Procedures	P/C Supervisor Date
8. Review Hydraulic System Servicing System	P/C Supervisor Date
9. Review Aircraft Refueling Procedures	P/C Supervisor Date
10. Perform Walkaround	P/C Supervisor Date
11. Launch Aircraft	P/C Supervisor Date
12. Recover Aircraft	P/C Supervisor Date
13. Quality Assurance Monitor	P/C Supervisor Date
14. Aircraft Ordnance	P/C Supervisor Date
15. Fuel Sampling Procedures	P/C Supervisor Date

_____
Plane Captain Branch Supervisor Signature Date

_____
Line/Power Line Division Officer Interviewer Signature
Date

Figure 10.14-3: Plane Captain Refresher Training Syllabus (Example)

10.15 Egress/Explosive Systems Checkout Program (NAMPSOP)

10.15.1 References

a. OPNAVINST 8023.24, Navy Personnel Conventional Ammunition and Explosives Handling Qualification and Certification Program.

b. MCO 8023.3, Personnel Qualification and Certification Program for Class V Ammunition and Explosives.

10.15.2 Introduction

10.15.2.1 The Egress/Explosive Systems Checkout Program provides training and awareness for aircraft maintenance personnel to safely conduct maintenance around installed explosive devices. This NAMPSOP outlines requirements and responsibilities for training personnel on the dangers of aircraft installed egress and explosive systems. All Navy and Marine Corps activities, commercial and other government activities that perform on aircraft maintenance or other support functions on naval aircraft or Unmanned Aircraft Systems (UAS) with egress/explosive systems must comply with the Egress/Explosive Systems Checkout Program.

NOTE: 1. The training requirements of this NAMPSOP are separate from and do not satisfy the requirements for Ordnance Certification specified in OPNAVINST 8023.24 and MCO 8023.3.

2. For Depot Egress/Explosive System Checkout Program see Chapter 12.

10.15.2.2 Egress systems include ejection seats, canopy jettison systems, explosive hatches, and panels.

10.15.2.3 Explosive systems include explosive actuated components installed on the aircraft which are not de-armed after flight, must be de-armed, before conducting maintenance, for example, fire bottle cartridge actuated devices (CADS), explosive fire suppression devices, and explosive interconnect systems. If deemed necessary, additional safety training involving explosive actuated devices, for example, ejector rack assemblies will be directed by Type Wings and TECOM in accordance with 10.41.5.1.

10.15.2.4 The Fleet Support Team (FST) for CADs and PADs is COMMANDING OFFICER, NAVAL SURFACE WARFARE CENTER INDIAN HEAD DIVISION (Code E-22), 4393 BENSON ROAD, BLDG 1557 INDIAN HEAD, MD 20640-5092, DSN 354-4203/2101 or COMM (301) 744-2248/2236.

10.15.2.5 The FST for ejection seats is COMMANDING OFFICER, FLEET READINESS CENTER EAST, PSC BOX 8021, CHERRY POINT NC 28533-0021, DSN 451-8553 or COMM (252) 464-8553.

10.15.3 Requirements

10.15.3.1 All maintenance personnel assigned to or assisting activities operating aircraft with egress/explosive systems must receive initial Egress/Explosive Systems Checkout training on each type/model/series (T/M/S) aircraft before coming in contact with or performing maintenance. Prior

to performing training or maintenance, all aircraft will be de-armed or ordnance safe in accordance with T/M/S Technical Manuals, MIMS, Wing Instruction, or local procedures as applicable.

NOTES: 1. To facilitate cross organizational assistance, Egress/Explosive Systems Checkout Qualification for a specific T/M/S is valid at all units within the same Wing or Marine Aircraft Wing (MAW), until transfer or expiration.

2. No visitors to a command operating or maintaining aircraft, whether military, civilian, contractor, or general public, will be permitted to enter the cockpit area without prior approval from the Commanding Officer (CO).

10.15.3.2 Requalification training is required every 12 months, no later than the last day of the requalification month. For example, personnel initially qualified or last requalified on 10 January must complete requalification training no later than 31 January the following year.

NOTE: Maintenance Department personnel on Temporary Additional Duty (TAD) outside the Maintenance Department for over 90 days must complete requalification training prior to resuming Maintenance Department duties.

10.15.3.3 Prior to coming into contact with or starting maintenance on aircraft, government service (GS) and contractor personnel providing on-site assistance must receive Egress/Explosive Systems Checkout training from the activity being assisted. Training must be documented on the Egress/Explosive Systems Checkout Qualification form (Figure 10.15-1) and maintained on file. Wings and MAWs may permit GS and contractor personnel to be covered under 10.15.3.1 NOTE 1. If the Wing/MAW elects this option, it must be addressed in the Wing LCP and include the following requirements, as a minimum:

a. GS and contractor personnel must provide a copy of their Egress/ Explosive Systems Checkout Qualification form (Figure 10.15-1).

b. The Egress/Explosive Systems Program Manager or qualified instructor must validate the training was for their T/M/S aircraft, the training was provided by a unit within the same Wing, and the training is current per paragraph 10.15.3.2.

c. The Egress/Explosive Systems Program Manager must ensure a copy of GS and contractor Egress/Explosive Systems Checkout Qualification forms are kept on file until expired.

10.15.3.4 Aircraft hangar, line, and security watch personnel, regardless of rate or Military Occupational Specialty (MOS), must receive Egress/Explosive Systems Checkout training and be requalified every 12 months if their duties involve interaction with the aircraft.

10.15.3.5 Initial training and requalification will be documented on the Egress/Explosive Systems Checkout Qualification form (Figure 10.15-1) and filed in the individual's qualification/certification record. Commands using ASM will file the completion certificate as an accreditation.

10.15.3.6 Egress/Explosive Systems Checkout training must be conducted by qualified and designated instructors.

a. Instructors must complete training and be designated in writing by the Maintenance Officer (MO) within ASM per 10.1.2.9, or on an Egress/Explosive Systems Checkout Instructor Designation form (Figure 10.15-2).

b. Instructors must have the T/M/S Navy Enlisted Classification (NEC) or Marine MOS equivalent (if applicable), be currently Egress/Explosive Systems Checkout trained, and be Ordnance certified per OPNAVINST 8023.24 and MCO 8023.3.

c. Instructors for ejection seat equipped aircraft must be a qualified Aviation Structural Mechanic Egress (AME) or MOS 628X.

d. Instructors for non-ejection seat equipped aircraft will be AME, Aircrew Survival Equipmentman (PR), Aviation Ordnanceman (AO), or Marine MOS equivalents.

e. Egress/Explosive Systems Checkout Instructor designation is only valid for the issuing command. A new designation is required upon transfer to another command, regardless of T/M/S aircraft operated.

10.15.3.7 An Egress/Explosive Systems Checkout Training Syllabus is required for each T/M/S aircraft maintained. The syllabus must include the following elements (as applicable):

a. Entry into the cockpit, to include ladder or hatch systems

b. Procedures to safely operate the aircraft canopy system

c. Installed explosive egress devices

d. General rules, hazards, and safety precautions while working in or around ejection seats.

e. General rules, hazards, and safety precautions for canopy jettison or fracturing systems.

f. Fire extinguishers and fire extinguishing systems

g. Deployable Flight Incident Recorder System

h. Dry Bay Fire Suppression System

i. Cable cutting systems

NOTES: 1. Training must be conducted on the aircraft maintained. The use of mock-ups and lectures only is not sufficient.

2. CAD/PAD Safety and Process Training is available at https://cadpad.navair.navy.mil.

10.15.4 Responsibilities

10.15.4.1 Type Wings

a. Type Wings must publish a local command procedure (LCP) per Appendix D, for each T/M/S aircraft assigned and will contain the elements per paragraph 10.15.3.7. Marine activities will use the training and testing syllabus developed by TECOM, per 10.1.5.1.d Note 1.

b. All authorizations for cross organization assistance will be addressed in the LCP.

c. As deemed necessary, all additional safety training involving explosive actuated devices will be directed by Type Wing or TECOM in accordance with 10.41.5.1.

NOTES: 1. The Egress/Explosive Systems Checkout Qualification (Figure 10.15-1) and Egress/Explosive Systems Instructor Designation (Figure 10.15-2) list the minimum training requirements. Five OJT sessions are the minimum required for instructors.

2. Navy Squadrons not assigned to a Wing must publish their own LCP with the above elements, as a minimum.

10.15.4.2 Maintenance Officer (MO)

a. Designate an Egress/Explosive Systems Checkout Program Manager per 10.1.2.9. Program Manager qualifications:

(1) Must be a designated Egress/Explosive Systems Checkout Instructor.

(2) For squadrons operating ejection seat equipped aircraft; must designate the Work Center 13B Supervisor.

(3) For squadrons with non-ejection seat equipped aircraft and no AME or MOS equivalent assigned; must designate a Navy PR, AO, or Marine MOS equivalent that is ordnance certified per OPNAVINST 8023.24 and MCO 8023.3.

b. Designate Egress/Explosive Systems Checkout Instructors per paragraph 10.15.3.6 and 10.1.2.9.

c. Develop an LCP per Appendix D, if required, to direct geographic, T/M/S specific, or command specific actions for Egress/Explosive Systems Checkout not addressed in this NAMPSOP or WING LCP. Command LCPs will be submitted to the Wing or MAW for consideration of incorporation into the Wing LCP.

10.15.4.3 Program Manager

a. Perform an audit within 60 days of designation as Program Manager and annually thereafter, per the procedures of the NAMP Compliance Auditing Program paragraph 10.7.5.8.

b. Remain current on T/M/S aircraft Egress/Explosive Systems safety procedures and precautions specified in maintenance technical manuals.

c. Provide NAMP indoctrination training on Egress/Explosive Systems Checkout Program per 10.1.4.7. Verify personnel receive Egress/Explosive familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

d. Suspend instructors past due for requalification from administering checkouts. Document suspension in the MPP and update the instructor's qualification/certification record or ASM equivalent.

e. Notify the Wing or MAW T/M/S Model Manager of any deficiencies in the Egress/Explosive Systems Checkout Training Syllabus.

f. Ensure a copy of the Egress/Explosive Systems Checkout Qualification (Figure 10.15-1) is maintained (until expired) for GS and contractor personnel that provide on-site assistance for squadron aircraft.

g. Provide the MPP listing of personnel coming due for requalification training during the month, including TAD personnel with their TAD start date.

h. Monitor completion of requalification training and notify Work Center Supervisors of personnel past-due for requalification.

i. Review Program Audit discrepancies and take action to improve the program.

j. Maintain a program file to include:

(1) POCs

(2) Copy of the Wing or MAW T/M/S Model Manager and Squadron LCP (as applicable)

(3) Program correspondence and messages

(4) References or cross-reference locator sheets

(5) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

(6) (Non-ASM commands) Copies of Egress/Explosive Systems Checkout Qualification forms.

k. Recommend personnel for designation as Egress/Explosive Systems Checkout Instructors.

10.15.4.4 Quality Assurance (QA) Officer

(O-Level) Designate a Quality Assurance Representative (QAR) as the Egress/Explosive Systems Checkout Program Monitor per 10.1.2.9.

10.15.4.5 QA Program Monitor

The QA Program Monitor will perform audits per the procedures of the NAMP Compliance Auditing Program paragraph 10.7.5.7.

10.15.4.6 QARs

The QARs will ensure government personnel and contractors from other activities that are providing onsite assistance with aircraft or equipment maintenance receive T/M/S Egress/Explosive Systems Checkout training prior to permitting them to come in contact with or starting maintenance on aircraft or equipment.

10.15.4.7 Aircraft Division Officer

The Aircraft Division Officer will coordinate NATOPS egress training of aircrew personnel in accordance with NATOPS requirements.

10.15.4.8 Egress/Explosive Systems Checkout Instructors

a. Perform the Egress/Explosive Systems Checkout qualification or requalification training specified in the training syllabus.

b. Sign off the Egress/Explosive Systems Checkout Qualification (Figure 10.15-1) only after personnel demonstrate they are fully knowledgeable and can safely operate around installed egress and explosive systems.

c. Complete an Egress/Explosive Systems Checkout Qualification for individuals external to the activity, for example, military, GS and contractor personnel that provide on-site assistance for squadron aircraft.

10.15.4.9 Work Center Supervisors

a. Verify Egress/Explosive Systems Checkout Qualification is current, prior to assigning personnel to work on or around aircraft.

NOTE: Personnel TAD outside the Maintenance Department for over 90 days must be requalified prior to resuming Maintenance Department duties.

b. File the Egress/Explosive Systems Checkout Qualification (Figure 10.15-1) in the individual's qualification/certification record or ASM equivalent. D-level activities will enter the certification completion date in their locally approved T/M/S.

EGRESS/EXPLOSIVE SYSTEMS CHECKOUT QUALIFICATION

Name (Last, First, MI)	Rate/Rank	T/M/S

1. Trainee acknowledgement: I have read and understand Egress/Explosive Systems Checkout Program directives and received training on how to safely perform aircraft maintenance around a canopy, ejection seats, cockpit areas, and installed explosive systems for the (T/M/S) aircraft.

Member's Signature	Date

2. Instructor certification: The above named individual has received Egress/Explosive Systems Checkout per COMNAVAIRFORINST 4790.2.

INSTRUCTOR (PRINT AND SIGN NAME)	ACTIVITY	DATE COMPLETED (DDMMMYYYY)	NEXT DUE (MMMYYYY)

Figure 10.15-1: Egress/Explosive Systems Checkout Qualification (Example)

EGRESS/EXPLOSIVE SYSTEMS CHECKOUT INSTRUCTOR DESIGNATION

1. I _____ , fully understand my responsibilities as an,
(Name) (Rate/Rank)
Egress/Explosive Systems Checkout Instructor for _____ aircraft in _____
(T/M/S) Activity
Signature
: _____

2. The above named individual has completed the following:

a. Required Reading.

Egress/Explosive Systems Checkout Program (NAMPSOP)	_____	_____
Maintenance technical manuals	_____	_____

b. OJT performed under the direct supervision of the Program Manager.

	Signature	Date
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

3. Recommended _____ _____
Egress/Explosive Systems Program Manager Date

4. Recommended _____ _____
Aircraft Division Officer Signature Date

5. Designated _____ _____
Maintenance Officer Signature Date

Figure 10.15-2: Egress/Explosive Systems Checkout Instructor Designation (Example)

10.16 Support Equipment Operator Training and Licensing Program (NAMPSOP)

10.16.1 References

a. NAVAIR 00-80T-96 CH-1, US Navy Support Equipment Common Basic Handling & Safety Manual

b. NAVAIR 00-80T-119, NAVAIR Weight Handling Support Equipment

c. CNAF M-3710.7, NATOPS General Flight and Operating Instructions

10.16.2 Introduction

10.16.2.1 This NAMPSOP outlines the minimum requirements for training and licensing personnel to operate SE.

NOTE: For Depot Support Equipment Operator Training and Licensing Program see Chapter 12.

10.16.2.2 Figure 10.16-1 is a list of equipment requiring a USN Aviation Support Equipment Operator's License (OPNAV 4790/102), Figure 10.16-2. Paragraph 10.16.4.a. provides guidance on other equipment with operating characteristics that require an SE Operator's License.

NOTES: 1. Weight handling equipment (WHE) operators are licensed per the procedures of this NAMPSOP, but trained per the requirements of NAVAIR 00-80T-119. Proficiency tasks will be performed on fully operational WHE. However, if due to maintenance or non-availability status, non-available or non-operational WHE will impact performance of proficiency task, on equipment simulation will be performed and Program Manager will document and retain in program binder the reason for on equipment simulation. When WHE is returned to operational status, the subsequent proficiency cycle task will be performed on RFI WHE.

2. Material Handling Equipment (MHE), such as forklifts, are not SE. Refer to OPNAVINST 4460.1B and MCO P11240.106 for MHE training and licensing. Refer to NAVSEA SW023-AH-WHM-010 for training and certification requirements for using MHE to handle ammunition and explosives.

3. Vehicles (cars, buses, trucks, etc.) are not SE and do not fall under the SE Operator Training and Licensing Program.

4. Training and certification requirements for Gas Turbine Engine Test System (GTETS) and Global Test Facility (GTF) Operators are specified in the GTETS/GTF Operator Training and Designation Naval Aviation Maintenance Program Standard Operating Procedure (NAMPSOP), paragraph 10.23.

10.16.2.3 Personnel checking out or returning SE must have a valid license for the equipment being checked out or returned. Support Equipment Issue and Receipt will perform validation of license per 10.17.3.2.

10.16.3 SE Operator Training Requirements

SE Operator training consists of two phases. Phase I is initial training on basic procedures for operating, servicing, and inspecting the item of SE. Phase II is on-the job training (OJT) and testing on specific maintenance tasks for which the operator will use the SE.

10.16.3.1 Phase I Training

a. Phase I training will only be conducted by I-Level and D-level activities. The O-Level AMO may sign for Phase I training has been previously completed. O-Level AMO will add remarks "verification of initial Phase I training on DDMMMYYYY" in the ASM signer comments column.

NOTES: 1. Phase I training for some models of SE can be completed via My Navy Portal (MNP).

2. SE Technicians that have completed Phase I training via NEC/MOS Training Course (Figure 10.16-3) and are NEC or MOS certified are not required to complete Phase I training for that specific SE. Scan a copy of the completed school certificate into ASM, and note the course information and completion date in the Phase I Section of SE License Certification.

b. Phase I instructors must be designated per **10.1.2.9**, paygrade E-5 and above or civilian subject matter expert, trained in instructional techniques, and licensed on the SE for which they provide training.

c. Phase I training courses will be produced and distributed by Commander Naval Aviation Technical Training (CNATT) for those items of SE that NAVAIR (PMA-205) determines a Phase I course is needed. Phase I training courses containing outlines, lesson guides, and training aids can be accessed by contacting CNATT via **cnatthq_se_operators_course@us.navy.mil**.

NOTE: If equipment requiring an SE Operator's License does not have a CNATT Phase I course, the supporting I-Level activity must develop a local Phase I training course based on the Phase I Training Outline (Figure 10.16-4).

10.16.3.2 Phase II Training

a. Phase II training is the responsibility of the activity issuing the license.

b. Phase II training must be completed on the specific T/M/S aircraft or equipment on which the operator will use the SE.

NOTES: 1. Personnel assigned to CVN and L-Class ship Air Departments are required to document Phase II for only one T/M/S aircraft. Aircraft hookup must be performed by a plane captain for the T/M/S aircraft under tow.

2. Phase II training for self-propelled SE, AWSE, and mobile crane operated aboard ship must thoroughly cover all basic operating procedures, safety precautions, emergency procedures, and on-aircraft operation, as applicable to the unique shipboard environment.

3. Due to the various types of transient aircraft serviced by air station Operations Maintenance Department (OMD) Transient Line personnel, transient line personnel are required to document Phase II SE training for only one T/M/S aircraft. An SE Operator license issued for transient aircraft support is limited to launch, recovery, servicing, and handling operations. Aircraft hookup must be performed in conjunction with the aircrew for the aircraft being serviced.

c. Phase II training on one model of SE is sufficient to license an individual on all model variations of the same type SE taught in the same Phase I course of instruction, for example, NC-10A/B/C Shore MEPP.

d. Personnel providing Phase II OJT will not sign off a training session unless the individual received hands-on training and demonstrates satisfactory knowledge and skill.

e. Phase II OJT and practical examinations must be conducted by personnel who are licensed on the SE.

f. Phase II written examinations must be conducted by QA. Any QAR can administer the written examination, 85 percent is the minimum passing score for the written examination.

g. Personnel who fail either the practical or the written examination must repeat at least three additional Phase II OJT sessions before being retested.

h. A Phase II training syllabus is required for each item of SE. As a minimum, the Phase II training syllabus must contain required reading, a minimum of three on the job training (OJT) sessions, a practical examination, and a written examination, per the example shown in the SE License Certification, Figure 10.16-5.

NOTES: 1. Weight handling equipment (WHE) OJT requirements are in NAVAIR 00-80T-119.

2. Hand signals requirements are in NAVAIR 00-80T-96, NAVAIR 00-80T-119, and CNAF M-3710.7 (as applicable).

3. Personal Protective Equipment (PPE) training will be included in each OJT session where the use of PPE is applicable to the task.

4. The written examination must be tailored to and contain enough questions to verify the individual has the basic knowledge needed to safely operate the item of SE on the T/M/S aircraft or equipment for which the operator will be licensed.

i. Phase II training on new models of SE for which the command has no licensed personnel will be completed as follows:

(1) The MO will designate two personnel as Initial Qualifiers per 10.1.2.9. Initial qualifiers will be one QAR or CDQAR and one E-5 or above QPT (Navy) or AMTRP (USMC) qualified maintenance technician.

NOTE: Refer to the NAVAIR 00-80T-119 for specific paygrade requirements for WHE.

(2) The Initial Qualifiers will complete the Phase I training course for the new SE.

NOTE: If there is no established Phase I training course for the new SE, the supporting IMA must create a Phase I course per the procedures of paragraph 10.16.3.1.c Note.

(3) Phase II Training for Initial Qualifiers can be provided by licensed personnel from other local activities, or by NATEC, NAVAIR or original equipment manufacturer (OEM) representatives. If none of these sources is available to provide Phase II training on the new SE, the Initial Qualifiers will coordinate with the Wing, per paragraph 10.16.5.1, on developing a Phase II training and examination syllabus, and will cross-train, cross-test and document completion of all Phase II requirements, as shown in the example SE License Certification (Figure 10.16-5).

NOTE: The Initial Qualifier Phase II Cross Training must be documented on paper, scanned, and attached to the Aviation Skills Management (ASM) accreditation of both individuals or attached to their paper SE License Certification (REF A, Figure 10.16-5).

(4) To certify Initial Qualifiers in ASM, the MO will annotate “Initial Qualifier” in the remarks section of the SE License Accreditation prior to digitally signing as the Approver. To certify Initial Qualifiers on a hard copy SE License Certification (Figure 10.16-5), the MO will write "Initial Qualifier" under their endorsement signature in Part E.

NOTE: Upon Phase II Written examination approval and implementation, all subsequent personnel must complete Phase II OJT and the Practical and Written examinations to qualify for an operator's license.

10.16.4 SE Operator License Requirements

a. A USN Aviation Support Equipment Operator’s License (OPNAV 4790/102) (Figure 10.16-2) is required to operate SE listed in Figure 10.16-1. An SE Operator’s License is also required for any SE not listed in Figure 10.16-1 with one or more of the following operating characteristics:

(1) Internal combustion engine (gasoline, diesel, or gas turbine)

(2) Input/output voltages greater than 115 volts of alternating current

(3) Input/output voltages greater than 28 volts of direct current

(4) Input/output pressures greater than 100 pounds per square inch (PSI)

(5) Output temperatures greater than 150 degrees

(6) Hazardous in its operation and requires a specific, critical sequence of events to prevent injury to personnel or damage to aircraft and equipment

NOTES: 1. NATEC, NAVAIR, and OEM personnel that provide initial training for new or newly modified SE do not require an SE Operator’s License.

2. While detached or on cross-country flight operations, personnel are authorized to utilize non-DON provided support equipment. At a minimum, proficiency in the safety procedures and the principles of equipment operation for each item of SE must be satisfactorily established prior to use.

3. Other U.S. service branches and foreign military that require the use of U.S. Navy SE are not required to have an SE Operator's License, but must meet minimum training and proficiency requirements, as defined by the I-Level activity that provides the SE. At the discretion of the providing activity, training may encompass all, or only parts of, the Phase I and Phase II training process. At a minimum, proficiency in safety procedures and the principles of equipment operation for each item of SE must be satisfactorily demonstrated to the providing activity. The MO of the I-Level activity that provides the SE must expressly designate in writing, by name and equipment type, which personnel are authorized to check out SE.

b. Personnel must complete all Phase I and Phase II training and testing requirements before being issued an initial SE Operator's License. The license must be fully documented and issued before personnel are allowed to operate SE without supervision by a licensed operator.

NOTE: Phase I training does not have to be repeated for license renewal.

c. SE Operator's Licenses are valid for type equipment and T/M/S aircraft for 5 years from issuance or upon PCS to a differnet T/M/S or type duty, whichever occurs first.

d. SE Operator's License reinstatement may be issued upon reporting from a similar T/M/S (example, MH-60S/MH-60R). Receiving activity will ensure the SE license is current and their driving privileges have not been revoked (self-propelled SE only).

NOTE: ASM account must be transferred to the receiving command to include TAD personnel.

e. License renewal after five years requires completing all of Phase II.

f. Personnel must have a valid U.S. Government, DOD agency, or state vehicle driver's license to be issued a SE Operator's License for self-propelled SE. An expired, revoked, or suspended vehicle driver's license will cancel the authorization to operate self-propelled SE. State driver's license extension policies are listed on the CNAP SharePoint under Quick Links, AMAs at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/

NOTES: 1. A driver's license is not required to operate self-propelled SE, AWSE, and mobile crane onboard ships.

2. Personnel who fail the practical or written examination must repeat the entire Phase II training and examination process.

g. If authorization to operate an item of SE is revoked, the individual must repeat the entire Phase II process for that item of SE before their license is reissued.

h. The USN Aviation Support Equipment Operator's License (OPNAV 4790/102) (Figure 10.16-2) will be annotated as follows:

NOTES: 1. SE Operator's License (OPNAV 4790/102) forms are not required to be printed when licenses can be verified via ASM or MPP (no older than 60 days)

2. Activities using Advanced Skills Management (ASM) may print the SE Operator's License (OPNAV 4790/102) forms directly from ASM without modification as needed.

3. Dates will be entered in alphanumeric DD/MMM/YY format, for example, 15MAY19.

4. Corrections to hardcopy licenses will be made by drawing a single line (utilizing a black ballpoint pen) through each erroneous entry and inserting the correct entry above or below as space permits. Corrective tape and correction fluid are not authorized.

Block 1. (Name of Operator). Enter Last, First MI

Block 2. (Paygrade/Service). Enter paygrade and service

Block 3. (Date Issued). Enter the date the OPNAV 4790/102 was issued

Block 4. (U.S. Government, DOD agency, or State driver's license). If license has self-propelled SE, list the operator's State, U.S. Government, or DOD agency driver's license number, name of the issuing State or U.S. Government or DOD agency, and expiration date. If the State permits an automatic extension and the licensee meets extension requirements, type "AUTO EXT" above the expiration date.

Block 5. (Issuing Activity). Enter name of issuing activity

Block 6. (Signature of Licensee). Enter operator's signature

Block 7. (Issued By). Enter MO's signature (Refer to paragraph 10.16.5.2.d NOTES for delegation authority)

Block 8A. (Type Equipment). Entries must have specific equipment identification number, for example, A/S32A-31B. Licenses containing general entries, for example, "Mobile Electric Power Plants" or "Powered Bomb Hoists" are not valid. Only one item of SE will be listed per line, unless items are model variations of the same type equipment and taught in the same course of instruction, for example, NC-10A/B/C Shore MEPP. Entries for engine test systems must contain the test system and type engine(s) the operator is designated to run.

Block 8B. (Expiration Date). List the expiration date for each item of SE. Expiration dates will five years from the date of the Phase II written examination.

Block 8C. (Certified By). The MO must initial this block (Refer to paragraph 10.16.5.2d NOTES for delegation authority)

NOTE: MO initials are not required for OPNAV 4790/102 forms generated from ASM.

Block 9. (Restrictions). Annotate restrictions as follows:

(1) If the license is being issued to operate the SE on aircraft, specify the T/M/S aircraft. Example: "For FA-18E aircraft only."

NOTE: When SE is common to T/M aircraft, Block 9 may be annotated to include the "series" if personnel are trained on the T/M/S, for example, FA-18E/FA-18F.

(2) If the license is not being issued to operate SE on aircraft, enter "Restricted to non-aircraft use."

NOTE: Personnel operating self-propelled mobile cranes for maintenance purposes only must have "For Maintenance Only."

(3) Licenses for Operations Maintenance Division (OMD) transient lines will be annotated "Transient Aircraft Use." If transient line personnel also use SE to maintain aircraft assigned to the air station, Block 9 will also contain the T/M/S of the station aircraft. Example: "Other Than Transient: C-12."

NOTE: A SE license issued for "Transient Aircraft Use" is limited to launch, recovery, servicing, and handling operations.

(4) Licenses issued to aircraft carrier (CVN) or L-class ship Air Department personnel will be annotated "Flight/Hangar Deck Operations Only".

10.16.5 Responsibilities

10.16.5.1 Type Wings and Marine Corps Training and Education Command (TECOM)

Navy Type Wings must publish a standardized Phase II training syllabus and written examination that meets the requirements of paragraph 10.16.3.2 for each T/M/S aircraft supported. TECOM will perform this function for Marine Corps T/M/S aircraft.

10.16.5.2 Maintenance Officer (MO)

a. Designate the Assistant Maintenance Officer (AMO) (O-Level) or SE Division Officer (I-Level) as the SE Operator Training and Licensing Program Manager per 10.1.2.9. All ASM implemented activities will use ASM to designate the AMO or SE Division Officer as the SE Phase I Officer in order to sign for Phase I training in ASM only as verification the Phase I training has been previously completed. O-Level AMO will add remarks "Verification of initial Phase I training on DDMMMYYYY" in the ASM signer comments column.

b. If needed, develop local command procedures (LCP) per Appendix D to specify additional procedures for SE Training and Licensing

c. Sign as the final approver for SE Operator Certifications (Figure 10.16-5) within ASM

d. Sign as the issuing authority in Block 7 of the USN Aviation Support Equipment Operator's License (OPNAV 4790/102) (Figure 10.16-2) within ASM and as the certifier in Block 8C

NOTE: The MO may delegate signature authority to the AMO or SE Division Officer.

e. Suspend an SE Operator's license during the investigation of an accident involving SE or an SE/WHE misuse/abuse incident.

f. Revoke an SE Operator's license when the operator:

(1) Displays unsafe habits or behavioral traits in operating SE

(2) Is cited for significant or recurring safety infractions

(3) Loses on base driving privileges or their vehicle driver's license is revoked. (self-propelled equipment only)

(4) Is determined negligent in an accident involving SE or an SE misuse/abuse incident and the degree of negligence warrants revocation.

g. Reinstate an SE Operator's license under the following conditions:

(1) After SE misuse/abuse incident investigation is closed and no negligence is found.

(2) When operator has base driving privileges reinstated, if parent activity screens and determines operator is no longer at risk. Operator must complete Phase II and pass written exam. (Self-propelled equipment only)

(3) Will verify that the receiving activity screened personnel to ensure license is active, valid and not set to expire within 180 days, personnel have not been involved in a SE misuse/abuse incident and found negligent, or their base driving privileges have not been revoked.

10.16.5.3 Program Manager

a. Manage SE Operator training and licensing for the command.

b. Perform initial and annual program audits per 10.7.4.8.

c. (I-Level) Using ASM, sign as the Phase I SE Officer for Support Equipment accreditations.

d. (O-Level) May sign for Phase I training in ASM only as verification the Phase I training has been previously completed. AMO will add remarks "Verification of initial Phase I training on DDMMMYYYY" in the ASM signer comments column.

NOTE: Signature will not be applied until verification of Phase I, Navy e-Learning, or equivalent course.

e. Track SE Operator's License expiration dates, including the expiration date of vehicle driver's licenses, and publish a list each month of licenses coming due for renewal, per 10.1.5.3.e

f. Maintain a program file with:

(1) Points of contact

(2) Program correspondence and message traffic

(3) List of references

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

g. Additional responsibilities for I-Level Program Managers:

(1) Provide Phase I SE training to command and tenant activity personnel.

(2) Provide facilities for Phase I classroom and laboratory areas.

(3) Designate Phase I instructors per 10.16.3.1.b.

(4) Coordinate development of Phase I training courses per paragraph 10.16.3.1.c NOTE if SE does not have a CNATT Phase I course.

(5) Publish a Phase I SE training schedule identifying the course, location, and time of instruction, per 10.1.5.3.

(6) On completion of Phase I SE training, sign and forward the SE License Certification (Figure 10.16-5) to the trainee's command.

NOTES: 1. Activities supported by an IMA will assign the IMA SE Division Officer as "SE PHASE I OFFICER" through the Administration/External Duties function in ASM. The IMA SE Division Officer will sign the SE Phase I task within ASM.

2. AMOs will sign the "SE Phase I Officer" for training completed at the I-Level only when validating a certificate for a previous completed Phase I training.

(7) Coordinate with divisions to develop and publish job-specific Phase II training and testing requirements per 10.16.3.2.

(8) Notify supported activities if a Phase I course revision affects equipment inspection or operating procedures.

h. Additional responsibilities for D-level Program Managers:

(1) Designate, in writing qualified Phase I instructors that are trained in instructional techniques and licensed on each T/M/S aircraft or item of SE the depot operates

(2) Provide facilities for Phase I classroom and laboratory areas

(3) Coordinate development of Phase I training courses per paragraph 10.16.3.1.c NOTE if SE does not have a CNATT Phase I course

(4) Assist in developing Phase II written examinations with the designated Division Officer or Training Management Office

(5) Notify affected depot divisions if a course update revision affects equipment inspection or operating procedures

10.16.5.4 QA Representative (QAR)

a. Periodically monitor work in process to ensure only properly licensed personnel operate SE

b. Administer Phase II written examinations and maintain a log within ASM of test scores identified as initial or renewal testing

10.16.5.5 Division Officers

a. Using ASM, validate completion of Phase I and II training and testing requirements before signing and forwarding the SE License Certification (Figure 10.16-5). This responsibility cannot be delegated.

b. (I-Level) Ensure personnel that use SE to perform tasks on aircraft receive Phase II training and testing specific to T/M/S aircraft assigned.

c. (Activities not using ASM) Sign, date and provide personnel with a photocopy of their current SE operator's license, whenever their license is in routing for signature. Photocopied licenses are valid for a maximum of 30 days.

d. (Air Operations and Weapons Department Officers) Coordinate with the supporting I-Level Program Manager to develop a Phase II training syllabus and written examinations for SE used by the department.

10.16.5.6 Work Center Supervisors

a. Verify personnel are licensed or under the direct supervision of a licensed operator prior to assigning them to perform tasks requiring the operation of SE.

b. (Non-ASM activities) Verify SE License Certification (Figure 10.16-5) and Phase I and II SE training documentation is filed in the individual's qualification/certification record or U.S. Marine Corps Enlisted Aviation Maintenance Personnel Training/Qualification Jacket.

NOTE: Certificates for Phase I SE Courses taken on line at e-Learning will be scanned into the ASM license accreditation or filed in the training jacket.

10.16.5.7 SE Operators

a. Only operate SE listed on their USN Aviation Support Equipment Operator's License (OPNAV 4790/102) (Figure 10.16-2).

b. If licensed to operate self-propelled SE, maintain a valid State, U.S. Government, or DOD agency driver’s license. Cease operation of self-propelled SE and report to the chain of command if their driver’s license is revoked, suspended, or expires, or if they have changes to physical qualifications, for example, loss of hearing or taking medications that impair motor skills or cause drowsiness.

c. Operate SE in a safe manner:

(1) Perform pre-operation and post operation inspections.

(2) Operate SE within designed capacities and capabilities.

(3) Use equipment safety features and comply with operational safety requirements.

d. Report any observed reckless operation or intentional misuse/abuse of SE to supervisors and the QA SE Misuse/Abuse Program Manager.

Equipment Requiring an SE Operator's License

EQUIPMENT
A/E26U-6A MOBILE NITROGEN GAS GENERATOR
A/M24M-5A STATIC FREQUENCY CONVERTER
A/M24M-6 120 KVA LAND BASED MOBILE ELECTRIC POWER PLANT
A/M24T-17 ELECTRICAL DUMMY LOAD
A/M26M-3 AIRCRAFT LIQUID OXYGEN SYSTEM GAS PURGING SET
A/M26U-14 OXYGEN SERVICING COMPRESSED GAS TRAILER
A/M26U-4B NITROGEN SERVICING UNIT
A/M27T-14 ELECTRIC HYDRAULIC POWER SUPPLY
A/M27T-15 DIESEL HYDRAULIC POWER SUPPLY
A/M27T-6 AIRCRAFT HYDRAULIC SYSTEMS TEST STAND
A/M32A-108, NC-10A/B/C MOBILE ELECTRIC POWER PLANT
A/M32C-17 MOBILE AIR CONDITIONING UNIT
A/M32C-21 AIRCRAFT GROUND COOLING AIR CONDITIONER
A/M32C-23 AIR CONDITIONER
A/M32C-26 Land based Variant Air Conditioner (LVAC)
A/M32C-27 Shipboard Variant Air Conditioner (SVAC)
A/M32M-24 2,000LB HANGAR DECK CRANE
A/M32M-39 LARGE CORROSION CONTROL CART
A/M32M-40 SMALL CORROSION CONTROL CART
A/M32U-13B AIRBORNE ARMAMENT MAINTENANCE TRAILER
A/M32U-21 MAINTENANCE TRAILER
A/M37M-11 HYDRAULIC FLUID PURIFIER
A/M42M-2A PORTABLE FLOODLIGHT SET
A/M47A-1 TRAILER, VAN AND LAU-71A SERIES RECEIVER
A/M48M-4 HOT WATER ENGINE PRESSURE WASHER
A/S32A-32 AIRCRAFT TOWING TRACTOR
A/S32A-35A AIRCRAFT CRASH HANDLING AND SALVAGE CRANE
A/S32A-36A AIRCRAFT CRASH HANDLING AND SALVAGE CRANE
A/S32A-37 AIRCRAFT TOWING TRACTOR
A/S32A-44 AIRCRAFT UTILITY CRANE
A/S32A-45 MID-RANGE TOW TRACTOR
A/S32A-47 MANTIS SHH ELP-1
A/S32A-48 LARGE LANDBASED TOW TRACTOR
A/S32A-49 SHIPBOARD TOW TRACTOR
A/S32K-1E AIR LAUNCHED WEAPONS LOADER
A/S32M-14 AIRCRAFT MAINTENANCE CRANE WHEEL MOUNTED
A/S32M-17 8-1/2 TON HOIST MAINTENANCE CRANE WHEEL MOUNTED
A/S32M-19 25-TON WHEEL MOUNTED HEAVY MAINTENANCE CRANE

Figure 10.16-1 (page 1): Equipment Requiring an SE Operator's License

Equipment Requiring an SE Operator's License (page 2)

EQUIPMENT
A/S32M-20 ENGINE INSTALLATION AND REMOVAL VEHICLE
A/S32P-25 FIRE FIGHTING VEHICLE
A/S32P-25A FIRE FIGHTING VEHICLE
A/S37A-3/3A SHIPBOARD MOBILE ELECTRIC POWER PLANT
A/S37A-4 SHIPBOARD MOBILE ELECTRIC POWER PLANT
A/S48M-2 DIESEL SELF-PROPELLED SERVICING PLATFORM
A/S48M-3 ELECTRIC SELF-PROPELLED SERVICING PLATFORM
A/U47A-5 MSU-200NAV MOBILE AIR START UNIT
ACU-20/M PORTABLE AIR COMPRESSOR
ACU-24/M PORTABLE AIR COMPRESSOR
BT-400-46 PRE-HEATER
DA-675/MSM ELECTRICAL DUMMY LOAD
ENHANCED EMERGENCY OXYGEN SYSTEM CART
HALON 1211 RECHARGER/RECOVERY SYSTEM
HLU-196D/E BOMB HOISTING UNIT
JV90-4SC REFRIGERANT RECLAIM SYSTEM
MEP-006A TACTICAL DIESEL DRIVEN GENERATOR SET
MEP-807A/MEP-809A TACTICAL QUIET GENERATOR SET
MMG-1A MOBILE ELECTRIC POWER PLANT
NAN 2/2A/3 NITROGEN SERVICING UNIT
ST-100/A, ST-1000 REFRIGERANT RECOVERY-RECYCLE SYSTEM
TM1800 TRUCK MOUNTED DEICER
TMU-27/M LIQUID OXYGEN STORAGE TANK
TMU-70/M CLOSED LOOP LOW LOSS LIQUID OXYGEN SERVICING TRAILER

NOTES: 1. Phase I training courses have not been developed for the following equipment: MHAC-2AC-302-8 LIQUID COOLANT FILTERING UNIT; HM-GT1-C HYDROMITE (DIESEL/ELECTRIC). Training may be obtained from NATEC, Public Works, or at the I-Level using locally prepared courses.

2. Operation of like SE installed in naval aircraft does not require an SE Operator's License. Equipment installed in aircraft will be operated per aircraft publications.

Figure 10.16-1 (page 2) : Equipment Requiring an SE Operator's License

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

USN AVIATION SUPPORT EQUIPMENT OPERATOR'S LICENSE

1. NAME OF OPERATOR	2. PAYGRADE/SERVICE	3. DATE ISSUED

4. U.S. GOVERNMENT/STATE MOTOR VEHICLE OPERATOR'S LICENSE

LICENSE NUMBER	ACTIVITY/STATE	EXPIRATION DATE

LICENSEE IS QUALIFIED TO OPERATE THE SUPPORT SUPPORT EQUIPMENT SPECIFIED IN BLOCK 8, SUBJECT TO THE RESTRICTIONS IN BLOCK 9.

5. NAME OF ISSUING ACTIVITY

6. SIGNATURE OF LICENSEE (Not Valid Unless Signed)

7. ISSUED BY (Signature and Title)

8A. TYPE EQUIPMENT(S) FOR WHICH QUALIFIED		B. EXPIRATION DATE	C. CERTIFIED BY (Initials)
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
(10)			
(11)			
(12)			
(13)			
(14)			
(15)			
(16)			
(17)			

Add Row | Remove Last Row

9. RESTRICTIONS

OPNAV 4790/102 (REV 12/2016) Page 1 of 1

Figure 10.16-2: USN Aviation Support Equipment Operator's License (OPNAV 4790/102) (Sample)

NEC/MOS Courses that satisfy Phase I SE training requirements

NEC or MOS	Support Equipment	CIN
F25A	A/S32A-35A/36A AIRCRAFT CRASH AND SALVAGE CRANE	C-602-3307
F18A	A/M32C-23 LARGE LAND BASED AIR CONDITIONER	C-602-3321
F18A/6073	A/M32C-26 LAND BASED VARIANT AIR CONDITIONER	C-602-3227
F23A	A/S37A-4 SHIPBOARD MEPP	C-602-3330
F23A/6073	NC-10B-1/C AND A/M32A-108 MEPP	C-602-3328
F23A/6073/6499	A/M24M-5A STATIC FREQUENCY CONVERTER	C-602-3228
F23A/6073/	A/M24T-17 DUMMY LOAD	C-602-3323
F23A/6073/6499	MEP-807A/809A TACTICAL QUIET GENERATOR	C-602-3318
F19A/6073	MSU-200/NAV MOBILE START UNIT	C-602-3316
F20A/6073	A/S32A-45 MID RANGE TOW TRACTOR	C-602-3317
F20A	A/S32A-48 LARGE LANDBASE TOW TRACTOR	C-602-3201
F22A/6073	A/M27T-14/15 HYDRAULIC POWER SUPPLY	C-602-3233
F22A/6073	A/M37M-11 HYDRAULIC FLUID PURIFIER	C-602-3216
F24A	A/S48M-2 DIESEL SELF PROPELLED MAINT PLATFORM	C-602-3291
F24A	A/S48M-3 ELECTRIC SELF PROPELLED MAINT PLATFORM	C-602-3291
F24A	A/S32M-19 HEAVY MAINTENANCE CRANE	C-602-3320
F20A	A/S32A-49 SHIPBOARD TOW TRACTOR	C-602-3325
F26A	A/S32A-32 AIRCRAFT TOWING TRACTOR	C-602-3290
F26A	A/S32P-25A SHIPBOARD FIREFIGHTING VEHICLE	C-602-3324
6073	A/S32K-1E SHORE-BASED WEAPONS LOADER	C-602-3235

Figure 10.16-3: NEC/MOS Courses that satisfy Phase I SE Training requirements

Phase I Operator Training Outline (Example)

Lesson Topic 1.1.1: Equipment Familiarization

1. Purpose of Equipment
2. General Description of Equipment
3. Major Components, Assemblies, and Systems
4. Controls
   a. Function, Purpose, and Use (normal or abnormal readings, position of indicators and switches)
   b. Description and Location
5. Emergency and Special Situations (if applicable)

Lesson Topic 1.1.2: Theoretical Application

1. Preoperational Inspections
   a. Purpose.
   b. Description (When, Who, How, and What).
   c. Types (Static Inspection and Functional Check).
   d. Documentation.
      (1) Purpose.
      (2) Procedure (Correct form(s) and annotations).
2. Servicing Requirements
3. Shutdown Procedures
4. Safety Requirements (Identify "Warning", "Cautions" and "General Safety" to follow when operating SE)
5. Written Examination (required only for weight handling support equipment).

Lesson Topic 1.1.3: Practical Application

NOTE: The instructor must explain and demonstrate each of the following procedures then allow students to perform items #1 and #3a using a job sheet. Item #2 may be simulated if servicing is unnecessary at time of instruction.

1. Preoperational Inspection: Step by step procedures.
   a. Static.
   b. Functional.
   c. Documentation.
2. Servicing: Step by step procedures, including:
   a. Materials and fluids to use.
   b. Servicing points.
   c. Reading and interpreting level indicators.
   d. Proper servicing practices.

Figure 10.16-4 (page 1): Phase I Operator Training Outline (Example)

3. Equipment Operation: Step by step procedures, including:
   a. Normal Operation (In all modes).
      (1) Start-up procedures (starter duty cycle, position of critical controls).
      (2) Indicator readings and control adjustment.
      (3) Driving or maneuvering self-propelled equipment on approved terrains.
   b. Emergency and Special procedures (as applicable).
      (1) Situations that could happen to equipment involved, which could cause personnel injury or equipment damage (Engine over speed or will not shutdown, electrical or fuel fires, brake failure, etc.).
      (2) Actions to be taken by the operator should these situations occur.
   c. Towing.
      (1) Peculiar requirements (Can the SE be towed or backed).
      (2) Approved towing vehicles (maximum speed and distance).
4. Shutdown Procedures:
   a. Park or stow in designated area.
   b. Check for leaks.
   c. Determine if servicing is needed.
   d. Note any discrepancies that occurred during equipment operation. Report discrepancies to supervisor and document on appropriate forms (as applicable).
   e. Secure equipment.
      (1) Parking brake set.
      (2) Chock and tie down in place.
      (3) Panels, doors, switches, and controls properly secured or positioned.
      (4) Equipment properly covered or protected.
   f. Practical examination (required only for weight handling support equipment).

Figure 10.16-4 (page 2): Phase I Operator Training Outline (Example)

SE LICENSE CERTIFICATION						
LAST NAME	FIRST	MI	Rate/Rank	SSN	Activity	T/M/S Aircraft

State Driver's License				U.S. Government Motor Vehicle Operator's License	
State	License No.	Expiration Date	Auto Extend □ Yes □ No	License No.	Expiration Date

PHASE I SECTION

Training Activity		
Support Equipment	Course Number	Date Completed
Self Propelled Vehicle □ Yes □ No	Flight Line Training Date	Weight Handling Equipment Physical
SE DIVISION OFFICER		DATE:

PHASE II SECTION

□ NEW (Parts A, B, C, D, and E required)

□ RENEWAL (Parts C, D, and E required)

PART A. REQUIRED READING	Trainee Signature	Date Read
A. COMNAVAIRFORINST 4790.2D, Chapter 10, paragraph 10.16		
B. NAVAIR 00-80T-96, Chapter___, Page___		
C. NAVAIR 00-80T-105 "Aircraft Emergency Procedures" Chapter___, Page___		
D.		
E.		

PART B. ON THE JOB TRAINING	Instructor's Signature	Date	Instructor's Signature	Date	Instructor's Signature	Date
1. Discuss ramp/flight line hangar deck procedures.						
2. Discuss safety precautions						
3. Discuss emergency procedures (fuel spill, A/C or SE, fire, etc.).						
4. Discuss personnel requirements and positioning.						
5. Discuss hand signals and other communication devices.						
6. Perform and document preoperational inspection.						
7. Perform proper driving/towing procedures.						
8. Properly position and hookup SE.						
9. Perform maintenance/servicing tasks with the SE.						
10. Perform normal shutdown/disconnect procedures.						
11. Perform post operational inspection.						

Figure 10.16-5 (front): SE License Certification (Example)

PART C. PRACTICAL EXAMINATION	SAT/ UNSAT	Examiner's Signature/Date:
1. Discuss ramp/flight line hangar deck procedures.		Remarks:
2. Discuss safety precautions		
3. Discuss emergency procedures (fuel spill, A/C or SE, fire, etc.).		
4. Discuss personnel requirements and positioning.		
5. Discuss hand signals and other communication devices.		
6. Perform and document preoperational inspection.		
7. Perform proper driving/towing procedures.		
8. Properly position and hookup SE.		
9. Perform maintenance/servicing tasks with the SE.		
10. Perform normal shutdown/disconnect procedures.		
11. Perform post operational inspection.		

PART D. QUALITY ASSURANCE WRITTEN EXAMINATION			
QAR Examiner	Signature	Exam Score:	Date
		(Min. Passing Score 85%)	

PART E. CERTIFICATION						
Work Center Supervisor	Signature	Recommended		Yes		No
Division Officer	Signature	Recommended		Yes		No
Support Equipment Officer (IMA only)	Signature	Recommended		Yes		No
AMO (OMA only)	Signature	Recommended		Yes		No
MO	Signature	Approved		Yes		No

Figure 10.16-5 (back): SE License Certification (Example)

10.17 Support Equipment (SE) Maintenance (NAMPSOP)

10.17.1 References

a. NAVAIRINST 13650.1, Aircraft Maintenance Material Readiness List Program

b. NAVAIRINST 13680.1, Depot Level Rework Program for Support Equipment End Items

c. NAVAIR 17-1-125, Section XI, Support Equipment Cleaning, Preservation, and CorrosionControl.

d. NAVAIR 17-1-114.1, Inspection and Proof Load Testing of Lifting Slings for Aircraft and Related Components.

e. NALDA TDRS NAT02, Support Equipment TD Listing.

10.17.2 Introduction

10.17.2.1 This NAMPSOP establishes requirements for managing and maintaining SE and Armament Weapons Support Equipment (AWSE).

NOTE: For Depot Support Equipment (SE) Maintenance see Chapter 12.

10.17.2.2 SE is defined as all equipment required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. SE is primarily the equipment managed within the Aircraft Maintenance Material Readiness List (AMMRL) Program. SE also includes some general purpose equipment not managed within the AMMRL Program that are used in aviation work centers to support maintenance, such as drill presses, grinders, lathes, sewing machines, and welders. SE not covered under the AMMRL Program but required to support flight operations, for example crash equipment, firefighting equipment, and runway sweepers, is managed per ACC or TYCOM instructions. Refer to NAVAIRINST 13650.1 and cognizant SECA instructions for procedures for reporting SE under the AMMRL Program. Definitions are as follows:

a. Temporary Loan - Items of SE directed by the owning SECA to be provided to another activity for use for a specified period of time.

b. Subcustody - Items of SE that are owned by an I-Level activity and provided to the supported organizational activity for utilization.

c. Transfer - Items of SE directed by the owning SECA to be permanently transferred to another activity.

10.17.2.3 In the context of this NAMPSOP, the term “SE” also denotes requirements applicable to AWSE unless stated to be only for SE or only for AWSE. OPNAV M-8000.16 provides additional direction on AWSE maintenance.

10.17.2.4 This NAMPSOP does not apply to equipment managed under NAVSEA or NAVSUP requirements, such as forklifts and flight deck scrubbers that are maintained by ship or shore I-Level activities. OMMS-NG and SKEDS must be used to document scheduled and unscheduled maintenance for NAVSEA or NAVSUP equipment. NALCOMIS will not be used to track maintenance for NAVSEA or NAVSUP equipment.

10.17.3 Requirements

10.17.3.1 Transfer and Acceptance Procedures

a. Transfer and acceptance inspections are required upon permanent or temporary loan transfer of SE directed by SECA from one activity to another. The SE Transaction Report (OPNAV 4790/64) (Figure 10.17-3) will be used to record transfer and receipt of SE reported under the AMMRL Program, all required fields must be filled in. The transfer inspection must be completed at time of transfer. The acceptance inspection must be completed prior to placing the SE in service, or no later than 30 calendar days after receipt, whichever occurs first.

NOTE: AMMRL equipment directed by SECA to a squadron is an example of temporary loan.

b. The Support Equipment Acceptance/Transfer Checklist (Figure 10.17-1) identifies minimum acceptance and transfer inspection requirements for O-Level and I-Level activities.

NOTE: If IPB to verify inventory configuration status of the SE is not received, perform acceptance/transfer inventory verification using MIMs or request SE Engineering Drawings from respective PMA.

c. SE will be in ready for issue (RFI) status at time of transfer. If the Support Equipment Controlling Authority (SECA) approves the transfer of non-ready for issue (NRFI) SE, any parts removed for maintenance and not re-installed, and supply documents for any parts on order or missing, will be attached to and forwarded with the SE at time of transfer.

d. All NALCOMIS Configuration Management Auto Log Sets (CM ALS) applicable to the item must be transferred with the SE. Refer to 8.6.3.4 for CM ALS transfer procedures. If the SE is being transferred to a depot facility for maintenance or rework, the item's SE Custody and Maintenance History Record (OPNAV 4790/51) (Figure 8-22) must accompany the item per paragraph 10.17.3.1 procedures.

NOTES: 1. Copies of all outstanding discrepancy MAFs or WOs will be transferred with the SE.

2. If OOMA ALS or paper records are not received, contact the previous reporting custodian. ALS records are also available in OMAWHOLE. If further assistance is required, contact the SECA.

e. Change of custody reporting will be completed per Support Equipment Controlling Authority (SECA) procedures.

10.17.3.2 Subcustody Issue Procedures

a. SE issued on a subcustody basis (vice permanent or temporary loan transfer) will be jointly inventoried and inspected by the activity providing the SE and the activity receiving the SE.

NOTE: The SE Acceptance/Transfer Checklist (Figure 10.17-1) is not required for subcustody issue.

b. Personnel checking out or returning SE must have a valid license for the equipment being checked out or returned. If the SE is self-propelled, a valid state or government driver's license is also required ashore. A driver's license is not required to operate self-propelled SE, AWSE, or mobile crane onboard ship, only. Support Equipment Issue and Receipt may use the following for license verification:

(1) Electronically via:

(a) ASM by the Support Equipment Issue and Receipt (NAE) duty personnel granted by the requesting activity's ASM Fleet Administrator.

(b) Dual Common Access Card (CAC) readers, which allow access to the licensee's ASM for verification.

(c) Fleet Training Management & Planning System (FLTMPS) verification under the "QUALS/CERTS" tab.

(2) An unmodified report (GSE Licenses) generated from ASM no older than 60 days.

(3) Aviation Support Equipment Operator's License (OPNAV 4790/102) as per the requirements of 10.16.4 SE Operator License Requirements.

c. A joint preoperational inspection using the applicable MRCs must be performed at time of check-out and check-in. The SE Preoperational Record (OPNAV 4790/52) (Figure 10.17-2) will be used to record the preoperational inspection. The person checking out the SE will perform the preoperational inspection and sign in the inspector's block. The person from the issuing activity will sign in the supervisor block. The SE Preoperational Record will accompany the SE at time of issue for use by the activity that checked out the SE, and must be returned with the SE.

NOTE: All discrepancies noted during the preoperational inspection will be documented on a MAF by the issuing activity.

d. The SE Transaction Report (OPNAV 4790/64) (Figure 10.17-3) will be used to record sub-custody of SE reported under the AMMRL program, all required fields must be filled in. Issue and return will be documented per LCP.

10.17.3.3 Maintenance

a. SE installed within a work center, such as hydraulic test stands (A/F 27T-10), oxygen and nitrogen generating plants (LOX-30/PLN-430), and electrical test units (VARIDRIVES), will be maintained by the work center having physical custody of such equipment.

b. Preventive Maintenance (PM) and unscheduled maintenance must be performed per the procedures specified in applicable technical publications or manufacturer manuals. Requirements specified in COMNAVAIRSYSCOM technical manuals take precedence over manufacturer or other non-NAVAIR publications.

c. PM scheduling and allowable deviation procedures of Chapter 5, paragraph 5.3 apply to SE.

NOTES: 1. If any PM cannot be verified as current, the PM must be performed prior to placing in service, issuing, or operating the SE.

2. When an item of SE is new and has never been placed in service, or is received after completion of rework by a depot designated repair point (DRP), the next PM cycle will be initiated based on the date of completion of the acceptance inspection. The DRP's entry on the SE Custody and Maintenance History Record (OPNAV 4790/51) is acceptable verification that all inspections and PMs were current as of the date of completion of rework. Per NAVAIRINST 13680.1, refer to the SE Management System (SEMS) for depot DRPs.

d. SE preoperational inspections will be conducted per the MRCs applicable to the equipment. Preoperational inspections must be recorded on the item's SE Preoperational Record (OPNAV 4790/52) (Figure 10.17-2). The SE Preoperational Record will be maintained by the work center with custody of the SE.

e. Local Maintenance Requirements Cards (Local MRCs) must be established per 10.8.3.5 for any SE that does not have COMNAVAIRSYSCOM technical manuals and meets one or more of the following criteria:

(1) The manufacturer publications or other non-NAVAIR technical manuals do not give detailed procedures or specific intervals for inspections or PM.

(2) The equipment requires NDI or proof load testing per NAVAIR 17-1-114.1 criteria.

(3) Failure or misuse of the equipment during operation could cause injury to personnel or damage to aircraft or equipment. This includes hazards such as moving parts during operation, use or discharge of hazardous chemicals, or discharge of extreme heat, extreme cold, or electrical shock.

(4) The equipment has fluids, filters, or other replaceable materials subject to contamination that could cause the item to incorrectly perform its intended use, or could cause damage to aircraft, aircraft systems, components, or SE.

f. PM requiring internal parts replacement (filters, hoses, bearings, etc.), proof load testing, or NDI must be performed by the supporting I-Level activity or depot, per the specified maintenance level.

g. SE that will not be used for extended periods must be preserved per NAVAIR 17-1-125, Section XI.

h. SE requiring calibration will be calibrated per paragraph 10.18.

i. SE will comply with TD procedures of paragraph 10.10.

j. SE requiring depot rework will be processed per NAVAIRINST 13680.1.

10.17.3.4 Maintenance Documentation

a. SE maintenance must be documented on a NALCOMIS Optimized Organizational Maintenance Activity (OOMA) Work Order (WO) or NALCOMIS Optimized Intermediate Maintenance Activity (OIMA) Maintenance Action Form (MAF) per Chapter 15 and Chapter 16 procedures.

NOTE: Activities not operating NALCOMIS OOMA or OIMA will document maintenance

on an OPNAV 4790/60 Visual Information Display System Maintenance Action Form (VIDS/MAF).

b. PM on up to 10 items of the same type of equipment may be documented as a "lot" on one WO or MAF if all of the following conditions are met:

(1) All equipment in the lot must be the same model.

(2) The same PM requirements must apply to the entire lot.

(3) One technician must be able to complete PM for the entire lot in one work shift. For example: An activity has 100 tie down chains of the same model. One technician can inspect 10 chains in one work shift. Rather than creating 100 individual WOs or MAFs, the activity can issue ten WOs or MAFs with serial numbers 1 through 10 on the first, 11 through 20 on the second, etc.

NOTE: Lot WOs or MAFs are not authorized for documenting unscheduled maintenance or TD compliance. These actions require a separate WO or MAF for each SE item.

10.17.3.5 NALCOMIS OOMA Configuration Management Auto Log Set (CM ALS) Records

a. NALCOMIS OOMA Configuration Management Auto Log Set (CM ALS) will be used as the primary source of SE records for O-Level and I-Level activities. Personnel responsible for support equipment ALS records must complete the SE Configuration Management course (C-555-0057).

b. CM ALS will be maintained per Chapter 8.

NOTES: 1. CM ALS will be created for all repairable SE which have NAVAIR prescribed PMs and/or TDs. CM ALS is not required for an item of SE which is not repairable (determined by SM&R code), and does not have PMs beyond Daily and Pre-Op, and does not have any TDs issued against it.

2. Commands are required to load and activate all maintenance tasks for each item of SE in their custody, including temporary loan items.

3. All SE maintenance tasks must be either active or pending in OOMA, regardless of the maintenance level O/I/D.

4. Exception from loading or activating any task not explicitly exempted by MRC must be approved by higher authority. A miscellaneous history entry will be made in the SE item's CM ALS citing the reason and authorization, signed by the MMCO or Production Control Officer.

c. At a minimum, SE CM ALS will be saved annually in conjunction with the NALDA NAT02 verification per 8.6.3.3

d. When transferring SE permanent or temporary loan to an activity operating OOMA, the CM ALS will be electronically transferred to the receiving activity, and a paper record of the CM ALS will physically accompany the item. Refer to paragraph 8.6.3.4 CM ALS procedures when transferring SE to an activity that does not operate NALCOMIS OOMA.

e. One SE CM ALS may be created for lots of up to 10 items of SE if all items are the same model. For example, if the activity has 100 tie down chains of the same model, the activity can create 10 SE CM ALS records with tie down chains serial numbers 1 through 10 in the first lot, serial numbers 11 through 20 in the second lot, etc.

f. O-Level and I-Level activities are required to submit a printout of the CM ALS and all SE that does not have a OPNAV 4790/51 record and is due for turn-in to the servicing Depot or commercial activity for depot maintenance or rework.

NOTE: If an item in the lot is transferred, generate an individual SE CM ALS record for the item, and transfer it with the item.

10.17.3.6 SE Custody and Maintenance History Record (OPNAV 4790/51)

a. O-Level and I-Level must maintain a OPNAV 4790/51 record on all SE that cannot be built in the OOMA data base.

NOTE: SA/A must submit a BTR via JDRS requesting addition of part number or verify one has already been submitted.

b. Activities that maintain an SE Custody and Mainteance History Record (OPNAV 4790/51) will update the working copy prior to transfer. The SE history file and updated record will accompany the SE upon transfer.

c. If the item is on temporary loan to an O-Level activity, the O-Level activity must update the record as required, and provide it with the SE whenever it is turned in for I-Level maintenance.

10.17.3.7 Historical File

a. A historical file will be maintained for each item of SE requiring PM. Historical files will be filed in sequence of TEC and serial number.

b. The historical file will accompany SE that is transferred permanently or temporary loan (10.17.3.1) to another activity. If the SE is transferred temporary loan, retain a copy on file until the SE is returned. The activity having custody of the SE is responsible for maintaining the historical file.

NOTE: The historical file will not accompany SE issued on a subcustody basis (10.17.3.2).

c. As applicable to the item, the historical file will contain:

Left Side

Preventive Maintenance MAFs **(O-Level and I-Level activities)**	Activities will maintain all hardcopies of the MAF for the most current completed type until the next like inspection is completed. For example, SE with 13, 26, and 52 week I-Level PM requirements will include the I-Level MAF for the last completed 13, 26, and 52-week inspections. MAFs will be filed in JCN sequence. **NOTE: Maintain a photocopy of tags used for proofload, weight test, etc., in the file incase the tag is lost or damaged.**
Depot Rework documentation	Documentation provided by the Depot for the last rework completed.
D-level Maintenance documentation	Documentation provided by the Depot for the last completed action of each type of D-level maintenance, such as D-level load test or hydrostatic testing.
SE Custody and Maintenance History Record (OPNAV 4790/51) (Figure 8-22)	Last completed and most current record (if required).

Right Side

Preservation Documentation	Copies of current preservation checklist, if in preservation status.
Acceptance and Transfer Checklists (Figure 10.17-1)	Retain until the next like inspection.
NAT02 Baseline TD Verification	Retain until the next like inspection.
NAT02 Subsequent TD Verification	Retain until the next like inspection.

10.17.4 Responsibilities

10.17.4.1 Type Wing or MAW

The Type Wing or MAW will conduct Material Condition Inspections (MCI) of SE during Maintenance Program Assessments (MPA) to verify activities are maintaining SE in satisfactory material condition.

10.17.4.2 Maintenance Officer

a. Develop local command procedures (LCP) per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for SE maintenance or records not addressed in this

NAMPSOP. Command LCPs will be submitted to the Wing or MAW for developing a Wing LCP, if deemed necessary.

b. Designate the Maintenance Material Control Officer, Production Control Officer, or 900 Division Officer as the SE Maintenance Program Manager. Designation will be made in ASM per 10.1.2.9.

10.17.4.3 Program Manager

a. Ensure all assigned SE material condition is RFI and ready for use. If SE is NRFI, ensure procedures are established to restrict it from use.

b. Perform program audits per paragraph 10.7.5.8.

c. Provide NAMP indoctrination training on SE Maintenace Program per 10.1.4.7. Verify personnel receive SE Maintenance familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

d. Designate an SE Program Coordinator (10.17.4.4) of sufficient experience and knowledge to assist with managing program compliance.

e. Prepare the list of SE PM requirements coming due for the Monthly Maintenance Plan (MMP) 5.1.4 (O-Level) or 5.2.2 (I-Level). The list will include nomenclature, serial number, due dates/times/cycles/hours, and work center having custody of the item. I-Level activities may use Support Equipment Standardization System (SESS) monthly schedules instead of publishing a separate list.

f. Screen all SE for PM applicability using the criteria of paragraph 10.17.3.3.

g. Verify acceptance inspections and transfer inspections are conducted per paragraph 10.17.3.1.

h. Verify the SE preservation requirements of NAVAIR 17-1-125 are accomplished.

i. (O-Level) Verify SE is returned to the supporting I-Level activity for scheduled and unscheduled I-Level maintenance.

j. Verify SE records are maintained per this instruction.

k. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) Applicable references/cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.17.4.4 Program Coordinator

a. The SE Maintenance Program Coordinator must complete the following training within 120 days of assignment:

(1) OOMA course C-555-0057 for O-Level activities

(2) IMA NALCOMIS course C-555-0059 for I-Level activities

b. Duties:

(1) Assist the Program Manager in accomplishing all duties.

(2) Ensure SE records are maintained per this instruction.

10.17.4.5 Division Officers

Division Officers will verify RFI and NRFI material condition of division SE during Work Center Audits per paragraph 10.7.5.9.

10.17.4.6 Work Center Supervisors

a. Verify personnel receive SE Maintenance NAMP indoctrination training per 10.1.4.7.

b. Maintain the material condition and operability of RFI SE within their custody. If SE is NRFI, ensure procedures are established to restrict it from use per LCP. Ensure cognizance of all assigned SE , to include:

(1) Adherence to the maintenance requirements of paragraph 10.17.3.3

(2) Compliance with forced removal or replacement dates, hydrostatic test dates, load testing, and NDI

(3) Thorough corrosion prevention and treatment

(4) Prompt turn-in of non-operable SE

c. Randomly spot check work in progress to verify personnel are performing pre-operational and post-operational inspections per maintenance technical manuals.

SUPPORT EQUIPMENT ACCEPTANCE/TRANSFER CHECKLIST

IMRL/SE ASSET MANAGER

Received from: _____ UIC: _____ Date: _____

Transferred to: _____ UIC: _____ Date: _____

Authority: _____ Bar Code: _____

Condemned for disposal: __ Yes __No Method of disposal: _____ Date:_____

Nomenclature: _____ Model No: _____ Serial No:_____

Part No: _____ CAGE: _____

Type Equipment Code / Assembly Code: _____

W/C Assigned: _____

OPNAV 4790/51 Record Included? _____ Yes _____ No

IMRL/SE Manager Signature: _____

METCAL PROGRAM MANAGER (Coordinate with Metrology and Calibration Lab)

METPRO Cal required? _____ Yes _____ No Initials: ____

If yes, Cal interval: _____ Initials: ____

Current Due Date: _____ Initials: ____

Add to Format 310/350 for Work Center Initials: ____

Require off-ship/station calibration? _____ Yes _____ No Initials: ____

METCAL Program Manager Signature: _____

Figure 10.17-1 (page 1): Support Equipment Acceptance/Transfer Checklist (Example)

QUALITY ASSURANCE (Only required for acceptance)

Maint. Manual: _____ Digital _____ Paper _____ Initials: ____

MRC: _____ Digital _____ Paper _____ Initials: ____

PRE-OP Card: _____ Digital _____ Paper _____ Initials: ____

PMs Required: _____ TEC: _____ Initials: ____

(TDM) Update ADRL and JTDI, as necessary: Initials: ____

QAR Signature:_____

MAINTENANCE/PRODUCTION CONTROL

1. Issue OOMA WO/OIMA MAF to conduct Acceptance or Transfer Inspection. Initials: ____

2. (Acceptance) Establish Historical Files folder if none was provided. Initials: ____

3. (Acceptance) Verify Technical Directive configuration. If applicable, direct QA to initiate a TD Routing/Tracking form. Initials: ____

4. (Acceptance) Add item to OOMA/OIMA Initials: ____

5. (Acceptance) Verify PM status and issue WO or MAF for PMs due. Initials: ____

Note: For newly manufactured or reworked SE, the next PM cycle will be initiated based on the date of completion of the acceptance inspection date.

6. (Transfer) Close out the OPNAV 4790/51 Record and OOMA/OIMA ALS and deliver to the IMRL or SE Manager for inclusion with the equipment. Initials: ____

7. (Transfer) Delete item from OOMA/OIMA. Initials: ____

8. If the equipment is being condemned, dispose of record and annotate in IMRL Manager/SE Asset Manager section of form (First section). Initials: ____

9. (ICRL Manager) Update the ICRL if loss or gain affects capability. Initials: ____

10. Remarks: _____

MMCO/Production Control Officer/Maintenance Chief (USMC):

_____

Figure 10.17-1 (page 2): Support Equipment Acceptance/Transfer Checklist (Example)

WORK CENTER

1. If receiving or transferring to another activity, skip to step 3.

2. If condemning, complete the following steps. Refer to Maintenance/Production step 7. Initials: ____

   a. Comply with FEDLOG "REC_REP_CODE" for any special handling instructions.

   b. Comply with FEDLOG "DEMIL CODE" for any special destruction requirements.

   c. Ensure item is HAZMAT free.

   d. RED tag item as condemned and segregate away from RFU IMRL until disposed of.

3. Perform acceptance or transfer inspection and generate discrepancy MAF, as necessary.

   a. Inspect for corrosion, treat as required Initials: ____

   b. Inventory all components per IPB Initials: ____

   c. Hydraulics: Verify hoses for forced removal dates, external hoses for serialization to the device, and perform Hydraulic Fluid Analysis. Fluid analysis class:_____ Initials: ____

   d. Pressure bottles: Verify hydrostatic dates Initials: ____

   e. Weight Bearing devices (slings/fixtures): Provide a copy of the Load Test tag to Logs and Records. Verify foil tag are up to date per most recent PM. Initials: ____

4. Perform preoperational inspection and functional test Initials: ____

5. I certify all work center acceptance or transfer requirements were met.

CDI Signature or Stamp: _____

SE Coordinator
Rank & Name:_____ Signature: _____ Date: _____

SE Maintenance Program Manager
All requirements of this SE Acceptance/Transfer Inspection Checklist have been accomplished and records updated as required by COMNAVAIRFORINST 4790.2.

Rank & Name: _____ Signature: _____ Date: _____

Figure 10.17-1 (page 3): Support Equipment Acceptance/Transfer Checklist (Example)

1. NOMENCLATURE		2. EQUIPMENT MODEL/PART NO.		3. SERIAL NO.	
4. DATE	5. INSPECTOR (Signature)	6. SUPERVISOR (Signature)	7. DATE	8. INSPECTOR (Signature)	9. SUPERVISOR (Signature)

OPNAV 4790/52 (Rev. 3-83) SN 0107-LF-770-5501 **SE PREOPERATIONAL RECORD**

10. DATE	11. INSPECTOR (Signature)	12. SUPERVISOR (Signature)	13. DATE	14. INSPECTOR (Signature)	15. SUPERVISOR (Signature)

OPNAV 4790/52 (Rev. 3-83)(BACK) ☆ U.S. GOVERNMENT PRINTING OFFICE: 1986-605-009/35326

Figure 10.17-2: SE Preoperational Record (OPNAV 4790/52)

May 22, 2024 11:17:51 AM Support Equipment Transaction Report Page 1 of 1

1. Date	2. TRSN	3. Entered By
05/15/2024	04175	Adam Wigant

4. Reporting AAI	5. Received from / Transfered to AAI	6. TR Code
63042 FRC WEST LEMOORE		SC

7. Part Number	8. Equipment Serial Number	9. CAGE
040489-100	HD0221	56529

10. NSN	11. Status	12. BARCODE:
6RX4920-01-523-5921-SX	A1	0022232753

13. Nomenclature	14. Transportation Control Number /	15. Rework Control
PORTABLE HYDRAULIC DIESEL TEST STAND		

16. Re-

16a. CAGE	16b. Part Number	16c. Equipment Serial	16d. Barcode

17. Date and Time	18. Org	19. Received By (Signature,

20. Date and Time	21. Org	22. Received By (Signature,

23. Authority / Comments / Local

WC: 920

OPNAV 4790/64

Figure 10.17-3: Support Equipment Transaction Report (OPNAV 4790/64)

10.18 Naval Aviation Metrology and Calibration (METCAL) Program (NAMPSOP)

10.18.1 References

a. NAVAIRINST 13640.1, Naval Aviation Metrology and Calibration Program

b. NAVAIRINST 13680.1, Depot Level Rework Program for Support Equipment End Items

c. OPNAVINST 3960.16, Navy Test, Measurement, and Diagnostic Equipment (TMDE), Automatic Test Systems (ATS), and Metrology and Calibration (METCAL)

d. OP43P6B, Metrology Automated System for Uniform Recall & Reporting (MEASURE) User's Manual

e. NAVAIR M-13650.1, Aircraft Maintenance Material Readiness List (AMMRL) Program Coordination Manual

f. NAVAIR 17-35NCE-1, Navy Calibration Equipment List (NCE) General Information

g. NAVAIR 17-35MTL-1, Metrology Requirements List (METRL)

h. NAVAIR 17-35QAC-01, Naval and Marine Corps Calibration Laboratory extensions Audit/Certification Manual

i. NAVAIR 17-35QAL-15, Naval Aircraft Carrier and Amphibious Assault Ships Metrology and Calibration (METCAL) Program Manual

j. NAVAIR 17-35FR-06, Facility Requirements for Navy and Marine Corps Calibration Laboratories

k. NAVAIR 17-35POP-01, Metrology and Calibration Program Operations Process Manual

l. NAVAIR 17-35TR-8, Technical Requirements for Calibration Labels and Tags

m. NAVSEA SE700-AA-MAN-100, Radiation, Detection, Indication, and Computation (RADIAC) Policy and Procedures Manual; Navy RADIAC Program User's Manual; Volume I, Policies and Procedures Manual

n. NAVSUP Publication 700, Common Naval Packaging

o. COMNAVAIRSYSCOM METCAL Fiscal Year (current FY) Scheduling Procedures for Calibration of Aviation Support Equipment (SE), Test Measurement and Diagnostic Equipment (TMDE), and Calibration Standards (CALSTDS) Letter, referred to in this document as the NAVAIR METCAL Scheduling Letter

NOTE: The NAVAIR METCAL Scheduling Letter is published annually and provides information on POCs, TMDE scheduling, CALSTDS repair, on-site calibration, deployment planning, Operation Inter-Lab Program, MEASURE procedures, restricted repair CALSTDS, depot man-hour reporting, flow meter calibration requirements data, AIG, packaging and shipping of CALSTDS, and authorized commercial or calibration service providers.

10.18.2 Introduction

10.18.2.1 This NAMPSOP establishes requirements and responsibilities for calibrating TMDE used by naval aviation activities. TMDE includes all devices and aviation SE used to measure, calibrate, gage, test, inspect, diagnose, or otherwise examine materials, supplies, and equipment to determine compliance with specifications, engineering drawings, technical orders, technical manuals, maintenance instructions, and/or serviceability standards.

NOTE: For Depot Metrology and Calibration (METCAL) Program see Chapter 12.

10.18.2.2 Periodic calibration of TMDE confirms an acceptable level of measurement reliability. TMDE performance is compared against CALSTDS for a higher level of accuracy. This often occurs in upper level calibration laboratories with traceability to national standards maintained by the National Institute of Standards and Technology (NIST) and the United States Naval Observatory (USNO) using natural physical constants or ratio type calibrations.

10.18.2.3 COMNAVSEASYSCOM is the lead systems command for the Navy's METCAL Program per OPNAVINST 3960.16.

10.18.2.4 NAWC AD Air Systems Maintenance METCAL is the Fleet Support Team (FST) for aviation calibration and related matters that is responsible for the Naval Aviation Metrology and Calibration Program policy, procedures, budgeting, and program funding allocation. NAWC AD Air Systems Maintenance develops the D-level METCAL schedule requirements and funds the cost of repair and calibration of I-Level CALSTDS by D-level facilities.

10.18.2.5 Per NAVAIRINST 13640.1, MEASURE is the approved Automated Information System (AIS) for the METCAL Program. The MEASURE Operational Control Center (MOCC) in San Diego, CA publishes equipment recall schedules and provides data used for reliability and engineering technical analysis in support of the METCAL Program.

10.18.2.6 The primary activities performing calibration of naval aviation equipment are D-level laboratories, Regional Calibration Centers (RCC), and Field Calibration Activities (FCA).

a. RCCs support NAVAIR and NAVSEA workload in fleet concentration areas. RCCs supporting NAVAIR workload are:

(1) Mid-Atlantic Regional Calibration Center, Norfolk, VA

(2) Southeast Regional Calibration Center, Jacksonville, FL

(3) Southwest Regional Calibration Center, San Diego, CA

b. FCAs are I-Level calibration activities normally co-located on a naval air station, Marine Corps air station, or ship with the activities they support. FCAs operate a Work Center 670 (FCA Branch) and provide calibration and repair support for TMDE. I-Level activities, not designated as FCA only, operate a Work Center 67A (FCA Receipt and Issue) responsible for coordinating with RCCs and FCAs for scheduling and calibrating the equipment for I-Level and O-Level activities the I-Level supports.

10.18.3 Requirements

10.18.3.1 Any TMDE or CALSTDS used to make quantitative measurements or to provide a reference quantity of known value must be calibrated. Each item of calibrated TMDE or CALSTDS must have a unique serial number affixed to enable tracking. If the manufacturer affixed no serial number to the equipment, the calibrating activity will assign a serial number per OP43P6B.

10.18.3.2 TMDE or CALSTDS will be calibrated and repaired at the most effective maintenance level in consideration of applicable laws, urgency, priority, crew impact, capability, capacity, and total ownership cost per OPNAVINST 3960.16.

NOTES: 1. Oxygen TMDE will only be calibrated and repaired by specified D-level activities.

2. Select FCAs have been augmented with D-level personnel to perform specified D-level calibrations approved by NAWC AD Air Systems Maintenance METCAL. Contactor Engineering and Technical Services (CETS) personnel assigned to expanded capabilities laboratories must comply with the Quality Assurance (QA) policies of the host I-Level.

10.18.3.3 TMDE or CALSTDS will be calibrated per the interval and procedures specified in NAVAIR 17-35MTL-1 (METRL).

NOTE: RADIAC equipment will be calibrated and repaired as specified in NAVSEA SE700-AA-MAN-100.

10.18.3.4 Calibration interval changes issued by TYCOMs or published in the monthly Metrology Bulletin (METBUL) must be implemented upon receipt. New calibration intervals will be documented on equipment by placing a Special Calibration Label (NAVSEA 4734/15) next to, not over, the current calibration label. The Special Calibration Label will cite the TYCOM direction or METBUL, by month and year of publication, as the authority. The new calibration interval will be annotated on the METER Card (OPNAV 4790/58) (Figure 10.18-3) with the next due date changed.

NOTE: If the new calibration interval impacts operations due to otherwise serviceable equipment becoming overdue for calibration, the activity may submit an extension request per the procedures of paragraphs 10.18.3.4.a and 10.18.3.4.b.

a. Calibration intervals of non-safety related aviation TMDE may be extended by the TYCOM, for only one interval as specified in NAVAIR 17-35MTL-1 or 4 months, whichever is less. Extension requests for safety related aviation TMDE can only be authorized by NAWC AD Air Systems Maintenance METCAL with the following restrictions:

(1) Extensions will be granted only in situations of operational necessity.

(2) TMDE suspected to be out of tolerance will not be extended.

(3) CALSTDS calibration intervals will not be extended.

NOTES: 1. Safety related TMDE is designated on the MEASURE inventory with a pound (#) sign as the last character in the Sub custodian field, block 6 of METER Card

(OPNAV 4790/58) (Figure 10.18-3). **There is no definitive list of safety related SE. An item used for aircraft support might impact safety, but when used for a different function may not.**

2. Extended TMDE must be turned in for calibration, as soon as possible, after the operational requirement has been satisfied or calibration capability becomes available.

b. Activities requesting a calibration interval extension must submit a naval message to the TYCOM with an information copy to NAWC AD Air System Maintenance METCAL. Requests for an extension will contain the following information:

(1) Part number.

(2) Serial number.

(3) Nomenclature.

(4) Next due date.

(5) Extension term requested.

(6) Aircraft or ship systems supported.

(7) Number and status of like items on hand (all assets that perform the same maintenance function).

(8) Safety certification (whether or not safety related when used in that particular application).

(9) Asset condition statement, indicating any significant maintenance since last calibration.

(10) Justification for an extension.

NOTE: Extension requests for RADIAC equipment will be forwarded to COMNAVSEASYSCOM (Code 04R) via NAVSEA Detachment Radiological Affairs Support Office Yorktown, VA (Code 02) per NAVSEA SE700-AA-MAN-100. An information copy will be sent to the ACC (COMFAIRFWD Code N42), if operating in WESTPAC.

c. Extensions will be documented by placing a Special Calibration Label (NAVSEA 4734/15) next to (not over) the expired calibration label of each extended asset. The Special Calibration Label will cite the activity that authorized the extension and the DTG of the naval message.

10.18.3.5 Activities performing calibration or repair of naval aviation TMDE must be certified per NAVAIR 17-35QAC-01.

10.18.3.6 Calibration Technicians, whether military, civilian, or contractor, must be qualified to perform the assigned calibration functions per NAVAIR 17-35POP-01. Navy military personnel performing non-physical or non-mechanical calibrations must be from an electronic technical rating and possess either NEC I25A, I31A, or 729A. Marine Corps Military Calibration Technicians must possess MOS 6492. The following are exceptions:

a. Personnel holding any NEC or MOS may perform physical or mechanical calibration actions if properly trained and qualified through local professional training or on the job training (OJT) syllabus. Calibration work center supervisors, at a minimum, must provide final qualification verification for personnel using OJT as a qualification standard.

b. Activities supporting the Consolidated Automated Support System (CASS) category of Automatic Test Equipment (ATE) can use NEC I26A or MOS 6469 in addition to NEC I25A, I31A, or 729A and MOS 6492 to perform calibration and application of the calibration label to the CASS Bench.

c. Technicians supporting the NAVSEA SISCAL Program onboard ships must possess NEC I25A or I31A, MOS 6492, or have completed a locally developed OJT syllabus, or be a graduate of the Shipboard Gage Calibration Program (SGCP) Operator course, CIN A-652-0510, and NEC 4782.

10.18.3.7 The Calibration Standards and Equipment List (CALSEL) documents the activity's CALSTDs allowance. A complete and current inventory of CALSTDs is maintained in the Calibration Standards Asset Management System (CSAMS) with calibratable items designated in the MEASURE system.

a. CALSTDS requiring servicing by NIST will be authorized by NAWC AD Air Systems Maintenance METCAL prior to forwarding to NIST.

NOTE: NAWC AD Air Systems Maintenance METCAL provides funding for calibration and repair of I-Level CALSTDs beyond the FCA's capability.

b. All CALSTDS and CALSEL listed ancillary items must have a Calibration Standard (NAVSEA 4734/21 or 4734/22) decal ("Meat Ball") affixed to it.

c. CALSTDS assigned to I-Level activities are under direct inventory control of the activities TYCOM and will not be reported under the Aircraft Maintenance Material Readiness List Program.

d. Requests for new or additional CALSTDS will be submitted via the activity's TYCOM to NAWC AD Air Systems Maintenance METCAL. If approved, Air Systems Maintenance METCAL will coordinate with NAVAIR Calibration Standards Ready Issue Activity (CSRIA) to obtain the CALSTDS.

NOTE: NAVAIR 17-35MTL-1 provides listings of Navy CALSTDs and equipment. Refer questions regarding CALSTD equivalency to the NAVAIR METCAL Service Desk via TYCOM.

e. Requests for deletion of CALSTDS must include a detailed justification and be submitted, per the activities specific CALSEL, to the TYCOM. If the TYCOM authorizes deletion, the activity must package the CALSTDS for shipment per NAVSUP Publication 700, complete a METER Card (OPNAV 4790/58) (Figure 10.18-3) per OP43P6B, and Requisition and Invoice/Shipping Document (DD 1149) or DoD Single Line Item Requisition System Document Manual (DD 1348). Mail the packaged CALSTDS to: NAVAIR CALIBRATION STANDARDS READY ISSUE ACTIVITY (CSRIA), ATTN: FCA STANDARDS, BLDG 612 BAY 9, MARINE CORPS AIR STATION, BEAUFORT, SC 29904-5017.

NOTE: COMNAVAIRSYSCOM METCAL Integrated Program Team (IPT) provides funding for calibration and repair of I-Level CALSTDS beyond the capability of the FCA.

10.18.3.8 Individual Material Readiness List (IMRL) assets may be used to perform calibration, if they are specifically called for in the calibration procedure. A Calibration Standards decal ("Meat Ball") will not be affixed to IMRL assets used for calibration.

NOTES: 1. IMRL assets specifically designated for use in test equipment repair shops are listed in SERMIS Systems 835, 835A, and 835B.

2. COMNAVAIRSYSCOM METCAL Program funds will not be used to repair IMRL assets used for calibration.

10.18.3.9 METER Cards (OPNAV 4790/58) (Figure 10.18-3) will be used for recording and inducting TMDE for calibration or repair, a separate MAF or WO is not required.

a. Quality Assurance (QA) Inspectors must place their QA stamp in the quality verification section of the METER Card buff copy, when required.

b. METER Card (OPNAV 4790/58) (Figure 10.18-3) buff copies will be filed in MEASURE Inventory Format 310 order and maintained on file for 12 months or one calibration cycle, whichever is greater.

c. METER Card (OPNAV 4790/58) (Figure 10.18-3) buff copies for CALSTDSs must be maintained for the life of the CALSTD at the activity.

NOTES: 1. The MEASURE User Manual provides additional procedures for METER Cards (OPNAV 4790/58) (Figure 10.18-3)**.**

2. A METER Card (OPNAV 4790/58) (Figure 10.18-3) **will also be used to document calibration of CASS category ATE.**

10.18.3.10 The following are the most commonly used inventory and MEASURE Recall Format Reports required by OP43P6B:

a. Inventory Format 310 Report lists all calibratable TMDE under a customer activities cognizance and provides part number, serial number, sub custodian, calibration interval, and next due date. Inventory Format 310 will be maintained by the customer activity.

b. Inventory Format 311 Report lists the activities currently used CALSTDS and CALSEL listed ancillary items. Inventory Format 311 will be maintained by activities performing calibration.

c. Inventory Format 350 Report lists items from the issuing activities Inventory Format 310 Report. Inventory Format 350 will be issued by the servicing calibration activities and maintained by custodians or sub custodians of TMDE.

d. Recall Format 802 Report lists items due for turn-in or overdue for calibration, due in the present month, and within the next two months for calibration. Recall Format 802 is distributed

monthly and sequenced by custodian or sub custodian. Recall Format 802 will be issued by servicing calibration activities to custodians or sub custodians of TMDE.

e. Recall Format 805 Report lists equipment scheduled into a laboratory by due date that is overdue for calibration, due in the present month, and within the next two months for calibration. Recall Format 805 will be maintained by work center 67A.

10.18.3.11 The following are documentation procedures for acceptance of commercial, non-Navy, calibration of TMDE:

a. OEM calibration labels or certificates are authorized for acceptance of new (unused) TMDE for the initial calibration cycle, only if the equipment is listed in METRL with a calibration cycle and an approved procedure, or if the model and CAGE is listed in the Authorized Calibration or Commercial Service Providers List in the NAVAIR METCAL Scheduling Letter. Recurring calibration, life-of-type or calibration after repair, is authorized to be accepted, only if the model and CAGE is listed in the Authorized Calibration or Commercial Service Providers List in the NAVAIR METCAL Scheduling Letter.

b. Transfer the information from the OEMs Certificate of Calibration to a METER Card (OPNAV 4790/58) (Figure 10.18-3) to account for the calibration. Indicate the Condition Received (block 61). Enter any Out of Tolerance Data (blocks 30 through 35). Enter the receiving calibration facility as the Servicing Lab Code (block 21). Enter the affixed Special Calibration Label as the Servicing Label (block 59). Calculate the Next Due Date (block 29), based on the OEMs calibration date, the calibration cycle listed for the asset in NAVAIR 17-35MTL-1, and the NAVAIR METCAL Scheduling Letter. Attach a copy of the OEM Certificate of Calibration to the METER Card (OPNAV 4790/58) (Figure 10.18-3).

NOTE: The NAVAIR METCAL Scheduling Letter provides additional guidance.

c. Attach a Special Calibration Label to the equipment, as close as possible, to the OEMs Calibration Label. The Special Calibration Label will state "(OEMs name) calibration is accepted per state authority, such as this instruction, NAVAIR METCAL Scheduling Letter, or NAVAIR 17-35MTL-1." Confirm the Special Calibration Label Next Due Date agrees with the Meter Card Next Due Date (block 29).

NOTE: Unsupported item procedures listed in the NAVAIR METCAL Scheduling Letter must be followed for TMDE not listed in METRL with an interval and approved calibration procedure, or in the Authorized Calibration, or Commercial Service Providers List.

10.18.3.12 TMDE or CALSTDS must be labeled per NAVAIR 17-35TR-8 to indicate calibration status. In addition to NAVAIR 17-35TR-8, the METBUL also lists authorized calibration labels and tags. Air Systems Maintenance METCAL prohibits the use of Special Calibration Labels to document calibrations performed to reduce tolerances (other than those specified in the Instrument Calibration Procedure) without the Air Systems Maintenance METCAL Chief Engineer's permission.

NOTE: NAVAIR 17-35TR-8 may be accessed at any Navy or Marine Corps calibration facility using the METPRO suite.

10.18.3.13 TMDE or CALSTDS must be protected when transported or stored, to include:

a. ESD protective shielding material used on all exposed electrical connectors.

b. Environmental protection, such as hard cases or barrier paper used to keep water and dust out.

c. TMDE or CALSTDS will be appropriately packaged to prevent equipment damage.

10.18.4 Responsibilities

10.18.4.1 I-Level Responsibilities

NOTE: METCAL Program organization and responsibilities for CVN/L-class ships operating combined calibration laboratories are outlined in NAVAIR 17-35QAL-15.

a. Maintenance Officer (MO)

(1) Designate a METCAL Program Manager per 10.1.2.9.

(2) Request calibration extensions per paragraph 10.18.3.4.a.(1).

(3) Develop local command procedures (LCP) per Appendix D, if required to direct geographic, type/model/series (T/M/S) specific, or command directed actions for METCAL information not addressed in this NAMPSOP.

b. Quality Assurance (QA) Officer. The QAO will designate a Quality Assurance Representative (QAR) as the naval aviation METCAL Program Monitor per 10.1.2.9.

c. QA METCAL Program Monitor. Perform audits per paragraph 10.7.4.7.

d. Avionics Division Officer.

(1) Operate a Work Center 670 (FCA Branch), Work Center 67A (FCA Receipt and Issue), and any Work Center 67 series calibration or repair shops required to support customer activities.

NOTE: Where regionalized calibration support is in place, non FCA I-Levels will only establish a Work Center 67A (FCA Receipt and Issue) for calibration coordination between supported customer activities, supporting RCCs, FCAs, and depots, and in support of CASS ATE calibration.

(2) Coordinate assignment of a vehicle to Work Center 67A (FCA Receipt and Issue) for transportation of TMDE or CALSTDS shore-based I-Levels.

e. METCAL Program Manager.

(1) Perform a program audit within 60 days of assignment and annually thereafter per paragraph 10.7.4.8.

(2) Provide NAMP indoctrination training on METCAL Program per 10.1.4.7. Verify personnel receive METCAL familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

(3) Manage calibration scheduling and recall of equipment.

(4) Coordinate processing of calibration extension requests per paragraph 10.18.3.4.

(5) Update Inventory Format 310, 311, and 350 reports and submit necessary changes to MOCC per OP43P6B.

(6) Designate safety related TMDE on the MEASURE inventory.

(7) Evaluate items inducted into higher level calibration activities to determine the feasibility of calibrating or repairing items at the FCA. Requests for additional standards to support new workload will be submitted via the TYCOM per the activities CALSEL.

(8) Coordinate depot repair of TMDE for items beyond FCA repair capability per NAVAIRINST 13680.1.

(9) Coordinate depot repair of CALSTDS for items beyond FCA authorization per the CALSEL.

NOTE: TMDE calibrated by a D-level lab and FCA CALSTDS will not be inactivated unless authorized by the TYCOM for TMDE or NAWC AD Air Systems Maintenance METCAL for CALSTDS.

(10) Submit requirements for additional phases, standards, or temporary replacement standards via TYCOM per the CALSEL.

(11) Request disposition instructions via the TYCOM for obsolete, excess, redundant, unused, substitute, duplicate, rejected, or otherwise no longer required items per the CALSEL.

(12) Manage the inventory of CALSTDS for ATE (CASS, EOTS, etc.) and those designated in NAVAIR 17-35NCE-1 phase packages.

NOTE: I-Level CALSTDS will not be loaned out or used by other work centers, with the exception of ATE CALSTDS, which may be temporarily distributed to ATE Work Centers designated for ATE calibration. For example, CALSTDS specifically designated for CASS may be held in the CASS Work Center.

(13) Prepare requests for engineering support from the FST METCAL PST (Team 2).

(14) Report additions and deletions to CALSTDS inventory per paragraph 10.18.3.7.

(15) Maintain a program file to include:

(a) POCs

(b) Program correspondence and message traffic

(c) References or cross-reference locator sheets

(d) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

f. Work Center 670 (FCA Branch)

(1) Perform calibration per NAVAIR 17-35MTL-1 and affix applicable labels and tags per NAVAIR 17-35TR-8.

(2) Maintain and calibrate TMDE held for issue to O-Level activities.

(3) Submit TMDE or CALSTDS for calibration per NAVAIR 17- 35MTL-1.

(4) Screen inducted items for required SECs or SEBs and comply with requirements specified for I-Level action.

(5) Perform CALSTDS preventive maintenance.

(6) For items requiring D-level calibration, comply with the following:

(a) Verify calibration cannot be performed at the FCA level. Request assistance from the TYCOM, if a temporary constraint exists, for example, lack of personnel, standards, or publications.

(b) Forward TMDE or CALSTDS scheduled for D-level calibration to the laboratory specified by NAVAIR METCAL Program Office NAWC AD Air Systems Maintenance METCAL.

NOTE: TMDE or CALSTDS scheduled for D-level calibration must be checked for operable condition prior to shipment. NRFI TMDE will be repaired or processed under the SE Rework Program. Contact the cognizant TYCOM for disposition instructions for NRFI CALSTDS per the CALSEL.

(c) Use the METCAL Program Invoice (Figure 10.18-1), or a locally produced form, to document transfer or induction of TMDE or CALSTDS into D-level calibration activities. The equipment's METER Card (OPNAV 4790/58) (Figure 10.18-3) will be transferred to the calibrating activity.

(d) Track D-level man-hour expenditures against the total allocation provided by NAWC AD Air Systems Maintenance METCAL. Prioritize D-level workload to confirm the most important assets are calibrated within allocated man-hours. The standard man-hour figure, listed on MEASURE Inventory Format 310, will be used when deducting man-hours. Immediately notify the TYCOM METCAL Program Manager of discrepancies.

NOTES: 1. MEASURE MSRPT14 (weekly summary of man-hours used) and MSRPT15 (weekly itemized list of assets submitted) reports provide man-hour utilization data for each activity.

2. Forward a request for additional man-hours to TYCOM via e-mail or naval message when D-level calibration requirements exceed allocated man-hours. NAVAIR must authorize the additional man-hours prior to submitting items to D-level calibration activities.

3. Non-aviation (non IMRL) TMDE forwarded to D-level calibration laboratories for calibration or rework must be clearly identified as non-aviation TMDE. Calibration of non-aviation SE is not funded by NAVAIR and must be submitted under separate shipping documents from aviation TMDE or CALSTDS.

(7) Schedule and perform calibration services on jet engine test cells per NAVAIR 17-35MTL-1.

NOTE: D-level calibration requirements must be completed prior to engine test cell correlation by the activity performing the correlation.

(8) Provide calibration and repair support for TMDE assigned to Naval Educational Training Command (NETC) as directed by the TYCOM.

(9) Comply with QA requirements per Chapter 7. The inspector's stamp or signature will be stamped or entered on the METER Card (OPNAV 4790/58) (Figure 10.18-3) buff copy in the quality verification section.

(10) Process TMDE Discrepancy Reports (Figure 10.18-2).

(11) Maintain a technical library of calibration and commercial maintenance manuals on instrument calibration procedures for repair of TMDE or CALSTDS within Work Center 670 (FCA Branch).

(12) Document calibration and repair actions on a METER Card (OPNAV 4790/58) (Figure 10.18-3) or NAVSEA equivalent at NAVSEA activities per OP43P6B. In addition to MEASURE documentation, document repair actions in NALCOMIS to facilitate parts procurement. Repair actions requiring parts procurement will only be entered into NALCOMIS.

(13) Maintain a file of METCAL Program directives and AIG messages in the Work Center 670 (FCA Branch). Retain METCAL AIG messages for a minimum of 1 year.

(14) Review NSWC MSD Corona, CA Monthly METBULs for pertinent METCAL Program information. See paragraph 10.18.3.4 for interval change information.

(15) Initiate SE Misuse/Abuse Reports per Chapter 7, when negligence is suspected to have caused damage to TMDE.

(16) Verify environmental and facility requirements of NAVAIR 17-35FR-06 are being met. Record probable causes for significant temperature and humidity changes that exceed specified limits, such as power outage or air conditioner failure on paper or in an electronic log. Maintain all recorded data on file for a minimum of 1 year.

g. Work Center 67A (FCA Receipt and Issue)

(1) Maintain a current Recall Format 805 Report on file.

(2) Recall items due for calibration.

(3) Handle, transport, and store calibratable TMDE or CALSTDS to prevent equipment damage.

(4) Review MEASURE Inventory Format 310 and 311 Reports monthly upon receipt and submit corrections and changes (including new or recently received items, not previously reported) to the MOCC within ten working days per OP43P6B.

(5) Receive and distribute Inventory Format 350 and Recall Format 802 Reports to appropriate sub custodians.

(6) Review sub custodian changes to their Inventory Format 350 Report and update related sections of Inventory Format 310 and Recall Format 805 Reports.

(7) Notify activities in possession of equipment recalled for calibration, but not turned in.

(8) Verify TMDE inducted for calibration or repair comes with a preprinted METER Card (OPNAV 4790/58) (Figure 10.18-3). If the preprinted METER Card (OPNAV 4790/58) (Figure 10.18-3) is not available, print one from the AIS website or hand scribe a METER Card (OPNAV 4790/58) (Figure 10.18-3) using data from MEASURE reports and the equipment data plate.

NOTE: If equipment is received without a METER Card (OPNAV 4790/58) (Figure 10.18-3) **buff copy, recreate the buff copy from data listed in the pink copy or equivalent METCAL form.**

(9) Verify all TMDE has a serial number affixed or assigned. If manufacturer affixed no serial number to the equipment, assign a serial number per OP43P6B.

(10) Verify METER Cards (OPNAV 4790/58) (Figure 10.18-3) are annotated per OP43P6B.

(11) Conduct a meeting with sub custodian calibration representatives each month to distribute Inventory Format 350 Reports and, if needed, provide training on the use of MEASURE reports and local induction and receipt policies.

(12) Manage shipment or transportation and track receipt of items inducted into other calibration facilities. Non FCA I-Levels where regionalized calibration support is in place will be responsible for the delivery and shipment of TMDE to their perspective regionalized calibration centers.

10.18.4.2 O-Level Activity Responsibilities

a. Maintenance Officer (MO)

(1) Designate a METCAL Program Manager per 10.1.2.9.

(2) Verify operational necessity prior to requesting calibration interval extensions per paragraph 10.18.3.4.a.(1).

(3) Develop LCPs per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for METCAL not addressed in this NAMPSOP. Command LCPs must be submitted to the Wing or Marine Aircraft Wing (MAW) for consideration of developing a Wing LCP.

b. Quality Assurance (QA) Officer. Designate a QAR as the METCAL Program Monitor per 10.1.2.9.

c. QA METCAL Program Monitor. Perform audits per paragraph 10.7.4.7.

d. METCAL Program Manager

(1) Perform a program audit within 60 days of assignment and annually thereafter per paragraph 10.7.4.8.

(2) Provide NAMP indoctrination training on METCAL Program per 10.1.4.7. Verify personnel receive METCAL familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

(3) Arrange delivery of TMDE scheduled for calibration to Work Center 67A (FCA Receipt and Issue). Obtain a receipt and follow up, if equipment is not promptly returned.

(4) Provide related cables, accessories, charts, and any peculiar technical data the FCA requires to be turned in with the equipment. The TMDE Discrepancy Report (Figure 10.18-2) or a form provided by the FCA will be used to document any missing items or non-operational conditions.

(5) Update MEASURE data via the FCA, whenever TMDE is transferred or received.

(6) When items are returned from calibration, retain the METER Card (OPNAV 4790/58) (Figure 10.18-3) pink copy until the new calibration date is reflected on the Inventory Format 350 Report.

(7) Within five working days of receipt of a new Inventory Format 350 Report, review and reconcile errors in the report data, annotate corrections, and sign and return the corrected report to the supporting activity's METCAL Program manager. Corrections include, but are not limited to, items that have been transferred, new items not on the report, cycle times not matching the next due and last serviced dates, and like items with different cycle times. Corrections will be annotated in the format directed by the calibration lab. Retain a copy on file until corrections appear on subsequent Inventory Format 350 Reports.

(8) Maintain a working copy of the Inventory Format 350 Report and annotate changes as items are turned in, rejected, transferred, newly received, and returned from calibration.

(9) Store TMDE in appropriate packaging to prevent equipment damage.

(10) Coordinate resolution of TMDE shortages.

(11) Designate safety related TMDE on MEASURE inventory per paragraph 10.18.3.4.a.

(12) Plan the calibration schedule to minimize equipment becoming due for calibration during deployment.

(13) Arrange for calibration services from an FCA or Navy Calibration Laboratory within the battle group or area of operation, if deployed without direct FCA support.

(14) Coordinate deployment requirements with the supporting FCA, at least 90 days prior to the projected deployment date, regardless of the length of the deployment. In the case of a short notice deployment, Program Managers will notify the calibration lab as soon as the deployment is known.

(15) Maintain a current Recall Format 802 Report on file.

(16) Replace "REJECTED" TMDE per NAVAIR M-13650.1 and dispose of rejected consumable items per local policy.

(17) Maintain a program file to include:

(a) POCs

(b) Program correspondence and message traffic

(c) References or cross-reference locator sheets

(d) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.18.4.3 O-Level and I-Level Work Center Supervisors

a. Verify personnel receive NAMP indoctrination training on the METCAL Program per 10.1.4.7.

b. Verify TMDE assigned to the work center is serviceable and has a valid calibration label affixed.

NOTE: Equipment without valid calibration labels or items with damaged "CALIBRATION VOID IF SEAL BROKEN" labels will not be used.

c. Remove from service and turn in any TMDE that is non-operational or suspected to be not functioning correctly, regardless of actual calibration due date. Provide all cables, accessories, charts, and any peculiar technical data the FCA requires to be turned in with the equipment. The TMDE Discrepancy Report (Figure 10.18-2) or a form provided by the FCA will be used to document any missing items or non-operational conditions.

d. (I-Level Only) Arrange delivery of TMDE schedule for calibration to Work Center 67A. Obtain a receipt and follow up if equipment is not promptly returned.

e. (I-Level Only) When items are returned from calibration, retain the METER Card (OPNAV 4790/58) (Figure 10.18-3) pink copy until the new calibration date is reflected on the Inventory Format 350 Report.

f. (I-Level Only) Within 5 working day of receipt of a new Inventory Format 350 Report, review and reconcile errors in the report data, annotate corrections, and sign and return the corrected report to the supporting activity's METCAL Program Manager. Corrections include, but are not limited to, items that have been transferred, new items not on the report, cycle times not matching the next due and last serviced dates, and like items with different cycle times. Corrections will be annotated in the format directed by the calibration lab. Retain a copy on file until corrections appear on subsequent Inventory Format 350 Reports.

g. (I-Level Only) Maintain a working copy of the Inventory Format 350 Report and annotate changes as items are turned in, rejected, transferred, newly received, and returned from calibration.

h. Store TMDE in the appropriate packaging to prevent equipment damage.

METCAL Program Invoice

FROM:	INVOICE NO:
TO:	LOCATION:

AUTHORIZATION (Officers Name, Rank, Signature)	PHONE OR EXT. NO.	JOB NO: (Not For FCA USE)
	DATE	ACCOUNTING

ITEM NO.	MODEL OR PART NUMBER	SERIAL NUMBER	NOMENCLATURE	DATE IN	DATE OUT

RECEIVED	DATE	BY (SIGNATURE)

Figure 10.18-1: METCAL Program Invoice (Sample)

TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT DISCREPANCY REPORT

Date:_____

From: _____
To: Work Center 670/Field Calibration Activity

Subj: REPAIR OF TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE)

1. Request repair of the following TMDE

Model Number _____

Serial Number _____

Nomenclature _____

2. Describe the malfunction in detail:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Figure 10.18-2: TMDE Discrepancy Report (Sample)

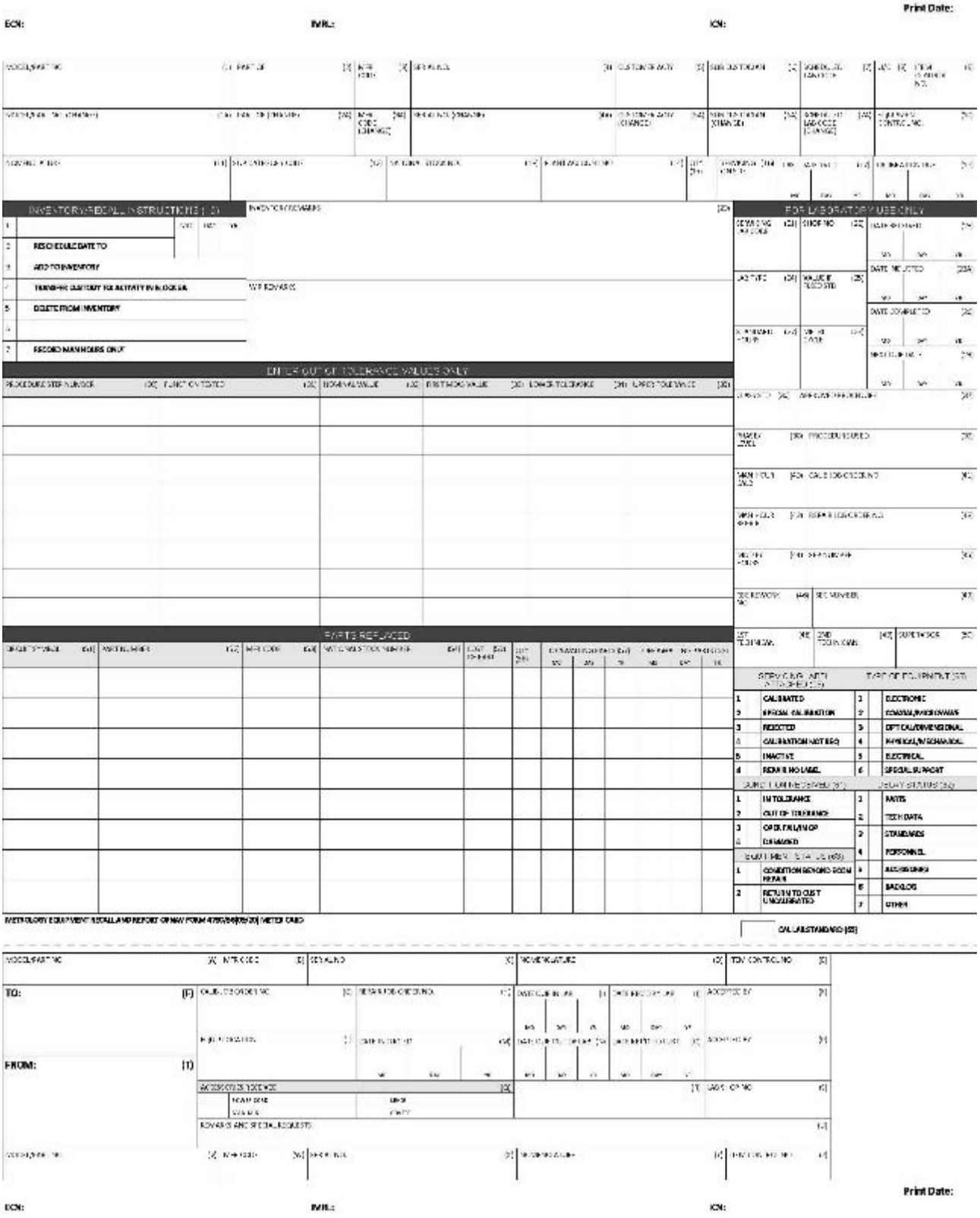


Figure 10.18-3 (Page 1): Measure Meter Card (OPNAV 4790/58)



Figure 10.18-3 (Page 2): Measure Meter Card (OPNAV 4790/58)

10.19 Hazardous Material Control and Management (HMC&M) Program (NAMPSOP)

10.19.1 References

a. OPNAV M-5090.1, Environmental Readiness Program Manual.

b. DodM 4140.27 VOL 1, DoD Shelf-Life Management Program: Program Administration

c. DoDM 4140.27 VOL 2, DoD Shelf-Life Management Program: Materiel Quality Control Storage Standards.

d. NAVSUP Publication 722, Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) Manual.

e. OPNAVINST 5100.19, Navy Safety and Occupational Health (SOH) Program Manual for Forces Afloat.

f. OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual.

g. DODINST 6050.05, DOD Hazard Communication (HAZCOM) Program.

h. NAVMC DIR 5100.8, Marine Corps Occupational Safety and Health (OSH) Program Manual.

i. 29 CFR Part 1910, Occupational Safety and Health Standards (OSHA) General Industry Standards.

j. 40 CFR, Protection of Environment.

10.19.2 Introduction

10.19.2.1 The Hazardous Material Control and Management (HMC&M) Program establishes policy for storage, handling, disposal, and documentation of hazardous material (HAZMAT) used to maintain aircraft and aeronautical equipment.

NOTE: For Depot Hazardous Material Control and Management (HMC&M) Program see Chapter 12.

10.19.2.2 The Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) is a mandated Navy policy that provides the only source for aviation maintenance activities to control and manage HAZMAT per NAVSUP Publication 722. Under CHRIMP, all HAZMAT is centrally controlled using the Shore Work Center Authorized Use Lists (AUL) or afloat Type Ships Hazardous Materials Lists (T-SHML) and is supplied based on validated customer needs and properly trained users. Ships' and stations' Hazardous Material Minimization Centers (HAZMINCEN) are required to comply with CHRIMP. For HAZMAT used in Emergency Reclamation Kits, refer to 10.13.3.6 NOTE.

10.19.2.3 NAWC AD Design Interface Branch maintains the Aviation Hazardous Material List (AHML) database of HAZMAT authorized or not authorized by the engineering technical authority for use on aircraft, weapon systems, and support equipment (SE). The AHML database correlates the HAZMAT requirements identified by aviation program offices with supply information and T-SHML Allowed on Board (AOB) Codes. Only HAZMAT identified national stock numbers (NSN) with Navy interest in technical publications are included in the AHML. The File Library on the AHML website contains T/M/S Deployed Aviation Hazardous Material Lists (DAHMLs), which

assist in the development of deployment and detachment HAZMAT requirements based on current maintenance tasks and usage as prescribed in T/M/S maintenance publications. The AHML database is available on the AHML SharePoint website https://flankspeed.sharepoint-mil.us/sites/NAVAIR_AHML. Questions concerning HAZMAT or the AHML can be sent to navair-hazmat@us.navy.mil.

NOTE: Batteries, fuel, and HAZMAT used for general office, facility maintenance, and housekeeping are not included in the AHML.

10.19.2.4 Navy policy requires the development of facility, activity, and work center AULs to ensure the use of non-hazardous or the least hazardous, technically acceptable materials. Depending on the HAZMAT database used at a location, the HAZMINCEN, Safety or Environmental offices can provide copies of AULs.

10.19.2.5 Naval Supply Weapon Systems Support - Mechanicsburg (NAVSUP WSS - M) manages the afloat T-SHMLs for all ship types (e.g. carriers, destroyers, etc.). T-SHMLs provides surface ships with the ability to determine the HAZMAT authorized onboard and precludes stocking materials the ship does not use. The SHML database is available on the NAVSUP WSS Hazardous Materials Management (HMM) Tool https://my.navsup.navy.mil/apps/ops$hazmat.home.

10.19.2.6 Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HAZCOM) (29 CFR 1910.1200) comprehensively addresses issues of classifying the potential hazard of chemicals and communicating information concerning hazards and appropriate protective measures to employees (including Navy personnel). This standard contains provisions for developing and maintaining a written HAZCOM program, including a complete list of HAZMAT in the workplace; labeling of chemical containers; preparation and availability of Safety Data Sheets (SDS) for each hazardous chemical to communicate hazard information (such as the safe handling, protective measures, and physical hazards), and associated training programs regarding hazards of chemicals and protective measures.

NOTE: OSHA standards have been updated to be consistent with the United Nations Global Harmonizing System (GHS) of Classification and Chemical Labeling. Material Safety Data Sheets (MSDS) are now referred to Safety Data Sheets (SDS). Existing MSDS are valid until new SDS are received from the manufacturer, distributor or importer. All manufacturers, distributors or importers are required to provide a GHS compliant SDS and GHS product labeling for all newly procured materials as defined as HAZMAT under 29 CFR.

10.19.2.7 The Hazardous Materials Information Resource System (HMIRS) serves as the DoD SDS and HAZMAT documentation repository and provides information for each specific product. OPNAVINST 5100.23 and OPNAVINST 5100.19 outline the Navy's HMIRS operations (both ashore and afloat) and provide HMIRS access information. NAVMC DIR 5100.8 outlines the Marine Corps Occupational Safety and Health (OSH) Program (Marine Corps only). HMIRS is available on DVD or the Defense Logistics Agency website at http://www.dla.mil/HQ/InformationOperations/Offers/Products/LogisticsApplications/HMIRS/requestaccess.aspx

10.19.3 Requirements

The HMC&M Program applies to all Navy, Marine Corps, and other government activities performing maintenance or other functions in support of naval aviation.

10.19.3.1 Safety and Environmental Compliance

All aviation maintenance activities must fully support and comply with federal, state, and local safety and environmental laws and regulations concerning HAZMAT handling, storage, use, reuse, minimization, and disposal, to include compliance with OPNAV M-5090.1, OPNAVINST 5100.19, OPNAVINST 5100.23, NAVSUP Publication 722, DODINST 6050.05, NAVMC DIR 5100.8, 29 CFR Part 1910, and 40 CFR.

NOTES: 1. Failure to comply with HAZCOM safety and HAZMAT/HAZWASTE environmental laws and regulations could result in federal violation notices and civil or criminal liability.

2. Per the Occupational Safety and Health Administration Global Harmonizing System, MSDS are now referred to as SDS. Existing MSDSs are valid until new SDSs are received.

10.19.3.2 Training and Qualification Requirements

All personnel who are exposed to chemical hazards must receive either HAZCOM for Supervisors or HAZCOM for Non-Supervisors depending on position. Training prior to initial exposure to HAZMAT and annually thereafter and must be documented in ASM per paragraph 10.1. OPNAVINST 5100.19 and OPNAVINST 5100.23 outline the job specific training requirements of 29 CFR 1910.1200 outlines topics and subject matter that must be addressed during HAZCOM training. Additional HMC&M training may be required based on the job position.

a. Command HMC&M Program Manager:

(1) Must be a commissioned officer or civilian equivalent.

NOTE: O-Level and I-Level activities with two or less commissioned officers may assign an E-7 or above as the HMC&M Program Manager.

(2) Must be assigned as HMC&M Program Manager for a minimum of 12 months.

(3) Shore based command HMC&M Program Managers must complete the following training within 60 days of assignment:

(a) Introduction to Hazardous Materials Ashore Global Online course (Course A-493-0331) or Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(b) (CONUS activities) Introduction to Hazardous Waste Generation and Handling course (Course A-493-0080) as applicable to their CONUS duty location.

(c) (OCONUS activities) Overseas Hazardous Waste Facility Operations course (Course A-493-0093) as applicable to their OCONUS duty location.

(4) Ship based command HMC&M Program Managers must complete the following training within 60 days of assignment: Introduction to Hazardous Materials Ashore Global Online

course (Course A-493-0331) or Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(5) Complete the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081) annual refresher training.

(6) Complete annual refresher training:

(a) (CONUS activities) Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081).

(b) (OCONUS activities) Overseas Hazardous Waste Generator (Course A-493-0094) as applicable to their OCONUS location.

b. Command HMC&M Supervisor:

(1) Must be E-5 (or above) or civilian equivalent.

(2) Must be assigned as a HMC&M Supervisor for a minimum of 24 months.

(3) Shore based command HMC&M Program Supervisors must complete the following training within 120 days of assignment:

(a) Introduction to Hazardous Materials (Ashore) Global Online course (Course A-493-0331) or the Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(b) (CONUS activities) Introduction to Hazardous Waste Generation and Handling course (Course A-493-0080) as applicable to their CONUS duty location.

(c) (OCONUS activities) Overseas Hazardous Waste Facility Operations course (Course A-493-0093) as applicable to their OCONUS duty location.

(4) Ship based command HMC&M Program Supervisors must complete the following training within 120 days of assignment: Introduction to Hazardous Materials Ashore Global Online course (Course A-493-0331) or Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(5) Complete the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081) annual refresher training.

(6) Complete annual refresher training.

(a) (CONUS activities) Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081).

(b) (OCONUS activities) Overseas Hazardous Waste Generator (Course A-493-0094) as applicable to their OCONUS location.

NOTES: 1. HMC&M Supervisors based at a detachment location in a different state than their parent command must complete the Hazardous Waste Generation and Handling course (Course A-493-0080) requirements for that state.

2. Completion of HMC&M Technician course (Course A-322-2600/2601) does not fulfill the requirement for Ashore HMC&M Supervisors. Introduction to Hazardous Material (Ashore) course (Course A-493-0080) are required only for

Ashore commands. Completion of HMC&M Technician course (Course A-322-2600/2601/2604) is only required for aviation squadrons that detach to a ship and require the SNEC 9595. Course A-322-2600/2601/2604 does not fulfill the requirement for Course A-493-0331.

c. Work Center Supervisors and Work Center HAZMAT Coordinators: Must complete HMC&M training provided by the Command HMC&M Program Manager or Command HMC&M Supervisors or station safety or environmental offices within 30 days of assignment. Training must be supported by a written syllabus that covers HAZCOM and local environmental, HAZMAT and HAZWASTE laws, rules, regulations and procedures pertaining to the Maintenance Department.

10.19.3.3 HAZMAT Documentation and Reporting

a. AHML:

(1) Only HAZMAT listed in the AHML may be used for aviation maintenance.

(2) If required HAZMAT is not listed on the AHML, submit an AHML Change Request via the AHML Website at https://flankspeed.sharepoint-mil.us/sites/NAVAIR_AHML, or send an email to: navair-hazmat@us.navy.mil

(a) If the HAZMAT is approved for use on an aviation weapon system, the AHML will be updated.

(b) If the HAZMAT is not approved, an alternative will be provided.

b. T/M/S DAHMLs:

(1) Standardized format for communicating deployment and detachment HAZMAT requirements to Ships Supply department

(2) If T/M/S DAHML needs to be updated, submit recommended changes (additions/deletions) via an email to navair-hazmat@us.navy.mil per the DAHML User Guide located in the AHML file library.

c. Ashore Work Center AUL:

(1) All HAZMAT used at an ashore facility must be reviewed by the local safety and environmental offices prior to being added to the work center AUL.

(2) Only HAZMAT listed on the work center AUL will be procured.

(3) Adding items to the work center AUL for HAZMAT must be performed in accordance with procedures established by the local safety and environmental offices.

(4) OPNAVINST 5100.23 states each activity will assign a unique identifier (letter, number or alphanumeric) next to each item on the AUL. The label, SDS, AUL, and HAZMAT storage location inventory will use the same unique identifier for the HAZMAT item.

NOTES: 1. Local environmental regulations may not allow HAZMAT listed in the AHML to be used. If this occurs, submit an email to navair-hazmat@us.navy.mil **for identification of a suitable alternative.**

2. Implementation of the Hazardous Materials Management System (HMMS) provides for compliant SDS, AUL, and inventory requirements.

d. T-SHML:

(1) All HAZMAT used afloat must be authorized on the T-SHML with an AOB Code of A (Allowed – No restriction on use of this HAZMAT on surface ships) or R (Restricted – HAZMAT not allowed on surface ships except with specific restrictions).

(2) Updates to T-SHMLs for aviation HAZMAT requirements will be submitted using the AHML Change Request on the AHML Website at https://flankspeed.sharepoint-mil.us/sites/NAVAIR_AHML or send an email to navair-hazmat@us.navy.mil.

e. (Ashore and Afloat) HAZMAT Storage Location Inventory: Work center personnel must maintain a written or electronic log of HAZMAT present in the work center. HAZMAT lists will contain the unique identifier, NSN or national item identification number (NIIN), nomenclature, and MIL SPEC or part number.

f. (Ashore, only) HAZWASTE Generation Log: Work center personnel must maintain a written or electronic log of HAZWASTE collected in the work center in accordance with local command procedures (LCP).

10.19.3.4 HAZMAT Storage

a. HAZMAT will be containerized, labeled, and stored per OPNAV M-5090.1 and any additional station or ship requirements.

b. HAZMAT will be stored in an approved storage location (e.g. container, locker, freezer, room, facility, etc.). Incompatible materials will be segregated per OPNAVINST 5100.19, Volume II, Chapter C23.

c. Per DoDM 4140.27, shelf-life may be extended for Type II material. HAZMAT which has expired and can no longer be extended due to visual or laboratory test failure may be processed for disposal or used for training or non-aircraft, non-SE, non-AWSE applications. Shelf-life items that have expired or cannot be extended and are not HAZMAT or hazardous waste may be used for training or non-aircraft, non-SE, non-AWSE applications as opposed to disposal. Once HAZMAT is opened, applied, or introduced to mission requirements, shelf-life management no longer applies and service life begins.

NOTES: 1. The manufacturer's expiration date (or date of manufacture) on the container label is the authoritative date for determining shelf life remaining on an item. Labels added by HAZMINCENs should use the manufacturer's expiration date as the basis for determining expiration dates and shelf life extensions, being mindful that the storage environment will impact the shelf life of the hazardous material.

2. Any HAZMAT determined for use as training or non-aircraft, non-SE, non-AWSE applications will be stored in a separate storage locker, will be labeled as Training or Non-Aircraft, Non-SE, Non-AWSE only, will be controlled for usage, and will be inventoried periodically per local governing instructions.

10.19.3.5 HAZWASTE and Excess HAZMAT Requirements

a. (Ashore) HAZWASTE must be stored per OPNAV M-5090.1 and any additional station requirements.

b. (Ashore) Each container of HAZWASTE will have a HAZWASTE Generation Log and be labeled as HAZWASTE per OPNAV M-5090.1 paragraph 27-3.4b.

c. (Afloat) Excess HAZMAT on board ships must be stored per OPNAVINST 5100.19.

10.19.4 Responsibilities

10.19.4.1 COMNAVAIRSYSCOM

a. Manage the AHML and review AHML Change Requests for adding HAZMAT to T-SHML.

b. Submit requests for updating the T-SHML to NAVSUP-WSS-M after confirming the requirement.

c. Respond to emails sent to navair-hazmat@us.navy.mil.

10.19.4.2 Type Wing or Marine Aircraft Wing (MAW)

If not in a ship or station directive, publish an LCP per Appendix D for a HAZMAT Spill Emergency Response Plan with procedures to contain, report, and clean-up HAZMAT spills. An LCP will be submitted to the host ship or station environmental office to review for compliance with their Pollution Prevention Plan.

10.19.4.3 Commanding Officer (CO)

Designate a Command HMC&M Program Manager per 10.1.2.9.

NOTE: Helicopter Mine Countermeasures Squadrons will use the same HMC&M Program Manager and Supervisor for Aircraft Maintenance and Airborne Mine Countermeasures Maintenance Departments.

10.19.4.4 Maintenance Officer (MO)

a. Nominate, to the CO, a candidate for assignment as the Command HMC&M Program Manager that meets the qualifications per paragraph 10.19.3.2.a.

b. Designate a Command HMC&M Supervisor per 10.1.2.9 that meets the qualifications per paragraph 10.19.3.2.b.

NOTE: The HMC&M Supervisor assignment will not be a collateral duty in those activities that have an OPNAV 1000/2 established billet.

c. Be knowledgeable of local ship or station environmental office and applicable DoD, local environmental, HAZMAT, and HAZWASTE laws, rules, regulations, and procedures pertaining to the Maintenance Department.

d. Publish LCPs per Appendix D, if required to direct geographic, T/M/S specific, or command directed HMC&M actions not addressed in this NAMPSOP. O-Level LCPs will be submitted to the Wing or MAW for consideration of developing a Wing LCP.

10.19.4.5 Command HMC&M Program Manager

a. Complete a Computerized Self Evaluation Checklist (CSEC) assessment within 60 days of assignment as Program Manager and annually thereafter.

b. Provide NAMP indoctrination and refresher training on HMC&M Program per 10.1.4.7 and 10.1.4.8. Verify personnel receive HMC&M familiarization prior to performing maintenance while

assigned to the work center and anually thereafter. Training must be specific to the duties the individual performs.

c. Nominate, to the MO, a candidate for assignment as Command HMC&M Supervisor that meets the qualifications per paragraph 10.19.3.2.b.

d. Immediately notify MO of any actual or potential HMC&M Program violations or noncompliance issues.

e. Resolve potential or actual environmental, compliance, HAZMAT, or HAZWASTE related problems, as soon as possible.

f. Direct HAZMAT refresher training, as deemed necessary, to resolve deficiencies noted on program audits and HAZMAT emergency response drills.

g. Coordinate with the ship or station Environmental Office and Legal Department on environmental issues.

h. Screen command environmental reports and records for accuracy prior to filing.

10.19.4.6 Command HMC&M Supervisor

a. Maintain an updated library of SDS for all HAZMAT used within the command per OPNAV 5100.23, either in paper format or an electronic database, such as the HMIRS, HMMS, or the HAZMINCENs data management system. A copy must be maintained in the HMIRS. If the SDS is not in the HMIRS, send an electronic copy via email to NAVSUP WSS-M Code N261 (afloathazmat.wss.fct@us.navy.mil). Include the NSN and point of contact for questions in the body of the email.

b. Periodically spot check all HAZMAT storage locations and command work spaces to verify only materials listed in the AUL are available for use and are properly labeled, handled, and used.

c. Manage the AUL and submit changes per paragraph 10.19.3.3.b.

d. When afloat, verify all materials used are listed in the appropriate T-SHMLs and are properly labeled, handled, and used.

e. Review and take action on recommended changes to the AUL and T-SHML.

f. Use the CHRIMP facility established by the host ship or station.

g. Assign a unique identifier to HAZMAT labels, corresponding SDS, and AUL.

h. Review, monitor, and extend shelf-life in accordance with paragraph 10.19.3.4.c.

i. Monitor the status of HAZMAT requisitions.

j. Track completion of Work Center Supervisor and Work Center HMC&M Coordinator training per paragraph 10.19.3.2.c.

k. Conduct a meeting with Work Center Supervisors or their designated HMC&M coordinator, at least quarterly, to discuss HMC&M procedures, disseminate new regulations and requirements, and determine training requirements.

l. Control Maintenance Department HAZMAT storage facilities and HAZWASTE collection points.

m. Verify all HAZMAT or HAZWASTE is properly containerized, labeled, and stored per OPNAV M 5090.1 and ship or shore requirements.

n. Maintain a written or electronic log of HAZMAT material used, turned in for reuse, and disposed of as HAZWASTE.

o. Coordinate and supervise HAZMAT spill drills IAW local response procedures, no less than annually. Provide a written After Action Report to the MO summarizing the content of the drill, procedural discrepancies, and corrective actions.

p. Immediately inform the chain of command of any violations of HAZMAT or HAZWASTE procedures and coordinate corrective action.

q. Verify work centers are maintaining HAZWASTE Generation Logs and other required documents per OPNAV M-5090.1.

r. Maintain environmental reports and records to demonstrate compliance with the local HAZWASTE Management Plan.

s. (I-Level) Detachments must use the AIMD HAZMAT Allowance Equipage List (AEL) on the AHML website to develop and transmit HAZMAT requirements to their host Ship Supply or Station HAZMINCEN, no later than nine months prior to deployment.

t. (O-Level) Squadrons/AIR Detachments deploying to ships must complete reviews of their T/M/S DAHMLs no later than 9 months before deployment per the DAHML User Guide located on the AHML website.

u. Operational Commanders (CVW, ACE/MEU Air Det OICs) must combine squadron reviewed T/M/S DAHMLs per the DAHML User Guide located on the AHML website, and provide the exported combined T-DAHML spreadsheet to their respective AIR or SURFACE TYCOM, no later than eight months prior to deployment.

v. (O and I level) Coordinate with station HAZMINCEN three months prior to detachment to establish HAZMAT requirements.

w. Maintain a program file to include:

(1) Applicable POCs, at a minimum, HMC&M Program AMMT Inspectors, Wing Inspector, HAZMINCEN Supervisor, Industrial Hygienist, Safety Officer, and Environmental Officer.

(2) AUL and active list of hazardous materials used within the command. This document must include the unique identifier, NSN or NIIN, nomenclature, and MIL SPEC or part number.

(3) Program related correspondence and message traffic

(4) References or cross-reference locator sheets

(5) Reports on emergency spill drills performed for a period of one year

(6) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

x. Be present during the replacement of 55 gallon drums of engine oil and verify the correct labeling (unique identifier, NSN or national item identification number (NIIN), nomenclature, and MIL SPEC or part number). Verify a yellow Bulk Dispensing Unit (BDU) used for servicing

engine oil is inserted in the correct drum of engine oil per the applicable TMS MIM and that yellow reflective tape is placed around the label on the drum to color-key the label. Ensure BDU pump pad is locked at all times when not in use. Only the HMC&M Supervisor (or designated assistant) will unlock the BDU.

10.19.4.7 Quality Assurance (QA) Officer

Designate a QAR as the HMC&M Program Monitor per 10.1.2.9.

10.19.4.8 HMC&M Program Monitor

a. Perform CSEC audits of the HAZMAT Program per paragraph 10.7.

b. Periodically monitor HAZMAT storage facilities and HAZWASTE collection points to verify:

(1) All HAZMAT is properly containerized, labeled, and stored per paragraph 10.19.3.4.

(2) All HAZMAT and HAZWASTE is stored in an approved storage location or container and incompatible materials are segregated per paragraphs 10.19.3.4 and 10.19.3.5.

c. Periodically, monitor work in progress to verify personnel are only using approved HAZMAT and the prescribed PPE.

10.19.4.9 Division Officers

a. Periodically, spot check to verify HAZMAT used or stored in the division is being properly handled, collected, and disposed of per paragraph 10.19.3.4.

b. Designate Work Center HMC&M Coordinators, at paygrade E-4 or above or civilian equivalent per 10.1.2.9.

c. Be knowledgeable of the requirements of this NAMPSOP, DoD and local environmental, HAZMAT, and HAZWASTE laws, rules, regulations, and procedures applicable to the division.

d. Immediately notify the Command HMC&M Program Manager of any violations with program compliance.

10.19.4.10 Work Center Supervisors

a. Verify Work Center Supervisors and HAZMAT Coordinators complete training per paragraph 10.19.3.2.c.

b. Review and update the work center AUL and route change recommendations through the HMC&M Supervisor.

c. Verify shelf life limits are not exceeded on HAZMAT maintained in the work center.

d. Maintain HAZMAT records per paragraphs 10.19.3.3.d and 10.19.3.3.e.

e. Provide the HMC&M Supervisor with a list of HAZMAT kept in the work center.

f. Periodically, spot check work in progress to verify personnel are only using approved HAZMAT and PPE.

g. Notify the HMC&M Supervisor before establishing new HAZWASTE streams or HAZWASTE collection points.

h. When servicing equipment is being filled, the Work Center Supervisor, CDI or Work Center HAZMAT Coordinator must be present to verify the correct HAZMAT is used to fill the servicing equipment.

10.19.4.11 Work Center HMC&M Coordinators

a. Assist the Work Center Supervisor in complying with the HMC&M Program.

b. Attend maintenance department or division HMC&M meetings.

c. Maintain an inventory of HAZMAT required to be in the work center and ensure shelf life has not expired.

d. Verify all HAZMAT used is on the work center AUL.

e. Maintain a supply of HAZMAT spill materials in the work center.

f. Conduct a weekly inspection of work center HAZMAT and HAZWASTE sites. Inspections will be documented in a written or electronic log spanning a minimum of 12 months of inspections.

g. Verify HAZMAT and HAZWASTE containers are inventoried, labeled, segregated, and free of corrosion and leakage.

h. Notify the HMC&M Supervisor when HAZWASTE collection drums or containers are full.

i. Maintain the HAZWASTE Generation Log per paragraph 10.19.3.3.f.

j. Prepare documentation for each container of HAZWASTE per paragraph 10.19.3.5.

k. When servicing equipment is being filled, the Work Center Supervisor, CDI or Work Center HAZMAT Coordinator must be present to verify the correct HAZMAT is used to fill the servicing equipment.

10.20 Intermediate Level (I-Level) Component Repair Optimization (NAMPSOP)

10.20.1 References

a. NAVSUPINST 4423.29, Navy Uniform Source, Maintenance and Recoverability (SMR) Codes.

b. NAVAIRINST 4423.12, Assignment and Application of Uniform Source, Maintenance and Recoverability Codes.

c. NA 00-25-8, Business Rules for the Assignment of Work Unit Codes and Type Equipment Codes

d. NAVSUP P-719, Rev 2, Guide for the Assignment, Application and Use of Source, Maintenance and Recoverability Codes.

10.20.2 Introduction

10.20.2.1 This NAMPSOP is applicable to all Navy and Marine Corps intermediate level maintenance activities (IMA).

10.20.2.2 Component Repair Optimization (CRO) encompasses practices and processes the IMA uses to leverage workforce, material, and equipment to produce ready-for-issue (RFI) parts and ready-for-use (RFU) equipment in sufficient quantities to support aircraft operations across the Naval Aviation Enterprise (NAE). Effective CRO requires a thorough understanding of basic concepts, functions, and policies discussed in Chapter 3.1.

10.20.2.3 Familiarity with DOD Source, Maintenance, and Recoverability (SM&R) coding and its adaption for naval aviation maintenance is essential – especially for equipment shared outside of naval aviation, or managed by other branches or agencies. SM&R codes condense complex maintenance and supply information into a compact six-character code, but they cannot cover every conceivable IMA situation or operational contingency. It is impossible to equip every IMA with the facilities, tools, SE, manpower, skills, and other resources required to execute every maintenance task for every component. Selected IMAs are specifically designated and equipped to perform maintenance tasks SM&R coded for higher maintenance levels, often with embedded or collocated artisans, contractors, engineers, or other specialists. Accordingly, SM&R codes do not map to specific Capability Codes (CC) applicable to every IMA and IMAs assigning CCs based solely on SM&R codes may be misreporting. SM&R codes communicate the overall plan for supporting items, while the CC conveys each IMA's self-assessment of its readiness to execute the plan.

10.20.2.4 The Individual Component Repair List (ICRL) is derived from a set of related data tables within the Naval Aviation Logistics Command Management Information System Maintenance Activity (NALCOMIS) Optimized Intermediate Maintenance Activity (OIMA) application. The "NALCOMIS IMA User Guide" distributed with each major release of OIMA provides detailed information regarding ICRL data table management procedures within NALCOMIS OIMA. For support visit https://flankspeed.sharepoint-mil.us/sites/CPF-CNAF-AFAST.

10.20.2.5 The ICRL is used primarily by the Aeronautical Material Screening Unit (AMSU) or Joint Aviation Screening Unit (JASU) to ensure components are accurately identified and

expeditiously routed to an IMA work center, processed for Repair and Return (R&R) by another IMA, routed to Designated Rework Points (DRP), or other authorized disposition. The ICRL determines which components enter the IMA local workload and which components are diverted elsewhere — with significant consequences on logistic response time for supported organizations, support costs, and computations for the local Operational Support Inventory (OSI).

10.20.2.6 Each unique combination of Type Equipment (TEC), Commercial and Government Entity (CAGE), Part Number (P/N), and Work Unit Code (WUC) requires a distinct ICRL record. Before an ICRL record can be created, all the above data elements must already exist in NALCOMIS OIMA tables. The NATO Item Identification Number (NIIN) often includes several CAGE and P/N combinations. Navy SM&R Source code (positions 1 & 2) and the Recoverability code (position 5) are assigned by NAVSUP, but the Maintenance code (positions 4 & 5) and the Service Option code (position 6) are determined by the Program Manager (PM) responsible for the application in which an item is used. Therefore, in NALCOMIS OIMA, a single NIIN often requires several ICRL records to cover all combinations of TEC, WUC, CAGE, and P/N an IMA may encounter.

10.20.2.7 The Combined ICRL (Cmbnd-ICRL) merges all individual IMA ICRL data into a single application that reports and compares IMA capabilities across the NAE. The Cmbnd-ICRL is an authoritative reference for ICRL data and facilitates Continuity of Operations (COOP) during network outages or unavailability of Web-based applications or data repositories. It provides a data-rich research and reporting environment integrating Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) maintenance data, One Touch Support (OTS) supply data, Optimized Organizational Maintenance Activity (OOMA) Work Unit Code (WUC) baseline data, and Naval Air Technical Data and Engineering Service Command (NATEC) technical data indexes. Force Readiness Analytics Group (FRAG) CNAF N02X publishes the Cmbnd-ICRL quarterly, offers periodic on-site training, and provides distance support (https://flankspeed.sharepoint-mil.us/sites/CPF-CNAF-AFAST). Some Cmbnd-ICRL capabilities are listed below:

a. Cmbnd-ICRL main functions enable IMAs to:

(1) Quickly look up authoritative logistic data imported from OTS, OOMA WUC Baseline, and other sources.

(2) Generate ICRL Change Request (ICR) forms and (optionally) prefill form data

(3) Compare local IMA CC to any other IMA and view ICRL data for any IMA

(4) During the initial induction screening of components not listed in the IMA's ICRL, determine a suitable work center code for screening by reviewing work center codes used at other IMAs.

(5) Identify and investigate R&R opportunities at other IMAs reporting better capability

(6) Find names and e-mail addresses for MMCO, MMCPO, ICRL Manager and NALCOMIS Maintenance Database Administrator (DBA) for any IMA. Generate email to other IMAs. For example, to request information regarding their repair capabilities and processes.

b. The NIIN Analysis Tool (NAT) function provides historical IMA repair data covering prior three fiscal years (FY) and the current FY up to the last quarterly update. It provides rich query, filter, and output capabilities. In addition to basic component repair history, the NAT enables IMAs to:

(1) Use the Improvement Opportunities (IO) function to identify components where other IMAs have better maintenance outcomes with adjusted thresholds as needed.

(2) Identify Head and Member NIINs cataloged under a Family Group Code (FGC)

(3) Identify components with PinPoint or Huntron test routines listed in the 2M Module Test & Repair (MTR) Purple Disc

(4) Identify components managed under a Performance Based Logistics (PBL) contract and PBL expiration dates

(5) Identify components Work Center 05A automatically BCMs or sends for R&R

c. The Optimizing IMA (OPTIMA) function correlates data from OTS, OOMA WUC baselines, and DECKPLATE Maintenance Level II Repair data. OPTIMA enables IMAs to:

(1) Identify ICRL data mismatches along with reports to facilitate reviews

(2) Compare key ICRL data (e.g., TEC, WUC, SRC indicator, part numbers, etc.) against authoritative data sources

(3) ICRL records for each Type Equipment Code (TEC)

d. The Program Performance function provides:

(1) SM&R Code summary and analyses

(2) CC summary and analyses

(3) Maintenance outcomes by FY (RFI %, BCM %, TRRm, etc.)

(4) ICRL data mismatch reports and exports to facilitate reviews

(5) Interactive Key Performance Index (KPI) charts suitable for reports

10.20.3 Component Repair Review and ICRL Validation

10.20.3.1 Purpose

Periodic reviews of component repair capabilities, maintenance outcomes, costs, and processes enable the IMA to assess its own productivity and cost efficiency, refresh its ICRL data, and compare itself against peers. There are two mandatory periodic reviews:

a. Component Repair Review (CRR) is a coordinated set of activities to examine IMA processes for opportunities to improve local repair capabilities, assess conformance with SM&R codes and other directives, and realize other efficiencies. CRR consists of structured reviews of ICRL data, maintenance history, and logistics data — each targeting specific areas of concern.

b. ICRL Validation (IV) is a systematic review of individual ICRL records to ensure data elements are up to date and conform to the requirements of this NAMPSOP. Maintenance plans, supply management data, and technical data change frequently and are maintained in external

systems that do not automatically update NALCOMIS. The IV provides an opportunity to synchronize the ICRL with external data sources.

10.20.3.2 CRR and IV

The CRR and IV are distinct but correlated activities. The CRO PM is responsible for scheduling and coordinating these activities and maintaining documentation needed for subsequent follow-up, reporting, and program monitoring. Successful execution requires cooperative participation from the Maintenance Department, its supporting Supply activity, their NALCOMIS DBAs, the AIRSpeed Continuous Process Improvement (CPI) Team, and other stakeholders.

10.20.3.3 Periodicity.

The CRR and IV will be performed at a minimum twice per year during May and November. CVN and L Class Aircraft Intermediate Maintenance Departments (AIMD) will perform reviews in accordance with pre-deployment milestones. Additional reviews may be conducted at CRO PM discretion.

10.20.3.4 Component Repair Review (CRR) Procedures

a. Improvement Opportunities (IO). This review helps identify NIINs with better maintenance outcomes at other IMAs.

NOTE: NAT "Program Options" tab allows the user to adjust the threshold settings used to select NIINs of interest. "RFI Rate Increase" default is 15 percent. Refer to Cmbnd-ICRL documentation for details.

(1) From the Cmbnd-ICRL main screen, select the "NIIN Analysis (NAT)" button to enter the "NIIN Analysis Tool" function

(2) Select the fiscal year of interest from the dropdown menu at the top of the window (this will usually default to the current fiscal year but may be changed).

(3) Select the "Clear NIIN List" button to empty the "Selected NIINs List"

(4) Select preferred "Output Format" checkboxes. Reports will display in their native applications and may then be saved, printed, or converted to other file types.

(5) Under "Site Analysis", enter an activity Organization (ORG) code and select asterisk (*) for the work center (W/C) code to select all work center codes

(6) Select the "Improvement Opportunities" button to generate the "Component Repair Improvement Opportunities" report

(7) If prompted to add NIINs to the "Selected NIINs List", select "Yes". The NIINs will populate the "Selected NIINs List" and the NIINs will remain available for subsequent analyses

(8) The "Component Repair Improvement Opportunities" report will list (in NIIN sequence) components with a better maintenance outcome at another IMA (based on the "RFI Rate Increase" setting)

(9) Investigate constraints to repair capability, potential savings, and costs to achieve better capability. The Cmbnd-ICRL "eMail Manager" function facilitates drafting emails to selected IMAs to inquire about their capabilities and processes

b. Work Center 05A BCM and R&R review. This review will identify NIINs that were automatically sent BCM or R&R by W/C 05A, but had RFI actions during the FY at any other IMA.

(1) From the Cmbnd-ICRL main screen, select the "NAT" button to enter the "NIIN Analysis Tool" function

(2) Select the "Clear NIIN List" button to start with an empty list

(3) Select preferred "Output Format" checkboxes. Reports will display in their native applications and may then be saved, printed, or converted to other file types.

(4) Choose the fiscal year (FY) under consideration, enter an activity Organization (ORG) code, and select "05A" for the work center (W/C) code. The "W/C 05A BCM and R&R" button will become active.

(5) Select the "W/C 05A BCM and R&R" button to generate the BCM Analysis Report

(6) Investigate constraints to establish local capability, potential savings, and costs to achieve better capability. The Cmbnd-ICRL "eMail Manager" function facilitates drafting emails to selected IMAs to inquire about their capabilities and processes.

c. SM&R and CC mismatch review. This review will identify NIINs assigned a CC that appears inconsistent with the SM&R code reflected in OTS.

(1) From the Cmbnd-ICRL main screen, select the "Program Performance" button to enter the "Program Performance" program. The "Program Statistics" dashboard is displayed.

(2) The "Program Performance Statistics" dashboard is divided into three panels. The left panel allows selection of output formats and selection of IMAs. The center panel provides summaries of SM&R code and CC code distributions, ICRL vs. OTS data comparison, and suspected mismatches. The right panel provides fleet-wide summaries of maintenance outcome data and NAT information for the past three complete FYs and the current FY.

(3) In the "SM&R Analysis" section of the center pane, pay special attention to the columns with yellow boxes and red numbers. Click on each block to generate a report of ICRL records with CC and SM&R code indicated by the intersection of the row and column headers.

(4) Investigate constraints to establish local capability, potential savings, and costs to achieve better capability. The Cmbnd-ICRL "eMail Manager" function facilitates drafting emails to selected IMAs to inquire about their capabilities and processes.

d. Program performance review. This review will help the CRO PM identify various aspects of the CRO program and ICRL that may benefit from further investigation. Some useful features are described below:

(1) From the Cmbnd-ICRL main screen, select the “Program Performance” button to enter the “Program Performance” function. The “Program Statistics” dashboard is displayed.

(2) The “Program Performance Statistics” dashboard is divided into three panels. The left panel allows selection of output formats and selection of any IMA. The center panel provides summaries of SM&R code and CC code distributions, ICRL versus OTS data comparison, and suspected ICRL conflicts. The right panel provides summaries of maintenance outcome data and NAT information for the past three complete FYs and the current FY.

(3) Use the “Program Performance Statistics” dashboard to examine aspects of the ICRL and CRO Program data to identify areas needing attention. This dashboard is an extremely rich data source with several dozen reports and drill-down capabilities.

(4) The “CAGE – Part Number NOF” button generates a dashboard identifying ICRL CAGE and Part number pairs that are “Not On File” in OTS. IMA ICRL records take the CAGE and Part Number from the physical component, mismatches generally indicate a problem with the OTS data.

(5) The “Org Discrepancy Summary” button inspects each ICRL record for eleven common mismatch types and displays suspected errors by P/N and CAGE to facilitate review and corrective actions. This compact format helps identify errors in one place and reduces the need for repeated passes through the data.

(6) The “Build KPI Chart” button generates an “ICRL Key Performance Index” with interactive graphs and data. This is the same chart often used in the T/M/S Cost War Room (CWR) reviews and is suitable for use in presentations or reports. The graph includes at least ten quarters of data in four areas of interest. Individual or multiple IMAs may be selected for comparison.

(7) Zero items processed review. Identify candidates for deletion from the ICRL. The "X1 NIINs with Zero Items Processed Fleet-Wide" report looks across all IMA ICRLs and identifies NIINs not inducted for at least three fiscal years. These are NIINs that may be languishing in the local IMA ICRL and no longer require support as determined by the CRO PM. Deleting inactive NIINs reduces the number of ICRL records requiring periodic review. If an item is deleted but subsequently inducted, simply treat it as a fist time induction to keep the ICRL data current.

e. SM&R change candidate review. This review identifies NIINs with SM&R code of PAOOO (repair or condemn at O Level); PA-ZZ (non-repairable); or PAOOD/PAOOK/PAODD/PAOKK (O or D-Level repair) for which a SM&R Change Request (SMR CR) may be appropriate if the IMA has established repair capability. The CRO PM must carefully consider whether to submit a SMR CR based on the history of discrepancies and corrective actions. Incidental repairs or one-off RFIs are insufficient reasons to submit a SMR CR, which effectively initiates a change to the Maintenance Plan with wide-ranging consequences across the NAE. Review components routinely inducted and repaired under the Fleet Engineering Disposition (FED) program is an indication the Maintenance Plan and SM&R code may require update. If the CRO PM determines a SM&R code change should be considered and the Maintenance Officer (MO) concurs, then submit a SMR CR via the Joint Discrepancy Reporting System (JDRS).

(1) From the Cmbnd-ICRL main screen, select the “OPTIMA” button to enter the “Optimizing IMA ICRL” function

(2) Select preferred "Output Format" checkboxes. Reports will display in their native applications and may then be saved, printed, or converted to other file types

(3) Select the "SM&R Change Request Candidates" button to generate a report for items that have been RFI but are assigned one of the above SM&R codes

f. Time to Reliably Replenish (TRR) and Buffers adjustment. The AIRSpeed Continuous Process Improvement (CPI) Team evaluates the accuracy of TRR and Buffers for NIINs that entered EXREP status at any time during the six month period covered by the CRR. The AIRSpeed Officer provides recommendations to the Buffer Management Tool (BMT) Administrator to update BMT table values.

NOTE: Selected IMAs under Commander Fleet Readiness Centers (COMFRC) may be directed to use alternative BMT procedures associated with Navy Sustainment System (NSS) and Integrated Supply Chain Management (ISCM) initiatives.

g. CRR Report Consolidation. The CRO PM should consolidate results for reporting to the MO. The format and depth of the report is at the discretion of the CRO PM and MO. The CRO PM and ICRL Manager will document findings for later reference, action, reporting, and follow-up.

10.20.3.5 ICRL Validation (IV) Procedures

a. Conduct a semi-annual review of ICRL records for accuracy, concurrency with OTS and OOMA WUC Baseline, and conformance with data field requirements of paragraph 10.20.3.6.

b. The ICRL Manager will provide Work Center ICRL Petty Officers (PO)/Non-Commissioned Officers (NCO) with their portion of the ICRL and assign a due date for completing the review. Instructions for verifying, annotating corrections, and signature requirements will be provided.

c. The ICRL Manager and CRO PM will help the Work Center ICRL PO/NCO resolve ambiguities, mismatches, and conflicts among the authoritative data sources.

NOTE: Minor corrections of nomenclature, NSN, P/N, CAGE, FGC, COG, Work Center Code, etc., do not require an ICRL Change Request (Figure 10.20-1). Submit recommended corrections to the ICRL Manager and provide references to the correct data for verification purposes.

10.20.3.6 ICRL Data Field Procedures

NOTES: 1. One Touch Support (OTS) is the primary reference for P/N, CAGE, NIIN, COG, MCC, FSC, SM&R, etc. This does not imply OTS is always correct and other sources are wrong, only that OTS is used as the Fleet's "common" reference. If you have authoritative information ascertaining OTS is incorrect or out of date and another SM&R is correct, then use that SM&R.

2. OOMA WUC Baseline, DECKPLATE, and the Cmbnd-ICRL are authorized sources for TEC, WUC, and CAGE-P/N pairs.

3. Normally, the ICRL should not include systems, end items, or items not processed through AMSU or JASU. Do not enter these into the ICRL unless there is a specific requirement and the CRO PM has approved.

a. PART NO. Part number as indicated on the item. Ensure all elements of the part number are entered, including dashes, slashes, or other symbols. If the P/N is too long for the data field, enter as much as possible. If the P/N on the part does not match technical or supply documentation, refer it to the Supply DBA or Supply ICRL Representative to update the local NALCOMIS data.

b. CAGE. Commercial and Government Entity (CAGE) code associated with the P/N. A P/N may be produced or supplied by multiple CAGE codes. CAGE code may occasionally be cited by its previous name, Federal Supply Code for Manufacturers (FSCM), particularly in older technical documentation. If the CAGE on the part does not match technical or supply documentation, refer it to the Supply DBA or Supply ICRL Representative to update the local NALCOMIS data.

c. WUC. Work Unit Code (WUC) up to 32 alphanumeric characters corresponding to the TEC, CAGE, and P/N combination as specified in the OOMA WUC Baseline. The Cmbnd-ICRL may also be used as a reference for WUC data.

(1) OTS is the authoritative data source for part Interchangeability and Substitution (I&S). Parts cataloged as interchangeable or substitutes in OTS generally have the same WUC for a given TEC. If OOMA WUC Baseline does not list a specific CAGE & P/N pair under a TEC but does list another pair that is cataloged in OTS as interchangeable, then use that WUC.

(2) If an appropriate WUC cannot be determined, initiate a Baseline Trouble Report (BTR) following local IMA procedures.

d. TEC. Type Equipment Code (TEC) applicable to the end item. Note that a particular P/N may be used in multiple TECs. If the IMA supports multiple TECs incorporating the same item, only add ICRL records for the TECs that have been inducted. A special ICRL record may be required to accommodate Supply Work Requests (commonly called “77C”) for repairables. A TEC ending with “9” must be created in the NALCOMIS OIMA system and associated with the CAGE, P/N, and WUC for the component. Create this record only if necessary to process a Supply Work Request.

NOTE: A special ICRL record may be required to accommodate Supply Work Requests (commonly called “77C”) for repairables. A TEC ending with “9” must be created in the NALCOMIS OIMA system and associated with the CAGE, P/N, and WUC for the component. Create this record only if necessary to process a Supply Work Request.

e. SRC IND. Scheduled Replacement Component (SRC) Indicator. Enter A, E, M, or S for items subject to configuration tracking per the OOMA WUC Baseline. Acceptable codes are A (ASR/AESR), E (EHR), M (MSR), and S (SRC). Leave blank if no history record or card is required. For components subject to configuration tracking under a different or newer system in OOMA, then use character A.

NOTE: In the NALCOMIS Master Record File (MRF), on the “Rep NIIN” tab, if the “SRC Ind” box is checked, only letters A, E, M or S are allowed. If not checked, only a blank is allowed. To change the MRF “SRC Ind” checkbox, contact the Supply activity ICRL Representative or Supply NALCOMIS DBA.

f. CC. Capability Code (CC). Enter the code that reflects the IMA's current repair capability for the TEC, CAGE, and P/N combination. Refer to ICRL Capability Codes (Figure 10.20-2) for descriptions of permitted codes and examples of their usage.

g. WC. Work Center (WC) code designated as having repair, test/check, RFI or other responsibility. The Work Center designated as "Primary" is the induction work center. NALCOMIS OIMA permits only one "Primary" work center for each TEC, CAGE, and P/N combination. In special cases, additional work centers may be entered for the same component, but they cannot be designated as "Primary". This is useful at Fleet Readiness Centers (FRC), having both I-Level and D-Level capabilities.

h. SM&R. Source, Maintenance and Recoverability (SM&R) code for the specific P/N, CAGE Code, and NIIN as identified by OTS. Different applications (i.e., aircraft, SE) may use the same component but with different Maintenance Plans and SM&R coding. Select the SM&R code corresponding to the Application Code from which the item was removed. When in doubt, contact the ICRL Manager or CRO PM for assistance.

NOTE: NAVSUPINST 4423.29A and NAVSUP P-719, Rev 2 provide detailed information on Navy SM&R Code assignment, composition, and interpretation.

i. NOMENCLATURE. Brief description of the item using the same nomenclature reflected in OOMA WUC Baseline (preferred), OTS, or technical data.

j. COG, MCC, FSC, NIIN, SMIC. Enter Navy Cognizance Code (COG), Material Control Code (MCC), Federal Supply Classification (FSC), NATO Item Identification Number (NIIN), and Special Material Identification Code (SMIC) codes.

k. Target Capability Code (TCC). Enter the CC the IMA expects to assign in the future only if it is different from the current code.

l. TCC DT. TCC Date. Enter a Julian date when the TCC is expected to be assigned.

NOTE: TCC is an anticipated future capability code that is different from the current CC. TCC and CC cannot be the same. TCC and TCC DT must remain blank if no change in current capability is anticipated. Refer to TCC (Figure 10.20-2) and TCC DT (Figure 10.20-4) for guidance.

m. ICRL UPDATE DT. NALCOMIS will automatically record the date when the ICRL record data is changed and saved.

n. LOCAL DATA (Lcl Data). Coding of significance only to the IMA on whose ICRL they appear. Five (5) characters are available for local use.

o. BENCH Code (Bench Cd). Coding of significance only to the IMA on whose ICRL they appear. Nine (9) characters are available for local use.

10.20.3.7 ICRL Change Request (ICR)

a. The ICRL Change Request (ICR) is used to formally request and approve/deny changes in ICRL data or CC assignments. ICRs are most often initiated by JASU/AMSU upon receipt of

repairable items not already reflected in the ICR with the applicable TEC, WUC, CAGE, and P/N combination.

b. The Cmbnd ICRL generates and prints ICR forms prepopulated with authoritative OTS, OOMA WUC Baseline, and NALCOMIS data and is the recommended method.

c. Alternatively, an ICRL Change Request (Figure 10.20-1) may be duplicated locally or used as a template. Similar locally developed templates or forms are acceptable as long as they are identified in the IMA's LCP.

d. ICRs must be routed expeditiously and only to the people/offices necessary. Superfluous routing extends logistics response times. For example, do not route through the AMO/Training Officer unless there is a personnel or training issue to be addressed.

e. Minor corrections of nomenclature, NSN, P/N, CAGE, FGC, COG, Work Center Code, etc. do not require an ICR. Submit recommended corrections to the ICRL Manager (with references). Email is recommended (not mandatory) because it is traceable, easy to manage, and easy to archive for reference purposes.

f. Unless explicitly stated in command directives, ICRs are considered internal Maintenance Department temporary working papers and are not considered official correspondence.

10.20.4 Responsibilities

10.20.4.1 NAVAIR Program Offices

a. Product Support Managers (PSM) should review Cmbnd ICRL reports for the components in their systems to evaluate if Fleet maintenance outcomes correspond with Maintenance Plans and SM&R codes. All Cmbnd-ICRL data is available in MS Excel and MS Access output file types to facilitate comparison and analyses.

b. Platform OOMA WUC Baseline Managers are responsible for ensuring CAGE-P/N pairs match NAVAIR technical data, and NAVSUP OTS data cataloged under each NIIN. Mismatched or unmatched data between NAVAIR OOMA WUC Baseline and NAVSUP OTS is a leading cause of Fleet ICRL errors and bad WUC data, contributing to delayed inductions and repairs, unnecessary BCM actions, and incorrect historical maintenance data.

c. Address deficiencies in SE, ATE, supply support, or engineering-related factors constraining productivity.

d. Compile a "Planned I-Level Capabilities Listing" (or similar document) by IMA site that may be compared against current I-Level capability and provide the list to COMFRC and the IMAs. The list should identify end-of-service and offload plans, especially for repairable items with sufficient "A" condition balances to meet projected quarterly demands. Continued repair and expenditure of funds for "excess spares" has a minimal Return on Investment (ROI) and expends resources that may be applied elsewhere.

e. Coordinate with COMNAVAIRFOR (N422) and COMFRC to prioritize funding and initiatives to invest in IMA and BCMI performance improvements.

10.20.4.2 COMNAVAIRPAC (N422)

a. Produce the quarterly Cmbnd-ICRL. Publish on SharePoint and distribute via DoD SAFE (Secure Access File Exchange) to deployed activities.

b. Prior to each T/M/S Cost War Room (CWR) review, provide a list of potential productivity degraders of those items with:

(1) RFI rates 15 percent or more lower than the highest performing IMA. Emphasis should be placed on items topping T/M/S Top Degrader Lists.

(2) Items with SM&R codes that appear inconsistent with IMA reported ICRL CC and demonstrated maintenance outcomes. For example, items SM&R coded "PAOGD" with low IMA RFI rates, or items SM&R coded "PAODD" with many I Level repairs.

(3) X2, X3 and X6 items with expired TCC Dates

10.20.4.3 Maintenance Officer (MO)

a. Publish a Local Command Procedure (LCP) per Appendix D to specify additional procedures and responsibilities for the CRO program applicable to the IMA including its supporting Supply activity.

b. Designate the Component Repair Optimization (CRO) Program Manager (PM). In most cases, the CRO PM will be assigned to the Maintenance Material Control Officer (MMCO) or Production Control Officer. The CRO PM may be assigned to a Government Civilian employee when consistent with an existing Position Description (PD) and approved by the Commanding Officer (CO). Designations will be in writing via Advanced Skills Management (ASM). Activities not using ASM may use a locally generated designation form.

c. Review Component Repair Review (CRR) and ICRL Validation (IV) results

d. Review and approve SM&R Change Requests (SMR-CR) prior to submission via JDRS

10.20.4.4 Supply Officer

a. Assist the MO in developing LCPs per Appendix D when necessary to specify additional procedures applicable to the Supply activity

b. Assign, in writing, a Supply ICRL Representative to manage the Supply activity's responsibilities applicable to maintenance of the ICRL

10.20.4.5 Assistant Maintenance Officer (AMO)

NOTE: Depending on IMA organizational structure, duties in this section may fall under Personnel, Manpower, Training, or other functional areas.

a. Validate requests to change CC to X3 (lack of required technical skills). Before approving CC X3, verify the skill shortfall cannot be mitigated internally or with Type Commander (TYCOM), Marine Air Wing (MAW), or Commander Fleet Readiness Centers (COMFRC) assistance.

NOTE: ICRL Change Requests assigning CC X3 must have a TCC and TCC DT. If personnel with the required NEC/MOS are already identified as Prospective Gains (PG) or if a person is scheduled to attend a course or school leading to the required

NEC/MOS/skill, use the date the person becomes available for duty in the IMA as the TCC DT.

b. Identify required NECs, courses, schools, and/or OJT. Schedule personnel to attend.

NOTE: Technical skill deficiencies must be reported per paragraph 3.3.1.j.

10.20.4.6 Maintenance Material Control Officer (MMCO) or Production Control Officer

a. The Maintenance Material Control Officer (MMCO) or Production Control Officer will be assigned as the CRO PM. The Commanding Officer (CO) may alternatively assign a Government Civilian employee when consistent with an existing Position Description (PD). Designations will be in writing via ASM. For activities not using ASM, a locally generated designation form may be used.

b. Responsible to the MO for driving optimal component repair policy and for accuracy of the ICRL

c. Become thoroughly familiar with the references listed at the beginning of this NAMSOP (10.20.1), Chapter 3.1, and Chapter 5.2.

d. Conduct an audit of the Component Repair Optimization program within 60 days of assignment, at least annually thereafter, and whenever required by higher authority. Use the most recent Computerized Self Evaluation Checklist (CSEC). Regularly scheduled program audits using the same CSEC meet this requirement if conducted more frequently than annually.

e. Ensure an ICRL Manager, E 5 or above, is designated in writing via ASM. It is beneficial for the ICRL Manager to be familiar with I-Level maintenance processes and to have completed the IMA Production Control Procedures Course (C-555-0043). For activities not using ASM, a locally generated designation form may be used. The assignment should be for a minimum of one year to facilitate continuity through at least two semi-annual review cycles.

f. Conduct Component Repair Review (CRR) and ICRL Validations (IV). Provide a report to the MO with a summary of findings, including:

(1) Actions taken on items with RFI rates 15 percent or more below the highest RFI rate reflected in the NAT

(2) Justification for additions/deletions of components or downgrade in capabilities

(3) JDRS SM&R Change Request (SMR-CR) status

(4) Actions taken to improve productivity, capability, and/or other efficiencies

g. Brief the Maintenance Department, its supporting Supply activity, their NALCOMIS Data Base Administrators (DBA), the AIRSpeed Continuous Process Improvement (CPI) Team, and other stakeholders on the results of the CRR, IV, or other items of interest

h. Sign as the final approver on ICRL Change Requests (unless otherwise specified in the CRO Program LCP)

i. Submit SM&R Change Request (SMR-CR) via JDRS after receiving concurrence from the MO

j. Register "IMA Points of Contact (POC)" using the Cmbnd-ICRL "POC Update" function

k. Support T/M/S Cost War Room reviews. Respond to data calls and information requests in a timely manner to ensure the CWR is using the most current information for the review

10.20.4.7 ICRL Manager

a. Complete the most recently published ICRL PQS (NAVEDTRA 43402) within 90 calendar days of designation

b. Complete IMA Production Control Procedures Course (C-555-0043). This is an extremely high-demand course, and seats are always scarce. If not already completed upon designation, the ICRL Manager should be scheduled to complete the course within 90 calendar days of designation (but prior to deployment for afloat activities). If unable to comply due to course unavailability, deployment, or other factors (e.g., pandemic), the command should request a NAMP deviation.

c. Report to the CRO PM for maintenance of the ICRL and CRO program-related tasks

d. Maintain access to the following websites (links may change):

(1) DECKPLATE (https://deckplate.navair.navy.mil)

(2) One Touch Support (https://www.onetouch.navy.mil)

(3) COMNAVAIRPAC Aviation Financial Analysis Tool (AFAST) site (https://flankspeed.sharepoint-mil.us/sites/CPF-CNAF-AFAST)

e. Distribute data and instructions for semi-annual CRR and IV

f. Conduct training on ICRL data fields, data validation, procedures for annotating updates, and procedures for submitting ICRL Change Requests. Work Center ICRL PO/NCO should receive this training within 15 days of designation.

g. Coordinate routing and completion of ICRL Change Requests

h. Before making changes or corrections to the ICRL, verify component data is accurate using OTS, OOMA WUC Baseline, and/or the Cmbnd-ICRL

i. Coordinate the completion of IV:

(1) Provide each Work Center ICRL PO/NCO with a copy of their portion of the ICRL and assign a due date for completing the review. Copies may be printed or data files (e.g., Excel, Access) as used within the IMA or as specified in the IMA's LCP.

(2) Conduct annual (minimum) training for Work Center ICRL PO/NCO to include ICRL data fields and Cmbnd-ICRL to validate or to research component data. Provide directions for annotating corrections and for submitting ICRL Change Requests. AMSU/JASU personnel are highly encouraged to attend.

(3) After validating work center inputs, review results with CRO PM to determine follow-on actions and to issue the call for any required ICRL Change Requests

j. Act on NALCOMIS ICRL Error Mailbox messages daily. As AMSU or JASU inducts components, the W/C code, WUC, TEC, CAGE, and P/N data from the turn-in work order (WO) are compared to the ICRL. If these data elements do not match, an ICRL Error Mailbox message is created. If the ICRL is correct and the WO documentation is wrong, the ICRL Manager will delete the ICRL error message and have AMSU/JASU contact the NALCOMIS DBA to correct the WO. If the ICRL is incorrect, the ICRL Manager will resolve the discrepancy.

k. Maintain a program file. Program file elements often include both hard-copy reports and computer files. For computer files, a shared on-line location (e.g., Flankspeed, SharePoint, etc.) is recommended (not mandatory) to ensure they remain accessible and not tied to one account/profile. The program file has the following elements and may be comprised of any combination of original, paper copy, PDF, or computer files.

(1) References and cross-reference locator sheets for program information

(2) Correspondence, email, and naval messages

(3) ICRL Add Requests and ICRL Change Requests for a minimum of one (1) year after approval

(4) Results of the two (2) previous ICRL Validations

(5) Result of the most recent audit Program Manager (PM) audit or Quality Assurance (QA) directed audit using the Computerized Self Evaluation Checklist (CSEC)

(6) A journal or record of NALCOMIS ICRL update activity (optional)

10.20.4.8 Production Control

a. Review and endorse ICRL Change Requests, as necessary, before forwarding to the CRO PM for approval

b. Assist CRO PM and ICRL Manager in scheduling events requiring work center participation to ensure maximum participation with minimal disruption to production

c. Assist AMSU/JASU in resolving delays; identify the work center to receive a first-time induction; and assign a work center to screen X1/X8/X9 components with minor discrepancies that may be capable of local repair instead of automatic BCM

d. For PC inductions, avoid “ICRL Override” which results in superfluous “ICRL Error Mailbox” entries. Instead, call the ICRL Manager for assistance. Haphazard use of “ICRL Override” contributes to inaccurate maintenance data and time-consuming NALCOMIS data corrections.

10.20.4.9 NALCOMIS Data Base Administrator (DBA)

a. Grant the special maintenance qualification (SMQ) “Maintain ICRL” only to the ICRL Manager and CRO PM

b. Forward an ICRL extract to COMNAVAIRPAC (N422) for building the Cmbnd-ICRL. COMNAVAIRPAC (N422) publishes the required submission dates and procedures via naval message. Keep an archival copy of the most recent quarterly ICRL data (.CSV) computer file uploaded to COMNAVAIRPAC (N422). After the data file has been received and verified, an acknowledgement will be emailed to the DBA. Keep the email as evidence the quarterly submissions were received and processed, and forward the email to the CRO PM and ICRL Manager.

c. If requested by the CRO PM, assist with Component Repair Reviews (CRR), Improvement Opportunities (IO), and Cost War Room (CWR) research.

10.20.4.10 AMSU/JASU Supervisor

a. Upon assignment, get training from the ICRL Manager or CRO PM on ICRL processes and use of the Cmbnd-ICRL. Train AMSU/JASU subordinates. To the maximum extent practical, ensure AMSU/JASU participates in periodic ICRL training conducted by the ICRL Manager or CRO PM.

b. Initiate ICRL Change Requests for components inducted for the first time or which cannot be found in the ICRL. Confer with Production Control or ICRL Manager to determine which work center code will initially receive the inducted component.

c. Verify the CAGE-P/N pair marked on the incoming component exactly matches the entries recorded in the WO or other turn-in documents. Accuracy of P/N includes (but is not limited to) slashes and dashes to prevent the proliferation of "similar" entries in the ICRL.

d. Avoid "ICRL Override" which results in superfluous "ICRL Error Mailbox" entries. Instead, call the ICRL Manager for assistance. Haphazard use of "ICRL Override" contributes to inaccurate maintenance data and time-consuming NALCOMIS data corrections. Screen incoming Auto BCM (e.g., X1, X8, X9) repairable items for minor discrepancies (e.g., broken/missing knobs or fasteners) that might be capable of local repair instead of an automatic BCM. Contact Production Control for assistance in evaluating the feasibility of local repair.

10.20.4.11 Supply ICRL Program Representative

a. When AMSU or JASU initiates an ICRL Change Request, verify data in the turn-in WO against the MRF, and the MRF data against NAVSUP OTS. Resolve discrepancies before forwarding to the ICRL Manager. NIIN, CAGE, and P/N must be correctly loaded into the MRF before the ICRL Manager may act on the ICRL Change Request. For questions regarding SM&R Codes or WUCs, consult with the ICRL Manager or CRO PM.

b. Review and correct NALCOMIS MRF discrepancies identified by the ICRL Manager or CRO PM

10.20.4.12 Division Officers

a. Designate the Work Center ICRL PO/NCO via ASM. For activities not using ASM, a locally generated designation form may be used. Paper records or forms are not authorized in activities using ASM per 10.1.4.10. Use either ASM or forms, but not both.

b. Every work center code represented in the ICRL must have a designated Work Center ICRL PO/NCO. Every work center with repairable items in the active workload must have a designated Work Center ICRL PO/NCO. One person may be assigned to multiple work centers as long as there is no ambiguity in ASM and it is clear who represents each work center.

c. If applicable, review and endorse ICRL Change Requests and ensure specific recommendations (e.g., CC, W/C code) and references (e.g., TM, constraints) have been included.

d. When requested by CRO PM, review and endorse SMR CR applicable to the division

e. Review results of Component Repair Review and ICRL Validations and provide a memorandum to the CRO PM outlining actions taken to improve component capability, performance, and/or efficiency. Include specific comments regarding efforts to resolve X2, X3, and X6 items.

10.20.4.13 Work Center Supervisors

a. Nominate an E-4 or above to the Division Officer for designation as the Work Center ICRL PO/NCO

b. Upon completion of the IV, review and endorse it before submission following instructions from the ICRL Manager

c. Verify the accuracy of ICRL Change Requests before endorsing and forwarding. Fully explain the reason for the change, anticipated impacts to the work center, and recommended CC.

10.20.4.14 Work Center ICRL Petty Officer or NCO

a. Upon assignment, receive training from the ICRL Manager or CRO PM on the procedures for ICRL Validations (IV) and ICRL Change Requests.

b. Expedite completion of the IV following instructions from the ICRL Manager

c. Prepare and submit ICRL Change Requests to the Work Center Supervisor for review, endorsement, and forwarding

d. Keep the Work Center Supervisor informed regarding the status of equipment, tools, facilities, and technical data required to resolve CC X2, X3 and X6

e. Upon request, provide the ICRL Manager and CRO PM with technical data or other information for components falling within the work center's area of expertise. For example, data required for Improvement Opportunity Reviews. This also includes items not currently listed in the local ICRL but under consideration for developing new capabilities.

Tracking Number (Assigned by ICRL Manager)					
1. Date:	Initiating Work Center:		POC:		
2. Requested Action:	a. Initial Induction Screening	b. Add	c. Delete	d. Capability Code Change:	
Current CC:	TCC:	TCC Date:			
3. Part Data:					
a. Nomenclature:	b. NSN:	c. P/N:	d. CAGE:	e. COG:	f. FGC:
g. WUC:	h. TEC:	i. SM&R:	j. Logbook Record Type:		
4. Demand & Cost Information:	a. Demand last 12 months:		b. RFIs last 12 months:		
c. BCMs last 12 months:	d. AVDLR net cost per item:		e. Total AVDLR cost last 12 months:		
Supply ICRL Rep/TRU:			**Date:**		
5. Additional Equipment/Tool Requirements (Required for Additions or CC Changes to X2):					
a. Additional Equipment Required:			Requisition Number:		
IMRL Manager:			**Date:**		
b. Additional Tools Required:			Requisition Number:		
TCP Coordinator:			**Date:**		
6. Additional Technical Data Requirements (Required for Additions or CC Changes to X6)					
Technical Data Required:			Requisition Number:		
TDM:			**Date:**		
7. Additional Skills Requirements (Required for requests to add capability to change CC to X3)					
a. NEC/MOS Requirement:			b. School Requirement:		
AMO/Manpower Manager:			**Date:**		
8. Division Recommendation and Justification:					
W/C Supervisor:			**Date:**		
Branch/Division Chief:			**Date:**		
Division Officer:			**Date:**		
9. Production Control Recommendation:					
Production Control Chief:			**Date:**		
10. MMCO/PCO: Approved/Disapproved (Circle One)			Remarks:		
MMCO/PCO:			**Date:**		
11. ICRL Manager:					
a. ICRL Updated:			b. NALCOMIS OIMA Updated:		
ICRL Manager:					

Note: Bold areas of ICRL Change Request Indicate requirement to sign and date.

Figure 10.20-1: ICRL Change Request (Example)

ICRL CAPABILITY CODE (CC) DETERMINATION

Source, Maintenance and Recoverability (SM&R) codes convey objectives of maintenance and supply support plans developed by Program Managers (PM). The codes identify the maintenance levels (ML) authorized to perform maintenance tasks published in Technical Data. PMs assign or change the SM&R codes; however, NAVSUP publishes SM&R codes and related supply data in the One Touch Support (OTS) application. The Combined-ICRL is also an authorized SM&R reference.

Individual Component Repair List (ICRL) Capability Codes (CC) convey an IMA's ability to execute the maintenance tasks.

SM&R codes convey PM *objectives,* while ICRL CCs convey an IMA's self-assessment of its *ability* to execute those objectives. It is rarely possible for a PM to outfit every IMA with all the SE and other resources needed to perform every maintenance task. There are always differences and consequently, ICRL CCs are seldom uniform across all 60 IMAs (hence the word "Individual").

Regardless of the ML identified by the SM&R code, IMAs must always check current tech data to verify the tasks they may perform. "Tech data" includes NATEC Technical Manuals (TM), Interactive Electronic Technical Manuals (IETM), and technical instructions issued by NAVAIR, TYCOM, or FST. Occasionally, tech data is issued via an official message, FST email or Fleet Engineering Disposition (FED) response, or other document like an OEM repair manual. Test Program Instructions (TPI), the operator instructions used with Automatic Test Equipment (ATE) systems such as Consolidated Automated Support System (CASS), are also considered tech data.

CAPABILITY CODES (CC) INDICATING READY FOR ISSUE (RFI) CAPABILITY

A1 – Check and Test Only. The IMA can execute Check and Test tasks identified in the tech data; however, repairs are not authorized. The IMA may replace minor parts such as fuses, bulbs, screws, knobs, handles, antennas, covers, lanyards, etc., that do not require disassembly beyond what the tech data authorizes. If the item fails the Check and Test, BCM5 is the most appropriate action.

C1 – Full Repair. Also called "complete repair". The IMA can execute all tasks identified in the tech data.

- During maintenance, a condition may be discovered that must be deferred to a higher maintenance level per the tech data. *Do not downgrade from C1 to C3; this is a common misunderstanding.* IMA's responsibility is to uncover such discrepancies to ensure the item is referred to the proper repair facility. BCM7 is the most appropriate action.

C3 – Limited Repair. Also called "partial repair". The IMA can execute some but not all tasks identified in the tech data.

D1 – Full D-Level. The IMA can execute all Depot-level tasks (e.g., repair, rework, or overhaul) identified in the tech data. This code is used in Level II Fleet Readiness Centers (FRC) with Depot Artisans or other specially qualified personnel. *Used only with BMCI Artisan work center codes.*

D3 – Partial D-Level. The IMA can execute some but not all Depot-level tasks (e.g., repair, rework, or overhaul) identified in the tech data. This code is used in Level II FRCs with Depot Artisans or other specially qualified personnel. *Used only with BMCI Artisan work center codes.*

M1 – Manufacture/Assemble. The IMA is capable of assembling or manufacturing the item. IMAs may manufacture aeronautical material if they have the capability, regardless of the manufacturing level assigned in the SM&R code. All activities are authorized to repair M-series (SM&R Source Code begins with character M) items when it is economical and within their capability.

Z1 – Non-repairable Material. SM&R Codes with ZZ (Non-repairable) in the 4th and 5th positions, or B (Recondition) in the 4th position, usually indicate the PM did not plan to repair the item. However, IMAs may use Z1 to indicate they have established local repair capability or to indicate the IMA can perform a servicing function (e.g., flushing, cleaning, or charging). IMAs are authorized to repair 'non-repairable' items when:

Figure 10.20-2 (page 1): ICRL Capability Codes

- replacement item is not available in stock locally;
- the item is required to offset a NMCS, PMCS, or work stoppage; and
- repair is within the IMA's capability.

CAPABILITY CODES (CC) INDICATING NO RFI CAPABILITY

R1 – Repair and Return (R&R). This code identifies items routinely sent from one shore IMA with limited or no repair capability to another shore IMA. R&R may be implemented to reduce life cycle costs by designating selected IMAs as centralized repair sites. R&R is an alternative to BCM during situations affecting an IMA's capability or capacity. *Used only with work center 05A.*

- R1 may be a cost-effective alternative to X8 or X9. Consider the BCM vs. repair cost, readiness impacts, Repair Turn Around Time (RTAT), and stock posture. (Is stock adequate to preclude EXREPs while awaiting the return of the R&R item?)
- For temporary R&R arrangements, assign a Target Capability Code (TCC) and Target Capability Code Date (TCC DT) to assist in tracking. Revert to an appropriate CC when local capability is restored.

X1 – Repair is Not Authorized. I-level is not authorized to perform any maintenance tasks per SM&R Code 4th position. *Used only with work center 05A, which will process a BCM1.*

- X1 is not used for FLRs (NIIN is assigned MCC "D"). Refer to X9.
- Selected IMAs may be authorized to execute some or all maintenance tasks, effectively overriding the SM&R code. Use appropriate CC and W/C codes to ensure capability is visible to the Naval Aviation Enterprise (NAE).

X2 – Lack of Authorized Equipment/Tools/Facilities. Tech Data has maintenance tasks the IMA cannot execute due to a deficiency in authorized equipment, tools, or facilities. However, if the IMA can execute some but not all maintenance tasks, then use C3 or A1, and document efforts (e.g., IMRL Revision Request) to resolve deficiencies. TCC, TCC DT, and production W/C code required for X2.

X3 – Lack of Required Technical Skills. Tech Data has maintenance tasks the IMA cannot execute due to a deficiency in personnel with the required skills. However, if the IMA can execute some but not all maintenance tasks, then use C3 or A1 and document efforts to resolve deficiencies. TCC, TCC DT, and production W/C code required for X3.

X6 – Lack of Technical Data. Tech Data has maintenance tasks the IMA is not capable of executing due to a deficiency in tech data, drawings, IPB, TPI, etc. If the IMA can execute some but not all maintenance tasks identified in the tech data, then use C3 or A1 and document efforts (e.g., Technical Publication Deficiency Reports) to resolve deficiencies. TCC, TCC DT, and production W/C code required for X6.

X8 – Administrative or repair is restricted by higher authority. This IMA is restricted from performing maintenance tasks by direction from higher authority or policy. *Use only with work center 05A, which will process a BCM8.*

- X8 applies to repairable items (except FLRs) with SM&R Code 4th position having F, G, H, or L.
- For FLRs (NIIN is assigned MCC "D") refer to X9.

X9 – Field Level Repairable (FLR) not demonstrating potential for cost-effective repair. IMA screened the item and its maintenance history, and considered repair possibilities, but the item cannot be repaired economically at this IMA.

Figure 10.20-2 (page 2): ICRL Capability Codes

From: _____
Division Officer

To: _____
(Work Center ICRL Petty Officer/NCO)

Subj WORK CENTER ICRL PETTY OFFICER/NCO DESIGNATION

Ref: (a) COMNAVAIRFORINST 4790.2

1. You are assigned as the Work Center _____ ICRL Petty Officer/NCO and must perform your duties per reference (a). Your duties will include, but are not limited to the following:

a. Be responsible for the proper upkeep of work center ICRL.

b. Attend training as directed by the ICRL Manager.

c. Research all items listed in the ICRL using applicable IPBs and One Touch Support at (https://www.onetouch.navy.mil) to ensure all data entered is complete and accurate.

d. Ensure ICRL reviews are complete by the due date assigned by the ICRL Manager.

e. Ensure all items with capability codes X2 and X6 have the required materials on order and provide documentation to the Work Center Supervisor and the Program Manager.

2. I certify that I have read and understand the responsibilities of the assigned billet and will perform the duties to the best of my ability.

_____ _____
Assignee Signature Date

_____ _____
Division Officer Signature Date

Original to:

Individual's Qualification/Certification Record

Copy to: ICRL Manager

Figure 10.20-3: Work Center ICRL Petty Officer/NCO Designation (Example)

ICRL REQUIREMENTS FOR TARGET CAPABILITY CODES AND TARGET CAPABILITY CODE DATES

1. Target Capability Code (TCC) and Target Capability Code Date (TCC DT) apply only to the following capability codes:

X2 - The IMA is not capable of executing any maintenance task identified in the applicable technical manuals due to lack of authorized equipment, tools, or facilities. For IMRL items, the IMRL Manager assesses the validity of the requirement and, as required, contacts the Support Equipment Controlling Authority (SECA) to address the deficit. If the item is a non-IMRL tool, the Tool Control Plan (TCP) Coordinator is responsible for addressing the deficit. The Component Repair Optimization (CRO) Program Manager (PM) will task responsible personnel, depending on the IMA's functional organization, to address other constraints (e.g., facilities, plant equipment, contracting, agreements, etc.). Use the date the deficit is reasonably expected to be resolved as the TCC DT. Deficits and specific actions taken to resolve X2 items should be discussed in Component Repair Review (CRR) reports.

X3 - Lack of Required Technical Skills. The IMA is not capable of executing any maintenance task identified in the applicable technical manuals due to a lack of personnel with required skills. Use X3 when a Navy Enlisted Classification (NEC), Military Occupational Specialty (MOS), or other special maintenance qualification is mandatory but not currently available within the IMA's workforce. Use the date the deficit is reasonably expected to be resolved as the TCC DT. If personnel with the required NEC/MOS are already identified as Prospective Gains (PG) or if a person is scheduled to attend a course or school leading to the required NEC/MOS/skill, use the date the person becomes available for duty in the IMA as the TCC DT. Deficits and specific actions taken to resolve X3 items should be discussed in Component Repair Review (CRR) reports.

X6 - Lack of Technical Data. **The IMA is not capable of executing any maintenance task identified in the applicable technical manuals due to a lack of technical data.** The Work Center Supervisor will work with the Central Technical Publication Library (CTPL) in accordance with local procedures to obtain the required technical data. In cases where required technical data is not available via Naval Air Technical Data and Engineering Service Command (NATEC) but may be available from other sources (e.g., JTDI, FST, OEM, PMA), the CRO PM will task responsible personnel, depending on the IMA's functional organization, to facilitate liaison with the external activities. Use the date the deficit is reasonably expected to be resolved as the TCC DT. Deficits and specific actions taken to resolve X6 items should be discussed in Component Repair Review (CRR) reports.

2. TCC and TCC DT will be reviewed (including updates of document numbers and their status) during each CCR. The Combined ICRL (Cmbnd-ICRL) program is extremely useful for identifying other activities that may be able to assist. Division Officers and others, as required, will provide information to the CRO PM for consolidation into the final CRR report submitted to the MO.

3. The Work Center Supervisor will report changes pertaining to X2, X3, and X6 items to the ICRL Manager to update the ICRL as soon as practical.

4. In cases where X2, X3, or X6 situations are not reasonably expected to be resolved by the IMA within 180 days after the final CRR report is submitted to the MO or prior to the next semi-annual CRR, the situation should be highlighted for escalation to FST, SECA, PMA, NATEC, barrier removal teams, or other higher authority for assistance. A sustained lack of required resources indicates a maintenance plan failure; the CRO PM should consider submitting a SM&R Change Request to initiate a formal review of the situation, as well as to document it for future reference.

Figure 10.20-4: ICRL Requirements for Target Capability Codes and Target Capability

10.21 Electrostatic Discharge (ESD) Protection and Electromagnetic Interference (EMI) Reporting Program (NAMPSOP)

10.21.1 References

a. ANSI-ESD TR 20.20-2016, For the Protection of Electrostatic Discharge Susceptible Items Handbook for the Development of an Electrostatic Discharge Control Program for the Protection of Electronic Parts, Assemblies, and Equipment.

b. ANSI/ESD S20.20-2021, For the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices).

c. NAVAIRINST 2400.1 Electromagnetic Environmental Effects and Spectrum Supportability Policy and Procedures.

d. NAVAIR 01-1A-23, Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair.

e. NAVAIR 17-600-193ESD-6-1, Preoperational Checklist, Electrostatic Discharge (ESD) Protection Devices.

f. MIL-HDBK-773, Electrostatic Discharge Protective Packaging.

g. NAVSUP Publication 723, Navy Inventory Integrity Procedures.

h. OPNAVINST 3750.6, Naval Aviation Safety Management System.

10.21.2 Introduction

10.21.2.1 Per ANSI/ESD S20.20-2021, improper handling of Electrostatic Discharge Sensitive (ESDS) devices can cause components to fail. Per NAVAIRINST 2400.1, Electromagnetic Interference (EMI) can cause degraded performance of mission critical systems. To minimize the risk of ESD and EMI damage, this NAMPSOP establishes policy for training, handling, protecting, storing, and transporting of ESDS devices and components, and for the reporting and mitigation of EMI incidents.

NOTE: For Depot Electrostatic Discharge (ESD) Protection and Electromagnetic Interference (EMI) Reporting Program see Chapter 12.

10.21.2.2 NAWC AD E3 Engineering Division is the technical lead for this NAMPSOP and for the Air Systems Electromagnetic Interference Corrective Action Program (ASEMICAP). The ASEMICAP Web application (https://asemicap.navair.navy.mil) contains all ANSI/ESD standards under license from the ESD Association (ESDA) to COMNAVAIRSYSCOM.

10.21.3 Training

Per ANSI/ESD S20.20-2021, personnel training is a critical element in the implementation of an ESD control program. All personnel that handle, inspect, package, transport, or maintain Electrostatic Discharge Sensitive (ESDS) items must receive job-specific EMI/ESD initial training. Initial training must be completed prior to personnel being allowed to handle or independently

perform maintenance on ESDS items without the supervision of a trained individual. O-Level and I-Level personnel will complete annual refresher training.

NOTES: 1. The ASEMICAP Web application (https://asemicap.navair.navy.mil) contains EMI and ESD training materials.

2. Training from ASEMICAP Fleet Support Specialists (FSS) can be requested through the ASEMICAP Web application or directly from the local ASEMICAP FSS.

10.21.3.1 ESDS Component Protection

a. All electronic Weapons Replaceable Assembly (WRAs), Shop Replaceable Assembly (SRAs), and individual solid state electronic components will be considered ESDS items.

b. ESDS items believed to be exposed to ESD or handled without protective equipment will be considered not-ready for issue (NRFI) and must be tested prior to being certified ready for issue (RFI).

c. ESDS items not rendered ESD safe per 10.21.3.2. will be handled at ESD Protected Area (EPA) that complies with the requirements identified in NAVAIR 01-1A-23, WP 004 04-4.6.

d. Uninstalled WRAs and SRAs must have external cannon plugs and connector pins covered with the provided connector cap or an ESD Cap. If authorized covers are not available, ESD finger cots or ESD tape can be applied. WRAs, SRAs, and discrete components can be protected by an inner layer of anti-static pink poly material and an outer layer of static shielding material, or a bag with both characteristics.

e. Uninstalled SRAs must be protected by an inner layer of anti-static pink poly material that is then enclosed in an outer layer of static shielding material. Per ANSI/ESD TR20.20-2016, Ch. 20.6, a closed or sealed ESD shielding bag possessing both shield and anti-stat characteristics is preferred.

NOTE: Approved ESD protective materials and ESD labels are listed on the ASEMICAP website (https://asemicap.navair.navy.mil).

f. NAVAIR 01-1A-23, WP 004 04 4.7.4 specifies applying an ESD caution label to the outside of the static shielding material. If ESD caution labels are not available, mark the outside of the shielding material in such a way as to identify that an ESDS item is enclosed.

NOTE: ESD protective materials, for example, conductive caps and anti-static shielding bags, are a FOD hazard and must be controlled.

g. ESDS items must be placed in ESD safe condition immediately after removal from the aircraft or equipment, and must remain in ESD safe configuration until the time of repair or re-installation.

NOTE: ESD safe condition is a condition in which all WRA connectors are covered with ESD protective materials. SRAs can be considered ESD Safe when placed in protective packaging per 10.21.3.1.e.

h. To minimize the potential for foreign object damage (FOD) to aircraft, only ESD finger cots or ESD tape will be used when ESDS WRAs are transported to or from flight line or flight deck areas.

i. Prior to storage or shipment, properly protected ESD safe items that require extra protection from physical damage will be placed in a protective container or wrapped with standard bubble wrap secured with tape. Affix an ESD caution label to the outside of the package to identify the item as ESDS.

NOTE: Pink poly bubble wrap, bags, and caps provide physical protection, but do not provide shielding protection.

j. ESDS items placed in maintenance kits (in-flight troubleshooting kits, squadron pack-up kits, I-Level maintenance assist kits, etc) will be in an ESD safe configuration when not in use.

k. ESDS items turned into the supply system must be ESD protected per this NAMPSOP.

l. ESDS items received from the supply system that are not properly ESD protected and packaged per MIL-HDBK-773A will be reported via a Supply Discrepancy Report (SDR) per NAVSUP Publication 723.

10.21.3.2 ESD Protected Areas (EPA)

a. EPAs must be identified with signs or posters per NAVAIR 01-1A-23, WP 004 04-4.6.5.

b. EPAs will contain, at a minimum, a properly configured workstation per NAVAIR 01-1A-23, WP 004 04-4.6.

c. EPAs must be grounded per NAVAIR 01-1A-23, WP 004 00. In some instances, an EPA or workstation may have to be configured in such a way as to require direct grounding to the power ground (aircraft tie down) located within a hangar.

WARNING: FOR PERSONNEL SAFETY, EQUIPMENT MUST BE DE-ENERGIZED WHEN WRIST STRAPS ARE IN USE.

NOTE: The use of the ESD Earth Ground Checker (EGC), which utilizes the third wire equipment ground present in almost all AC outlets is an approved ground source, per ASEMICAP web application at https://asemicap.navair.navy.mil.

d. No prime generators, as defined in NAVAIR 01-1A-23, WP 004 00, will be closer than 24 inches to an EPA.

e. Preoperational checks for EPAs must be performed per NAVAIR 17-600-193ESD-6-1. Preoperational checks must be documented on an OPNAV 4790/52 Preoperational Inspection Record.

NOTE: Non-2M EPAs are exempt from 28-day conditional inspection requirements because 28-day conditional checks and cleaning are part of the preoperational check.

f. O-Level activities that remove or replace SRAs or components within WRAs must have an EPA, or, at a minimum, an ESD Field Service Kit.

(1) When practical, portable ESD field service kits will be used when removing or replacing individual SRAs or components onboard aircraft during in-flight or ground maintenance. Personnel, work mats, and wrist straps must be grounded against the aircraft frame during maintenance on ESDS items.

(2) Squadron detachments deployed aboard air capable ships must have, at a minimum, a portable ESD workstation for use as an EPA.

NOTE: When an ESD field kit is not practical while performing maintenance on aircraft, the technician will use a wrist strap connected to the aircraft structure or achieve an equipotential grounding status by contacting the aircraft structure.

g. Supply Departments and Material Control must have access to an EPA, or a portable ESD workstation. Supply Department and Material Control personnel must receive job-specific training on handling ESDS items, per 10.21.3.

10.21.3.3 EMI Incident Reporting

NOTE: EMI incident reporting is applicable only to O-Level activities operating aircraft.

a. When EMI incidents occur, ground maintenance personnel will receive a debrief from the aircrew as soon as possible to collect operational circumstances and flight effects of the incident.

b. A NAMDRP Hazardous Material Report (HMR), paragraph 10.9.3.8, will be submitted whenever material failure is suspected to be the cause of an EMI incident. EMI incidents will also be reported as a Hazard Report (HAZREP) if they meet the conditions of OPNAVINST 3750.6S, CH. 5 SECTION 503 b. and j. NAWC AD E3 Engineering Division will be included on the reports in order to provide information concerning the incident to ASEMICAP.

10.21.4 Responsibilities

10.21.4.1 Type Wing

Publish a lesson guide or presentation for T/M/S job specific EMI and ESD training per paragraph 10.21.3 if training on the ASEMICAP Web application is not sufficient to cover T/M/S requirements.

NOTE: Marine Corps Training and Education Command (TECOM) will publish training for Marine activities, if required.

10.21.4.2 Maintenance Officer (MO) or Production Officer

a. Publish Local Command Procedures (LCPs) per Appendix D, if required to specify T/M/S or other command directed actions for EMI/ESD not addressed in this NAMPSOP. O-Level LCPs must be submitted to the Type Wing or Marine Aircraft Wing for consideration of a Wing LCP.

b. Designate an ESD Protection and EMI Reporting Program Manager per 10.1.2.9.

10.21.4.3 Supply Officer

a. Publish an LCP, if required to specify T/M/S or other command directed actions for EMI or ESD not addressed in this NAMPSOP.

b. Designate a Supply Department ESD Protection Coordinator per 10.1.2.9 and 10.21.4.5.

10.21.4.4 ESD Protection and EMI Reporting Program Manager

a. Perform an audit of the program within 60 days of assignment and annually thereafter per paragraph 10.7.5.8.

b. Remain current in ESD protection requirements of the references listed in paragraph 10.21.1.

c. Publish a lesson guide based on information in MIL-HDBK-263B, ANSI/ESD S20.20-2021 and the ASEMICAP Web Application (https://asemicap.navair.navy.mil) if training on the ASEMICAP Web application is not sufficient to cover the activity's requirements.

d. Provide NAMP indoctrination initial and refresher ESD Protection and EMI Reporting Program training per paragraph 10.21.3.1, 10.1.4.7 and 10.1.4.8. If available, ASEMICAP FSS unit training may be used for initial and annual refresher training. Verify personnel receive ESD Protection and EMI Reporting familiarization prior to performing maintenance while assigned to the work center annually thereafter. Training must be specific to the duties the individual performs.

e. (Activities operating aircraft) Remain current on EMI problem historical data in ASEMICAP EMI Problem Database (https://asemicap.navair.navy.mil) for the T/M/S aircraft maintained.

f. (Activities operating aircraft) When EMI is suspected, interview aircrew and maintenance personnel, and coordinate completion of the EMI Incident actions of paragraph 10.21.3.3.

g. Maintain a program file to include:

(1) POCs

(2) Program related correspondence

(3) References and cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

(5) The most current ASEMICAP website (https://asemicap.navair.navy.mil) list of EMI problems related to T/M/S aircraft maintained.

10.21.4.5 Supply Department ESD Protection Coordinator

a. Be responsible to the Supply Officer for implementing the program.

b. Remain current in ESD protection requirements referenced in paragraph 10.21.1 and the ASEMICAP website (https://asemicap.navair.navy.mil).

c. Provide initial and annual ESD protection refresher training to Supply Department personnel per paragraph 10.21.3.

d. Periodically spot check work area reviews to verify sufficient ESD protective materials are available and utilized, and EPAs are maintained per paragraph 10.21.3.1 and 10.21.3.2.

e. Periodically inspect ESDS items that have been prepared for shipment to verify the packaging requirements of MIL-HDBK-773A are being followed.

f. Maintain a program file to include:

(1) POCs

(2) ASM Completion report or local training roster of Supply personnel who have completed ESD protection training

(3) Program related correspondence

(4) References and cross-reference locator sheets

10.21.4.6 Quality Assurance (QA) Officer

Designate an avionics Quality Assurance Representative (QAR) as the ESD Protection and EMI Reporting Program Monitor per 10.1.2.9.

10.21.4.7 QA ESD Protection and EMI Reporting Program Monitor

NOTE: Other QARs may monitor the program, but the designated QA ESD Protection and EMI Reporting Program Monitor must perform the annual program audits.

a. Perform audits per paragraph 10.7.5.7.

b. Provide ESD protection or and EMI reporting training applicable to their areas of responsibility to all QARs or QA Specialists.

c. Coordinate with the QA of the discrepant activity to resolve packaging, handling, and transportation discrepancies.

10.21.4.8 Division Officers

If applicable, include ESD protection and EMI reporting during Division Officer Work Center audits per paragraph 10.7.5.9.

10.21.4.9 Work Center Supervisors

a. Perform spot checks of equipment, and work in progress to verify compliance with the ESD Protection and EMI Reporting Program.

b. Verify ESDS items are being properly packaged for turn-in per paragraph 10.21.3.1.

c. Submit SDRs on improperly protected ESDS items received from supply per paragraph 10.21.3.1.l.

d. Ensure personnel receive initial ESD protection training prior to being allowed to handle or independently perform maintenance on ESDS items without the supervision of a trained individual.

e. Coordinate with the ESD Protection and EMI Reporting Program Manager for initial and annual refresher training of work center personnel.

f. Periodically spot check parts shelves and bins to verify ESDS items are in proper protective packaging when AWM, AWP, or in long term local storage.

10.21.4.10 Maintenance Personnel

Comply with ESD protection requirements while handling or performing maintenance on ESDS items.

10.21.4.11 Material Control Division Personnel

Verify retrograde ESDS items are properly packaged before accepting them from work centers per paragraph 10.21.3.1.

10.22 Miniature/Microminiature (2M) Program (NAMPSOP)

10.22.1 References

a. NAVAIR SE-004-PQS-000, Certification Manual for Miniature/Microminiature (2M)/Module Test and Repair (MTR) Program.

b. NAVAIR 01-1A-23, Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair.

c. NAVAIR 17-15-99, PRC-2000-2M System, Electronic Rework Power Unit.

d. NAVAIR 17-600-193-6-2, Periodic Maintenance Requirements Manual, PACE Soldering Station, PACE Incorporated.

10.22.2 Introduction

10.22.2.1 The Miniature/Microminiature (2M) Program establishes requirements for training and certification and recertification of 2M Repair Technicians and 2M activities.

NOTE: For Depot Miniature/Microminiature (2M) Program see Chapter 12.

10.22.2.2 The complexity of electronic assemblies and the sensitivity of their components to physical and electrical overstress requires repairs be performed by formally trained and certified 2M Repair Technicians at designated 2M activities. NAVAIR SE-004-PQS-000 contains the combined NAVAIR AND NAVSEA 2M certification and recertification requirements, and provides guidance for managing and monitoring 2M repair facilities and technicians.

10.22.2.3 COMFRC FST HQ manages aviation 2M program requirements. The In-Service Engineering Activity (ISEA) responsible for the Navy's 2M program is COMMANDER, CRANE DIVISION, NAVAL SURFACE WARFARE CENTER, CODE GXST, BLDG 3287E, 300 HWY 361, CRANE IN 47522-5001, DSN 482-1510 or COMM (812) 854-1510.

10.22.3 Requirements

10.22.3.1 2M Repairs

2M repairs will be performed only by activities designated 2M capable by their ACC or TYCOM.

10.22.3.2 2M Technician Certification

a. Miniature repair certification requires completion of the Miniature Electronics Repair Course (A-100-0072).

b. Microminiature repair certification requires completion of the Miniature Electronics Repair Course (A-100-0072) and the Microminiature Electronics Repair Course (A-100-0073).

NOTE: 2M Certification Identification Cards will be issued upon completion of the initial course and upon completion of each recertification.

10.22.3.3 2M Technician Recertifier

a. Must be E-5 or above with Navy NEC 9503, or Marine MOS 6423 (military only), or civilian equivalent.

b. Meet NAVAIR SE-004-PQS-000 requirements.

c. Be designated as a Micro-miniature Collateral Duty Inspector (CDI) per Chapter 7

10.22.3.4 Recertification

a. 2M Technicians, 2M Technician Recertifiers, and CNATTU 2M Instructors must be recertified every 18 months.

b. Recertification must be conducted and documented per NAVAIR SE-004-PQS-000.

NOTE: Activities without assigned 2M Technician Recertifiers will request recertification from the nearest activity with 2M Technician Recertifiers.

10.22.3.5 2M Workstations

a. 2M workstations must conform to the requirements specified in NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000.

NOTE: Due to the complex nature of certain electronic systems and the advancement of new technologies, specialized 2M equipment may be used, if approved by the NAVAIR 2M Program Manager COMFRC FST HQ in writing, prior to use.

b. I-Level 2M workstations will be fully outfitted as specified in NAVAIR SE-004-PQS-000, Appendix F, including consumables.

c. 2M workstations will be maintained per NAVAIR 17-15-99 and NAVAIR 17-600-193-6-2 (as applicable).

10.22.3.6 2M Facilities

2M facilities must meet the certification requirements specified in NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000.

10.22.4 Responsibilities

AMA 2024-05

10.22.4.1 COMNAVAIRFOR and NAVAIR Aviation Maintenance Management Teams (AMMT)

a. Validate and certify 2M repair sites in compliance with NAVAIR 01-1A-23 and NAVAIR SE-004-PQS-000 2M program requirements during the site's Aviation Maintenance Inspection (AMI).

b. The COMNAVAIRFOR AMMT will perform certifications for all Navy and Marine Corps aviation 2M sites not assigned to NAVAIR.

c. The NAVAIR AMMT 2M Evaluator will perform certifications for D-level 2M maintenance facilities and other NAVAIR activities.

d. Report 2M repair site certifications in the 2M database per NAVAIR SE-004-PQS-000.

NOTE: Per NAVAIR SE-004-PQS-000, paragraph 3-13, a site recertification is required if a 2M workstation is relocated to a different room, building, or MF. 2M repair sites may request an interim certification in advance of their next AMI by submitting a message or letter to their AMMT with a copy of an Industrial Hygiene Survey meeting the requirements of NAVAIR 01-1A-23. The Industrial Hygiene Survey should be conducted on the new facility prior to moving the equipment, to verify the new site meets the requirements of NAVAIR 01-1A-23.

AMA 2024-05

10.22.4.2 Maintenance Officer (MO)

a. Designate a senior technician possessing Navy NEC 783A or Marine MOS 6423 as the 2M Program Manager (normally the 2M Work Center Supervisor) per 10.1.2.9.

b. Designate 2M Technician Recertifiers per 10.1.2.9.

c. Publish a local command procedures (LCP) per Appendix D, if required to address any 2M procedures not covered in this NAMPSOP.

AMA 2024-05

10.22.4.3 Program Manager

a. Perform a program audit within 60 days of assignment as Program Manager and annually thereafter, per paragraph 10.7.5.8.

b. Provide NAMP indoctrination on Miniature/Microminiature (2M) Program per 10.1.4.7. Verify personnel receive Miniature/Microminiature (2M) familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Coordinate corrective action of program audit discrepancies.

d. Maintain a program file to include:

(1) List of 2M certified technicians, including name, rate, work center, certification level, date of last certification/recertification, next recertification due date, and projected rotation date

(2) Copies of 2M Certification Identification Cards for all qualified technicians

(3) List of 2M workstations per NAVAIR SE-004-PQS-000, Appendix F, including equipment location and serial numbers

(4) POCs

(5) Program related correspondence and message traffic

(6) References or cross-reference locator sheets

(7) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

AMA 2024-05

10.22.4.4 Quality Assurance Officer (QAO)

The QAO will designate an avionics QAR as the 2M Program Monitor per 10.1.2.9.

10.22.4.5 QA 2M Program Monitor

a. Perform program audits per paragraph 10.7.5.7.

NOTE: Other QARs may monitor the program, but the designated 2M Program Monitor must perform the annual program audit.

b. Provide recommendations for corrective action for recurring 2M program discrepancies.

c. Spot check work in progress to verify 2M CDIs are inspecting only the repair level they are certified to perform.

10.22.4.6 2M Technician Recertifiers

a. Issue 2M Certification Identification Cards to recertified 2M Technicians and report 2M recertifications in the 2M database per NAVAIR SE-004-PQS-000.

b. Assist the Program Manager with developing and providing training to 2M Technicians.

c. Maintain a 2M Technician Recertifier file, to include:

(1) Copies of 2M Certification Identification Cards for all certified technicians

(2) List of 2M Technician certification and recertification due dates

(3) Completed 2M recertification performance tests

NOTE: Duplicate paper records are not required, if the activity is using an electronic training management system, such as ASM.

10.22.4.7 2M Work Center Supervisor

a. Verify all personnel performing 2M repairs are certified 2M Technicians per this NAMPSOP.

b. Spot check work in progress to verify electrostatic discharge (ESD) protective measures are observed when performing 2M repairs per NAVAIR 01-1A-23.

c. Assign each 2M Technician sufficient workload to maintain the dexterity and proficiency required to perform quality 2M repairs.

d. If workload does not consistently cover all facets of NAVAIR SE-004-PQS-000, conduct training projects in those 2M repair techniques not routinely encountered.

NOTE: Training projects should be performed using NRFI electronic assemblies. DLA Disposition Services may be a source for 2M training material.

e. Conduct periodic maintenance and maintain 2M workstations per NAVAIR 17-15-99 and NAVAIR 17-600-193-6-2 (as applicable).

f. Stock the minimum required consumables, tools, and SE for accomplishing the site's 2M repair responsibilities, as specified in NAVAIR SE-004-PQS-000, Appendix F.

10.22.4.8 Center for Naval Aviation Technical Training Unit (CNATTU) 2M Instructors

a. Be currently certified 2M Instructors and complete recertification training every 18 months per NAVAIR SE-004-PQS-000.

b. Request and complete 2M training site certifications every 12 months per NAVAIR SE-004-PQS-000.

10.23 Gas Turbine Engine Test Facility Operation and Maintenance

10.23.1 References

a. NAVAIR NOTE 4700, Gas Turbine Engine Maintenance Assignment By Depot Maintenance, Intermediate Maintenance and Fleet Support Team Activities.

b. NAVPERS 18068F, Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards.

c. Applicable Gas Turbine Engine Test System Maintenance Technical Manuals.

d. N98-NTSP-A-50-1003/A, Navy Training Systems Plan for the Aviation Engine Test Systems (AETS).

e. NAVAIR 01-1A-20, Aviation Hose and Tube Manual

f. NAVAIR 17-1-537 Aircraft Securing and Handling Procedures with Aircraft Restraining Devices and Related Components

10.23.2 Introduction

10.23.2.1 This NAMPSOP establishes requirements for operating and maintaining aviation gas turbine engine test facilities operated by Navy and Marine Corps Intermediate Level Maintenance Activities (IMA), and establishes requirements for training and designating IMA Test Cell Operators and Qualifiers.

NOTE: Unless specifically stated otherwise in this NAMPSOP, the term "engine test facility" (ETF) and the term "test cell" denote both Gas Turbine Engine Test Systems (GTETS) and Global Test Facilities (GTF).

10.23.2.2 Proper maintenance and operation of gas turbine engine test facilities (ETF) is critical to safe and thorough aircraft engine testing. Improper operation of ETF can result in mishaps, reduced operational readiness, and unnecessary engine replacement costs. To avoid injury to personnel and damage to engines, ETFs must be properly maintained and test cell Operators must be thoroughly knowledgeable and skilled in ETF operations, safety precautions, and emergency procedures.

10.23.2.3 Reworked, repaired, or overhauled gas turbine engines normally require operational test or functional check in an ETF. Only qualified test cell Operators or test cell Operators under instruction are authorized to perform test cell operations. Test cell Operators and Qualifiers are certified to operate a particular type of ETF (ETF), and are certified to test only the engines specified on their certification document.

10.23.2.4 Refer to NAVAIR NOTE 4700 for information on which IMAs are authorized to repair specific model aircraft engines and what level of repair they are authorized to perform.

10.23.3 ETF Operator Training

10.23.3.1 ETF Operator training can be provided by a NATEC Joint Test System (JTS) representative or an ETF Qualifier certified for the type test cell and type engine operated. The ETF Qualifier does not have to be assigned to the trainee's command. NATEC JTS representative on-site training is normally performed coincident with the initial installation and calibration of the

test facility. Activities may also request NATEC on-site training when needed to improve technical knowledge and skill.

10.23.3.2 ETF Operator training must be conducted using the specified Navy Training Systems Plan (NTSP) in conjunction with locally prepared site specific job qualification requirement (JQR), prepared per JQR procedures of 10.1. The JQR will be developed by the activity's Gas Turbine Engine Test Facility Operation and Maintenance Program Manager with assistance from ETF Qualifiers and Quality Assurance (QA) personnel, and must be approved for use by the MO. Aviation Maintenance and Supply Training and Readiness Program (AMSTRP) Individual Qualification Record (IQR) for Aircraft Power Plant Test Cell Operator (MOS 6023).

10.23.3.3 The ETF JQR must include site-specific on-the-job training (OJT). OJT must include, as a minimum, the following task or knowledge areas:

a. Use of test system and type engine maintenance technical manuals.

b. Engine test system instrumentation and controls.

c. Gas turbine engine operating parameters and limitations.

d. Engine test facility installed systems; such as fuel, lubrication, engine start, fire extinguishing, vibration and temperature monitoring systems.

e. Installation and inspection of engine on run trailer, including engine or adapter servicing and FOD prevention inspections.

f. Pre-operational inspections of engine test system and engine per maintenance technical manuals.

g. Safety and responsibility briefs, including communications and hand signals to be used.

h. Simulated emergencies, such as fuel spills or leaks, engine or propeller over speed, engine fire, throttle input failure, unstable engine, and personnel injuries per maintenance technical manuals.

i. Engine performance calculations and documentation.

j. Post-operational inspections of engine test system and engine per maintenance technical manuals.

k. Engine and test system troubleshooting procedures per maintenance technical manuals.

l. A minimum of two performance runs as the ETF Operator under the direct supervision of an ETF Qualifier or NATEC JTS representative as part of the pass or fail practical examination.

NOTES: 1. Personnel designated as ETF Operators by a previous command on the same engine test system and type engine are not required to complete a performance run prior to taking the practical examination.

2. Activities without ETF Qualifiers may request assistance in training personnel from the nearest IMA authorized to conduct ETF Operator training for the same test system and type engine(s) being certified to operate. If no other IMA can provide training, assistance may be requested from a qualified NATEC JTS representative.

10.23.3.4 ETF Qualifiers must be trained by a NATEC JTS representative for the test system and type engine. Previous training by NATEC for designation as an ETF Operator does not satisfy the requirement for training as an ETF Qualifier.

10.23.4 ETF Operator and ETF Qualifier Designation

10.23.4.1 ETF Operator Designation

ETF Operators must:

a. Complete the ETF Operator JQR and pass a written exam administered by QA and a practical examination (pass or fail) administered by an ETF Qualifier or NATEC JTS representative.

b. Be designated, in writing, by the MO. The designation must indicate the engine test system and type engines qualified to operate. Designation or re-designation will be documented per 10.1.2.9.

NOTE: ETF Operators previously designated at another command may be designated after passing a written examination administered by QA and a practical examination administered by an ETF Qualifier or NATEC JTS representative. Previously designated ETF Operators failing either the written or practical examinations must complete refresher training or the entire OJT syllabus, as determined by the Program Manager. Previous certification records must be retained in the IQR or ASM.

10.23.4.2 ETF Qualifier Designation

ETF Qualifiers must:

a. Be E-5 or above paygrade with NEC I03A or MOS 6023, or civilian equivalent.

b. Be a designated ETF Operator on each test cell and type engine for which they are being certified as an ETF Qualifier.

c. Receive ETF Qualifier training from a NATEC JTS representative.

d. Be thoroughly familiar with safety and emergency procedures.

e. Be designated, in writing, by the MO. The designation must indicate each test cell and type engine the Qualifier is certified to train personnel to operate. Prior to designation, ETF Qualifiers will be trained per paragraph 10.23.5, and recommended by a NATEC JTS representative and the ETF Program Manager. Designation or re-designation will be documented per 10.1.2.9.

10.23.5 Proficiency and Recertification Requirements

NOTE: Civilian equivalent ETF Operators and ETF Qualifiers will maintain proficiency and certification requirements per contract or position description.

10.23.5.1 Proficiency Requirements

As a minimum, ETF Operators and ETF Qualifiers must run at least one of any type or model aircraft engine every 90 days, no later than the last day of month and run at least one engine for each type certified every 12 months, no later than the last day of the month. Engine runs for

proficiency may be performed on any type test cell with a certified Operator for that test cell. All engine runs for proficiency must be documented in the IQR or ASM. Every attempt must be made to maintain proficiency on all type engines certified to run. Failure to perform at least one engine run on a particular type engine within a 12 month period will result in loss of certification for that specific type engine.

10.23.5.2 Recertification Requirements

a. ETF Operators must be recertified every 24 months, no later than the last day of the month. Recertification requires passing the same written and practical examinations required for initial certification for each type engine they are qualified to run. Afloat activities that are unable to operate their test cell for extended periods of time (greater than 3 months) may perform their recertification practical examinations at another activity with a NATEC JTS representative or ETF Qualifier designated, in writing, for that type test cell. For planning purposes and operational commitments, recertification examinations can be completed up to 3 months prior to the ETF Operator's certification expiration date.

NOTE: ETF Qualifiers are not required to recertify as ETF Operators while assigned to the same command as long as proficiency is maintained per paragraph 10.23.5.1.

b. Certification for ETF Operators exceeding 24 months since designation or recertification will be suspended until they have completed refresher training by a ETF Qualifier or NATEC JTS representative and pass the written and practical examinations. ETF Operators failing either the written or practical examination, must complete refresher training or complete the entire OJT syllabus as determined by the Program Manager.

c. Recertification will be documented in ASM.

10.23.6 Responsibilities

10.23.6.1 NAVAIR

Maintain the Navy Training Systems Plan (NTSP) for Aviation Engine Test Systems. GTF do not require a NTSP.

10.23.6.2 Maintenance Officer (MO)

a. Designate the Power Plants Division Officer as the ETF Operator Training and Certification Program Manager per 10.1.2.9.

b. Publish a local command procedure (LCP) per Appendix D for designation or re-designation of ETF Operators and Qualifiers. The LCP must include the ETF Operator and ETF Qualifier JQRs, per 10.23.3.

c. Designate or recertify ETF Operators and ETF Qualifiers that meet the applicable qualifications of 10.23.3, 10.23.4, and 10.23.5. Designation and recertification will be documented per 10.1.2.9.

d. Suspend ETF Operator designation when a mishap involves injury to a person or damage to an engine or equipment until an investigation is completed. If Operator error is determined to be a contributing factor to the mishap, designation will not be reinstated until remedial training has been completed and the Operator has demonstrated knowledge and skill in the area of deficiency.

e. Revoke ETF Operator designation when the Operator:

(1) Misuses or abuses ETF equipment.

(2) Displays unsafe Operator habits or behavioral traits.

(3) Is involved in a mishap determined to be caused by negligence.

(4) Is cited for significant or recurring safety infractions.

f. Submit a Navy Enlisted Classification (NEC) Change Request NAVPERS 1221/6 to award NEC I03A Engine Test Cell Operator/Maintainer to Navy personnel initially designated as ETF Operators.

10.23.6.3 Program Manager

NOTE: Upon designation as Program Manager, an assessment will be performed within 60 days and annually thereafter per the procedures in paragraph 10.7.

a. Provide NAMP indoctrination on Gas Turbine Engine Test Facility Operation and Maintenance Program per 10.1.4.7. Verify personnel receive Gas Turbine Engine Test Facility Operation and Maintenance familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. Provide ETF Operator Training and Certification Program indoctrination and annual training to personnel assigned to the Test Cell Work Center. Training includes an overview of ETF Operator and Qualifier designation requirements, engine run procedures, safety precautions and emergency procedures. Document training in ASM per 10.1.4.10.

c. Develop written and practical examinations for testing ETF Operators and Qualifiers.

d. Develop local (in-service) training lectures and OJT syllabuses for specific types of engines run procedures, used for training and the designation of ETF Operators. CBT via AMTCS or Navy eLearning (https://learning.nel.navy.mil/ELIAASv2p/) and NATEC JTS representative ETF Program Manager lesson guides may be used in lieu of local lesson guides. Marine Corps personnel must use the AMSTRP IQR for Aircraft Power Plant Test Cell Operator (MOS 6023).

e. Verify NATEC JTS representatives and ETF Qualifiers are certified on the specific test cell and type engine or equipment they are providing training on.

f. Monitor ETF Operators and Qualifiers to validate they are maintaining proficiency requirements per paragraph 10.23.5.

g. Publish a schedule of ETF Operator recertification due dates. Verify completion of recertification requirements of paragraph 10.23.5.

h. Prepare a checklist for startup, shutdown, and emergency procedures to be used during engine test system operation. The checklist must be posted within the control cab.

i. Maintain a program file to include:

(1) List of ETF Operators and Qualifiers, including name, rate or rank, or series or grade, type test cell, type engines, date designated, Operator recertification due date, and projected rotation date.

(2) Copy of ETF Qualifier designation letters (if not documented in ASM).

(3) Copy of documentation from NATEC JTS representative of the ETF Qualifier training conducted for each Qualifier assigned.

(4) POCs.

(5) Program correspondence and message traffic.

(6) References or cross-reference locator sheets.

(7) Copies of the most current Program Manager audit and QA audit performed per 10.7.

(8) Copy of the test cell initial technical evaluation (10.23.7.8) and the most current test cell correlation certification (10.23.7.9) for each engine type.

10.23.6.4 Quality Assurance (QA) Officer

Designate a power plants qualified QAR as the ETF Training and Certification Program Monitor per 10.1.2.9.

10.23.6.5 Program Monitor

a. Perform audits using the CSEC per paragraph 10.7.

b. Review CSEC information and reports and provide recommendations to the chain of command.

c. Administer written certification and recertification examinations for ETF Operators. (Any QAR from the activity can administer the written examination.)

10.23.6.6 ETF Qualifier

a. Assist the Program Manager in developing ETF Operator training.

b. Administer ETF Operator practical examinations.

10.23.6.7 ETF Supervisors

a. Manage engine test workload assignments to ensure ETF Operators and Qualifiers maintain the proficiency and recertification requirements of paragraph 10.23.5.

b. Ensure a minimum of one designated test cell Operator, one technician, and one safety observer are present during all aircraft engine operations, in addition to applicable fire bottle watches and support equipment Operators.

10.23.7 Engine Test Facility Maintenance

10.23.7.1 Permanent Facilities Ashore

The station Public Works department is responsible for maintenance of the structure and systems, such as fuel, water, air, electrical wiring, fire extinguishing systems, and thrust bed. The Test Facility structure and its configuration is defined and controlled by NAVFAC drawings for the facility. The ETF work center is responsible for maintenance of the control console, engine connector panel, and the overall material condition of the facility. This is considered ETI and its configuration defined and controlled by NAVAIRWARCENACDIV Lakehurst.

NOTE: These provisions do not apply to GTF data acquisition systems and engine adapters. GTFs include rotor blade test towers, ram air turbine testing, Kemen Engine Test Facility (FRC Southeast), or other facilities unique to the industrial sites.

10.23.7.2 Permanent Facilities Afloat

The ship's Engineering or Air Department (as appropriate) is responsible for maintenance of the below deck fuel system, electrical and fire extinguishing systems, and deck mounting. The ETF work center is responsible for maintenance of the control console, engine connector panel, thrust bed, above deck fuel system, and the overall material condition of the facility.

10.23.7.3 Mobile Facilities (MF)

The station Public Works Department is responsible for providing and maintaining basic systems, such as water, air, CO2, and station electrical power supply. The ETF work center is responsible for maintenance of the MF test cab, control console, engine connector panel, instrumentation, thrust bed and restraint equipment, fuel, and electrical systems.

10.23.7.4 Basic Maintenance Requirements

a. ETF pre-operational inspections and scheduled maintenance will be performed per applicable technical manuals.

b. ETFs and surrounding areas must receive a fresh water wash down per AG-JETIS-MRC-000. If environmental issues preclude fresh water wash down, a hand wipe down using environmentally approved material will satisfy the requirement. Activities that cannot meet wash down criteria must coordinate with their respective ACC or TYCOM for approval to use alternative methods.

c. Auxiliary equipment will be stored in suitable facilities when uninstalled and not in use.

d. Outdoor engine stand junction box and engine wiring harnesses must be protected by a suitable weatherproof cover when not in use.

e. Suitable supports must be used to ensure interconnecting cables, hoses, and lines do not contact the ground. Water, grease, or other foreign matter will not be allowed to accumulate on cables.

f. Test cell hoses and tubes must be maintained per NAVAIR 01-1A-20, Aviation Hose and Tube Manual.

g. A Jet Engine Test Cell Malfunction Report must be forwarded by Broad Arrow message per 5.2.8 to the ACC or TYCOM when a facility becomes inoperative to the extent that an unacceptable production delay is anticipated. The ACC or TYCOM will advise the originator of the report when corrective action cannot be completed with available assets and expertise. GTF activities must report malfunctions and inoperative equipment per local policy.

10.23.7.5 Electrical Power Requirements

The instruments used in conjunction with the test stand are designed to operate on predetermined power ratings within relatively small tolerances. Changes in voltage or frequency or a combination of both will affect the accuracy of the instrumentation and contribute to component failures.

Whenever possible station or commercial power will be used. If station or commercial power is not available and electrical power is supplied by a portable generator, the ETF Operator will ensure:

a. The portable generator is 208/115 volts A.C., 60Hz, 100KW or higher, three phase, and four wire.

b. The portable generator is monitored to ensure its voltage and frequency remains stable.

WARNING: FOR PERSONNEL SAFETY, THE CONTROL CAB, ENGINE STAND, AND PORTABLE GENERATOR MUST BE CONNECTED BY AUXILIARY GROUNDING CABLES WITH A COMMON CONNECTION TO A SUITABLE GROUNDING DEVICE, FOR EXAMPLE, A METAL STAKE DRIVEN INTO THE GROUND AT A SUFFICIENT DEPTH TO ENSURE PROPER GROUNDING. THE GROUNDING REQUIREMENTS MUST BE CONFIGURED IN ACCORDANCE WITH THE INSTALLATION/OPERATION PUBLICATION FOR THE APPLICABLE PORTABLE GENERATOR.

10.23.7.6 Calibration

Facility equipment must be calibrated per the applicable intervals cited in the Metrology Requirement List. The activity will provide an ETF Operator and an electrician to assist the calibration team.

10.23.7.7 Basic Operating Procedures

a. Jet engine test facility custodians must prepare a check list of starting, shutdown, and emergency procedures to be used during engine test system operation, based on the procedures outlined in the applicable engine maintenance technical manuals and the test system preoperational MRCs. The check list will be available within the control cab and used by ETF Operators during each engine test.

b. Engines under test must be secured per NAVAIR 17-1-537, Aircraft Securing and Handling Procedures with Aircraft Restraining Devices and Related Components.

10.23.7.8 Engine Test Cell Technical Evaluation

Prior to correlation, all newly constructed ETFs, significantly modified (affecting aerodynamic or thermodynamic flow) or rebuilt fixed ETFs must undergo a comprehensive technical evaluation conducted by NAVAIRWARCENACDIV Lakehurst NJ to ensure suitability for use. Unless waived by NAVAIRWARCENACDIV Lakehurst NJ, a technical evaluation and an engine correlation must be satisfactorily completed before engines can be certified RFI based on ETF testing. The local activity resident officer in charge of construction will request the evaluation via naval message to NAVAIRWARCENACDIV Lakehurst NJ and COMNAVAIRLANT Norfolk VA (code N421M and N423B), prior to acceptance of the facility.

10.23.7.9 Engine Test Cell Correlation

To ensure engines consistently meet all performance requirements, a test cell correlation for each engine type tested must be conducted for all enclosed, permanent turbofan, jet, shaft, or prop engine test facilities. Test cell correlation may also be required when engine test procedures and parameters are changed or the design of engine dress kit hardware (inlet screen, bell mouth, exhaust

nozzle, etc.) is modified such that it could affect aerodynamic or thermodynamic flow. Outdoor (open-air) jet engine test systems generally do not require correlation unless certain site-specific conditions alter airflow dynamics to the engine. Outdoor (open-air) Turboshaft Engine Test Systems using a torque tube to measure torque output also require correlation. If a torque tube is replaced with a different serial number torque tube for any reason, the facility must be re-correlated for both indoor and outdoor turboshaft test systems. The interval between correlations must not exceed 3 years. Requests to extend test cell correlation beyond 3 years may be granted with joint ACC, TYCOM, and NAVAIRWARCENACDIV Lakehurst NJ concurrence. Extensions to the correlation interval should never exceed a total of 7 years unless extenuation circumstances are agreed upon by joint ACC, TYCOM and NAVAIRWARCENACDIV Lakehurst NJ concurrence.

10.24 Aviation Maintenance Inspections (AMI) and Maintenance Program Assessments (MPA)

10.24.1 Reference

OPNAVINST 4790.2, The Naval Aviation Maintenance Program (NAMP)

10.24.2 Introduction

10.24.2.1 This NAMPSOP directs and establishes the requirements for the performance of Aviation Maintenance Inspections (AMI) and Maintenance Program Assessments (MPA).

10.24.2.2 AMI is a formal and graded inspection, performed by COMNAVAIRFOR and NAVAIR Aircraft Controlling Custodian Office (ACCO) Aviation Maintenance Management Teams (AMMT). AMMT verifies compliance with the Naval Aviation Maintenance Program (NAMP) and related directives for fleet activities and verify compliance to contractual requirements for any contracted maintenance effort. AMIs include practical examinations to validate proficiency and application of correct procedures. AMI is based on the same Computerized Self Evaluation Checklist (CSEC) standards used by maintenance activities to self-audit NAMP compliance, as specified in the NAMP Compliance Auditing Program, paragraph 10.7. For activities with a DOD or DON Contractor operating or maintaining naval aircraft, AMMT will use guidance from Chapter 11 and NAVAIRINST 3710.1 to develop Flight Operations/Ground Operations (FOP/GOP) checklists to evaluate the effectiveness of programs and processes as specified by contract Statement of Work (SOW) or Performance Work Statement (PWS). AMMT will coordinate with the activity assigned Government Flight Representative (GFR)/Ground Government Flight Representative (GGFR) or Contracting Officer's Representative (COR) prior to the AMI.

NOTE: Defense Acquisition University (DAU), GFR/GGFR training is required for AMMT and MAT personnel prior to inspecting contractor maintenance sites.

10.24.2.3 MPA is an inspection performed by the Maintenance Assessment Team (MAT) of the activity's Immediate Superior in Command (ISIC) precursory to AMI. MPAs are used to determine areas of deficiency in NAMP compliance and assist in performance improvement to the activity's applicable NAMP program management. MPAs are conducted using the CSEC and relevant Wing Supplemental CSEC, if applicable.

10.24.2.4 Definitions:

a. Critical (CR) - A hazardous or unsafe condition that directly and immediately:

(1) Creates a risk of death or life-threatening injury to the maintenance personnel, aircrew, passengers, or any other personnel; or

(2) Affects the operational integrity of SE that could cause death or life-threatening injury if it fails.

(3) Affects safety of flight of aircraft in flight or in Mission Capable (MC) status

b. Major (MJ) - A discrepancy that is less than Critical, but:

(1) Increases risk of injury during flight or emergency egress; or

(2) Increases risk of an accident or injury due to incomplete training or failure to meet proficiency verification requirements; or

(3) Increases risk of an accident due to inaccurate records for flight or safety-critical information used to determine if aircraft or equipment is operationally ready; or

(4) Increases risk of health problems due to improper use of Personnel Protective Equipment (PPE), or failure to perform medical or environmental testing/monitoring; or

(5) Increases risk of Not Mission Capable (NMC) aircraft being flown or non-ready for use equipment being operated due to materially degraded maintenance or inspection.

c. Significant Administrative (SA) – Administrative discrepancies with one or more of the following characteristics:

(1) Failure to perform or inaccurately performing up-line accounting or reporting requirements not related to safety of flight or safety of personnel; or

(2) Inaccurate or missing records on personnel qualifications, certifications, or designations.

d. General (GE)- Failure to comply with requirements not categorized as Critical, Major, or Significant Administrative.

e. Contractor Maintenance Support – For activities that employ contractor maintenance support, discrepancies will be characterized using the following definitions (Non-conformance being the most severe):

(1) Non-conformance - A failure to conform to accepted standards or specific contractual requirements as outlined in the SOW, PWS, or in the FOP/GOP.

(2) Deficiency - An error in program or process management that, if left uncorrected, could lead to a contractual non-conformance.

(3) Discrepancy - A minor error, usually in records, that can be easily corrected and does not constitute a non-conformance in and of itself.

(4) Comment - A comment or recommendation for the management's consideration that requires no action or response.

f. AMMT will include descriptive detail when a discrepancy is found as non-conformance, to include FOP/GOP clause of the PWS/SOW. The discrepancy will be written in the AMI discrepancy report issued to the activity with the following guidance:

(1) Conflicts regarding the conduct of ground or flight operations covered by NAVAIRINST 3710.1 will be referred to the GFR/GGFR.

(2) Conflicts regarding the application of contractual requirements will be referred to the COR or Technical Point of Contact (TPOC) and the GFR/GGFR.

(3) To prevent introducing a constructive change to the contract, the GFR/GGFR will review the finding and validate the contract requirement. The resolution of contract requirement conflicts are the responsibility of the Procuring Contracting Office (PCO). Refer to paragraph 11.1.4.f.

(4) AMMT will issue a copy of the written notification of the AMI discrepancy report to the GFR/GGFR (or COR if not assigned).

g. Practical Examinations (PE) - will be graded "Satisfactory" or "Unsatisfactory" based on the activity's ability to accurately complete the task in accordance with specified procedures, correctly respond to emergent situations, availability and proper use of personal protective equipment (PPE), and adherence to safety precautions.

10.24.3 Aviation Maintenance Inspection (AMI)

10.24.3.1 COMNAVAIRFOR AMMT will conduct AMIs for O-Level and I-Level Navy and Marine Corps activities operating or supporting aircraft assigned to COMNAVAIRPAC, COMNAVAIRLANT, COMNAVAIRFORES, and CNATRA.

10.24.3.2 COMNAVAIRSYSCOM (NAVAIR ACCO) AMMT will conduct AMIs for all activities operating or supporting aircraft assigned to COMNAVAIRSYSCOM.

NOTE: COMNAVAIRSYSCOM activities will be evaluated per NAVAIR policy.

10.24.3.3 I-Level AMIs will include a graded Material Condition Inspection (MCI) of assigned support equipment, aircraft armament systems, armament weapons support equipment, and mobile facilities. Each item inspected during the MCI will be assigned a grade of Satisfactory or Unsatisfactory.

10.24.3.4 AMIs will receive an overall grade based on a 100-points maximum scoring system, with a minimum passing score of 70 points. All activities with either, contract maintenance or embedded contractor field teams, will receive a separate AMI grade for each contractors maintaining or repairing aircraft and or SE. Details on the AMI grading process, including information on discrepancies, and practical examinations are posted on the CNAF N422C Microsoft Teams channel CNAP Sharepoint Website.

10.24.3.5 Re-inspection. Commands that do not meet the minimum AMI passing criteria score of 70 points will be re-inspected. The scope of re-inspection will address all previously AMI inspected programs, practical examinations, and MCIs, if applicable. Subject to schedule availability, the re-inspection will occur no earlier than 90 days, but no later than 180 days after the failed inspection. AMI Re-inspections may be delegated to the ISIC when practical as determined by COMNAVAIRFOR or the NAVAIR ACCO. The AMI re-inspection will be graded using the standard grading process, but the passing grade will be elevated to a minimum score of 80 points.

NOTES: 1. COMNAVAIRFOR (N422) may perform, direct, or approve the activities' ISIC to conduct an MPA in lieu of an AMI. The MPA results will be forwarded to COMNAVAIRFOR (N422) for review. If the results of the MPA are determined acceptable, COMNAVAIRFOR will endorse the results of the MPA as the AMI.

2. NAVAIR ACCO may perform, direct, or approve the activity's ISIC to conduct an MPA, in lieu of an AMI. The MPA results will be forwarded to NAVAIR ACCO, as applicable, for review. IF the results of the MPA are determined acceptable, NAVAIR ACCO will endorse the results of the MPA as the AMI.

10.24.3.6 Activities permanently based Outside the Continental United States (OCONUS), CVN or L-Class AIMDs, deploying squadrons, squadrons that deploy detachments, and Marine Aviation Logistics Squadrons (MALS) will receive an AMI every 24 months, but not to exceed 30 months.

NOTES: 1. CVN and L-Class ships undergoing extended maintenance or yard periods will coordinate with COMNAVAIRFOR N422 to seek approval for stand-down NAMP programs and associated audits. Deviation requests for programs intended to stand down will include justification, resumption plan of action and milestones (POA&M), applicable training and certification requirements, and may request a deviation per 1.2.5.

2. Squadrons transitioning from one T/M/S aircraft to another may request a deviation.

10.24.3.7 Non-deploying CONUS activities, will receive an AMI every 30 months, not to exceed 36 months.

10.24.4 Maintenance Program Assessments (MPA)

10.24.4.1 MPAs will be performed for all activities.

NOTE: COMFRC HQ may generate a local command procedure per Appendix D or OPNAVINST 5215.17 to delineate specific MPA guidance for their activities.

10.24.4.2 ISICs will perform MPAs for all aviation activities under their cognizance. MPAs will be evaluated in the same manner as AMIs. Activities that fail their MPA will be re-inspected at their ISIC's discretion. Critical MPA discrepancies require additional scrutiny and may require a re-inspection.

10.24.4.3 ISICs should perform MPAs as often as they deem necessary to ensure activities are effectively complying with NAMP program management requirements. ISICs will consider the following when scheduling or performing MPAs:

a. ISICs will conduct MPAs mid-cycle between AMIs.

b. ISICs will also perform an MPA prior to the AMI to assist the subordinate activity prepare for the inspection. The pre-AMI MPA will be performed no later than 90 days prior to an AMI.

10.24.4.4 For newly commissioned ships or ships that have an approved deviation to stand-down programs will be provided a post-yard MPA not later than 6 months from return to operational status.

10.24.5 Responsibilities

10.24.5.1 COMNAVAIRFOR (N422)

a. Organize AMMTs to inspect, train, and assist Navy and Marine Corps O-Level and I-Level activities operating or supporting aircraft assigned to Commander, Naval Air Forces Pacific (CNAP), Commander, Naval Air Forces Atlantic (CNAL), Commander, Naval Air Forces Reserve (CNAFR) and Chief of Naval Air Training (CNATRA). AMMTs will consist of Navy and Marine Corps aviation ground maintenance officers and senior enlisted personnel (E7-E9).

b. Publish the schedule of COMNAVAIRFOR AMIs and MPAs planned for the following 9 months via CNAF N422C Microsoft Teams page and message traffic.

c. Upon completion of an AMI or MPA, document and provide activities with an AMI or MPA report, a cover letter with an overview of programs graded, CSEC discrepancy database, and a blank feedback form with delivery instructions to CNAF_AMMT@us.navy.mil.

d. Update the O-Level and I-Level portions of the CSEC as changes to references and requirements occur.

e. Publish Aviation Maintenance Advisories as needed to inform activities of common problems found during AMIs and MPAs.

f. Review all ISIC-submitted closed-out corrective actions letters for root cause analysis and sustainability.

g. After completion of all AMIs for the calendar year, perform statistical analysis of AMI performance, adjusting discrepancy grading and acceptable performance standards as needed to support continuous process improvement in NAMP compliance.

h. Generate and maintain AMMT Lesson Guides for program "Fleet best practices". For access to the SharePoint website or CNAF N422C Microsoft Teams page, request may be sent to CNAF_AMMT@us.navy.mil.

10.24.5.2 NAVAIR ACCO AMMT Aviation Maintenance Management Branch

a. Organize an AMMT to inspect, train, and assist O-Level and D-Level activities assigned to NAVAIR ACC. The AMMT will consist of Navy and Marine Corps aviation ground maintenance officers and senior enlisted personnel (E7-E9).

b. Update the D-Level portions of the CSEC as changes to references and requirements occur.

c. Upon completion of an AMI, NAVAIR will provide activities, an AMI cover letter, and an enclosed detailed report with an overview of programs graded.

10.24.5.3 Immediate Superior in Command (ISIC)

a. Organize a Maintenance Assessment Team (MAT) comprised of members from the maintenance staff to conduct MPAs and assist activities in compliance with the NAMP and other governing instructions.

b. Conduct MPAs per the intervals and procedures specified in paragraph 10.24.4.

c. Publish advisories to provide activities with information on common problems noted in ISIC MPAs and other maintenance related information.

d. Review subordinate activities' AMI Corrective Action Letter (Figure 10.24-1) and verify prompt, sustainable corrective action has been taken for all discrepancies within 60 days of completion of inspection. Submit Corrective Action Letter with ISIC endorsement letter indicating follow up has been performed to CNAF (N422), or NAVAIR ACCO no later than 90 days from the AMI/MPA inspection. Corrective Action Reports with endorsements will be e-mailed to the appropriate reporting activity: CNAF_AMMT@us.navy.mil or NAVAIR_AMMT@us.navy.mil.

NOTE: FRCs, including detachments, will submit Corrective Action Letters via their ISIC.

10.24.5.4 AMMT and ISIC MAT

a. Conduct audits using the appropriate governing directives and the CSEC to verify compliance with the NAMP.

b. Conduct practical examinations to verify the activity has sound, safe maintenance practices, and is able to respond appropriately to emergency situations.

c. Provide training and assistance in areas of deficiency.

d. Trend discrepancies and submit changes to the NAMP and other governing directives when inadequate policy is determined to be a contributing factor to non-compliance.

e. Provide instruction to the activity when a safety of flight or safety of personnel discrepancy warrants immediate action.

f. Provide ISIC leadership a recommendation for re-inspection when deemed necessary to verify correction of deficiencies and sustained performance improvement.

10.24.5.5 O-Level and I-Level Maintenance Officers

a. Take immediate sustainable action to correct critical safety of flight and safety of personnel discrepancies noted during AMIs and MPAs.

b. Within 30 days of completion of the AMI or MPA inspection, provide the ISIC with a Corrective Action Letter stating corrective action has been taken for graded programs, safety of flight, and safety of personnel discrepancies (Figure 10.24-1).

(1) CVN and L-class AIMD Maintenance Officers will submit Corrective Action Letter directly to CNAF N422 Corrective Action Reports via CNAF _AMMT@us.navy.mil.

(2)IMA/MALs/O-Level. Activity Maintenance Officers will submit reports via their ISIC.

c. Provide written feedback to CNAF N422C or NAVAIR AMMT the ACC, Type Wing, or MAW on AMI and MPA processes and the performance of the inspection team. Feedback letter may be sent to CNAF_AMMT@us.navy.mil or NAVAIR_AMMT@us.navy.mil. Ensure activity leadership is courtesy copied (CC'ed) on the feedback letter.

From: Maintenance Officer, VFA-123
To: Maintenance Officer, Strike Fighter Wing Atlantic

Subj: AVIATION MAINTENANCE INSPECTION (AMI) CORRECTIVE ACTION REPORT

Ref: (a) COMNAVAIRFORINST 4790.2D

1. Per reference (a), the following actions were taken to correct Critical, Major and Significant Administrative discrepancies noted during the COMNAVAIRFOR_AMI DD/MMM/YY.

a. Critical Discrepancies

(1) Technical Directives Compliance. Verified correct compliance timeframe for all outstanding Technical Directives (TDs), and complied with all overdue TDs.

b. Major Discrepancies

(1) FOD Prevention. Inspected all tool containers and pouches for FOD. Conducted all-hands training on FOD prevention measures.

(2) Tool Control. Inspected all tool containers for compliance with the Tool Control Program (TCP). Inventoried and verified proper etching for all replacement tools held in the Tool Control Center. Conducted command wide training on missing tool procedures.

c. Significant Administrative Discrepancies

(1) Data Analysis. Held training for all personnel on correct MAL code application.

(2) Aircraft Inventory Readiness and Reporting System. Held training on Material Condition Reporting procedures.

2. POC: (Name, rank, e-mail address, and phone numbers).

J. M. STOCK
By direction

Figure 10.24-1: Aviation Maintenance Inspection (AMI) Corrective Action Letter (Example)

10.25 Long Term Down Aircraft Management Procedures

10.25.1 References

a. NAVAIR 15-01-500, Preservation of Naval Aircraft

b. NAVAIR 01-1A-509-2, Cleaning and Corrosion Control, Volume II (Aircraft)

10.25.2 Introduction

10.25.2.1 This NAMPSOP applies to the management of all Navy and Marine Corps aircraft assigned to COMNAVAIRFOR and COMNAVAIRFORES Aircraft Controlling Custody (ACC), with the exception of aircraft undergoing scheduled depot rework.

10.25.2.2 Long Term Down (LTD) aircraft. For the purposes of the NAMP, a LTD aircraft is defined as an aircraft that has not flown for 90 days or more.

10.25.2.3 The possibility of material degradation increases when aircraft are not flown (non-operational) for long periods of time. Primary actions for minimizing the number of aircraft in LTD status are:

a. Management of aircraft utilization.

b. Standardized actions at specified times.

c. OPNAV, COMNAVAIRFOR, NAVAIR, COMFRC, and NAVSUP WSS coordination in resolving systemic issues causing LTD status.

10.25.3 Requirements

10.25.3.1 LTD aircraft must be preserved at the most appropriate level specified in NAVAIR 15-01-500. Factors to consider in determining the preservation level:

a. Length of time the aircraft is expected to be inactive (See paragraphs 10.25.3.2, 10.25.3.3, and 10.25.3.4 for direction).

b. Environmental conditions (parked inside or outside, temperature and humidity levels, proximity to salt water, etc).

c. Whether the aircraft is being actively maintained (repairs are ongoing and scheduled maintenance is being performed).

d. Impact of missing parts to the aircraft's integrity (missing flight surfaces, panels, engines, etc).

e. The ultimate disposition of the aircraft (Induction into the depot for repair, transfer to AMARG, strike, etc).

10.25.3.2 Aircraft expected to be non-operational for up to 365 days must be placed in Level II preservation, unless being actively worked to return to flying status. Actively worked is defined as all special inspections being performed and maintenance is on-going to repair and fly the aircraft before reaching 365 days of non-operation.

10.25.3.3 Aircraft expected to exceed 365 days of non-operation should be Level III preserved per NAVAIR 15-01-500.

10.25.3.4 Aircraft undergoing a scheduled depot rework (PMI/IMC) or repair at the depot will be placed in Level IV preservation per NAVAIR 15-01-500.

10.25.3.5 LTD aircraft having preservation MRCs will be inspected and the preservation maintained per the applicable preservation MRCs.

10.25.4 Responsibilities

10.25.4.1 Squadrons

a. Provide NAMP indoctrination on Long Term Down Aircraft Management procedures per 10.1.4.7. Verify personnel receive Long Term Down Aircraft Management familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. Actively manage aircraft utilization to minimize aircraft inactivity.

c. Comply with the applicable LTD aircraft preservation actions specified in paragraph 10.25.3.

10.25.4.2 Type Wings and Marine Air Groups (MAG)

a. Provide a Long Term Non-Operational Aircraft Report via naval message on the first working day of each month, per the template of Figure 10.25-1.

b. Monitor Date Last Flown (DLF) for each BUNO, and prioritize the distribution of replacement parts and maintenance assistance as deemed most effective in minimizing the number of LTD aircraft in the context of individual squadron and overall Wing aircraft readiness requirements."

c. Direct cannibalization actions when deemed efficient and effective in minimizing long-term non-operational status, per paragraph 5.1.8.

d. Ensure squadrons do not perform large-scale cannibalization from one aircraft to another solely to prevent LTD status. Cannibalization will be performed only when necessary to support operational requirements.

e Monitor estimated delivery dates of long-lead time parts and direct appropriate level of preservation as soon as any non-operational milestone specified in paragraph 10.25.3 is anticipated.

f. Coordinate with the supporting supply activity to expedite long-lead time parts.

g. Coordinate with the ACC Class Desk to obtain Level III preservation services.

10.25.4.3 Aircraft Controlling Custodians (ACC)

a. Coordinate with NAVSUP and NAVAIR to resolve factors causing long-term non-operational status.

b. Manage the distribution of aircraft inventory to minimize the readiness impact of planned long-term non-operational aircraft. The ACC must publish an Inventory plan in July detailing the aircraft distribution plan for the next Fiscal Year.

FM (TYPE WING or MAG)
TO COMNAVAIRFOR SAN DIEGO CA
INFO COMNAVAIRPAC SAN DIEGO CA
COMNAVAIRLANT NORFOLK VA
COMNAVAIRSYSCOM PATUXENT RIVER MD
NAVSUP WEAPON SYSTEMS SUPPORT MECHANICSBURG PA
COMFLTREADCEN PATUXENT RIVER MD
(COMMARFORCOM or COMMARFORPAC, AS APPLICABLE FOR USMC UNITS)
(SUPPORTING SUPPLY ACTIVITY)
(SUPPORTING INTERMEDIATE MAINTENANCE ACTIVITY)
(DEPOT REPAIR POINT)
(EACH SUPPORTED CVW OR MEU)
BT
UNCLAS//N04790//
PASS TO OFFICE CODES:
COMNAVAIRPAC SAN DIEGO CA//N40/N41/N42//
COMNAVAIRLANT NORFOLK VA//N40/N41/N421/N423//
COMNAVAIRSYSCOM PATUXENT RIVER MD//
MSGID/GENADMIN/-//
SUBJ/LONG TERM NON-OPERATIONAL AIRCRAFT REPORT//
REF/A/DOC/COMNAVAIRFORINST 4790.2D
AMPN/REF A IS THE NAMP.//
POC/NAME/RANK/CODE/PHONE/EMAIL//
RMKS/1. 91-180 DAYS NOT FLOWN:
A. T/M/S
(1) BUNO
(A) Number of Days Not Flown:
(B) AIRRS Status Code
(C) Preservation Level
(D) Top 10 Parts Requirements: (NSN, Nomenclature, requisition number, estimated delivery date)
(E) Other Requirements: (depot support, tech assist, etc.)
(F) Cause of LTD: (ex, crash damage, long lead part leading to CANNs, etc.)
(G) Plan to Return to Flight Status: (Example: #1 build for VFA-25,estimate return to flight status 30 days after receipt of parts)
(2) BUNO
(A) Number of Days Not Flown
(B) AIRRS Status Code
(C) Preservation Level

Figure 10.25-1 (page 1): Long Term Non-Operational Aircraft Report

(D) Top 10 Parts Requirements: (List NSN, Nomenclature, requisition number, estimated delivery date)

(E) Other Requirements: (depot support, tech assist, etc.)

(F) Cause of LTD: (Examples: Crash damage; Long lead time part leading to cannibalization, etc.)

(G) Plan to Return to Flight Status: (Example: Estimate return to flight status 30 days after receipt of parts and completion of ongoing depot crash damage repair.)

2. 181-360 Days No Fly Aircraft:

A. T/M/S

(1) BUNO

(A) Number of Days Not Flown:

(B) AIRRS Status Code

(C) Preservation Level

(D) Top 10 Parts Requirements: (NSN, Nomenclature, requisition number, estimated delivery date)

(E) Other Requirements: (depot support, tech assist, etc.)

(F) Cause of LTD: (ex, crash damage, long lead part leading to CANNs, etc.)

(G) Plan to Return to Flight Status: (Example: #1 build for VFA-25,estimate return to flight status 30 days after receipt of parts)

(2) BUNO

(A) Number of Days Not Flown

(B) AIRRS Status Code

(C) Preservation Level

(D) Top 10 Parts Requirements: (List NSN, Nomenclature, requisition number, estimated delivery date)

(E) Other Requirements: (depot support, tech assist, etc.)

(F) Cause of LTD: (Examples: Crash damage; Long lead time part leading to cannibalization, etc.)

(G) Plan to Return to Flight Status: (Example: Estimate return to flight status 30 days after receipt of parts and completion of ongoing depot crash damage repair.)

3. 361 OR MORE DAYS NOT FLOWN: (Same elements (A) through (F))

4. COMMENTS: (Provide any additional information necessary to explain LTD)//

Figure 10.25-1 (page 2): Long Term Non-Operational Aircraft Report

10.26 Electrical Wiring Interconnect System (EWIS) Maintenance (NAMPSOP)

10.26.1 References

a. NAVAIR 01-1A-505-1, General Series Wiring Maintenance.

b. NAVAIR 01-1A-505-4, Aircraft Fiber Optic Cabling.

c. MIL-HDBK-522, Guidelines for Inspection of Aircraft Electrical Wiring Interconnect Systems (EWIS).

d. MIL-HDBK-535, Guidelines for Troubleshooting of Aircraft Electrical Wiring and Interconnect Systems (EWIS).

e. NAVAIR 01-1A-509-3 Avionics Corrosion Control and Prevention.

f. MIL-HDBK-525, Electrical Wiring Interconnect System (EWIS) Integrity 2.

10.26.2 Introduction

a. Electrical Wiring Interconnect System (EWIS) is defined as any wire, electrical cabling, or fiber optic cabling, or a combination of these items, including terminations, installed in any area of the aircraft for the purpose of transmitting electrical or optical energy, signals or data between two or more electrical/optical end points.

b. Naval Air Warfare Center Aircraft Division (NAWC AD) propulsion and electrical systems engineers have determined that properly maintaining EWIS is a critical factor in optimal aircraft performance and reliability. The importance of thorough EWIS maintenance continues to grow with the ever-increasing technical sophistication and integration of advanced aircraft electrical systems. Accordingly, this NAMPSOP outlines EWIS procedures that more closely align with commercial aviation industry best practices.

c. The primary goal of the EWIS program is to prevent EWIS discrepancies through awareness and prevention. The secondary goal is to detect EWIS defects in the earliest stages of development to minimize impacts to mission readiness and safety. The primary elements of the program are:

(1) To bring awareness of the safe handling and the prevention of incidental damage to EWIS by all personnel whom come in contact with aircraft wiring and other EWIS components.

(2) To ensure personnel inspecting EWIS, regardless of rate/MOS, and individuals maintaining EWIS are knowledgeable and skilled in performing proper, efficient EWIS inspections and repairs.

(3) To optimize data analysis that enables informed decisions on actions required to improve EWIS in a timely manner that meet the needs of the fleet.

d. All O-Level naval aviation activities operating and maintaining naval aircraft will comply with the procedures of this NAMPSOP.

10.26.3 Requirements

10.26.3.1 General

a. All O-Level naval aviation activities performing aircraft EWIS maintenance are responsible for adherence to the EWIS inspection, maintenance and repair procedures in T/M/S maintenance

manuals and references 10.26.1.a through f.

b. Although not required to comply with this NAMPSOP, depot, commercial, and other government activities performing rework or maintenance on naval aircraft are required to meet the same or equivalent standards for EWIS maintenance as defined in references 10.26.1.a. through f.

10.26.3.2 Training

All maintenance technicians who perform on-aircraft maintenance must have a working knowledge of EWIS. Training requirements:

a. Personnel who perform on-aircraft maintenance, must complete the EWIS Wiring Awareness training course (CNATT-008- WRA-021-002-B0) per paragraph 10.1.4.7 (NAMP Indoctrination Training). If fiber optic cabling is applicable to the aircraft, personnel will also complete the EWIS Fiber Optic Awareness (CNATT-008-FBO-021-001-B0). These courses are available on Navy e-Learning at the following link: https://learning.nel.navy.mil/ELIAASv2p/. Program Manager or Monitor may conduct group training via presentation of the e-Learning training videos. Training videos may be obtained via the two methods cited below.

(1) Source videos can be streamed or downloaded via the Training Resources Library of the Joint Services Wiring Action Group (JSWAG) secure site at:

https://wiki.advana.data.mil/display/ASTECH/Department+of+Navy+Sustainment+Vector

(2) DVDs can be ordered at no cost from Defense Video Imagery Distribution System via:

https://www.dimoc.mil/Customer-Service/Contact-Us/ or by calling DIMOC at 888-743-4662.

b. Maintenance technicians and maintenance aircrew who inspect EWIS (for example, Material Condition Inspectors, Plane Captains, and Plane Handlers, etc.) must be assigned, and actively working (less than 60 days no progress) type/model specific on-the-job EWIS training (OJT as defined 10.1.4.4) for the type/model aircraft on which their inspections are performed. At a minimum, inspection training will include:

(1) Review of references 10.26.1.a. through 10.26.1.f.

(2) Aircraft's wiring system inspection per reference (a).

(3) EWIS cleaning and preventative maintenance, per reference (a) procedures.

(4) Identification of wires, connectors, and contact pins per reference (a), and T/M/S/aircraft technical manuals (e.g., Wire Connector Repair (WCR) and Wire Data Manual (WDM) as applicable.

(5) Single wire, bundle, and harness installation, routing, clamping, and protection, per reference (a) procedures.

c. Maintenance technicians who maintain and repair EWIS must be assigned, and actively working (less than 60 days no progress) type/model specific on-the-job EWIS training (OJT as defined 10.1.4.4) for the type/model aircraft on which their inspections are performed. At a minimum, training will include:

(1) Review of references 10.26.1.a. through 10.26.1.f.

(2) Complete training outlined per reference 10.26.3.2.b

(3) Basic EWIS repair processes to include:

(a) Shielded and non-shielded splices (to include emphasis on splice restrictions);

(b) Insertion and extraction of connector contacts;

(c) Selection and termination of wiring terminal lugs and contacts.

(4) Operation of multimeters and other wire test equipment, such as the Automatic Wire Test Set (AWTS), per references 10.26.1.a. through 10.26.1.f and T/M/S-specific technical manuals.

(5) Work order (WO) documentation, with emphasis on MAL Codes specific to EWIS and WUCs specific to the T/M/S aircraft EWIS.

NOTE: The reference to type/model specific OJT is meant to ensure technicians who change aircraft platforms have completed, at a minimum, the procedures listed in paragraph 10.26.3.2.b and/or 10.26.3.2.c on their current aircraft. It is not a separate requirement to have a specifically named task list if one does not exist (e.g., CH-53E EWIS Inspection). If a type/model specific task list has not been generated, the general inspection task list from the JSWAG site or other locally produced task list can be used.

10.26.3.3 EWIS Maintenance

a. EWIS maintenance will be performed per the procedures specified in T/M/S technical manuals and references 10.26.1.a through f, as applicable.

b. EWIS maintenance will be documented in detail in OOMA Work Orders (WO). The Corrective Action block will contain a full description of the repair, to include the location of the repair. If EWIS repair was performed, the WO will contain detailed repair information to include:

(1) Reference designator. Reference designators vary by platform and are indicated in applicable wire schematics to identify connectors, wire harness assemblies and other terminating devices.

(2) If a reference designator is unavailable, specific attaching component or connector number information may be used (i.e. “autopilot computer connector P3”).

(3) Associated system, for example, ALQ-126 Countermeasures Set or APG-73 Radar.

(4) Physical location of the EWIS repair (e.g., fuselage station, rib number, panel number).

NOTE: Documenting the location of installed splices allows the T/M/S Aircraft FST to determine whether wire segment replacement is required during future rework to restore wire harnesses to original configurations.

(5) Wiring System Malfunction Code (W00-W62) per Appendix E will be applied.

(6) Work Unit Code (WUC) or Unified Numbering System (UNS) for the wire, cable, or harness must be assigned for those T/M/S with dedicated EWIS WUC/UNS. For all others, use the WUC for the attaching component or affected sub-system.

10.26.4 Responsibilities

10.26.4.1 COMNAVAIRSYSCOM

a. NAWC AD Power and Energy Division will establish all installation and performance requirements of naval aviation EWIS and EWIS components.

b. NAWC AD Avionics, Sensors, and Engineering Warfare Department will establish all functional performance requirements of data and signals transported or conveyed through EWIS on naval aviation platforms.

c. NATEC will provide in-service support for EWIS.

d. T/M/S Aircraft FSTs will:

(1) Review references 10.26.1.a through f.

(2) Identify, assess, and prioritize EWIS degraders based upon the following data (per availability of individual T/M/S):

(a) Fleet Failure and Maintenance Data (WOs, Engineering Investigations, HazReps).

(b) Aircraft Functional and Physical Hazard Assessment Data (areas containing EWIS and combustible materials, high heat areas, high vibration areas, severe wind and moisture prone (SWAMP) areas, etc.).

(c) EWIS Components Aging Assessment Data (wire insulation age degradation analysis).

(3) Establish EWIS degrader mitigation strategies and implement mitigation steps such as scheduled organizational, intermediate, and depot-level inspection, maintenance manual updates, and the replacement or upgrade of EWIS components.

(4) Develop and publish Maintenance Requirement Card (MRC) for T/M/S EWIS inspections.

(5) Coordinate with Type Wings and MAWSs to raise Fleet Awareness fleet awareness of EWIS degraders and mitigation strategies and steps to stress the importance of protective measures when working on or around wire bundles and connectors during structural repairs, systems installations and modifications. Perform periodic re-assessment of EWIS mitigation strategies and steps to ensure desired outcomes have been achieved and maintained.

(6) Provide expertise and equipment assistance to supported activities during EWIS program actions, such as engineering analysis in support of Automatic Wire Test Systems (AWTS), and platform EWIS modifications.

10.26.4.2 Type Wings and MAWs

a. Designate an EWIS Program Manager.

b. Publish a Wing LCP per Appendix D on any T/M/S peculiar EWIS procedures not addressed in this NAMPSOP or applicable technical directives and instructions.

c. Incorporate EWIS inspection training, maintenance, and repair training requirement tasks per paragraphs 10.26.3.2.b. and 10.26.3.2.c, for QARs, CDQARs and CDIs that inspect, maintain, and

or repair EWIS.

d. Develop a Job Qualification Requirement (JQR) per the Aviation Maintenance Training Program NAMPSOP, paragraph 10.1.4.3, if EWIS training is not adequately covered by a Navy Qualified and Proficient Technician (QPT) or Marine Aviation Maintenance Training and Readiness Program (AMTRP) syllabus.

NOTE: JQR task lists have been developed for personnel performing EWIS repairs and personnel performing EWIS inspections. These lists may be downloaded via the JSWAG Share Point (https://wiki.advana.data.mil/display/ASTECH/Department+of+Navy+Sustainment+Vector) under the "Training Resources" tab.

e. Inspect EWIS during aircraft Material Condition Inspections (MCI). Type Wings and Marine Corps TECOM Aviation Standards Branch (ASB) will develop and publish a JQR per 10.1 to train and qualify Wing and MAW inspection personnel on general EWIS inspection requirements and techniques. The JQR will include the areas specified in paragraph 10.26.3.2.b., tailored to each T/M/S aircraft inspected.

f. Submit inputs for additions or changes to EWIS training specified in Job Qualification Requirement (JQR) per 10.1.4.3.

10.26.4.3 Maintenance Officer

a. Designate an EWIS Program Manager. The EWIS Program Manager will be the Avionics Division Officer, Avionics Division Chief. Designation will be in writing, via ASM. If the Avionics Officer and Chief are either not available or not the most appropriate individuals for management of the EWIS Program, a person well versed in the current EWIS issues affecting their assigned T/M/S and capable of effectively managing the program may be assigned. In this case, a comment must be made in ASM explaining the assignment.

b. Publish LCPs per Appendix D, if required, to address any EWIS maintenance procedures not addressed in this NAMPSOP or Wing LCP. Command LCPs will be submitted to the Wing or MAW for consideration of inclusion in the Wing LCP.

10.26.4.4 Assistant Maintenance Officer (AMO)

The AMO will track progress in achieving the training requirements of 10.26.3.2.

10.26.4.5 Maintenance Control

a. Direct corrective action for EWIS discrepancies in a timely manner, not to exceed the next major scheduled inspection or on-site Phased Depot Maintenance event (PMI/IMC), whichever occurs first.

b. Submit requests to defer corrective action for EWIS discrepancies beyond the next scheduled phase inspection or on-site Phased Depot Maintenance event to the Type Wing or MAW for approval. Deferral requests must include details on impact to aircraft mission capability.

c. Verify EWIS maintenance is correctly, accurately and completely documented on all WOs per paragraph 10.26.3.3.b.

10.26.4.6 EWIS Program Manager

a. Perform Program Manager audits per 10.7.5.8.

b. Provide technical advice and assistance to work centers in matters pertaining to EWIS inspection and maintenance, to include coordinating NATEC assistance when required to resolve recurring EWIS related discrepancies.

c. Provide NAMP indoctrination and refresher training on EWIS policy per 10.1.4.7 and 10.1.4.8. Verify personnel receive EWIS familiarization prior to performing maintenance while assigned to the work center and annually thereafter.

d. Maintain a listing of platform approved materials, support equipment, and tools available to perform EWIS inspections and maintenance. Ensure material is maintained in a ready for use state.

e. Maintain an account with the Joint Services Wiring Action Group (JSWAG) (https://wiki.advana.data.mil/display/ASTECH/Department+of+Navy+Sustainment+Vector) and be familiar with the contents and resources available therein. Access to JSWAG main site can be requested via the public site at https://www.navair.navy.mil/jswag/.

f. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) References or cross reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.26.4.7 Quality Assurance

a. QA Officer: Designate an EWIS maintenance QAR (AE/AT) as the EWIS Program Monitor per 10.1.2.9.

b. All QARs, CDQARs, and CDIs will complete EWIS Inspection OJT training syllabus per paragraph 10.26.3.2.b.

c. All QARs, CDQARs, and CDIs who maintain and repair will complete EWIS maintenance and repair OJT training syllabus per paragraph 10.26.3.2.c.

d. QA EWIS Program Monitor:

(1) Perform program audits per paragraph 10.7.5.7, and periodically monitor work in progress to determine compliance with EWIS inspection and maintenance requirements.

(2) Maintain an account with the Joint Services Wiring Action Group (JSWAG) (https://wiki.advana.data.mil/display/ASTECH/Department+of+Navy+Sustainment+Vector) and be familiar with the contents and resources available therein. Access to JSWAG main site can be requested via the public site at https://www.navair.navy.mil/jswag/ or by email: jswag@navy.mil.

(3) Draft and release Hazardous Material Report (HMR) Request for Engineering Investigation (EI) per 10.9.3.7 for repeat EWIS component failures or catastrophic wire harness or cable failure.

10.26.4.8 Work Center Supervisors

a. Verify work center personnel complete EWIS Program training per paragraph 10.26.3.2.

b. Periodically spot check work in progress to verify work center personnel are complying with EWIS installation, repair and maintenance procedures specified in technical manuals.

c. Review WOs to verify personnel are complying with the EWIS documentation procedures of 10.26.3.3.b.

d. Assist Quality Assurance with the submission of a Hazardous Material Report (HMR) Request for Engineering Investigation (EI) per 10.9.3.7 and reference (a) for repeat EWIS component failures or catastrophic wire harness or cable failure.

e. Assist Quality Assurance with the drafting and submitting of Technical Publication Deficiency Reports (TPDR) per 10.9.3.11 when deficiencies are noted in EWIS inspection and maintenance procedures.

10.27 Aircraft Gun Systems (AGS)/Aircraft Crew Served Weapons (ACSW) Maintenance Program (NAMPSOP)

10.27.1 References

a. OPNAV M-8000.16, The Naval Ordnance Management Policy Manual

b. COMNAVAIRFORINST 8380.2, Aircraft Armament Systems Program

c. NAVSUP P-700, Common Naval Packaging (https://tarp.navsup.navy.mil/)

10.27.2 Introduction

10.27.2.1 The AGS/ACSW NAMPSOP falls under the Aircraft Armament Systems (AAS) Program. Administrative and configuration management for AAS components will be per Chapter 8 and 10.10.

10.27.2.2 AGS/ACSW pose a significant risk to the safety of personnel, aircraft, and equipment if maintenance requirements are not strictly complied with. Accordingly, this NAMPSOP establishes fundamental procedures for managing the maintenance of Navy and Marine Corps AGS/ACSW.

10.27.2.3 All Navy and Marine Corps O-Level and I-Level activities responsible for maintenance, custody, and monitoring of AGS/ACSW must comply with the procedures of this NAMPSOP. This includes contractor maintenance, commercial and government activities that operate, directly support, repair, or maintain Naval AGS/ACSW and components.

10.27.2.4 COMNAVAIRFOR Aircraft Armament System (N46B2) is the AGS/ACSW Type Commander (AAS TYCOM). Address: COMNAVAIRFOR (N46B2), PO Box 357051, San Diego, CA 92135-7051.

10.27.2.5 COMNAVAIRSYSCOM (PMA-242) is the NAVAIR Program Office for AGS/ACSW. Address: COMNAVAIRFOR (N46B24), PO Box 357051, San Diego, CA 92135-7051.

10.27.3 Requirements

10.27.3.1 Acceptance/Transfer Transactions

10.27.3.1.1 Definition. Acceptance/Transfer transactions are defined as Supply to Prime Pool or Inter-Prime Pool or Aircraft Depot/Aerospace Management and Regeneration Group (AMARG) to Prime Pool transactions.

10.27.3.1.2 AGS/ACSW will not be physically accepted prior to completion of a CM ALS and Gun Inventory Tracking and Reporting (GITR) records receipt verification per 10.27.3.1.4.

10.27.3.1.3 Documentation and monitoring requirements for component usage rate and rounds fired for all AGS/ACSW are listed in NAVAIR AW-380AA-PMI-000 Periodic Maintenance Information Cards (PMIC).

10.27.3.1.4 Logs and Records Clerks or Maintenance Data Specialists (Marine Corps) within Intermediate Activities Production Control Work Centers have the responsibility of accomplishing the initial administrative acceptance/transfer of AGS/ACSW. The Logs and Records Clerks or Maintenance Data Specialists (Marine Corps) must comply with the following actions:

a. Verify receipt of CM ALS. If CM ALS is not received, perform recovery procedures per

8.6.3.4.

b. Review CM ALS. Activate all scheduled maintenance that was not previously complied with or verified as completed.

c. Perform TD compliance verification per 10.10.3.5. If unable to verify TD compliance, the AGS/ACSW must be marked NRFI and removed from service until TD compliance is determined.

d. Reconcile CM ALS rounds fired history to ensure that AGS/ACSW life limited components are within allowances. If rounds fired count is in question, a technical dialog in GITR needs to be initiated and forwarded to TYCOM after all attempts to recover the history have been made.

e. Prior to transferring AGS/ACSW, all maintenance related actions and rounds fired entries will be documented as a Miscellaneous History entry in the CM ALS.

10.27.3.1.5 Ordnance Work Center personnel will receive physical custody of AGS/ACSW and perform acceptance inspection per applicable maintenance technical manuals and provide maintenance documentation data to Production Control. All maintenance related actions will be accomplished via MAF/Work Order, to include acceptance/transfer inspections. Prior to transfer, the remarks section of GITR will be populated with the reason for the transfer.

10.27.3.1.6 A physical paper copy of CM ALS must accompany all AGS/ACSW transferred to a non-OOMA activity such as depot facility or NAVAIR FST.

10.27.3.1.7 All AGS received from an aircraft depot or AMARG must be removed from the aircraft and routed to I-Level for inspection.

10.27.3.1.8 All AGS/ACSW must be packaged in accordance with NAVSUP P-700 prior to transfer.

10.27.3.2 Issue, Receipt, and Turn-In Transactions

10.27.3.2.1 Issue and Turn-In transactions occur between a Prime Pool and the supported sub-custodian. Prime Pools must verify CM ALS and GITR data for accuracy prior to AGS/ACSW issuance to the O-Level. AGS/ACSW and components must not be received from the issuing activity prior to the receiving activity's completion of CM ALS and GITR records receipt verification. Prime Pools must verify CM ALS and GITR data for accuracy prior to accepting AGS/ACSW turn-in from the O-Level.

10.27.3.2.2 For all OOMA activities, the AGS CM ALS and GITR record will be issued to the O-Level prior to AGS/ACSW issuance. Acceptance/transfer inspections and work order documentation is required.

10.27.3.2.3 After CM ALS and GITR rounds fired reconciliation is complete, AGS/ACSW may be issued to the receiving activity.

10.27.3.2.4 Logs and Records Clerks or Maintenance Data Specialists (Marine Corps) within O-Level Activities Maintenance Control Centers have the initial responsibility to accomplish Issue and Turn-in transactions of the AGS/ACSW and components. The Logs and Records Clerks or Maintenance Data Specialists (Marine Corps) must complete the following prior to receipt or turn-in of AGS/ACSW:

a. Conduct an OOMA CM ALS and GITR rounds fired count reconciliation to ensure accuracy.

Acceptance/transfer inspection work order documentation is required.

b. All AGS/ACSW OOMA CM ALS will be accurate and complete prior to turn-in to the receiving activity.

c. Prior to turn-in of AGS/ACSW, all maintenance related actions and rounds fired entries will be documented as a Miscellaneous History entry in the CM ALS.

10.27.3.2.5 Ordnance Work Center personnel will remove AGS/ACSW per this NAMPSOP and prepare AGS/ACSW for transfer per applicable maintenance technical manuals. Provide maintenance documentation and GITR rounds fired data to Logs and Records Clerks or Maintenance Data Specialists (Marine Corps). All maintenance related actions will be accomplished via MAF or Work Order (WO) to include discrepancy MAF or WO to the I-Level or D-Level activity. Update AGS/ACSW rounds fired count in GITR. Prior to turn-in, the remarks section of GITR will be populated with the reason for turn in.

NOTES: 1. Recreating a CM ALS is strictly prohibited without CNAF AAS TYCOM approval.

2. Refer to 8.6.3.4 for CM ALS recovery procedures.

3. Creating of CM ALS will only be accomplished for new production assets, by the I-Level. When presented with Manual or Auto create options, Auto create will be selected. When prompted to "*apply usage to subcomponents*" the "*Yes*" option will be selected. All tasks will be activated at this time.

10.27.4 General Maintenance Requirements

10.27.4.1 Installation and Removal

a. Only Aviation Ordnance personnel are authorized to install or remove AGS and ACSW mounts and cradles before flight.

NOTE: In an expeditionary environment, qualified aircrew may perform tasks per 10.27.4.1 when there are no qualified Aviation Ordnance personnel.

b. Installed ACSW will be documented in block 8 of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) per 5.1.6.3.

(1) (Navy) All ACSW will be installed and removed on an aircraft (including spares) must be documented via installation WO per Figure 15-22.

(2) (Marine Corps) Documentation via WO is optional.

(3) (Navy and Marine Corps) ACSW mounts installation and removal will be documented via WO.

c. ACSW will be removed from aircraft (physically and administratively) at the conclusion of the event or firing day to facilitate proper rounds fired documentation IAW PMIC.

d. AGS/ACSW maintenance performed by a transient maintenance crew will be conducted and documented per 15.5.1.10.

e. In-flight AGS/ACSW maintenance will be conducted and documented per 15.5.1.11.

10.27.4.2 Pre/Post Fire Inspections

a. All ACSW (including spares) must have a pre-fire inspection completed prior to installation on aircraft.

b. All AGS will have a post-fire inspection completed at the end of each firing day, regardless of how many rounds were fired.

c. Weapons shall not be fired beyond their prescribed retire/overhaul rounds requirement.

10.27.4.3 Scheduled Maintenance

Scheduled rounds based maintenance actions will be performed per the applicable PMIC intervals.

NOTE: AGS/ACSW are not authorized a plus or minus 10 percent deviation per 5.3.10.2. AGS/ACSW are authorized plus or minus 500 (+/- 500) round deviation from the specified inspection interval. This deviation does not apply to weapon system or weapons system components at end of service life.

10.27.5. Discrepancy Reporting

10.27.5.1 AGS/ACSWs, ACSW Mounts and LASER Aiming Devices (LAD) Discrepancy Reports (DR)

All AGS/ACSW, ACSW Mounts and LASER Aiming Devices (LAD) DRs will be submitted per applicable direction of COMNAVAIRFORINST 4790.2 and OPNAV M-8000.16. These include Hazardous Material Report (HMR), Product Quality Deficiency Report (PQDR), Technical Publications Deficiency Report (TPDR), Baseline Trouble Report (BTR), Conventional Ordnance Deficiency Report (CODR), Explosive Event Report (EER), and Explosive Mishap Report (EMR). Activities not required to provide an exhibit may initiate closing action for the DR upon FST/Program Office acknowledgement via Technical Dialog: “Acknowledgement of this deficiency report serves as closing action for the reporting unit’s NAMDRP requirements.” Activities required to provide exhibits must await direction from the FST/Program office via Technical Dialog and follow the exhibit handling procedures per 10.9.4. DRs for ACSWs, ACSW mounts, and LADs will be initiated when a deficiency is discovered during operation or maintenance. DRs for ACSWs, ACSW mounts, and LADs will be submitted using the DR Web module of AWIS per 10.9.3.1.e. All DRs are monitored by the program office, specific reporting criteria for each DR is described below.

10.27.5.2 HMR

An HMR must be submitted per 10.9.3.8 whenever AGS/ACSW are discovered to have critical material deficiencies meeting the conditions of 10.9.3.8.b. HMRs will be submitted via JDRS per 10.9.3.1.

10.27.5.3 PQDR

A PQDR must be reported per 10.9.3.9 whenever deficiencies are found in new or newly reworked (depot overhaul) AGS/ACSW. PQDRs will be submitted via JDRS per 10.9.3.1.

10.27.5.4 TPDR

A TPDR must be submitted per 10.9.3.11 whenever deficiencies are noted in AGS/ACSW technical publications. PQDRs will be submitted via JDRS per 10.9.3.1.

10.27.5.5 BTR

A BTR must be submitted per 10.9.3.5 to correct AGS/ACSW OOMA baseline deficiencies. BTRs will be submitted via JDRS per 10.9.3.1.

10.27.5.6 CODR and EER

A CODR or EER must be submitted for deficiencies meeting the criteria in OPNAV M-8000.16. CODRs and EERs will be submitted using the DR Web module of AWIS per 10.9.3.1.e.

10.27.5.7 EMR

An EMR must be submitted for deficiencies meeting the criteria in OPNAV M-8000.16. EMRs will be submitted to Risk Management Information (RMI) via the Air Force Safety Automated System (AFSAS) per 10.9.3.1.e.

10.27.5.8 AGS Deficiency Reporting

10.27.5.8.1 AGS O-Level Deficiency Reporting procedures:

a. DRs are not required to document unscheduled maintenance discrepancies to facilitate turn-in to I-Level, except under the following circumstances:

(1) O-Level induced defects (CODR)

(2) Explosive Event Report (EER) as defined in 10.9.3.6.

(3) Any AGS and component defects affecting the safety of personnel (CODR accompanied by HMR)

b. DRs must be submitted within the timeframes identified in 10.9.3.

c. All other AGS discrepancies must be documented via WO and turned into I-Level for repair. Figure 10.27-1 must be completed and accompany the WO to the I-Level.

10.27.5.8.2 AGS I-Level Deficiency Reporting procedures:

a. I-Level activities will submit CODRs upon deficiency discovery per 10.9.3.6.

b. DRs must include ammunition identification data, if ammunition was listed on Figure 10.27-1 from O-Level.

c. DR submission timeframes of 10.9 are not applicable for I-Level activities for AGS DRs.

10.27.6 Beyond Capability of Maintenance (BCM) and Defense Logistics Agency Disposition Services (DLADS)

10.27.6.1 No AGS/ACSW or other serialized GITR tracked components are authorized any type of BCM action or DLADS disposition without prior authorization from the CNAF AAS TYCOM.

10.27.6.2 The CNAF AAS TYCOM will direct the activity in possession of the AGS/ACSW which BCM designation to utilize via AWIS Technical Dialog.

10.27.6.3 After TYCOM approval for BCM action or DLADS, the activity must:

a. Complete applicable GITR transactions

b. Complete applicable OOMA/OIMA NALCOMIS transactions, (assign appropriate BCM

action taken code of 1-9, requisition a replacement asset, etc.)

c. Transfer assets to supply or DLADS facility, as appropriate

10.27.7 Responsibilities

10.27.7.1 COMNAVAIRFOR Aircraft Armament Systems Type Commander (N46B2)

a. Verify peculiar T/M/S, organizational, and intermediate level AGS/ACSW maintenance procedures and changes.

b. Provide updates to COMNAVAIRFOR NAMP Policy and Inspections (N422C) for the AAS Program section of the Computerized Self-Assessment Checklist (CSEC).

c. Coordinate with NAVAIR Program Offices in developing T/M/S aircraft, organizational and intermediate level AGS/ACSW maintenance procedures.

d. Coordinate with NAVAIR Program Offices to reconcile and direct corrective action for AGS/ACSW rounds fired accumulation discrepancies for life-limited components.

e. Provide authorization and direction to activities to release/restrict AGS/ACSW from flight or firing due to suspected rounds fired accumulation discrepancies for life-limited components.

f. Per 10.27.6, direct all Beyond Capability of Maintenance (BCM) actions and all actions to dispose of AGS/ACSW.

10.27.7.2 COMNAVAIRFOR Aviation Maintenance Management Teams (AMMT)

a. Coordinate with COMNAVAIRFOR AAS TYCOM to develop and update AGS/ACSW maintenance CSEC questions.

b. Inspect O-Level and I-Level activities for compliance with the AAS Program and contact the AAS TYCOM immediately upon discovery of rounds fired accumulation errors for life-limited components.

10.27.7.3 Type Wings and Marine Aircraft Wings (MAW)

a. If required, publish a Local Command Procedure (LCP) per Appendix D to address peculiar T/M/S, operational, and/or geographic AGS/ACSW procedures not addressed in this NAMPSOP.

b. Implement and supervise activity adherence to AAS Program maintenance policies promulgated as per OPNAV M-8000.16, COMNAVAIRFORINST 8380.2A, this NAMPSOP, T/M/S aircraft and equipment technical manuals.

c. Conduct Maintenance Program Assessments (MPA) per 10.24.4 to assess compliance with the AAS Program and related directives.

d. Confirm with activity AAS Program Managers reported on-hand discrepancies prior to contacting CNAF AAS TYCOM.

10.27.7.4 Maintenance Officer

a. (O-Level) Designate either the Ordnance Officer, Weapons Officer, Ordnance/Division Chief Petty Officer, Ordnance SNCOIC or activity equivalent as AAS Program Manager per 10.1.2.9.

b. (I-Level) Designate either the Ordnance Department Officer (MALS), Division Officer,

Ordnance/Division Chief Petty Officer, Ordnance SNCOIC or activity equivalent as AAS Program Manager per 10.1.2.9.

10.27.7.5 Quality Assurance (QA) Officer

Designate an Ordnance Quality Assurance Representative (QAR) as the AAS Program Monitor per 10.1.2.9 and 10.7.3.5.

NOTE: Other QARs or QA Specialists may monitor this program; however, the designated Program Monitor must perform the annual program audits per 10.7.4.7.

10.27.7.6 Program Manager

a. Conduct initial and annual Program Manager audits per 10.7.4.8.

b. Be familiar with AGS/ACSW for T/M/S and components, OPNAV M-8000.16, COMNAVAIRFORINST 8380.2, applicable maintenance technical manuals, LCPs, checklists, and this NAMPSOP.

c. Maintain All Weapons Information System (AWIS, Aircraft Armament Equipment (AAE), Gun Inventory Tracking and Reporting (GITR), DR Web access and CM ALS (view only) permissions.

d. Be designated as an "Initiator" for discrepancy reports submitted to the Joint Deficiency Reporting System (JDRS) and DR Web.

e. Provide NAMP indoctrination training on AGS/ACSW policy per 10.1.4.7. Verify personnel receive AGS/ACSW familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

f. Verify Logs and Records Clerks and Maintenance Data Specialists (Marine Corps) are entering total rounds fired count in OOMA.

(1) O-Level activities will verify rounds fired entries have been calculated correctly at the end of each firing week, to include entries have been signed.

(2) I-Level activities will conduct reconciliation upon receipt, ready for issue (RFI), and prior to issue.

g. Biweekly, verify O-Level Ordnance Work Center Supervisor has updated the rounds fired in GITR for AGS/ACSW. Tracking of rounds fired on ACSW mounts and cradles in GITR is not required.

h. Contact the AAS TYCOM via Technical Dialog if any of the following occur:

(1) Transferring AGS/ACSW between Prime Pools.

(2) AGS/ACSW is found to be not-ready for issue (NRFI) during acceptance/transfer inspection.

(3) AGS/ACSW is received without a CM ALS.

(4) Weapons or components are found to have questionable records due to rounds fired accumulation errors.

(5) Requesting BCM action and/or DLADS disposition authorization.

NOTE: Units will consult and verify with their Immediate Superior In Command (ISIC). For example, Type Wing, MAW or COMFRC prior to contacting CNAF AAS TYCOM regarding AAS errors or deficiencies.

i. Maintain a program file to include:

(1) Points of Contact (POC)

(2) An electronic or hardcopy list of current AGS/ACSW assigned to the activity

(3) Program related correspondence and message traffic\c

(4) A current copy of AGS/ACSW references or cross-reference locator sheets

(5) Copies of the most current AAS Program Manager Audit and QA Program Monitor audit

10.27.7.7 Program Monitor

a. Perform the annual QA audit of the AAS Program per 10.7.4.7.

NOTE: The QA audit must examine at least 50% of the equipment, records, documentation, and qualifications of personnel involved with AGS/ACSW maintenance. Workload permitting, 100% of the process should be covered.

b. Verify all AGS/ACSW maintenance technical manuals, maintenance requirement cards, instructions and publication changes for T/M/S are current, complete, and on-hand in the Central Technical Publication Library (CTPL). Publications may be either electronic or paper. Electronic publications must be uploaded and available to the Ordnance Work Centers.

c. Assist with preparing discrepancy reports required per this NAMPSOP.

10.27.7.8 Logs and Records Clerks and Maintenance Data Specialists (Marine Corps)

a. Comply with logs and records requirements directed in Chapter 8.6 that apply to AGS/ACSW.

b. Perform AGS/ACSW rounds fired count reconciliation between CM ALS and GITR whenever any of the following occur:

(1) Acceptance or transfer of AGS/ACSW and components per 10.27.4.

(2) Issue/turn-in of AGS/ACSW and components per 10.27.3.2.

(3) Discovery of errors for total rounds fired accumulation via CM ALS, Missing “Zero” Rounds fired count, Maintenance Action Form (MAF), or unmatched accumulation with GITR.

(4) After any rounds based maintenance action is performed.

c. All rounds accumulation entries for AGS/ACSW and ACSW mounts/cradles will be accomplished at the end of the firing day via a Manual Flight Record (MFR).

d. A Miscellaneous History entry will be made to document the quantity of rounds fired.

NOTES: 1. OOMA data is the authoritative maintenance documentation database, and takes precedence over GITR.

2. All rounds accumulation entries must be completed at the end of each firing day to include the Miscellaneous History entry.

3. Associated PMIC provides guidance, limitations, and penalties associated to AGS/ACSW and ACSW mounts/cradles.

10.27.7.9 Ordnance Work Center Supervisors

a. Ensure work center personnel are fully qualified or satisfactorily progressing in qualifications to perform AGS/ACSW maintenance per 10.1.4.7.

b. Ensure AGS/ACSW are maintained in accordance with OPNAV M-8000.16, COMNAVAIRFORINST 8380.2A, applicable maintenance manuals, and this NAMPSOP.

c. Periodically spot check work in-progress to verify the proficiency of personnel performing AGS/ACSW maintenance.

d. Maintain access to the GITR module of AWIS.

e. Prior to any flight where AGS/ACSW may be fired, ensure rounds remaining will not exceed the specified rounds based inspection interval. Verify rounds fired accumulation in the CM ALS is accurate. Confirm applicable GITR entries are completed and match the CM ALS.

f. At the end of the firing day, ensure GITR rounds fired counts match OOMA.

g. Immediately notify maintenance control of AGS/ACSW hazards and restrict AGS/ACSW from use if any of the following conditions exist:

(1) Total rounds are unknown.

(2) GITR and CM ALS cumulative rounds fired do not match.

(3) Maintenance documentation errors that could result in damage to aircraft or equipment, injury to personnel, or over-firing the weapon or sub-components. Example: OOMA displays TD compliance, but physical inspection of the asset reveals the TD is not incorporated.

10.27.7.10 AGS/ACSW Maintenance Personnel

a. Strictly comply with the AGS/ACSW maintenance procedures specified in AGS/ACSW maintenance technical manuals, MRCs, and this NAMPSOP.

b. Ensure CM ALS is accurate and complete prior to issuing or installing AAS.

CODR DATA for I-Level Reporting

Unit: _____ **Date:** _____

MCN/JCN: _____

AGS Serial Number: _____ **BUNO:** _____

1. ROUNDS COUNT ON CANNON OR GUN SYSTEM: _____
2. LAST INSPECTION OF CANNON OR GUN SYSTEM: _____
3. PART NUMBER OF DAMAGED COMPONENT: _____
4. DESCRIPTION OF DAMAGE TO COMPONENT:

_____

_____

_____

_____

5. AIRCRAFT ANGLE OF ATTACK: _____
6. AIRCRAFT AIR SPEED: _____
7. AMMUNITION NALC AND NOMENCLATURE: _____
8. AMMUNITION LOT NUMBER: _____
9. ROUNDS LOADED QTY: _____

_____ _____

IMA CDI Signature / Date: OMA CDI Signature / Date:

_____ _____

IMA CDI Print / Date: OMA CDI Print / Date:

Figure 10.27-1 OMA CODR Data for IMA Reporting

10.28 Aircraft Magnetic Compass Calibration and Verification

10.28.1 References

T/M/S aircraft technical manuals.

10.28.2 Introduction

10.28.2.1 This NAMPSOP applies to aircraft with a magnetic compass system. A magnetic compass system is any compass system or instrument that uses the earth's magnetic field to determine and display heading information. Magnetic compass systems include, but are not limited to, standby wet compasses, solid state magnetometers, magnetic azimuth detectors, and magnetic flux valves.

10.28.2.2 Magnetic compass systems are affected by metallic materials, avionics, engines, and other aircraft equipment and must be calibrated in their installed environment to compensate for these effects. A magnetic compass calibration is also referred to as a compass swing.

10.28.3 Requirements

10.28.3.1 Scheduled and conditional magnetic compass calibrations and verifications must be performed per the procedures directed in T/M/S maintenance instructions.

10.28.3.2 To minimize the possibility of calibration coming due during a deployment, aircraft requiring scheduled compass calibration or verification will be calibrated or verified to not come due for at least 60 days after the planned end of the deployment.

10.28.3.3 A Compass Correction Card must be placed near each compass indicator in aircraft requiring compass calibration. Figure 10.28-1 provides an example of a locally produced Compass Correction Card. The AS5823 (NSN6605-00-584-4227) Compass Correction Card may also be used. The Compass Correction Card will contain the following information:

a. Front:

(1) SYSTEM - The system that was calibrated, for example, "Standby Wet Compass (Pilot)" or "Standby Wet Compass (Co-Pilot)".

(2) BUNO - The bureau number of the aircraft the system is installed in.

(3) MODEX - The MODEX of the aircraft the system is installed in.

(4) SWUNG - The date the system was calibrated/verified.

b. Back:

(1) Stamp or printed name and signature of the CDI that verified entries on the Compass Correction Card and miscellaneous history are correct and the card is properly installed in the cockpit.

(2) Printed name and signature of CDI who witnessed the calibration or the aircrew who performed the in-flight verification.

NOTES: 1. Headings on the Compass Correction Card will be changed only as a result of a compass calibration. If a compass verification is performed between calibrations, transcribe the headings from the most recent calibration Compass Correction Card to the verification Compass Correction Card. The new verification Compass Correction Card will be posted near each compass indicator.

2. If the Compass Correction Card in the aircraft is lost or becomes unreadable, a new card may be created from the readings entered in the aircraft logbook Miscellaneous History per paragraph 10.28.3.5.

10.28.3.4 Compass calibration directed by a special MRC will be documented as a special (scheduled) inspection. Compass calibration not directed by a special MRC will be documented as a conditional (unscheduled) inspection on the WO that documents the condition or discrepancy requiring calibration.

10.28.3.5 Calibrations and verifications must be documented in Optimized OMA NALCOMIS Miscellaneous History Record. Activities not operating OOMA will make a manual entry in the aircraft logbook Miscellaneous History section (OPNAV 4790/25A). Compass Calibrations entries must include:

a. The system that was calibrated or verified, for example, “Standby Wet Compass.”

b. The date the system was calibrated or verified.

c. The calibration and verification method. If the system was calibrated, list the specific method for example, “MCCS” or “MRC Card No. XXX”. If the system was verified, specify the method of verification, for example, “in-flight verification” or “ground verification.”

d. The name of the CDI who witnessed the calibration or ground verification or the name of the aviator who performed the in-flight verification.

e. The geographical location where the calibration or verification was performed.

f. The statement “All readings are within the limits specified by (list the maintenance instruction)” followed by each heading, reading, and residual error. For example, “All readings are within the limits specified by T/M/S maintenance instruction reference.”

Heading = 000, Reading = 003, Residual Error = +3 Degrees

Heading = 015, Reading = 017, Residual Error = +2 Degrees

Heading = 030, Reading = 031, Residual Error = +1 Degree

Heading = 045, Reading = 045, Residual Error = 0

10.28.3.6 Prior to requesting a compass calibration deviation, if aircraft and operational conditions permit, an in-flight or ground comparison check must be accomplished using a known good reference system (Inertial Navigation System, Tactical Navigation, Ground Control Radar, or Automatic Directional Finder) against the Aircraft Compass System. The comparison check certifies only the apparent operation of the Magnetic Compass System in question and will be substituted only until the preferred or alternate method of calibration/verification is accomplished.

b. Deviation requests must be submitted by naval message to the ACC Aircraft Class Desk, via the Wing, with the following information:

(1) Aircraft T/M/S and BUNO

(2) Date calibration due

(3) Type of system and calibration/verification requirement. For example, "Flux Valve Compass 364-Day Scheduled Calibration" or "Flux Valve Compass Conditional Calibration Due to R&R"

(4) Reason calibration cannot be performed

(5) Method of bearing comparison check and results

(6) How long deviation is required

10.28.4 Responsibilities

10.28.4.1 COMNAVAIRSYSCOM

a. Issue MRCs and maintenance technical manuals for each T/M/S and Magnetic Compass System to include calibration schedule and procedures.

b. Verify Fleet Support Team (FSTs) are trained in Magnetic Compass calibration requirements and procedures.

c. Resource equipment and technical data required for aircraft Magnetic Compass calibration.

d. Resolve conflicts between this instruction, T/M/S MRCs, T/M/S aircraft maintenance technical manual specifications, or other engineering directives related to Magnetic Compass calibrations.

10.28.4.2 Activities Operating Naval Aircraft

a. Strictly comply with the Magnetic Compass calibration requirements and procedures of this instruction and the applicable maintenance technical manuals.

b. Verify the training and skill level of personnel maintaining and calibrating aircraft Magnetic Compass Systems. Training will be documented in the Personnel Qualification Standard (PQS) or Advanced Skills Management (ASM) equivalent.

c. Provide NAMP indoctrination training on Aircraft Magnetic Compass Calibration and Verification policy per 10.1.4.7. Verify personnel receive Aircraft Magnetic Compass Calibration and Verification familiarization prior to performing maintenance while assigned to the work center.

d. Verify Maintenance Control and QA personnel are trained and knowledgeable in magnetic compass calibration requirements. Training will be documented in PQS or ASM equivalent.

e. Verify currency of compass calibration upon receipt of aircraft.

(Front)

STANDBY COMPASS (PILOT)			
		MODEX	
BUNO:	168766	**:**	201
SWUNG :	1-May 21		
TO FLY	**STEER**	**TO FLY**	**STEER**
N	**0**	180	**180**
15	**15**	195	**195**
30	**30**	210	**210**
45	**45**	225	**225**
60	**60**	240	**240**
75	**75**	255	**255**
90	**90**	270	**270**
105	**105**	285	**285**
120	**120**	300	**300**
135	**135**	315	**315**
150	**150**	330	**330**
165	**165**	345	**345**

(Back)

WITNESSED BY:
PRINT: AE1 I.M. CALIBRATOR
SIGN:

AE1 I.M. Calibrator

VERIFIED BY:
PRINT: AE1 I.M. VERIFIER
SIGN:

AE1 I.M. Verifier

(Front)

STANDBY COMPASS (CO-PILOT)			
		MODEX	
BUNO:	168766	**:**	201
SWUNG :	1-May-21		
TO FLY	**STEER**	**TO FLY**	**STEER**
N	**0**	180	**180**
15	**15**	195	**195**
30	**30**	210	**210**
45	**45**	225	**225**
60	**60**	240	**240**
75	**75**	255	**255**
90	**90**	270	**270**
105	**105**	285	**285**
120	**120**	300	**300**
135	**135**	315	**315**
150	**150**	330	**330**
165	**165**	345	**345**

(Back)

WITNESSED BY:
PRINT: AE1 I.M. CALIBRATOR
SIGN:

AE1 I.M. Calibrator

VERIFIED BY:
PRINT: AE1 I.M. VERIFIER
SIGN:

AE1 I.M. Verifier

Figure 10.28-1: Compass Correction Card (Example)

10.29 Aircraft Survivability Equipment (ASE) (NAMPSOP)

10.29.1 Introduction

10.29.1.1 This NAMPSOP applies to all Navy and Marine Corps O-Level activities that use or maintain Aircraft Survivability Equipment (ASE). For the purpose of this instruction, ASE is defined as:

a. Infrared Countermeasures

b. Missile Warning Systems

c. Countermeasure Dispensing Systems

d. Radar Warning Receivers

e. Onboard Electronic Countermeasures

f. Towed Decoys

NOTE: F-35 aircraft are exempt from this NAMPSOP.

10.29.1.2 Aircraft Survivability Equipment (ASE), systems serve to protect our aircraft and aircrew in hostile environments. The dynamic nature of the threat environment generates significant risk, which necessitates continual evolution and improvement of ASE software and hardware. Accurate tracking of ASE software loads and aircraft configurations, timely readiness reporting, and thorough pre-deployment training and grooming are required to sustain the high level of ASE system readiness needed to ensure aircraft and aircrew can safely operate in combat.

10.29.2 Responsibilities

10.29.2.1 COMNAVAIRSYSCOM

a. Advanced Tactical Aircraft Protection Systems Program Office (PMA272) is the designated lead program office for the management, development, demonstration, and acquisition of ASE. PMA272 responsibilities include monitoring ASE readiness, reporting current ASE software configurations via naval message or other official method of correspondence, and maintaining a qualified Fleet Support team (FST) and ASE Readiness Team (ART), capable of providing training to the fleet.

b. PMA265 is the designated lead program office for the ALR-67(V)3 Radar Warning System.

c. PMA299 is the designated lead program office for the AN/ALQ-210 Electronic Support Measures (ESM).

10.29.2.2 COMNAVAIRPAC/COMNAVAIRLANT (CNAP/CNAL) N421N Common Avionics Class Desk

a. Maintain ASE Readiness Report on the applicable CNAL N421N Microsoft Teams page:

Navy:
https://dod.teams.microsoft.us/l/team/19%3adod%3a8f3ec03aafe04271b156ecfc717097bb%40thread.tacv2/conversations?groupId=b5e959f9-e884-4a9a-9272-7ed2942f6522&tenantId=e3333e00-c877-4b87-b6ad-45e942de1750

Marines:
https://dod.teams.microsoft.us/l/team/19%3adod%3a968248c43747478dacd2bbc6802f23ca%40thread.tacv2/conversations?groupId=1e45de37-8f18-4f88-9dec-172bda594c4c&tenantId=f4c44cda-18c6-46b0-80f2-e290072444fd

b. Monitor and provide support to ASE readiness via the CNAL Microsoft Teams page.

c. Disseminate current ASE aircraft system configurations and software configurations.

d. Direct inter/intra-service ASE transfers as required.

e. Provide disposition instructions for ASE system components in the following events:

(1) Assets are damaged due to aircraft or ground MISHAP.

(2) Aircraft is being stricken, undergoing SARDIP, or being sent to AMARG for storage.

(3) System or component obsolescence or upgrade

f. Coordinate with PMA272 for ART fleet visits.

10.29.2.3 Type Wings and Marine Aircraft Wings

a. Designate in writing an Avionics Officer, billet equivant, or E-6 and above as the ASE Program Manager.

b. Maintain access and ensure all subordinate command ASE Program Managers and Work Center Supervisors maintain accounts to access applicable CNAL ASE Microsoft Teams Group.

c. Monitor and review the aircraft ASE Readiness Report information on the applicable CNAL Microsoft Teams page no later than the 21st of each month.

d. Ensure PMA-272 ART or NATEC assistance is coordinated to meet squadron training and system assessment requirements.

e. Inspect ASE condition (including hardware and software) and the accuracy of ASE records during Maintenance Program Assessments (MPA) and Material Condition Inspection (MCI).

f. Request ART visits as deemed necessary to assist with improving ASE readiness.

g. Submit an ASE Asset Increase/Decrease Report (Figure 10.29-1) or ASE Asset Loss/Damage Report (Figure 10.29-2) via naval message or other official correspondence to CNAP/CNAL N421N Common Avionics Class Desk for the following transactions:

(1) Asset losses or damage resulting from an aircraft or ground mishap within 24 hours.

(2) Assets from an aircraft that is being stricken or sent to AMARG.

(3) ASE asset increases due to new production aircraft delivery.

(4) ASE asset increases due to reactivation of aircraft from AMARG.

h. Monitor necessary cyber certifications to allow fleet activities to download ASE software from Naval Data Distribution System (NDDS) to associated media for on aircraft loading. Ensure commands have the infrastructure to apply for and receive access to DOD cyber systems that necessitate System Authorization Access Request (SAAR) forms. SAAR forms require proper Cyber Certifications to be verified by the Chain of Command via Automated Data Processing

(ADP), Navy/Marine Corps Intranet (NMCI), Marine Corps Enterprise Network (MCEN), and Security.

i. Ensure subordinate command ASE Program Managers maintain the proper number of cyber certified personnel with NMCI/MCEN Data At Rest (DAR) computer seat exemptions in order to download software from NDDS onto approved removable media. Refer to latest NGEN/MCEN/Local directives for procedures in obtaining applicable DAR exemptions.

10.29.2.4 Maintenance Officer

a. Designate in writing an Avionics Officer, billet equivant, or E-6 and above as the ASE Program Manager per 10.1.2.9.

b. Coordinate with the Operations Department to ensure ASE systems are thoroughly checked on aircraft participating in tactical training exercises and other flights where ASE can be operated.

10.29.2.5 Program Manager

a. Perform initial and annual program manager audits per 10.7.5.8.

b. Provide NAMP indoctrination and refresher training on Aircraft Survivability Equipment (ASE) policy per 10.1.4.7 and 10.1.4.8. Verify personnel receive ASE familiarization prior to performing maintenance while assigned to the work center and annually thereafter.

c. Be knowledgeable of procedures in ASE instructions, MIMs, and MRCs.

d. Maintain a current report of all ASE system configuration, readiness, and validate the ASE Readiness Report on the applicable CNAL Microsoft Teams page by the 21st of each month.

Navy:
https://dod.teams.microsoft.us/l/team/19%3adod%3a8f3ec03aafe04271b156ecfc717097bb%40thread.tacv2/conversations?groupId=b5e959f9-e884-4a9a-9272-7ed2942f6522&tenantId=e3333e00-c877-4b87-b6ad-45e942de1750

Marines:
https://dod.teams.microsoft.us/l/team/19%3adod%3a968248c43747478dacd2bbc6802f23ca%40thread.tacv2/conversations?groupId=1e45de37-8f18-4f88-9dec-172bda594c4c&tenantId=f4c44cda-18c6-46b0-80f2-e290072444fd

NOTE: Contact CNAL Common Avionics, N421N, via email at CommonAvionics@us.navy.mil for CNAL Microsoft Teams access.

e. Maintain an account with NDDS (NIPR/SIPR, as required) and verify ASE systems installed on aircraft have the current software load. Squadrons are notified via NDDS of new and current software updates pertaining to their platforms.

f. Ensure ASE periodic maintenance is being accomplished per applicable maintenance technical manuals.

g. Coordinate with Maintenance Control to initiate Work Orders (WO) on uninstalled ASE components in order to verify all items of ASE have been functionally tested prior to deployment.

h. Coordinate with the Operations Department for Areas of Responsibility (AOR) mission data file (MDF) requirement(s).

i. Monitor completion of training in support of the ASE Program. Refer to the latest ASE Navy Training System Plan (NTSP) at https://ntsp.navair.navy.mil. The NTSP explains the ASE Training Development/Update process/plan. New development is provided via "system level training" for Developmental Testing/Operational Testing (DT/OT). Cadre initial training is provided to the host platform for integration into their training programs.

j. Maintain a minimum of three personnel with NDDS access with the appropriate cyber certifications and NIPR/SIPR DAR computer seat exemptions waiver in order to download software from NDDS onto approved removable media.

NOTE: The use of a standalone computer is not authorized for writing NDDS software files to removable media for aircraft software loading. Standalone computers not connected to the network do not receive the necessary cyber protections and anti-virus updates subjecting the aircraft and ASE system to malware.

k. Ensure all aircraft ASE systems are assessed and training is conducted, annually. The annual requirement for aircraft assessments is met if the T/M/S has an annual assessment established in a scheduled inspection. All deploying aircraft must be assessed 3-6 months prior to deployment. NATEC or the PMA-272 ART will be utilized to assess a minimum of 25% of squadron aircraft in conjunction with this annual requirement. Training will be conducted during the NATEC or PMA-272 ART visit. This requirement may be executed as standalone events or as part of an Integrated Weapons (Combat) Systems Review (IWSR/ICSR).

10.29.2.6 Work Center Supervisor

a. Be knowledgeable of procedures in ASE instructions, MIMs, and MRCs.

b. Monitor training progress and ensure personnel complete on the job training (OJT) on ASE systems and become proficient in ASE maintenance, system operation, and software loading and verification.

c. Ensure ASE training is completed via OJT from NATEC or the PMA-272 ART, while on site visits.

d. Verify applicable ASE IMRL and tools are available and in a ready for use condition.

e. Maintain an account with NDDS (NIPR/SIPR, as required). Update ASE systems with the most current OFP or MDF/UDF software complying with applicable TDs. Platforms are notified via NDDS of new and current TDs for software updates pertaining to their systems.

f. Update ASE systems with the most current OFP or MDF/UDF software IAW applicable TDs and system configuration list via NDDS.

FM SQUADRON
TO TYPE WING/MAW
INFO COMNAVAIRLANT NORFOLK VA
MAG/CVW
SQUADRON
BT
UNCLAS//N04790//
MSGID/GENADMIN/SQUADRON/MMM//
SUBJ/ASE INCREASE/DECREASE REPORT//
REF/A/DOC/COMNAVAIRFORINST 4790.2/DATE//
REF/B/DOC/(APPLICABLE SHIPPING COMPANY AND DOCUMENT NUMBER)/-//
NARR/REF A PROVIDES POLICY FOR ASE ASSET ACCOUNTING AND INVENTORY PROCEDURES. REF B IS SHIPPING DOC//
POC/LAST, FI, MI/RANK/RATE /SQUADRON/-/TEL: 234-5678 /EMAIL: //
GENTEXT/REMARKS/1. PER REF A, THE FOLLOWING ASE ASSETS RECEIVED FROM/TRANSFERRED TO (APPLICABLE ORGANIZATION) ON JD XXXXX, REF B REFERS. READ IN FOUR COLS:

NOMEN PART NR QTY SERNO N/A (FOR UNCLAS ONLY)

Figure 10.29-1: ASE Asset Increase/Decrease Report (Example)

FM SQUADRON
TO TYPE WING/MAW
INFO COMNAVAIRLANT NORFOLK VA
MAG/CVW
SQUADRON
BT
UNCLAS //N04790//
MSGID/GENADMIN/SQUADRON/MMM//
SUBJ/ASE/ECM/DECM ASSET LOSS/DAMAGE REPORT//
REF/A/DOC/COMNAVAIRFORINST 4790.2/DATE//
REF/B/MSG/SQUADRON/230024ZFEB2021//
NARR/REF A PROVIDES POLICY FOR ASE ASSET ACCOUNTING AND INVENTORY PROCEDURES. REF B IS SQUADRON ACFT MISHAP RPT.//
POC//LAST, FI. MI./RANK/RATE/ SQUADRON/-/TEL: XXX-XXXX /EMAIL: //
GENTEXT/REMARKS/1. PER REF A, THE FOLLOWING INFO IS SUBMITTED:

A. PER REF (A), THE FOLLOWING ASE ASSETS ARE LOST AND UNRECOVERABLE. READ IN FOUR COLS:

NOMEN	PART NR	SERIAL NR	QTY
R-2148C/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX
R-2055B/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX
IP-1276/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX
C-10250B/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX

B. FOLLOWING ASSET WAS RECOVERED, BUT IS CONSIDERED NON-REPAIRABLE. READ IN FOUR COLS:

NOMEN	PART NR	SERIAL NR	QTY
CP-1293C/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX

C. FOLLOWING ASSET WAS RECOVERED AND IS CONSIDERED REPAIRABLE. READ IN FOUR COLS:

NOMEN	PART NR	SERIAL NR	QTY
AS-3190B/ALR-67(V)	XXXXXXXXXXXX	XXXXXXXXX	XX

D. PINGER STATUS: INSTALLED AND OPERATING.

E. REF B RPT LOSS OF (ENTER ACFT TYPE AND BUNO) ON (ENTER DATE OF INCIDENT FROM REF B) NEAR (ENTER LOCATION OF INCIDENT FROM REF B). NO POSSIBILITY OF COMPROMISE.//

Figure 10.29-2: ASE Asset Loss-Damage Report (Example)

10.30 Marine Air Traffic Control and Landing Systems (MATCALS) Maintenance

10.30.1 References

a. PMA213B/0017 MATCALS Allowance List

b. NATMS-ULSS-38-03 MATCALS User's Logistics Support Summary

c. NAVAIR 17-1-574 MATCALS Tool Control Manual

d. MCO 4790.2 Field-Level Maintenance Management Policy

10.30.2 Introduction

10.30.2.1 This NAMPSOP directs maintenance requirements and management policy for Marine Air Traffic Control and Landing Systems (MATCALS) applicable to all Marine Air Traffic Control Detachments.

NOTE: MATCALS suites are also furnished to Naval Air Warfare Center Aircraft Division (NAWC AD), Naval Air Technical Training Center and Naval Information Warfare Center (NIWC), which are not subject to this NAMPSOP.

10.30.2.2 MATCALS are ground-based equipment sets utilized to provide air surveillance and control of friendly aircraft in support of offensive air support, anti-air warfare, continuous all-weather radar, non-radar, tower air traffic control services, airspace management, and other services to an independent and geographically separated main air base or air facility, and remote air sites or points. MATCALS functions as an integral part of the air defense system for a Marine Air Ground Task Force (MAGTF) or joint force.

10.30.2.3 MATCALS are operated by Marine Air Traffic Control Detachments (MATCD), which are the principal Air Traffic Control (ATC) organizations within the Marine Air Command and Control System (MACCS). MATCDs are detachments of the Marine Air Control Squadron (MACS), which is an element of the Marine Air Control Group (MACG). Each Marine Air Wing (MAW) has one MACG with one MACS. MACG-28 and MACG-38 contain three MATCDs each, MACG-18 contains two MATCDs, and MACG-48 contains one MATCD.

10.30.2.4 Each MATCD has a MATCALS Maintenance Section (Figure 10.30-1) organized to provide support, coordination, and leadership in the areas of MATCALS maintenance, integrated logistics resource management, and professional personnel development. The MATCALS Maintenance Section is comprised of a Navigational Aids section, a Communications section, and a Radar section. Each Maintenance Section's table of organization is approximately 32 assigned personnel. Each section is responsible for O-Level and limited I-Level maintenance on its MATCALS equipment and equipment that supports MATCALS equipment sets, accurate accounting and reporting of the section's maintenance related assets, and the section's security. MATCALS O-Level and I level maintenance functions are outlined in Figure 10.30-2.

10.30.2.5 COMNAVAIRSYSCOM PMA 213 is the overall acquisition, engineering, and logistics program manager for MATCALS.

10.30.2.6 The Naval Air Warfare Center Aircraft Division (NAWC-AD) and the Naval Information Warfare Center (NIWC) provide acquisition support for certain current and future MATCALS systems, to include fielding support via Marine Liaison.

10.30.3 Requirements

10.30.3.1 Personnel Training and Designation

a. MATCALS technicians must complete the initial Military Occupational Specialty (MOS) training for their billet. MOS training consists of entry-level instruction to develop the basic skills necessary to emplace, setup, configure, operate, displace, and conduct planned and corrective maintenance as well as limited technical inspections on assigned equipment. This training phase is complete upon graduation from the Marine Air Traffic Control School MATCALS maintenance pipeline, located at Naval Air Technical Training Center, and when the trainee has been designated with an MOS for a specific MATCALS equipment set.

b. MATCALS technicians are not required to adhere to the NAMP Aviation Maintenance Training Program, paragraph 10.1. MATCALS MOS training, certification, qualification, and designation is delineated by the requirements set forth under the Aviation Training and Readiness (T&R) Program, specifically in NAVMC 3500.128 Marine Air Traffic Control Training and Readiness Manual, and tracked via Marine Aviation Readiness Program, per NAVMC 3500.14, the Aviation Training and Readiness Manual.

10.30.3.2 General Maintenance

a. Scheduled and unscheduled maintenance of MATCALS equipment must be performed per the procedures directed by COMNAVAIRSYSCOM PMA-213 in equipment specific technical manuals, maintenance requirement cards (MRC), and Technical Directives (TD).

NOTES: 1. Technical drawings, specifications, or other technical renderings provided by a cognizant source and verified for technical accuracy and application may be utilized by MATCALS, such as Harris Radio programming guides.

2. Deviations to MATCALS equipment maintenance schedules or procedures must be approved by the MATCALS Functional Wing Commander (NIWC).

b. MATCALS components requiring maintenance beyond the capability of the MATCD will be forwarded to MALS, authorized D-level maintenance activity, or NIWC / NAWC AD.

c. Maintenance processes related to hazardous materials management, battery safety, foreign object damage (FOD) prevention will be performed per Marine Wing Support Squadron (MWSS) and MCAS Commanding Officer directives.

10.30.3.3 Maintenance Documentation

a. All MATCALS maintenance will be documented in NALCOMIS per the procedures of Chapter 15.

b. The applicable maintenance documentation codes of Appendix E will be used.

NOTE: MATCALS equipment uses Type Equipment Code (TEC) series G.

c. The MATCALS Mission Essential Subsystem Matrix (MESM) will be used to determine Equipment Operational Capability (EOC) for readiness reporting purposes and to establish priorities for parts requisitions.

NOTE: OOMA currently does not have the capability to associate G Series Type Equipment Code (TEC) with EOC codes.

d. All MATCALS systems will have a MATCALS Equipment Service Record (MESR). The MESR will contain:

(1) Custody information

(2) Acceptance and transfer inspection documentation

(3) Rework history

(4) Technical Directives record (OPNAV 4790/24A)

(5) Miscellaneous History

10.30.3.4 Quality Assurance

a. QA inspection of MATCALS maintenance will adhere to the procedures of Chapter 7. QA critical maintenance checks are established by NAVWAR MATCALS fleet liaison, as denoted in MATCALS technical manuals and MRCs.

b. MATCD Quality Assurance Representatives (QAR), Collateral Duty Quality Assurance Representatives (CDQAR), and Collateral Duty Inspectors (CDI) will be qualified, trained and designated per Chapter 7, with the exception of minimum QAR/CDQAR/CDI paygrade requirements. The MACS Commanding Officer may designate personnel in the paygrade of E-5 as QAR and personnel in the paygrade of E-4 as CDQAR/CDI.

NOTE: QA will periodically monitor MATCALS CDIs using the CDI Monitor in the Computerized Self Evaluation Checklist.

c. NAMP Compliance auditing will be performed per 10.7 for the maintenance programs applicable to MATCALS maintenance per Figure 10.30-3. Auditing will be performed using the MATCALS Functional Wing Commander CSEC located on the Expeditionary MATCALS website: (https://intelshare.intelink.gov/sites/matcals/_layouts/15/start.aspx#/SitePages/Home.aspx).

10.30.3.5 Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP)

Discrepancy reporting for MATCALS equipment, parts and technical publications will be per paragraph 10.9.

10.30.3.6 Tool Control

a. Tools used to maintain MATCALS equipment will conform to NAVAIR 17-1-574 MATCALS Tool Control Manual.

b. Tools will be marked per 10.12.3.2.

c. Tools will be inventoried per 10.12.3.6

NOTES: 1. Due to the expeditionary nature of MATCALS and the echeloning of equipment sets, MATCDs do not have to maintain a centralized tool room.

2. Tools used only for emplacing, erecting, and disassembling the MATCALS systems are not required to comply with tool control procedures.

10.30.3.7 Corrosion Prevention and Control

a. MATCDs do not require a corrosion team. Corrosion prevention, detection, treatment, and reporting is a responsibility of all maintenance personnel at the MATCD and must be monitored by maintenance leadership.

b. MATCD personnel engaged in MATCALS corrosion control must complete at least one of the following on-line courses available at https://learning.nel.navy.mil/ELIAASv2p/ under the Course Catalog tab:

(1) Basic Corrosion Control Course (CIN: CNATT-000-BCC-025-002-C0)

(2) Corrosion ICW - Avionics Corrosion Course (CIN: CNATT-000-ACC-025-001-C1)

NOTE: Personnel that completed Aviation "A" School between April 1992 and October 2005 or Aviation Warfare Apprentice Training course (Course CIN C-100-2021) between March 2010 and March 2015 received corrosion control training sufficient for maintaining MATCALS equipment and do not have to complete either course.

c. MATCD personnel are only authorized to conduct touchup painting. Any painting requirements beyond touchup will be referred to the Depot. Due to the authorized amount of touchup painting conducted at the MATCD, there is no requirement for a respirator program or certified painter.

10.30.3.8 Technical Data Management

MATCALS technical data will be managed per NAMPSOP 10.8.

NOTE: Technical drawings, specifications, or other technical renderings provided by a cognizant source and verified for technical accuracy and application may be utilized by MATCALS, such as Harris Radio programming guides.

10.30.3.9 Naval Aviation Metrology and Calibration

MATCALS equipment and tools requiring calibration will be managed per the Naval Aviation Metrology and Calibration NAMPSOP, paragraph 10.18.

10.30.3.10 Technical Directive (TD) Compliance

MATCDs are alerted to a TD requirement via PMA-213 notification. Once notified, the MATCD downloads the TD from NATEC. Parts for TDs are sent to the Detachments and do not have to be placed on order. Once complete, a copy of the work order and the TD compliance report are sent to PMA-213. Detachments who have implemented OOMA will complete the task in that system. Because MATCALS equipment are one-of-one systems, restricting systems from use if TDs are not

complied with in a timely manner does not apply. Outstanding TDs are incorporated during fielding activity refurbishment and MATCALS systems upgrades.

10.30.3.11 Aviation Maintenance Material Readiness List (AMMRL)

MATCDs will be outfitted per PMA213B/0017 MATCALS Allowance List.

10.30.3.12 MATCD Inspections

10.30.3.12.1 MATCDs must comply with the NAMP processes listed in Figure 10.30-3.

10.30.3.12.2 MATCD equipment readiness and maintenance processes will be inspected via Marine Corps Combat Readiness Evaluations (MCCRE), Naval Air Training and Operating Procedures Standardization (NATOPS), Operational Readiness and Evaluation (ORE), Field Supply and Maintenance Analysis Office (FSMAO), and Marine Air Wing (MAW) NAMP compliance inspections, as follows:

a. MCCRE. MATCALS Weapons and Tactics Instructors conduct evaluations of the MATCALS Maintenance Section on a bi-annual schedule for compliance with MATCALS employment, operation, serviceability, and readiness of equipment and personnel.

b. NATOPS. Once a MATCD has been placed into operation for over 90 days, it is held to the NATOPS inspection checklist contained in NAVAIR 00-80T-114 and is evaluated by Marine Corps Installations Command Inspectors or designated personnel for compliance.

c. OREs are conducted on MATCALS equipment. These inspections are more in depth than MCIs performed in flying squadrons and evaluate the physical condition of the equipment, readiness for deployment, and technician proficiency. They are conducted by the FWC, Marine Liaisons, and Subject Mater Experts (SMEs) for each of the systems. OREs are conducted on a 24-month cycle.

d. Field Supply and Maintenance Analysis Office (FSMAO). MATCALS equipment is mobilized either on or by vehicles that are maintained by USMC funds and maintenance practices. These practices are evaluated by FSMAO and all preparatory inspections prior to FSMAO such as Supply/Maintenance Assistance Team and Maintenance Management Office Site Assist visits conducted per MCO 4790.2 Field-Level Maintenance Management Policy.

e. The cognizant MAW inspects MATCDs for NAMP compliance using the MATCALS Functional Wing Commander (FWC) approved Computerized Self Evaluation Checklist (CSEC) located on the Expeditionary MATCALS website: (https://intelshare.intelink.gov/sites/matcals/_layouts/15/start.aspx#/SitePages/Home.aspx).

10.30.4 Responsibilities

10.30.4.1 MATCALS Functional Wing Commander (FWC)

a. The MATCALS FWC provides oversight, coordination and Fleet Marine Force (FMF) input to the In-Service Engineering Activities (ISEAs) concerning USMC ATC systems. Particular emphasis is placed on those matters with potential impact to the maintenance, employment, readiness, and sustainment of existing and planned USMC FMF ATC systems and other such tasks as may be directed by the Commandant of the Marine Corps (CMC), Headquarters USMC

(HQMC) APX, or USMC ATC Projects Officer Naval Air Systems Command (NAVAIRSYSCOM) PMA-213.

b. The MATCALS FWC provides liaison between the FMF, CMC, NAVAIRSYSCOM, Naval Inventory Control Point (NAVICP), Naval Air Warfare Command, Aircraft Division St. Inigoes (NAWCAD), Naval Information Warfare Center - Pacific (NIWC-Pac), and other organizations as required.

c. With authority derived from the CMC, the MATCALS FWC functions as the centralized integration and coordination point necessary to ensure effective maintenance and logistics support of USMC forces. In executing these functions, the MATCALS FWC has the authority to:

(1) Assist in the development and promulgation of plans, schedules, and funding requirements for the timely fulfillment of USMC operational requirements, systems maintenance, or logistics efforts.

(2) Advise CMC (APX) and NAVAIRSYSCOM concerning the effectiveness of maintenance and logistics efforts with respect to FMF ATC Systems.

(3) Assist in the development and execution of ISEA planning, programming, and budgeting for programs (OPN, O&MN, RTD&E,N) under the sponsorship of NAVAIRSYSCOM and Chief of Naval Operations (CNO) and assigned to the MATCALS ISEAs that are of interest to, impact upon, or directly support Marine Corps systems.

(4) Maintain a close and continuing liaison with Marine Forces, HQMC APX, CNO N98, NAVAIRSYSCOM, NAVICP, MCCDC and MARCORSYSCOM to review operational and logistics requirements.

(5) Periodically assess logistics support and identify future requirements/potential problems.

d. The MATCALS FWC position must be staffed with a Chief Warrant Officer 5 (CWO5) Military Occupational Specialty (MOS) 5950 Marine Air Traffic Control Systems Maintenance Officer. This key position will be continually filled and co-located with the ISEA that has responsibility for the bulk of the FMF ATC Systems. Responsibilities include:

(1) Plan, organize, and administer his/her office to ensure the implementation of the applicable provisions of the policy and guidance published in COMNAVAIRFORINST 4790.2.

(2) Assess/advise the MACS, MATCDs, NATTC, and the MATCALS ISEAs with respect to ATC systems, concerning maintenance practices, conformance to applicable published instructions, and the overall effectiveness of the organizational level maintenance programs.

(3) Provide oversight in the maintenance data collection effort.

(4) Identify known USMC training requirements for which the Navy is responsible and recommend personnel training requirements to the CMC and NAVAIRSYSCOM PMA-213 for appropriate CNO sponsored programs.

(5) Identify and state requirements for FMF operational/technical assistance services for MATCALS-related programs.

(6) Provide oversight to all Marines assigned to the MATCALS ISEAs.

(7) Generate and publish to the Expeditionary MATCALS website: (https://intelshare.intelink.gov/sites/matcals/_layouts/15/start.aspx#/SitePages/Home.aspx)

All NAMPSOP and Non-NAMPSOP programs applicable to MATCDs and a listing of critical maintenance checks that must be performed by QA personnel.

10.30.4.2 Marine Aviation Logistics Squadron (MALS)

a. MALS Aviation Supply Division (ASD) will execute all functions dealing with the inventory, storage, and management of Navy provided material.

b. Perform I-Level support beyond the capability of the MATCALS Maintenance section.

10.30.4.3 MATCALS Maintenance Section Maintenance Officer (MO)

The MO manages the Maintenance Section and is responsible to the Detachment Commander for the accomplishment of the Maintenance Section's mission. Responsibilities include:

a. Interpret and implement MATCALS policies and procedures for the Detachment Commander.

b. Responsible for the performance of the Maintenance Section and the technical and administrative functions which require specialized MATCALS training and experience.

c. Advise the Detachment Commander on MATCALS matters relating to readiness, effectiveness, training requirements, safety, calibration requirements, and ongoing or planned projects within the Maintenance Section.

d. Coordinate with and advise the MATCD Operations Section in all personnel assignments or reassignments to best support the operational commitments of the MACS.

e. Maintain liaison with the other Maintenance Officers within the MACS community to ensure equipment readiness conditions and requirements pertinent to the efficient employment of MATCALS are known and supported.

f. Provide the necessary leadership, technical guidance, and personnel management, within the Maintenance Section, to establish the most effective and economical procedures to accomplish assigned tasks that employ available resources to maximum potential, within the guidelines of this instruction and Marine Corps policy directives.

g. Increase the potential of assigned personnel through technical and professional training, delegate/assign responsibilities within the division to achieve continuing success through qualified independent action, and provide professional counseling and performance evaluation processes that will encourage subordinates to exercise their full technical and professional capacity.

h. Analyze the mission accomplishment and capabilities of the Maintenance Section using reports provided by maintenance data systems and qualification tracking systems, to ensure full and effective employment of personnel.

i. Act as the central point of contact for MATCALS matters concerning policy, personnel assignments, training, and support of MATCALS within the MATCD.

j. Maintain liaison with MALS ASD in connection with all MATCALS matters.

k. Manage and control cannibalization of MATCALS equipment.

l. Manage all MATCALS security requirements, to include the control of classified material and access of personnel.

m. Ensure personnel comply with command and local directives relating to professional military education and MOS proficiency through formal and informal technical and follow-on training.

n. Ensure the detachment maintains the capability to operate from an independent and geographically separated main air base or air facility and two remote air sites or points.

o. Manage and control investigation of property loss of MATCALS equipment.

p. Manage Aviation Maintenance and Supply Readiness Reporting for MATCALS systems, to include use of the proper Mission Essential Subsystem Matrix codes.

q. Ensure the proper project and priority codes are being assigned to all MATCALS requisitions.

r. Review and approve the Monthly Maintenance Plan.

s. Review the accomplishment of conditional inspections for MATCALS equipment.

t. Ensure requisition validation is being conducted.

u. Designate a MATCALS Program Manager. Designation will be in writing, via the Monthly Personnel Plan (MPP) per 10.1.

10.30.4.4 MATCALS Program Manager

a. Perform program audit within 60 days of designation as Program Manager and annually thereafter, per paragraph 10.7.5.8.

b. Provide training on the MATCALS NAMPSOP.

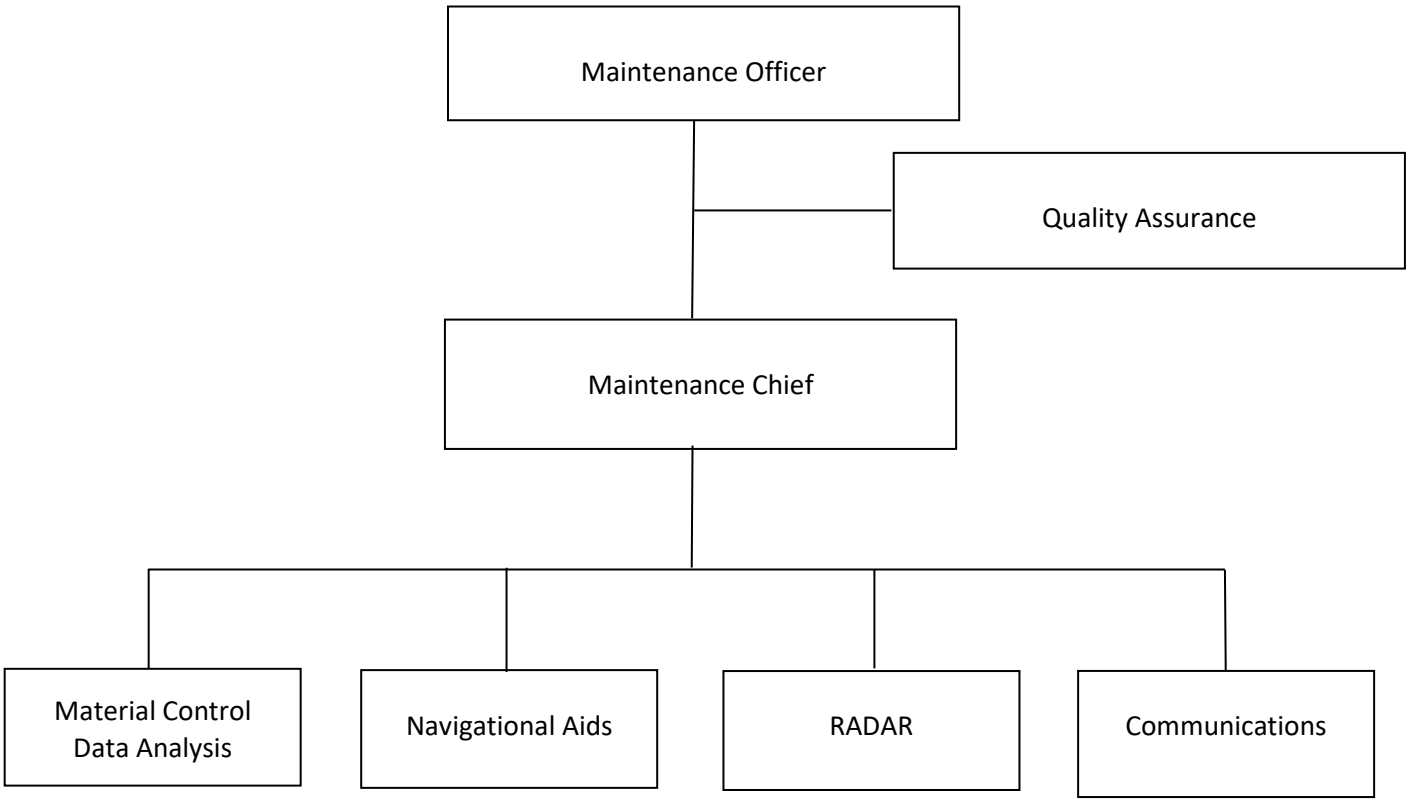
c. Maintain a program file to include:

(1) POC

(2) Program related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit



NOTE: Staff functions, for example, Material Control and Data Analysis may be combined to more efficiently use staff personnel.

Figure 10.30-1: MATCALS Maintenance Section Organization

Maintenance Function	Level	
	O	I
Operational check, test, routine servicing	X	
Inspections	X	
Minor adjustments/alignments	X	
Removal and replacement of components (module, circuit card assemblies, and chassis-mounted piece parts)	X	X
Removing and replacing subassemblies	X	X
Removing and replacing consumable parts, such as knobs, safety wire, fuses, and light bulbs	X	X
Repair of flexible cables	X	X
Removal and installation of special connectors, eyelets, and terminals	X	X
Functional test and checks	X	X
Ground certification	X	

Figure 10.30-2: MATCALS Maintenance Functions

CSEC AREA	TITLE
800	Quality Assurance
1000	Naval Aviation Maintenance Discrepancy Reporting Program
1300	Tool Control
1400	Corrosion Prevention and Control
1900	Technical Data Management
2000	Naval Aviation Metrology and Calibration
2600	Technical Directive (TD) Compliance
3300	Logs and Records
3600	Data Analysis
3700	Material Control
3800	AMMRL
5600	CDI Periodic

NOTE: The MATCALS Functional Wing Commander (FWC) publishes the list of questions in these CSEC areas applicable to MATCALS.

Figure 10.30-3: MATCALS Quality Assurance Programs

10.31 Expeditionary Airfield (EAF) and Marine Corps Air Station (MCAS) Aircraft Launch and Recovery Equipment (ALRE) Maintenance

10.31.1 References

a. NAVAIRINST 13800.15, Fleet Technical Services Support of Naval Air Systems Command Cognizant Aircraft Launch and Recovery Equipment

b. NAVSEAINST 4790.8, Ship's Maintenance and Material Management (3-M) Manual

c. NAVAIR 17-1-125, Support Equipment Cleaning, Preservation and Corrosion Control

d. NAVAIRINST 13800.12, Certification of Expeditionary Airfield AM2 Matting Installations, Aircraft Recovery Equipment Visual or Optical Landing Aids, and Marking or Lighting Systems

e. NAVAIRINST 13800.13, Certification of Shore-based Aircraft Recovery Equipment and Visual or Optical Landing Aid Systems

10.31.2 Introduction

10.31.2.1 This NAMPSOP is applicable to all Marine Corps activities performing maintenance on EAF and Aircraft Launch and Recovery Equipment (ALRE).

10.31.2.2 For the purpose of NAMP adherence, the EAF and the Marine Corps Air station (MCAS) Aircraft Recovery divisions function as divisions with multiple branches and work centers. The EAF and the MCAS Recovery divisions function as Organizational level (O-Level) maintenance activities with the exception of the Production Control branch, which adheres to the procedures and guidelines of an Intermediate level (I-Level) activity. Figure 10.31-1 establishes the relationship of NAMP functions to corresponding EAF billets.

10.31.2.3 COMNAVAIRSYSCOM (PMA-251) is the EAF program manager.

10.31.3 Requirements

10.31.3.1 Training and Designation

a. All newly reporting maintenance personnel will receive Naval Aviation Maintenance Program (NAMP) Indoctrination Training for the following programs:

(1) Quality Assurance Program.

(2) Naval Aviation Maintenance Discrepancy Reporting Program.

(3) Technical Directive Compliance Program.

(4) Foreign Object Damage Prevention Program.

(5) Tool Control Program.

(6) Corrosion Prevention and Control Program.

(7) Naval Aviation Metrology and Calibration Program.

(8) Hazardous Material Control and Management Program.

(9) Maintenance Department Safety Program.

b. Work Center Supervisors and personnel performing maintenance on EAF components and systems must receive job-specific training including the applicable requirements specified in:

(1) Equipment technical manuals.

(2) Maintenance Requirement Cards (MRC).

(3) Wing Local Command Procedures (LCP).

c. EAF and MCAS Recovery divisions will publish Job Qualification Requirements (JQR) covering the knowledge and skills an individual must demonstrate before they are qualified to perform specific maintenance or administrative duties. Refer to paragraph 10.1.4.3, for JQR format.

NOTES: 1. Marine Corps Air Station (MCAS) Aircraft Recovery divisions should utilize NAVEDTRA 43542-C for qualification standards when operating and preforming maintenance on ALRE not taught at the MOS formal school.

2. Requests for training by Expeditionary Airfield Service Unit (EASU) will be made per NAVAIRINST 13800.15.

10.31.3.2 Quality Assurance

a. QARs, CDQARs, and CDIs will be qualified per Chapter 7, paragraph 7.3.4 with the exception of paygrade. Paygrade should be considered but is not a requirement.

b. QARs, CDQARs, and CDIs will be designated by the Commanding Officer, per paragraph 7.3.5 and 10.1.2.9.

c. The I-Level quality assurance certification procedures of Chapter 7, paragraphs 7.5.2.1 and 7.5.2.3 will be followed.

10.31.3.3 Maintenance

a. Expeditionary Airfield and Marine Corps Air Station (MCAS) Recovery divisions are authorized to conduct O-Level and I-Level maintenance actions authorized by PMA-251 via:

(1) Maintenance Requirement Cards.

(2) Technical Directives.

(3) Equipment Specific technical manuals.

b. Maintenance beyond the capability of the division will be forwarded to MALS or local I-Level maintenance activity, EASU, or authorized D- level maintenance activity.

NOTE: Request for maintenance assistance from EASU will be made per NAVAIRINST 13800.15.

10.31.3.4 Preventive Maintenance (PM)

a. Preventative Maintenance will be performed per the periodicity and procedures specified in technical manuals or manufacturer's publications.

NOTE: PM specified in technical manuals takes precedence over other publications or directives.

b. If PM status cannot be verified for newly received equipment, all PM requirements must be performed before placing the equipment in service.

c. The PM cycle for newly manufactured equipment that has never been placed into service will be established based on the acceptance inspection completion date. The first PM is not required until the prescribed inspection interval has been reached.

d. Production Control must assess all equipment and publish a local MRC per 10.8.3.5 if the equipment meets one or more of the following criteria:

(1) Manufacturers' publications are the only publications available and they do not give detailed procedures and specific intervals for pre and post operational inspections or PM.

(2) Injury to personnel or damage to equipment may occur if the equipment fails during use. This includes equipment whose operation involves moving parts, hazardous chemicals, or discharge of material, extreme heat or cold, or electrical shock.

e. PM actions must be documented on OPNAV 4790/60 Maintenance Action Form (MAF) or work order and recorded in the History Record.

NOTE: MCAS Aircraft Recovery divisions will follow procedures outlined in NAVSEAINST 4790.8 for material management and maintenance management. Units not utilizing NALCOMIS will utilize a PMA-251 approved Maintenance tracking program.

10.31.3.5 Preservation

Equipment that will not be used for extended periods must be preserved per NAVAIR 17-1-125, Section XI.

10.31.3.6 Unscheduled Maintenance

a. All unscheduled maintenance will be documented using a MAF or work order.

b. Unscheduled maintenance actions that meet the criteria of 8.5.6 will also be documented on the Miscellaneous/History (OPNAV/25A) form within the Aeronautical Equipment Service Record (AESR) (OPNAV 4790/29), per 10.31.3.8.

10.31.3.7 Technical Directive Reviews

Technical Directive Reviews must be performed per the requirements of 10.10. TD reviews will be documented in the Miscellaneous History section of the Maintenance History Record.

10.31.3.8 Equipment Records and Logbooks

NOTE: Units using NTCSS Optimized OMA/IMA NALCOMIS will maintain Equipment Logbooks in accordance with paragraph 8.2 and 8.6.

a. Arresting gear and Fresnel Lens Optical Landing Systems must have an Aeronautical Equipment Service Record (AESR) (OPNAV 4790/29) with the following forms:

(1) OPNAV 4790/29 Aeronautical Equipment Service Record

(2) OPNAV 4790/22A Inspection Record

(3) OPNAV 4790/23A Repair/Rework Record

(4) OPNAV 4790/24A Technical Directives

(5) OPNAV 4790/25A Miscellaneous/History

(6) OPNAV 4790/27A Inventory Record

(7) OPNAV 4790/28A Scheduled Removal Component Card

(8) OPNAV 4790/31A Equipment Operating Record

NOTE: A six-part folder may be used in lieu of Aircraft Log Book 0107-LF-770-3385.

b. All other EAF and ALRE equipment requiring PM will have an historical file, maintained in the following format:

Left Side

(1) Scheduled inspection or maintenance MAFs/work orders. Retain a full cycle of MAF. Example: Equipment with 13, 26, and 52-week PM inspections will include the MAF/work order for the last completed 13, 26, and 52-week inspections. Retain the most current completed PM MAF/work order or checklist for 30 days or until the next like inspection is filed. File all records in JCN sequence.

(2) OPNAV 4790/22A Inspection Record

(3) OPNAV 4790/23A Repair/Rework Record

(4) OPNAV 4790/24A Technical Directives

(5) OPNAV 4790/25A Miscellaneous/History

Right Side

(1) Unscheduled maintenance MAFs/work orders. Retain for 6 months from completion date, filed in JCN sequence.

(2) Preservation/Depreservation MAFs/work orders. Retain one complete preservation cycle.

(3) Technical Directive MAFs/work orders. Retain for 6 months.

c. The historical file and all outstanding discrepancy MAFs/work orders will accompany equipment that is transferred on a permanent or sub-custody basis to another activity. The activity having custody is responsible for maintaining the records.

d. The historical file is not required to accompany equipment provided on a temporary loan basis. The loaning unit is responsible for recording all maintenance conducted by the temporary custodian.

NOTES: 1. Historical files will be filed in sequence of TEC and serial number).

2. Pre/Post Operational Checks are not required to be recorded in the historical file. Completed pre/post operational check MAFs/work orders or checklists will be retained for 30 days.

3. Activities with NALCOMIS history retrieval capability will store completed MAF/work order data in the NALCOMIS database for six months from completion date. MAFs/work orders will be stored for one complete inspection cycle or until equipment is transferred.

10.31.3.9 NAMP Compliance Auditing

NAMP Compliance Auditing will be performed per 10.7 for the programs listed in Figure 10.31-2.

NOTE: MCAS Aircraft Recovery divisions will adhere to programs noted in Figure 10.31-2, with the exception of Production Control and Material Control.

10.31.3.10 Certification

EAF units and MCAS Aircraft Recovery divisions and their installations, systems, and equipment are certified by reviewing inspection results and issuing certification documentation when required. Requests for certification will be made per NAVAIRINST 13800.12 for EAF units and NAVAIRINST 13800.13 for MCAS Aircraft Recovery divisions.

10.31.4 Responsibilities

10.31.4.1 PMA 251

Provide program management for EAF and aircraft recovery equipment.

10.31.4.2 MAW

a. Conduct Material Condition Inspections (MCI) of EAF during Maintenance Program Assessments (MPA) to verify activities are maintaining EAF equipment in satisfactory material condition.

NOTE: Maintenance inspections should coincide with other scheduled inspections; i.e. Inspector General, NATOPS, Field Supply and Maintenance Analysis Office (FSMAO) inspections.

b. Publish LCP per Appendix D to direct geographic or other command directed actions not addressed in this NAMPSOP.

c. Provide PMA-251 with updated equipment accountability and status semi-annually.

d. Assist MCAS with NAMPSOP compliance and inspections.

10.31.4.3 MALS

a. Execute all functions dealing with the inventory, storage, and management of Navy provided material.

b. Perform I-Level support beyond the capability of the EAF division.

c. Perform calibration of EAF equipment and tools.

10.31.4.4 Maintenance Officer

a. Administer the operation of the EAF/ MCAS Recovery division per the NAMP.

b. Define and assign responsibilities, functions, and operations per existing directives.

c. Organize the department. Initiate requests for, and make recommendations relative to, changes concerning personnel, facilities, and equipment required to accomplish assigned tasks.

d. Ensure the accomplishment and documentation of training for permanently and temporarily assigned personnel.

e. Ensure the production output of the department is of proper quantity and quality per applicable specifications and directives.

f. Maintain liaison with other department heads, representatives of higher authority, and other maintenance organizations.

g. Publish and ensure internal compliance with maintenance, safety, and security procedures to ensure optimum performance is achieved.

h. Develop LCPs per Appendix D, if required to direct geographic or command directed requirements not addressed in this NAMPSOP. Command LCPs will be submitted to the MAW for developing a Wing LCP.

i. Schedule and hold periodic planning and informational meetings.

j. Ensure the auditing of all maintenance programs and processes per paragraph 10.31.3.9.

k. Ensure applicable publications and directives are disseminated throughout the maintenance department.

l. Ensure supervisory and QA personnel are thoroughly familiar with calibration requirements.

m. Schedule and conduct a monthly maintenance and material planning.

n. Review completed work center audits.

o. Designate, in writing via the MMP, all persons authorized to sign logbook/record entries.

p. Review and approve in writing the MMP prepared by the MMCO/PC. The original signed paper document will be maintained in Maintenance Control/Production Control and will be updated with pen and ink changes to effectively communicate and monitor changes.

q. Designate the AMO as the EAF Program Manager per 10.1.2.9.

r. Assign personnel to billets in Figure 10.31-1.

NOTE: Assignment of the most qualified personnel to EAF billets in Figure 10.31-1 is the sole responsibility of the EAF Maintenance Officer. Pay grade should be considered but is not a requirement.

10.31.4.5 EAF Program Manager

a. Perform an assessment within 60 days of designation as Program Manager and annually thereafter per paragraph 10.7.

b. Provide Training on the EAF NAMPSOP per 10.31.

c. Maintain a program file to include:

(1) POCs

(2) Program-related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.31.4.6 Quality Assurance Chief

a. Perform program audits per Figure 10.31-2 per 10.7

b. Verify material condition of division equipment during Work Center Audits per 10.7.

c. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) Applicable references/cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.31.4.7 Production Control Chief

a. Perform program audits per Figure 10.31-2 per 10.7.

b. Issue PM MAFs/work orders.

c. Coordinate maintenance that exceeds the resident capability of the Division with MALS or local I-Level maintenance activity, Expeditionary Airfield Service Unit (EASU), or authorized D-level maintenance activity.

d. Track maintenance via NALCOMIS or PMA-251 approved maintenance tracking data base.

e. Screen all EAF equipment for PM applicability.

f. Verify acceptance inspections and transfer inspections are conducted.

g. Verify preservation requirements are followed.

h. Verify EAF equipment records are maintained per this instruction. i. Ensure MAFs/work orders are initiated on all required maintenance actions.

j. Publish a MMP that, at a minimum, contains:

(1) Roster of Personnel Assignments

(2) Authorized Signatures list

(3) QA Program Monitors and Managers

(4) Future QA Audit dates

(5) Licensed Personnel

(6) Organizational Table

(7) Preventive Maintenance Schedule

(8) Completed Projects/Upcoming Projects

(9) Technical Directives Outstanding

(10) Certification/Non Destructive Inspection/High Time Schedules

(11) Status of all installed EAF/Recovery equipment

(12) Tools and Gauges due for Calibration

(13) LCP listing

(14) Monthly Training schedule

(15) CNATT Training

k. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) Applicable references/cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.31.4.8 Work Center Supervisor

a. Verify personnel receive indoctrination and refresher training per 10.1.4.7 and 10.1.4.8.

b. Maintain the material condition and operability of equipment within their custody. Responsibilities include:

(1) Adherence to the inspection and maintenance requirements of paragraph 10.31.3.

(2) Compliance with forced removal or replacement dates and replacement criteria.

(3) Thorough corrosion prevention and treatment.

(4) Prompt reporting of non-operable equipmentc. Randomly spot check work in progress to verify personnel are performing maintenance in accordance with MRCs and applicable technical manuals.

d. Ensure MAFs/work orders are issued for all required maintenance actions.

e. Initiate MAFs/work orders for maintenance actions not directed by Production Control.



Breakdowns beyond the basic divisions are not illustrated because of the variety of branches possible. Activities will establish the necessary branches to meet their individual requirements.

Figure 10.31-1: EAF/ MCAS Aircraft Recovery Maintenance Organization

CSEC AREA	Program Title	Program Assessment	QA Audit	Activity Level
200	Maintenance In-Service Training	Training Chief	N/A	O
800	Quality Assurance	QAR	QA Chief	O
900	Maintenance Department Safety Program	QA Chief	AMO	O
1000	Naval Aviation Maintenance Discrepancy Reporting Program	QAR	N/A	O
1200	Foreign Object Damage (FOD) Prevention	QAR	QA Chief	O
1300	Tool Control	PC Chief	QA Chief	O
1400	Corrosion Prevention and Control	QAR	QA Chief	O
1900	Technical Data Management	QAR	QA Chief	O
2000	Naval Aviation Metrology and Calibration	QAR	QA Chief	O
2600	Technical Directive (TD) Compliance	AMO	N/A	O
3000	Production Control	PC Chief	N/A	I/ LCP
3300	Logs and Records	PC Chief	N/A	O
3700	Material Control	PC Chief	N/A	O
5600	CDI Periodic (Monitor)	N/A	QA Chief	O

Figure 10.31-2: EAF/ MCAS Recovery Quality Assurance Auditing

10.32 Aircraft Weight and Balance (W&B) Program

10.32.1 References

a. NAVAIR 01-1B-50, Joint Service Technical Manual for Organizational, Intermediate and Depot Maintenance Aircraft Weight and Balance

b. COMNAVAIRFOR MANUAL 3710.7, Naval Air Training and Operating Procedures (NATOPS) General Flight and Operating Instructions

10.32.2 Introduction

10.32.2.1 The Aircraft Weight and Balance (W&B) Program directs procedures to verify aircraft weight and center of gravity are within established limits.

10.32.2.2 The Automated Weight and Balance System (AWBS) is a software system that enables computer-based record-keeping in lieu of using DD 365 series forms. The system facilitates the digital storage and updating of aircraft weight data, which reduces mathematical errors and legibility concerns. The AWBS Central Server enables transfer of aircraft weight and balance data from one operational unit to another.

10.32.2.3 NAWC AD Mass Properties Engineering Branch is the engineering authority for naval aircraft W&B.

10.32.2.4 NAVAIR 01-1B-50 defines the requirements, procedures, and responsibilities for weight and balance control of naval aircraft, and is the authoritative source for determining when an aircraft must be weighed, weighing procedures, and record keeping requirements. Section 8.2 provides W&B requirements specific to Navy and Marine Corps aircraft.

10.32.2.5 The Joint Technical Data Interface website contains specific TMS data (including some weight and balance applications) for the C-130, MV-22 and H-60 at https://www.jtdi.mil.

10.32.2.6 DD 365 series manual forms are available for download in a fillable .pdf document from the DOD Forms Management website (https://www.esd.whs.mil/Directives/forms/dd0001_0499/).

10.32.3 Requirements

10.32.3.1 General

a. Navy and Marine Corps activities operating aircraft must comply with the aircraft W&B procedures of this instruction and NAVAIR 01-1B-50.

b. The use of AWBS, including the AWBS Central Server, is mandatory for all USN and USMC activities unless operational mission requires use of paper forms. Requests to deviate from AWBS require prior approval from NAWC AD Mass Properties Engineering Branch. Activities must maintain an electronic back-up of all AWBS data (on local computing systems) secondary to the Central Server.

c. A W&B Handbook must be produced within AWBS and maintained for each aircraft and must be readily available to the pilot and other personnel responsible for accomplishing weight and balance functions. Operational units should receive W&B handbooks for aircraft assigned to them from either the previous unit or from the OEM at delivery or rework facility following maintenance or service. The following W&B forms may be obtained from the Navy Data Distribution System (NDDS) (https://ndds.navair.navy.mil/) or by contacting NAWC AD Mass Properties Engineering Branch by email (weight&balance@navy.mil):

(1) T/M/S specific Charts A (for new production lots and block upgrades) and E.

(2) AWBS Auto Limits Files.

(3) Electronic Form F Generators (if applicable) and their associated user manual and authorization letter.

10.32.3.2 Weight and Balance Personnel Designation and Training

a. Per NAVAIR 01-1B-50, Commanding Officers of activities operating aircraft must designate the Maintenance Material Control Officer or equivalent as the Weight and Balance Officer. Commands that deploy detachments may designate a Weight and Balance Officer for each detachment. Additional qualified personnel may be designated as Weight and Balance Technicians, if required to assist the Weight and Balance Officer in accomplishing program requirements. Designation will be in writing per 10.1.2.9.

b. Prior to designation, the Weight & Balance Officer and Weight and Balance Technicians must successfully complete one of the following courses:

(1) Naval Aviation Maintenance Program Indoctrination course (C-4D-2012).

(2) Naval Aviation Maintenance Program Management course (C-4D-2013).

(3) Aircraft Weight and Balance course (C-516-0001).

10.32.3.3 Weight and Balance Officer Responsibilities

a. Upon assignment:

(1) Register for an NDDS account (https://ndds.navair.navy.mil), AWBS account (https://awbs.hill.af.mil/), and verify access to the AWBS Central Server (https://awbs.hill.af.mil/CentralUSN) or (https://awbs.hill.af.mil/CentralUSMC)

(2) Verify AWBS W&B Handbooks have all required forms, forms are current and in the correct format per NAVAIR 01-1B-50, and the Basic Weight and Moment is accurate and complete with all the modifications and TDs incorporated in each aircraft.

(3) Verify each aircraft has been weighed per the requirements of NAVAIR 01-1B-50.

(4) If using standardized loading (formerly called "CANNED" or "multiple use" forms) Forms F, review and certify all Forms F are accurate and reflect the current configuration of each aircraft assigned, per NAVAIR 01-1B-50 requirements. In lieu of reprinting each Form F, newly assigned W&B Officers may issue a letter containing a list of the BUNOs of the aircraft reviewed, stating all Forms F have been reviewed and are accurate, and then printing and signing the Form Fs at the next 180-day certification.

(5) Verify compliance with the W&B control procedures of COMNAVAIRFOR M-3710.7 Section 4.8.6.1.

(6) Verify Maintenance Control is reviewing W&B forms for currency prior to releasing aircraft for flight, per 5.1.6.2. The signed Weight and Balance Clearance Form F serves as certification that weight and balance flight clearance was properly accomplished.

(7) Perform an initial W&B Program audit, per 10.7.5.8.b.

b. Utilize AWBS for W&B records, as required per NAVAIR 01-1B-50.

c. Ensure aircraft are weighed whenever they meet the weighing requirements of NAVAIR 01-1B-50.

d. As they occur, update the W&B records, forms, and charts of affected aircraft with the W&B impacts caused by changes to aircraft configuration, such as incorporation of Technical Directives (TD) or other modifications. Do not enter TD modifications as a single line "Net Change" on the Chart C. The proper method is to:

(1) Enter a beginning header. Example: "Begin AYC-1577 – WHEEL SPEED TRANSDUCER COUPLING."

(2) Accomplish all Chart A additions and removals (with posting to Chart C "on").

(3) Accomplish all Chart C additions and removals.

(4) Accomplish modifications to Chart E as indicated in the TD.

(5) Create a closing header. Example: "End AYC-1577 – WHEEL SPEED TRANSDUCER COUPLING."

NOTES: 1. If the weight and balance data of a TD is suspected to be in error, immediately contact the Type Wing or MAW for resolution. If the Type Wing or MAW concurs there is an error, they must notify NAWC AD Mass Properties Engineering Branch via email (weight&balance@navy.mil) for concurrence and submit a Technical Publication Deficiency Report (TPDR) (category dependent on the severity) via the JDRS website (https://jdrs.mil) per 10.9 procedures. NAVAIR 01-1B-50 provides additional guidance.

2. NAWC AD Mass Properties Engineering Branch will determine when changes to the basic aircraft configuration, either singular or cumulative, necessitate a complete revision of Chart A or Chart E.

e. Ensure all W&B personnel are properly trained and designated by the appropriate authority.

f. Provide NAMP indoctrination training Aircraft Weight and Balance Program policy per 10.1.4.7. Verify personnel receive Aircraft Weight and Balance familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

g. Review, update, and sign all standardized loading Forms F at least once every 180 days.

h. If ABDR is performed, verify the weight and location of materials used in the repair did not cause unacceptable aircraft W&B. An entry must be made in the Miscellaneous History section of the aircraft logbook to document W&B Officer certification.

i. Review AWBS notifications and updates and take action as necessary.

j. Retain historical Chart A – Basic Weight Checklist Record (DD Form 365-1), Form B – Aircraft Weighing Record (DD365-2), and Chart C – Basic Weight and Balance Record (DD Form 365-3) to enable authenticating current W&B data in AWBS. Compare new inventory with the last completed inventory, and note any changes in the items or quantities of equipment installed in the aircraft. Retain W&B records within the W&B handbook per NAVAIR 01-1B-50, section 8.2.5.

k. Maintain an electronic master back-up file of all AWBS data for each aircraft. Use of the Central Server is the primary method for storage, upload, download, transfer, take ownership, and back-up of AWBS files. The AWBS Central Server is divided into two servers; one for use by USN activities and one for use by USMC activities. At this time, the Central Servers do not allow for storage of Form F data. Since AWBS Central Servers do not store Form F data, activities utilizing the standardized loadings (CANNED) Form F function must maintain a local, secondary back-up of all Form F data on either external media or local server to prevent loss of data in case of computer corruption or loss. If removable media (CD-ROM or other approved media) is used for back-up, it must be labeled with the following: “AWBS Back-up”, aircraft BUNO, security classification, and date the back-up was performed, per NAVAIR 01-1B-50.

l. Comply with the W&B inventory procedures of NAVAIR 01-1B-50 when accepting or transferring physical custody of an aircraft (either permanent or temporary loan), and upon receipt from off-site rework or modification.

NOTE: F-35 aircraft electronic inventory is an acceptable alternative to performing a visual inventory of installed components.

10.32.4 Depot Activities

D-level activities, major flight test activities, and major overseas aviation rework establishments must strictly comply with the depot procedures and responsibilities of NAVAIR 01-1B-50.

10.33 Fleet Engineering Disposition (FED) Procedures

10.33.1 Introduction

10.33.1.1 The FED Program provides procedures for O-Level, I-Level, and D-level maintenance activities, TYCOMs, and NAVAIR Fleet Support Teams (FST), to request and receive approval to deviate from prescribed repair procedures, limits, and maintenance requirements. FEDs are used to:

a. Authorize a one-time deviation from maintenance procedures, on an individual activity and individual repair basis.

b. Provide repair instructions to restore sufficient strength and service life to a damaged aircraft to allow a one-time ferry flight to a repair facility.

NOTE: Completion of a FED procedure is not an authorization for a one-time ferry flight. A one-time flight clearance from the ACC Aircraft Class Desk is still required.

c. Authorize one-time repairs to be performed by any repair activity that has the required equipment, facilities, material, and certified personnel.

d. Provide airworthiness concurrence of PMI induction dates, still utilizing the Fixed Induction Date (FID) extension process through OPNAV.

10.33.1.2 A FED request to conduct repairs beyond the allowable repair limits in the applicable repair manual may be submitted if, in the activity's estimation, the damaged component is repairable on-site using existing equipment, facilities, material, and personnel.

10.33.1.3 Specific implementation of the FED Program varies depending on the platform. A FED may be known by other names, such as a Fleet Support Module (FSM) in the FST Workload Management System (WMS), Damage Engineering Disposition (DED) for FA-18 and EA-18G, Technical Assist Request (TAR) for V-22, Fleet Technical Instruction (FTI) for H-60, Temporary Engineering Instruction (TEI) for I-Level and D-level activities.

NOTE: A FED will not be requested, issued or substituted for a Technical Directive (TD), an Engineering Investigation (EI) response, an Interim Rapid Action Change (IRAC), or Technical Publication Deficiency Report (TPDR).

10.33.2 Procedures

10.33.2.1 Submitting activity will:

a. Provide NAMP indoctrination training on Fleet Engineering Disposition (FED) Procedures policy per 10.1.4.7. Verify personnel receive FED familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. Submit FED requests electronically using procedures specified by the cognizant NAVAIR Fleet Support Team (FST) engineering authority.

c. Accomplish repairs performed per a FED deviation strictly in accordance with the instructions provided by the FST.

d. Document FED repairs on a WO or MAF. As required by the FED authorization procedures, make an entry within the respective component or aircraft records (aircraft logbook, AESR, SRC, ASR, EHR, etc). WO, MAF, SRC card, and aircraft log book entries must include the FED tracking number provided by the FST. Activities that have converted to the Aircraft Component Tracking System (ACTS) must also document FED repairs on components records loaded in ACTS.

e. (O-Level) Provide the Type Wing or MAG with a copy of the FED and notify them of the outcome of the repair.

NOTE: I-Level activities are not required to submit FED requests prior to declaring an item Beyond Capability of Maintenance (BCM). I-Level activities should submit a FED request only if, in their estimation, the component is repairable on-site using existing methods and capabilities.

10.33.2.2 FSTs:

a. Designate a point of contact to manage and support the FED Program.

b. Provide specific damage reporting instructions.

c. Acknowledge receipt of incoming FED requests and evaluate repair possibilities based on the following criteria:

(1) Component criticality

(2) Severity and type of damage

(3) Strength requirements for repair

(4) Complexity of repair method

(5) Level of certifications for on-site repair personnel

(6) Facilities, equipment, and materials available on site.

d. Provide detailed repair or BCM disposition instructions. For O and I level repair dispositions containing processes that require a D-level artisan, the FST engineering authority must note these requirements and route through the cognizant D-level FRC QAS for approval prior to releasing the FED disposition, per Chapter 7.

e. Provide instructions for any required entries within the respective component or aircraft records (aircraft logbook, AESR, SRC, ASR, EHR, etc).

f. Assign unique tracking numbers to all FED requests at time of submission, and maintain indefinitely. The FED tracking number will be provided to the requesting activity upon receipt of the FED request.

g. If deemed warranted, update technical manuals to formalize and facilitate routine accomplishment of procedures being directed by FEDs.

10.33.2.3 Type Wings and MAGs will:

a. Issue a local command procedure per Appendix D to direct internal FED procedures.

b. Liaison with the ACC Aircraft Class Desk if needed for flight clearance or deviation from any other TMS aircraft or NAMP requirement in order to effect the FED repair.

10.34 Aeronautical Equipment Welder Certification

10.34.1 Introduction

a. This NAMPSOP applies to all military, government civilian, and contractor personnel performing welding on Navy aircraft structures, engines, components, and support equipment. Refer to 12.2.3.3 for Depot FRC aeronautical welder special certification procedures.

b. This NAMPSOP reinforces the aeronautical welder qualification and certification processes of NAVAIR 01-1A-34, which contains additional information and guidance relative to qualification, certification, recertification, and employment of aeronautical welders. However, it is a general series technical manual intended for use with the general aviation maintenance policies of COMNAVAIRFORINST 4790.2 policy and the direction in specific maintenance, repair, overhaul manuals, and engineering documents. In the event of conflicts in qualification, certification, and recertification between this NAMPSOP and NAVAIR 01-1A-34, contact COMNAVAIRFOR N422 via email to namp_policy@us.navy.mil.

10.34.2 Requirements

10.34.2.1 General Procedures

a. All Navy and Marine Corps military, government civilian, and contractor personnel performing aeronautical welding must meet the certification requirements of NAVAIR 01-1A-34 WP 005 001.

b. Aeronautical welders will only weld on equipment, components, and items manufactured from the group(s) of metal(s) for which they are currently certified, and for the weld repairs authorized by applicable technical publications or directives. Groups of metals that require separate and distinct certification are specified in NAVAIR 01-1A-34. Separate certification is also required for oxyfuel brazing process.

c. Provide NAMP indoctrination training on Aeronautical Equipment Welder Certification policy per 10.1.4.7. Verify personnel receive Aeronautical Equipment Welder Certification familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

10.34.2.2 Certification

Initial certification, proficiency demonstration, and recertification of welders must comply with the procedures of NAVAIR 01-1A-34 WP 005 01.

10.34.2.3 Certification Extension

A 90-day extension of the recertification due date may be requested in cases where test welds have been submitted but results have not been received from the evaluation facility. Submit requests by routine naval message to COMNAVAIRPAC SAN DIEGO CA, attention N422. Extensions will not be approved if test plates have not been submitted. An approved extension becomes invalid if a test plate fails evaluation.

NOTE: Poor monitoring and lack of timely action to meet the recertification due date is the primary cause of having to submit a request to extend welding certification.

Recertification due dates will be listed in the monthly Maintenance Personnel Plan per 10.1.5.3.e.

10.35 Nondestructive Inspection (NDI) Program

10.35.1 References

a. NAVAIR 01-1A-16-1 Nondestructive Inspection Methods, Basic Theory

b. NAVAIR 01-1A-16-2 Nondestructive Inspection General Procedures and Process Controls

c. NAVAIRINST 1500.2 Aviation Maintenance Personnel Training by Naval Aviation Depots

d. NAVSEA S0420-AA-RAD-010 series Radiological Affairs Support Program Manual

e. NAVMED P-5055 Radiation Health Protection Manual

f. NAS 410 National Aerospace Standard

g. NAVSEA SE700-AA-MAN-100

10.35.2 Introduction

10.35.2.1 Nondestructive Inspection (NDI) detects defects with a high degree of accuracy and with no adverse effect upon the use of the part or system inspected. NDI is an essential element in identifying and correcting material defects on aircraft structures and components before they reach catastrophic proportions. The correct application of NDI increases aircraft and equipment operational readiness and reduces maintenance man-hours and material expenditures.

10.35.2.2 NDI methods include, but are not limited to, fluorescent penetrant, magnetic particle, eddy current, ultrasonic, and radiographic. NDI is used:

a. Where internal defects cannot be visually detected

b. Where structural or component disassembly can be avoided

c. For QA purposes for the detection of substandard materials or conditions

d. To prove the validity of and provide changes for periodic maintenance requirements

10.35.2.3 The terms qualified, proficient, or certified do not precede any instance of the title NDI Instructor, NDI Specialist, NDI Technician, or NDI Operator within the text of this NAMPSOP. These titles denote personnel are qualified, proficient, and certified for their duties.

10.35.2.4 References a. through g. provide policy and procedures for NDI. In the event of conflicts between this NAMPSOP and the references, send an email to the COMNAVAIRFOR N422B NDI Class Desk, cnap_ndi@us.navy.mil for resolution.

10.35.3 Requirements

10.35.3.1 General NDI Policy

a. All activities performing NDI or receiving NDI services will strictly adhere to the procedures of this NAMPSOP and other NDI directives.

b. Provide NAMP indoctrination training on Nondestructive Inspection (NDI) Program policy per 10.1.4.7. Verify personnel receive NDI familiarization prior to performing maintenance while assigned to the work center.

c. Only currently qualified, proficient, and certified NDI personnel will perform NDI.

NOTE: Depot FRC NDI personnel will be trained and certified per 12.2.3.2. Contractor NDI personnel will be trained and certified per NAS 410 unless otherwise stated within contract stipulations. NATEC personnel will be trained and certified per NAS 410.

d. Procedures specified in NAVAIR 01-1A-16-2, technical publications, and technical directives are the only authorized NDI procedures.

e. Periodic inspections and maintenance of NDI equipment will be performed per schedules and procedures within applicable Navy technical manuals (including Operation and Intermediate Maintenance Manuals, Pre-operational Checklists, and MRCs) and directives applicable to the assigned equipment. The following procedures apply:

(1) NDI equipment components (repairables and consumables) are stocked in the supply system and requisitioned using standard MILSTRIP requisitioning procedures.

(2) NDI equipment repairs that are not within the capability of the IMA will be processed for rework per NAVAIRINST 13680.1. To request rework, an activity's IMRL manager (or equivalent) will contact their Support Equipment Controlling Authority (SECA).

(3) Maintenance, repair, and calibration of radiographic equipment will be per specific X-ray apparatus maintenance manuals and NAVSEA SE700-AA-MAN-100.

f. Some operational locations may prevent NDI support from Navy and Marine Corps intermediate level (I-Level) or depot level (D-level) activities. In such instances, the Maintenance Officer of the receiving activity may grant authorization for NDI support from Army certified NDI personnel per TM 1-1500-335-23 or Air Force certified NDI personnel per T.O. 33B-1-1. All NDI actions performed by other services must be per the applicable technical publication, and must be supervised by a QAR from the requesting activity.

10.35.3.2 NDI Training Courses

a. The Naval Aircraft Nondestructive Inspection Technician Class C1 course (C-603-3191) provides initial NDI Technician training. The course is offered at Naval Aviation Technical Training Center (NATTC), Pensacola, FL. Navy and Marine Corps military aviation structures mechanics (paygrade E-4 and above) and government service civilian personnel are eligible to attend.

b. The NDI Technician Recertification course (N-701-0005) is offered at FRC East, Cherry Point NC.

c. Information on course curriculum, prerequisites, obligated service requirements, convening dates, and requesting quotas is available in the Catalog of Navy Training Courses (CANTRAC) at https://app.prod.cetars.training.navy.mil/cantrac/vol1.html. Marine Corps activities will send requests for training courses to the cognizant Marine Air Wing (MAW).

10.35.3.3 Vision Requirements

a. Per NA 01-1A-16-1, personnel performing NDI must have natural or corrected vision that meets the following minimums:

(1) At least one eye passing near vision acuity test Jaeger #1 at not less than 12 inches or 20/25 Snellen test at 16 inches.

(2) Acceptable color perception

b. Vision qualification must be medically certified before selection as a candidate for NDI training, and annually thereafter while assigned to or performing NDI duties.

10.35.3.4 NDI Instructors

NDI Instructors provide refresher training, method-specific training, task-specific hands on training, supervised work experience, and recertification of NDI Technicians. NATTC NDI School Instructors and Depot FRC NDI Instructors are authorized to provide NAVAIR curriculum. Qualifications must include:

a. Instructional Delivery Continuum Journeyman Instructor Training course (A-012-0077) or equivalent.

b. Serving in one of the following billets:

(1) CNATT Naval Aircraft NDI School Instructor

(2) NATEC NDI Specialist

NOTE: Refer to 12.2.3.2 for Depot FRC NDI Instructor qualifications.

10.35.3.5 NDI Specialists

NDI Specialists train, certify, and recertify NDI Technicians and NDI Operators. NDI Specialists administer COMNAVAIRFOR approved written theoretical and practical tests on NDI methods. NDI Specialists also provide technical support in the research, development, and implementation of improved NDI technologies. Qualifications must include:

a. Designation by COMNAVAIRFOR

b. Paygrade E7 or above (military), or WG-11/GS-09 or above (civilian)

c. Qualified as an NDI Technician in all five basic NDI methods with at least two recertifications and six consecutive years of experience in all five basic NDI methods.

d. Able to research, read, and interpret drawings, technical publications, and directives.

e. Able to write with clarity and technical accuracy.

f. Demonstrate superior performance of assigned duties.

10.35.3.6 NDI Technicians

NDI Technicians are personnel normally assigned to an IMA to provide NDI services for supported squadrons and transient aircraft. NDI Technicians are ordinarily certified to perform fluorescent penetrant, magnetic particle, eddy current, ultrasonic, and radiographic NDI methods. Certification must be maintained in all five methods unless written authorization from COMNAVAIRFOR is granted.

NOTE: Alternate methods may be performed in accordance with technical directives. These methods require additional training by the cognizant NDI Engineering Authority for that particular method.

a. Certification requirements:

(1) Navy or Marine Corps aviation structures mechanics, paygrade E-4 and above, with NEC 763B or MOS 6033

(2) Completion of Naval Aircraft Nondestructive Inspection Technician Class C1 course (C-603-3191)

(3) Designation in ASM NDI Certification Record (OPNAV 4790/139), Figure 10.35-1

b. New NDI Technicians must complete at least 3 months of NDI work experience under the supervision of a NDI Technician with 3 or more years NDI experience and at least 1 recertification. Procedures:

(1) New NDI Technicians assigned to an activity without an experienced NDI Technician to provide supervision will be sent TAD for a minimum of 3 months to an activity that can provide the supervised work experience. Deviations will be requested by naval message to COMNAVAIRPAC SAN DIEGO CA, attention COMNAVAIRFOR N422B NDI Class Desk via cnap_ndi@us.navy.mil.

(2) NDI Technicians reporting to a new activity with X-ray Radiography capabilities must comply with NAVSEA S0420-AA-RAD-010 to become a qualified X-ray Radiographer's Assistant or Radiographer.

NOTE: Activities that do not have a qualified Radiographer must notify N422B NDI Class Desk prior to utilizing an outside Radiographer. Notification must be sent via email to cnap_ndi@us.navy.mil.

(3) Supervised training will be conducted and documented using the JQR provided by Advanced Skills Management (ASM). The tasks in the JQR expose the new NDI Technician to all NDI methods, process controls, and specific applications they will perform.

c. NDI Technicians must maintain proficiency by performing the NDI method(s) for which they are certified at least twice each month, as evidenced by entries on their NDI Technician/Operator Work Record (OPNAV 4790/140), Figure 10.35-2. Proficiency can be maintained either through processing NDI workload or by performing trial practice applications. Personnel with a proficiency lapse not exceeding one year may regain proficiency in that method by performing two trial practice applications under instruction. Personnel with a proficiency lapse of over one year must attend the NDI recertification course to become recertified.

d. NDI Technicians must be recertified in each NDI method every 3 years. Certification of NDI Technicians regularly performing NDI can be extended up to 1 year, if approved by COMNAVAIRFOR. Request extension with a full justification by naval message to the COMNAVAIRFOR NDI Class Desk via cnap_ndi@us.navy.mil.

NOTES: 1. NDI Technicians should recertify early if certification is due to expire during deployment.

2. If NDI certification in any method has expired or will expire within 3 months of the NDI Technician's transfer date, the transferring activity is responsible for sending the technician to an NDI recertification course. This also applies to activities with no X-ray capabilities.

3. If the activity does not have X-ray as part of their workload demand due to ICRL or lack of equipment, the activity should request X-ray termination letter via their ISIC to COMNAVAIRFOR N422B NDI Class Desk.

e. If NDI Instructors are not available or are impractical to obtain (such as remote operating sites), NDI Technicians may be authorized to train and certify NDI Operators in penetrant (Type I, Method C), magnetic particle, and eddy current NDI tasks applicable to the NDI Operator's T/M/S. Conditions must include:

(1) Three or more years of experience and at least 1 recertification in each method they train. COMNAVAIRFOR may waive the three-year experience requirement.

(2) Authorized in writing by COMNAVAIRFOR. The FRC I-Level CO or afloat IMA MO will submit the authorization request by naval letter or message to COMNAVAIRFOR. The request must contain a detailed justification of the need for NDI Technician to conduct NDI Operator training and will include the NDI Technician's full name, rank, NEC or MOS, experience history, and the specific TD/technical publication NDI task(s) performed. Once approved, attach a copy of the COMNAVAIRFOR authorization to the Technician's NDI Certification Record (OPNAV 4790/139). NDI Operator training and certification authorization is restricted to the specific NDI task(s) on the authorization. Authorization is void if the NDI Technician does not maintain their certification. Review authorizations annually for continued need. If the original extenuating circumstances are resolved, contact the COMNAVAIRFOR NDI Class Desk for direction.

(3) Must use NDI Instructor training materials provided by NATTC Pensacola NDI course.

10.35.3.7 NDI Operators

NDI Operators are personnel normally attached to O-Level activities that are certified to perform task-specific penetrant (Type I, Method C), magnetic particle, or eddy current NDI tasks specified in the Technical Directive (TD) or technical publication applicable to the T/M/S aircraft or equipment their activity operates. Qualifications must include:

a. The cognizant Type Wing or MAW will request authorization to use NDI Operators from COMNAVAIRFOR. Authorization is normally only granted when IMA NDI Technician support is unavailable due to operational location or as a temporary solution to a short-term NDI Technician shortage.

b. NDI Operators will only perform penetrant (Type I, Method C), magnetic particle, eddy current NDI tasks specified in the TD or technical publication applicable to the T/M/S aircraft or equipment their activity operates.

NOTES: 1. Written FST concurrence is required for any eddy current NDI procedure to be performed by an NDI Operator. FST concurrence of the individual NDI Operator is not required.

2. NDI Operators are not authorized to operate ultrasonic or radiographic equipment. They may only assist NDI Technicians operating this equipment.

c. NDI Operators must receive training from NDI Instructors, NDI Specialists. or COMNAVAIRFOR authorized NDI Technicians. Training will include:

(1) Familiarization with all required equipment

(2) Familiarization with NA 01-1A-16-2 process control procedures

(3) Method specific training in each NDI method used. Minimum training hours: PT = 4 hours, MT = 4 hours, ET = 10 hours.

(4) Task specific training in the actual NDI tasks they will perform. Task-specific training will vary with the complexity of the NDI tasks, but will not be less than 4 hours for the first aeronautical part, assembly, or structural feature listed. The instructor will determine the amount of task-specific training needed for each additional aeronautical part, assembly, or structural feature, but will not be less than 2 hours. A copy of both method specific and task-specific training will be provided to the NDI Operator and kept in their NDI Technician/Operator work log for operator recertification purposes.

(5) After completion of method specific and task-specific training, perform work under the direct supervision of NDI Specialists or authorized NDI Technicians before independently performing NDI tasks. Minimum supervised work experience: PT= 16 hours, MT = 16 hours, and ET = 40 hours for the first aeronautical part, assembly, or structural feature listed in the applicable TD/technical publication directed NDI task and method. Additional supervised work experience may be required at the discretion of the NDI specialist or NDI Technician.

(6) NDI Operators will be certified on the NDI Certification Record (OPNAV 4790/139), Figure 10.35-1 only after completion of successful completion of the supervised work experience.

d. NDI Operators must maintain proficiency by performing the NDI method(s) for which they are certified at least twice each month, as evidenced by entries on their NDI Technician/Operator Work Record (OPNAV 4790/140), Figure 10.35-2. Proficiency can be maintained either through processing NDI workload or by performing trial practice applications.

e. NDI Operators with proficiency lapses up to 6 consecutive months will be restricted from performing NDI tasks until they perform trial practice applications under the supervision of an NDI Technician. Once the NDI Operator demonstrates sufficient proficiency, the NDI Technician will annotate that proficiency has been sufficiently demonstrated in the remarks column of the NDI Technician/Operator Work Record (CNAF 4790/140) (Figure 10.35-2). NDI Operators who fail to maintain proficiency for over 6 consecutive months will have their certification revoked and

documented on their NDI Certification Record (OPNAV 4790/139), Figure 10.35-1. Reinstatement of NDI Operator certification requires repeating all initial training requirements.

f. NDI Operators must recertify in each NDI method and each NDI task annually by completing original NDI Operator training.

g. NDI Operators will seek technical assistance from NDI Technicians when necessary.

10.35.3.8 NDI Records

a. The NDI Certification Record (CNAF 4790/139) (Figure 10.35-1) provides a record of certification and recertification of NDI Technicians and Operators. Certifying officials at the Naval Aircraft NDI Technician School will be designated in writing by the CO or OIC, or by their designated representative. The Naval Aircraft NDI Technician School and Depot FRCs must retain records of training materials used, tests given, and individual test scores for a minimum of 3 years.

b. NDI Technicians and Operators will use the NDI Technician/Operator Work Record (CNAF 4790/140) (Figure 10.35-2) to record all NDI tasks, supervised work experience, and trial practice applications performed. Entries will be verified by the NDI Instructor, NDI Specialist, Work Center Supervisor, a CDQAR or QAR, or an NDI Technician (as applicable). Self-verification is not authorized. Personnel performing repetitive NDI tasks, such as eddy current on aircraft wheels, may record weekly entries.

c. All NDI Technicians and operators will maintain a NDI Technician/Operator work log with an historical record of their initial certification and recertifications and work history. The work log will be structured as follows:

Left side	Original certification record (OPNAV 4790/139) or current NDI method(s) recertification record (OPNAV 4790/139)
	Copy of current physical (exam or assessment)
	Copy of current eye exam
	Original JQR indicating successful completion of initial training requirements.
Right Side	NDI Technician/Operator Work Record (CNAF 4790/140). Retain for the period of certification or until recertification.

NOTE: In compliance with the Privacy Act, a signed and dated memorandum may be used in lieu of a copy of the physical exam and eye exam.

10.35.4 Responsibilities

10.35.4.1 COMNAVAIRSYSCOM

NAWC AD Nondestructive Inspection/Evaluation Branch has overall cognizance of the NDI Program and is responsible for managing research, development, training, and application of NDI techniques and equipment. NAWC AD Nondestructive Inspection/Evaluation Branch will:

a. Coordinate updates to NAVAIRINST 13070.1, which assigns the responsibilities within COMNAVAIRSYSCOM for the various elements of the NDI Program.

b. Coordinate and issue information on NDI within naval aviation, other services, and industry (as appropriate).

c. Review NDI technical publications and update publications as newer techniques and applications are developed.

d. Establish NDI standards and specifications

e. Hold Corporate Process Activity (CPA) meetings as needed to provide training and promote communication between NAVAIR program offices, COMNAVAIRFOR, NDI support equipment managers, NDI Instructors, Navy Personnel Command NDI detailers, NDI Technicians, and other services.

10.35.4.2 COMNAVAIRFOR

a. Monitor the NDI Program for activities operating or providing support for aircraft and equipment assigned to CNAF, CNAFR, and CNATRA.

b. Advise on availability and location of NDI training.

c. Maintain liaison with NAWC AD Nondestructive Inspection/Evaluation Branch, COMFLTREADCEN, Depot FRCs, IMAs, and fleet activities regarding NDI matters.

d. Maintain an up to date O-Level and I-Level CSEC and provide in depth training on the NDI Program to the CNAF Aviation Maintenance Management Teams (AMMT).

e. Designate NDI Specialists

f. Act as the approving authority for all administrative deviations to X-ray capabilities.

g. Act as the approving authority for termination request.

10.35.4.3 Depot Fleet Readiness Centers

Refer to Chapter 12 for Depot FRC NDI policy.

10.35.4.4 Intermediate Level Maintenance Activities (IMA)

a. Assign an NDI Program Manager to ensure compliance with qualification requirements and safety precautions.

b. Strictly enforce the industrial radiation operating and safety requirements of NAVSEA S0420-AA-RAD-010.

c. Fully qualified to use available NDI equipment

d. Maintain an adequate number of NDI Technicians to provide NDI services.

e. Maintain the NDI equipment and laboratory spaces and ensure they are continuously ready for use. This includes availability of required consumable items.

f. Request assistance in resolving NDI deficiencies. Requests will be signed by the FRC I-Level CO or MO I-Level afloat via their ISIC and sent to COMNAVAIRFOR 422B NDI Class Desk namp_policy@us.navy.mil.

g. Provide and maintain industrial X-ray capabilities for open or Exempt Shielded/Shielded radiography, if applicable, per NAVSEA S0420-AA-RAD-010.

NOTES: 1. LHA and LHD class ships are exempt from establishing and maintaining an X-ray radiography program. LHA and LHD X-ray vaults will remain in a ready for use status in the event the program is re-established. No facility survey is required.

2. CVNs returning from deployment will place their X-ray program in a temporary suspension status once the ship enters the FRP Maintenance Phase. All training, audit, assessment, and briefing requirements are suspended during this period with the exception of maintaining technician radiography proficiency. CVNs must notify the Radiological Affairs Support Office (RASO) by naval message via COMNAVAIRFOR N422B NDI Class Desk, that X-ray radiography will be temporarily suspended. The message will provide an estimated reactivation month and year. The Commanding Officer will retain possession of the X-ray control panel key while the program is in a temporary suspension status. CVNs that place their Radiography program in a temporary suspension status must coordinate with the nearest I-Level FRC to provide Radiography proficiency training for their NDI Technicians. CVNs will reactivate their program no less than 90 days prior to a planned deployment and notify COMNAVAIRFOR N422B NDI Class Desk and RASO via naval message. Within 30 days of reactivation, RASO will conduct a program inspection conducted on both shielded and open facility X-ray capabilities.

h. Maintain liaison with the designated Radiation Safety Officer.

i. Provide NDI Technician representation to the annual NAVAIR NDTI Corporate Process Activity (CPA) meeting hosted by NAWC AD Nondestructive Inspection/Evaluation Branch to receive training and promote communication between NAVAIR program offices, COMNAVAIRFOR, NDI support equipment managers, NDI Instructors, Navy Personnel Command NDI detailers, NDI Technicians, and other services.

j. Comply with Broad Arrow reporting procedures per Chapter 5 whenever NDI capabilities are degraded.

NOTE: NDI MAFs/WOs will have the inspected block signed by a CDI, CDQAR, or QAR to establish accountability for tools, IMRL equipment, accessories, and consumables used when performing NDI functions.

10.35.4.5 O-Level activities

a. Request IMA/FRC NDI support (as required).

b. Obtain IMA/FRC NDI services in all situations where NDI results are suspect.

c. Include scheduled NDI requirements in the Monthly Maintenance Plan (MMP). Whenever possible, inform the supporting IMA at least one working day in advance of the action.

d. If permanently assigned billets for NDI Technicians (Navy Enlisted Classification Code (NEC) 763B or Marine Corps Military Occupational Specialty (MOS) 6033), those personnel will be sent TAD to the supporting IMA to maintain their proficiency and to augment the IMA's NDI capabilities, except in unique deployment situations where no Navy or Marine Corps IMA exists.

e. Where aircraft equipment or facilities operate with radiological emitting systems, ensure radiation safety requirements are strictly enforced per NAVSEA S0420-AA-RAD-010.

10.35.4.6 NDI Work Center Supervisor

a. The NDI Work Center Supervisor or designated alternate must review the NDI Technician/Operator Log and verify that NDI Technician/Operators are maintaining proficiency. All purged items will be given to the individual. The NDI Technician/Operator Log must accompany the NDI Technician/Operator during periods of TAD. Upon transfer, the individual will carry the NDI Technician/Operator Log to their next activity. Work center copies will be given to the individual for personal retention.

b. Perform monthly refresher training on existing techniques and inspections and document initial training on all new techniques and inspections. Training must be documented in ASM.

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

NDI CERTIFICATION RECORD

1. NAME:	2. RATE/RANK:

3. CERTIFYING ACTIVITY:

4. EFFECTIVE DATE *(DD MMM YYYY)*:	5. RECERTIFICATION DATE *(DD MMM YYYY)*:

6. THIS INDIVIDUAL IS CERTIFIED TO CONDUCT NDI BY USE OF THE FOLLOWING METHODS(S):

- ☐ RADIOGRAPHIC
- ☐ EDDY CURRENT
- ☐ PENETRANT
- ☐ ULTRASONIC
- ☐ MAGNETIC PARTICLE
- ☐ OTHER *(Specify in remarks)*:

7. REMARKS:

8. PRINT OR TYPE CERTIFYING OFFICIAL NAME, TITLE:	9. SIGNATURE DATE *(DD MMM YYYY)*:	10. CERTIFYING OFFICIAL SIGNATURE:

Original to: Individual's NDI Technician/Operator Log

OPNAV 4790/139 (Rev 04/2016)

Figure 10.35-1: NDI Certification Record OPNAV 4790/139 (Example)

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

NDI TECHNICIAN/OPERATOR WORK RECORD

1. NAME:	2. RATE/RANK:

3. ORGANIZATION:

4. DATE IN *(DD MMM YYYY)*:	4. DATE OUT *(DD MMM YYYY)*:

6. DATE	7. NDI METHOD	8. HRS	9. REMARKS	10. VERIFIED

OPNAV 4790/140 (Rev08/2016)

Figure 10.35-2: NDI Technician/Operator Work Record OPNAV 4790/140 (Example)

10.36 AIRSpeed Continuous Process Improvement

10.36.1 References

a. DoD Directive 5010.42, DoD-Wide Continuous Process Improvement (CPI) Lean/Six Sigma (LSS) Program

b. DoD Instruction 5010.43, Implementation and Management of the DoD-Wide CPI Lean Six Sigma (LSS) Program

10.36.2 Introduction

10.36.2.1 AIRSpeed CPI is an enterprise-wide approach to enhancing the effectiveness and efficiency of naval aviation. AIRSpeed CPI applies proven methods to improve quality, productivity and cost of naval aviation by balancing and aligning maintenance and supply activities to end user demand (operations), resulting in the right material available to the right place at the right time, at best cost.

10.36.2.2 AIRSpeed CPI Goals:

a. Execute CPI activities that are fully aligned to the strategic goals of the organization.

b. Design, build and sustain an enduring CPI infrastructure that is aligned and institutionalized throughout the naval aviation enterprise (NAE).

c. Define, measure and report standard CPI key performance metrics that demonstrate significant measurable benefits.

10.36.2.3 AIRSpeed Continuous Process Improvement (AIRSpeed CPI) implements Department of Defense CPI direction of references a. and b. While AIRSpeed CPI methods are implemented across a broad spectrum of naval aviation maintenance and logistics commands, the requirements of this NAMPSOP pertain only to Navy and Marine Corps Intermediate Level Maintenance Activities (IMAs) and supporting aviation supply departments.

NOTES: 1. Chapter 4 has additional direction for application of AIRSpeed CPI within Marine Aviation Logistics Squadrons (MALS).

2. Activities utilizing full contract maintenance do not have to establish an AIRSpeed program.

10.36.3 AIRSpeed CPI Training and Certification

10.36.3.1 AIRSpeed CPI Training

AIRSpeed CPI training begins with an introduction to CPI concepts and terminology. As training progresses, individuals are assigned to take advanced courses and lead CPI projects and events. Requirements:

a. Provide NAMP indoctrination training on AIRSpeed Continuous Process Improvement policy per 10.1.4.7. Verify personnel receive AIRSpeed Continuous Process Improvment

familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. NAE CPI Awareness Training (course: NAVAIR-NAECPI-0001) provides an introduction to CPI concepts and tools. The course is available online at Navy eLearning (https://learning.nel.navy.mil/ELIAASv2p/). Completion is recommended for all personnel within six months of check in.

c. Yellow Belt Training provides an overview of CPI concepts and tools using simulations to teach and reinforce these ideas. It is one or two day classroom training conducted by certified Yellow Belt instructors. Yellow Belt training can be provided as Just-In-Time (JIT) training to provide pre-requisite skills required to participate as team members on Green Belt projects or events. Completion is required for Navy and Marine Corps E-6 and below personnel within six months of check in to an IMA.

d. Champion/Project Sponsor Training is one-day classroom training on the roles and responsibilities of CPI Deployment Champions and Project Sponsors of CPI events. The training covers CPI implementation including, project charter development, tollgate reviews, and other topics for successfully managing CPI projects and sustaining the resulting gains. Completion is required for all Navy and Marine Corps E-7 and above personnel within six months of check in.

e. Green Belt Training is five days (40 hours) of classroom training conducted by certified Green Belt instructors using the DON Green Belt body of knowledge. The course provides a practitioner's level understanding and application of Lean, Six Sigma and Theory of Constraints (TOC) performance improvement methods. The course is required for Green Belt certification. Successful completion of the course prepares participants to conduct Rapid Improvement Events and provide support for process improvement initiatives within their organization. This course is required for all AIRSpeed CPI Work Center personnel, two personnel from each IMA Division, and one representative from the supply department Aviation Support Division.

NOTES: 1. Training requirements may be waived for personnel with course completion certificates from previous commands.

2. CPI training information, tools, templates, JQRs and the NAT can be downloaded from the CNAP AIRSpeed SharePoint site at the following link: https://cpf.navy.deps.mil/sites/cnap/N42/N422/n422b/AIRSpeed/_layouts/15/viewlsts.aspx

10.36.3.2 AIRSpeed CPI Certification

a. Certified Green Belts are key resources within the NAE. The AIRSpeed CPI certification process prepares practitioners to understand and apply increasingly advanced CPI tools and to progressively accomplish more sophisticated analysis. Hands-on training is used to build on the knowledge gained during basic CPI training in order to provide Green Belts with the skills required to execute CPI projects.

b. The certification process is documented using NAE JQR forms (Navy) and Practitioner Capability Progression forms (Marine Corps) in the NAE CPI Guidebook. Forms are also available on the COMNAVAIRPAC AIRSpeed SharePoint site https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/

10.36.4 Responsibilities

10.36.4.1 Commanding Officer (CO)

The CO serves as the primary enabler for AIRSpeed CPI. Responsibilities:

a. Oversee the development of an AIRSpeed CPI deployment plan to identify, align, prioritize, and implement CPI projects in support of command goals.

b. Chair semi-annual Executive Planning Sessions (EPS) to:

(1) Review the command's AIRSpeed CPI deployment plan.

(2) Assess progress in achieving goals.

(3) Review the status of ongoing CPI projects.

(4) Assist in the removal of barriers to achieving improvements.

(5) Prioritize proposed CPI projects.

c. Develop and sustain personnel with the skills to apply AIRSpeed CPI methods.

10.36.4.2 Maintenance Officer (MO)

The MO is responsible to the CO for managing and sustaining AIRSpeed CPI. Responsibilities:

a. Designate and assign the AIRSpeed Officer and three additional personnel to the AIRSpeed CPI Work Center, per 10.1.2.9 and 10.36.4.3. AIRSpeed CPI Work Center personnel must be Green Belt trained and certified within twelve months of assignment. Personnel should be assigned for a minimum of 18 months.

b. Designate two personnel from each production division as Division AIRSpeed Representatives assist the AIRSpeed CPI Work Center with projects, and assist their Division Officer with implementing AIRSpeed CPI within the division per 10.1.2.9. Division AIRSpeed Representatives must complete Green Belt training within six months of assignment. Personnel should be assigned for a minimum of 12 months.

NOTE: Smaller IMAs with less than 80 personnel may assign a minimum of one person to the AIRSpeed CPI Work Center and one person per division. Assigned individuals must be Green Belt trained.

c. Review the AIRSpeed CPI Deployment Plan to verify alignment with CNO, CMC, NAE and organizational goals and priorities.

d. Oversee the implementation of AIRSpeed CPI initiatives and report progress at semi-annual EPS.

e. Facilitate the removal of intra-departmental barriers that prevent successful completion of AIRSpeed CPI projects and events.

f. Maintain a basic understanding of BMT functionality and reports to monitor daily workload.

g. Attend all tollgate reviews for CPI projects conducted within the Maintenance Department.

NOTE: Functions may be combined between as deemed most efficient to accomplish AIRSpeed CPI Work Center responsibilities.

10.36.4.3 AIRSpeed CPI Work Center

a. The AIRSpeed CPI Work Center is the activity's core work force for accomplishing CPI. The AIRSpeed CPI Work Center is comprised of four positions:

(1) AIRSpeed Officer. The AIRSpeed Officer performs the functions of paragraph 10.36.4.4 and serves as the AIRSpeed Program Manager, per 10.7.5.8.

(2) Assistant AIRSpeed Officer. The Assistant AIRSpeed Officer assists the AIRSpeed Officer in all functions.

(3) Buffer Management Tool (BMT) Administrator. The BMT Administrator performs the functions of 10.36.4.5.

(4) CPI Management System (CPIMS) Administrator. The CPIMS Administrator performs the functions of 10.36.4.6.

NOTE: AIRSpeed Work Center positions that are not a designated billet in the activity's manning document may be combined or assigned as collateral duties within the Maintenance Department, as deemed most efficient to accomplish the command's AIRSpeed CPI responsibilities.

b. AIRSpeed Work Center Personnel will:

(1) Use AIRSpeed CPI analysis tools (CPIMS, BMT, and NAT) to identify, prioritize and evaluate high impact improvement opportunities.

(2) Conduct historical repairable component TRR analysis quarterly using the BMT Historical Analysis reports and the NAT to identify improvement opportunities.

(3) Search CPIMS prior to launching a performance improvement initiative to evaluate best practices, build on the successes achieved through completed CPI projects, effectively manage resources and avoid undesirable results.

(4) Download the updated NAT at least semi-annually and post on the Share Drive for comparison of RFI rates, BCM codes and ICRL Capability Codes for NIINs repaired at IMAs.

NOTE: CNAP N422B updates the NAT in February, May, August and November to provide activities with current data for conducting Component Repair Reviews.

(5) Assist the ICRL manager in conducting quarterly reviews of the NAT "Improvement Opportunity" report per Reference D, Chapter 7 to compare RFI rates, BCMs, BCM cost and potential ROI (Return on Investment) among target activities to investigate productivity constraints.

(6) Evaluate the accuracy of TRR and inventory allowances (buffers) for components that entered EXREP status at any time during the previous six month period.

(7) Manage CPI training to include the following:

(a) Coordinate scheduling and verify appropriate AIRSpeed CPI training is completed per paragraph 10.36.3.1 within six months of check-in.

(b) Record CPI training and certifications in ASM upon successful course completion or receipt of certificates issued.

(c) Provide Yellow Belt, Champion/Project Sponsor and Green Belt training per paragraph 10.36.3.1 (b) (c) (d).

NOTE: Contact the CNAP, FRC or MAW ALD AIRSpeed Office as appropriate if certified Yellow Belt or Green Belt instructors are not available.

(d) Provide training for the BMT, CPIMS, and the NAT.

(8) Attend all tollgate reviews for CPI projects.

10.36.4.4 AIRSpeed Officer

The AIRSpeed Officer leads the AIRSpeed CPI Work Center in accomplishing the command's AIRSpeed deployment plan. Responsibilities:

a. Develop and maintain the AIRSpeed Deployment Plan using the Project Alignment Tool (PAT) template or equivalent document for review at the semi-annual EPS per the NAE CPI Guidebook, Chapter 1. The PAT must include the following elements:

(1) Organizational goals and objectives aligned with CNO, CMC and NAE imperatives.

(2) Prioritized list of executable CPI projects aligned to the strategic goals of the organization to improve NAMP Program compliance, close readiness gaps, increase throughput, and operate within available resources and allowances.

(3) Tracking matrix identifying the status of in-progress and completed improvement initiatives.

(4) AIRSpeed CPI training plan.

b. Develop and coordinate the execution of CPI events to improve and standardize processes that have a significant impact on operational readiness, cost, man-hour commitment or inventory.

c. Conduct quarterly reviews of the AIRSpeed Deployment Plan and report implementation progress at semi-annual EPS meeting.

d. Report AIRSpeed CPI implementation progress, coordinate event prioritization, and elevate unresolved barriers during department meetings.

e. Evaluate best practices and benefits resulting from CPI projects and events for potential replication opportunities.

f. Verify all AIRSpeed CPI projects and supporting documentation is recorded in CPIMS within 15 days of tollgate review or event completion (as applicable).

g. Assist the MMCO in the use of the BMT "Historical TRR Analysis Report" to track TRR trends and identify performance deficiencies that affect the capability of work centers to meet productivity goals and customer demand.

h. Utilize the NAT to review components from the BMT "Historical TRR Analysis Report" that exceeded the set TRR to compare the RFI rate, BCM cost and BCM codes to identify opportunities for cost effective improvements. Collaborate with IMAs that have a higher repair success rate (RFI percentage) to share best practices and improve site repair capability.

i. Manage CPI training to include the following:

(1) Verify appropriate AIRSpeed CPI training is completed per paragraph 10.36.3.1 within six months of check-in.

(2) Screen candidates for advanced CPI training and certification.

(3) Verify CPI training and certifications are recorded in ASM (Advance Skills Management).

(4) Verify an appropriate number of personnel are in the CPI training and certification pipeline to compensate for personnel turnover.

(5) Verify Work Center Supervisors complete BMT training within 30 days of assignment to become familiar with the functions and report options.

j. Attend all tollgate reviews for CPI projects conducted within the organization.

k. Perform Program Manager duties for AIRSpeed CPI and conduct audits per 10.7.5.8.

l. Maintain a program file to include the following:

(1) POCs to include Aviation Maintenance Management Team (AMMT) Subject Matter Experts (SMEs).

(2) Program correspondence and message traffic.

(3) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit.

(4) AIRSpeed CPI Deployment and Training Plan.

(5) Minutes from the EPS and CPI implementation status report meetings.

(6) CPI training and certification records.

(7) Master copies of Work Center 5S checklists and facility silhouetting.

(8) References or cross-reference locator sheet for articles not in the Program File.

10.36.4.5 BMT Administrator

The BMT Administrator is responsible for maintaining the BMT software and database. Responsibilities:

a. Update the BMT Master Table at least daily with data from NALCOMIS and RSupply (ERP for I-Level FRC sites) per Reference E, Chapter 4.

b. Perform a daily back up of the BMT Master Table.

c. Verify the efficient operation of the BMT daily.

d. Provide BMT installation, recovery or version upgrade support as required.

e. Provide BMT help desk support and training for users at the command.

10.36.4.6 CPIMS Administrator

The CPIMS Administrator is responsible for administering CPIMS for the command. Responsibilities:

a. Complete the CPIMS 401 Site Administrator training available from the CPIMS site or the COMNAVAIRPAC, COMFRC, or MAW ALD AIRSpeed CPI Office.

b. Maintain CPIMS User Profiles to invite new users that require access to the site, set appropriate access levels, update user accounts and de-activate users departing the command.

NOTE: Participants on CPI events that do not require access to CPIMS will be designated as "No Access" users to minimize user license costs.

c. Provide CPIMS help desk support and training for command users.

d. Assist the AIRSpeed Officer and AIRSpeed Work Center personnel with CPIMS searches and download functions prior to commencing performance improvement initiatives.

e. Upload all AIRSpeed CPI project and event supporting documentation to the appropriate location in the CPIMS Work Tree within 15 days of tollgate review or event completion (as applicable).

10.36.4.7 Maintenance Material Control Officer (MMCO)

The MMCO will fully utilize AIRSpeed CPI tools in managing maintenance workload and analyzing opportunities to improve productivity. Responsibilities:

a. Coordinate and monitor department workload using AIRSpeed CPI methods, concepts, and analysis tools.

b. Provide CPI project recommendations to the AIRSpeed Officer to enhance productivity.

c. Verify the efficient operation of the BMT daily.

d. Use the BMT "Daily Production" reports to monitor workload and assign priorities to ensure efficient movement of components through the department.

e. Coordinate with the AIRSpeed Officer in reviewing AIRSpeed CPI data such as Time to Reliably Replenish (TRR) and BMT historical status when performing component repair reviews per 10.20.3.2.d.

f. Attend all tollgate reviews for CPI projects affecting the Maintenance Department.

10.36.4.8 Division Officers

Division Officers are responsible for the application of CPI methods within the division. Responsibilities:

a. Monitor the use of visual management queues, such as safety posters, Sort, Straighten, Shine, Standardize, and Sustain (5S) checklists, and tool or equipment location silhouetting to communicate safety information, equipment location, and standard work procedures in all assigned work centers.

NOTE: Work Center Supervisors are responsible for the daily posting, end of shift compliance, completion and maintenance of 5S checklists (minimum 30 days).

b. Use BMT "Daily Production" reports to monitor workload and assign priorities to ensure efficient movement of components through the department.

c. Provide CPI project recommendations to the AIRSpeed Officer to enhance productivity.

d. Utilize the division's Green Belts to conduct a quarterly assessment of division 5S and to participate in CPI projects and events.

e. Coordinate removal of barriers preventing completion of CPI projects within the division. Monitor completed CPI projects and events semi-annually to verify work centers are sustaining improved processes. Report CPI implementation progress quarterly at department meetings.

f. Each quarter, review and verify division compliance with the AIRSpeed CPI training plan.

g. Attend tollgate reviews for CPI projects that affect their division.

10.37 Aircraft Performance Automated Trending and Analysis (ATA) (NAMPSOP)

NOTE: The procedures of this NAMPSOP are being implemented in a phased approach. Maintenance activities and supporting staffs will not be able to comply with all procedures until they become available for use. Inputs for changes will be submitted to the T/M/S Program Office, via the applicable TYCOM CLASS DESK.

10.37.1 References

a. NAVAIRINST 4200.56, Critical Item Management

b. Naval Aviation Subsystems Safety Integrity Program (NASSIP) EC-435-000-013

c. DoD Directive 5030.61, DoD Airworthiness Policy

d. OPNAV 3710.7V, NATOPS General Flight and Operating Instructions

e. OPNAVINST 3750.6, Naval Aviation Safety Management System

f. NAVAIRINST 13034.1, Airworthiness and Cyber Security Policies for Air Vehicles and Aircraft Systems

g. DoD Standard Practice, MIL-STD-1798 Mechanical Equipment and Subsystems Integrity Program

10.37.2 Introduction

10.37.2.1 This NAMPSOP establishes policy for the use of performance data generated by onboard aircraft performance Health Monitoring Systems (HMS). Foundational elements:

a. Full utilization of aircraft HMS data in the inspection, troubleshooting, and repair of aircraft systems and components at all levels of maintenance.

b. Integration of HMS data into aviation engineering, logistics, and maintenance processes, with the goal to optimize aircraft performance, improve aircraft and component reliability, and reduce life cycle cost.

c. Monitoring the entire T/M/S aircraft inventory in order to establish standards by which the performance of individual Bureau Number (BUNO) aircraft, Weapons Replaceable Assemblies (WRA), and Shop Replaceable Assemblies (SRA) can be assessed and substandard performance identified.

d. Emphasis on aircraft systems critical to flight safety and mission accomplishment.

e. Defined procedures and responsibilities for substandard performing aircraft and components.

10.37.2.2 HMS record data on certain aircraft systems and components while installed and operating in the aircraft. HMS produce Built In Test/Condition Indicator (BIT/CI) data in numeric codes, such as the F/A-18 and EA-18 Automated Maintenance Environment (FAME) Maintenance Status Panel codes, or as actual performance numbers, such as the vibration readings produced by the H-60 Integrated Mechanical Diagnostic System/ Health and Usage Monitoring System (IMDS/HUMS). Some HMS also produce trend reports, such as the FAME Maintenance Analysis and Planning Aid (MAPA) BIT/CI Logic Inspection (BLIN) and BIT Operational Accumulative (BOA) trend analysis reports. Table 1 lists Navy and Marine Corps aircraft with HMS.

Aircraft	Health Monitoring System
F/A-18 EA-18	F/A-18 and EA-18 Automated Maintenance Environment (FAME)
F-35	Autonomic Logistics Information System (ALIS)
CV-22 MV-22 CMV-22	Comprehensive Automated Maintenance Environment Optimized (CAMEO)
VH-92A	Sikorsky Ground Based Application (SGBA)
E-2D	Automated Logistics Environment (ALE)
MH-60R MH-60S	Integrated Mechanical Diagnostic System/ Health and Usage Monitoring System (IMDS/HUMS)
AH-1Z UH-1Y	IMDS/HUMS/eCBM+
KC-130J	Data Transfer and Diagnostics System (DTADS)
P-8A C-40A	Global Health Monitoring System (GHMS)
MQ-4C	Logistics Management System (LMS)
CH-53E MH-53E	IMDS/HUMS

Table 1: Aircraft Health Monitoring Systems

10.37.2.3 System-wide collection and analysis of HMS data and information in the Naval Aviation Logistics Command Management Information System (NALCOMIS) is a key element of ATA. COMFRC FST HQ Readiness & Fleet Analytics Department manages and coordinates with individual PMAs and JPOs listed in Table 2 on the functions and products required to analyze HMS data and works closely with the COMFRC HQ Digital Group Functional Managers for NALCOMIS and for the Decision Knowledge Programming for Logistics Analysis and Technical Evaluations (DECKPLATE) NALCOMIS data warehouse, Vector, and the Aircraft Management Dashboard (AMDB).

Aircraft	Automated Trending and Analysis Support Teams
F/A-18 EA-18	PMA 265
F-35	F-35 Joint Program Office

Aircraft	Automated Trending and Analysis Support Teams
E-2D	PMA 231
MH-60R/S	PMA 299
MH-53E CH-53E	PMA 261
AH-1Z UH-1Y	PMA 276
C-130J	PMA 207
P-8A	PMA 290
MQ-4C	PMA 262
MV-22 CMV-22	PMA 275
VH-92	PMA-274

Table 2: Automated Trending and Analysis Support Teams

10.37.3 Responsibilities

10.37.3.1 COMNAVAIRSYSCOM

10.37.3.1.1 COMFRC FST Readiness & Fleet Analytics Department

a. Coordinate with PMAs, F-35 Joint Program Office (JPO) and other affected NAE stakeholders to conduct an Implementation Assessment of this NAMPSOP change using a multi-year phased approach that includes the identification of requirements that have already been satisfied, requirements that can be satisfied with current resources, and requirements that require additional resources to complete. This Implementation Assessment will include the completion of an implementation questionnaire that reports the As-Is condition, known gaps, and submission of a PMA Roadmap that identifies outstanding actions and planned milestones to close all gaps. PMAs/JPO will complete this Implementation Assessment within 120 days of release of this NAMPSOP and report the results to the Implementation Working Group (IWG) via a Face-2-Face (F-2-F) meeting. Out-year PMA/JPO progress will be monitored using the Roadmap until implementation is completed. The IWG will provide recommendations to CNAF/NAVAIR of program maturity to include Fleet assessments using a program inspection criteria e.g., Computerized Self-Evaluation Checklist (CSEC). IWG membership:

(1) CNAF N422B Policy, Maintenance Process Improvement

(2) CNAF N421 Class Desk

(3) NATEC Director

(4) NAVAIR Sustainment Group (NAMP Team)

(5) COMFRC/FST (Advanced Analytics & Innovation)

(6) COMFRC HQ, FST Maintenance Department (Maintenance Planning, Reliability-Centered Maintenance (RCM) and Condition Based Maintenance Plus (CBM+))

(7) NAWCAD (Naval Aviation Subsystems Safety Integrity Program)

(8) NAWCAD (Support Equipment Future Capabilities)

(9) PMA298 Readiness and Training Analysis Project (TAP)

b. Design, field, and sustain capabilities to support ATA data analysis.

c. Manage and staff the ATA Support Teams appropriately within the NAVAIR Mission Aligned Organization CONOPS and established operating agreements (Table 2). The ATA Support Teams will collect and statistically analyze performance data from DECKPLATE, T/M/S aircraft HMS, and other databases. ATA Support Teams will publish quarterly HMS trend reports for aircraft (by T/M/S and by individual BUNO), WRAs (by NSN and SERNO), and SRAs (by NSN). The reports will cover at least two years of performance history for:

(1) Mean Time Between Failure (MTBF) for aircraft systems (by system and by individual BUNO aircraft)

(2) MTBF of Weapons Replaceable Assemblies (WRA) (by National Stock Number (NSN) and serial number (SERNO).

(3) MTBF of Shop Replaceable Assemblies (SRA) (by NSN)

(4) Flight Hours Between Critical System BIT/CI Indication (FH/BIT set rate)

(5) Flights between Critical System BIT/CI Indication (F/BIT set rate)

(6) Flight Hours Between Before Flight Abort – Aircrew, When Discovered Code "A"

(7) Flight Hours Between Inflight Abort – Aircrew, When Discovered Code "C"

(8) Flight Hours Between Before Flight No Abort - Aircrew, When Discovered Code "B"

(9) Flight Hours Between In-Flight No Abort - Aircrew, When Discovered Code "D"

(10) Flight Hours Between Mission System BIT/CI Indication (FH/BIT set rate)

(11) Flights Between Mission System BIT/CI Indication (F/BIT set rate)

(12) Flight Hours Between Removal (at the system and WRA level of indenture)

(13) Flight Hours Between Unscheduled Maintenance Actions (at the system level)

(14) Average time to repair (in hours)

(15) Average logistics delay (Awaiting Parts (AWP)) time (in hours)

(16) At the system level, average number of maintenance actions between repair attempts (at the system level verified by pass of system functional test)

(17) At the WRA/SRA level, the average number of maintenance actions between repair attempts (at the WRA level verified by functional test pass on Automated Test Equipment (ATE))

d. Perform statistical analysis of the performance elements specified in 10.37.3.1.1.c. and determine the minimum acceptable performance (control limit) for each element. Aircraft and components that do not meet the minimum acceptable performance control limit will be identified as substandard performers on ATA Data Analysis Team reports.

e. Coordinate with PMA/JPO the establishment of Naval Aviation Technical Data and Engineering Center (NATEC) expertise in T/M/S specific HMS, to enable the capability for NATEC to provide assistance to squadrons, IMAs, Type Wings, Marine Air Wings (MAW), Marine Air Groups (MAG), and Depots in the interpretation and use of T/MS HMS BIT/CI data.

f. Coordinate with the Center for Naval Aviation Technical Training (CNATT) to include ATA training content for the Naval Aviation Maintenance Control Management course (C-555-0053), Intermediate Level Maintenance Activity (IMA) Production Control course (C-555-0043), and NALCOMIS Optimized Organizational Level Maintenance Activity (OOMA) QA Administration course (C-555-0046).

g. Manage a "Bad Actors" Program per MIL-STD-1798 Mechanical Equipment and Subsystems Integrity Program to identify substandard performing aircraft, systems and components. The Bad Actors Program must cover any component deemed to be a Critical Safety Item (CSI) or Flight Safety Critical Aircraft Part (FSCAP), or deemed to be a maintenance significant or mission-critical component as defined by MIL-STD-1798 to be parts whose failure could:

(1) Impact safety (ground or flight)

(2) Be undetectable during operation (latent)

(3) Impact ability to execute a critical mission, significantly reduce operational mission capability, or significantly increase vulnerability during a critical mission.

(4) Have significant economic impact.

10.37.3.1.2 NAWCAD Air Systems Group

Support and coordinate execution of ATA processes that achieve the objectives of reference (b), the Naval Aviation Subsystems Safety Integrity Program (NASSIP).

10.37.3.1.3 NAVAIR Program Offices PMAs

a. Incorporate T/M/S HMS capabilities in O-Level, I-Level and D-level technical manuals, to include the use of HMS BIT/CI data for inspection, test, troubleshooting and repair of aircraft systems and individual components.

b. Coordinate with the Center for Naval Aviation Technical Training (CNATT) to include HMS training within T/M/S Navy Enlisted Classification (NEC) and Marine Occupational Specialty (MOS) courses and Personnel Qualification Standards (PQS).

c. Develop automated processes for integrating and transferring HMS BIT/CI data between O-Level, I-Level, and D-level maintenance activities.

d. Distribute Software Anomaly Reports (SAR) and Software Trouble Reports (STR) to operational units on changes affecting the interpretation of aircraft or air system HMS BIT/CI data.

e. Coordinate with the COMFRC FST Readiness & Fleet Analytics Department, Aircraft Controlling Custodian (ACC) Aircraft Class Desks, NAVSUP, Defense Logistics Agency (DLA) and Original Equipment Manufacturers (OEM) to develop procedures for using HMS BIT/CI data.

f. Develop hardware changes affecting Critical Safety Item (CSI) / Flight Safety Critical Aircraft Part (FSCAP).

g. Develop software changes affecting Operational Flight Program (OFP), HMS, and Automated Logistics Environment (ALE).

h. Administer the NASSIP processes for T/M/S critical safety systems.

i. Analyze ATA capability and procedures, and provide recommendations for improvements to FST HQ and NAWCAD, at least once per year.

10.37.3.1.4 Fleet Support Team (FST)

a. Develop and publish direction on aircraft airworthiness status relative to HMS BIT/CI data for all systems and components designated as Critical Safety Items (CSI) or Flight Safety Critical Aircraft Parts (FSCAP), per reference (a).

b. Review NALCOMIS, DECKPLATE and T/M/S HMS data to identify lower reliability aircraft and components across the total T/M/S inventory, and provide recommendations on repair actions or other disposition for those aircraft and components.

c. Serve as technical advisors for developing HMS training.

d. Perform quarterly analysis of T/M/S safety-critical subsystems by BUNO and CSI/FSCAP for WRAs and SRAs (by NSN) that are not meeting acceptable MTBF in relation to the planned operational availability (A). Determine if substandard performance is related to factors such as high failure subcomponents or consumable parts or integration deficiencies between ATE and the Unit Under Test (UUT), and provide recommendations for remediation to the responsible Program Office.

10.37.3.2 COMNAVAIRFOR and COMNAVAIRSYSCOM Aviation Maintenance Management Teams

Verify compliance with ATA procedures during Aviation Maintenance Inspections (AMI) per paragraph 10.24.3.

10.37.3.3 Type Wings and Marine Air Wings

a. Include ATA training and testing requirements in Wing Job Qualification Requirements (JQR) for T/M/S Maintenance Control and Safe For Flight Certification, per paragraphs 5.1.6.1 and 10.1.4.3.

b. Verify compliance with ATA procedures during Maintenance Program Assessments (MPA) per paragraph 10.24.4.

c. Publish local command procedures (LCP) per Appendix D, if required to direct T/M/S specific or command directed actions for maintenance training not addressed in this NAMPSOP.

10.37.3.4 Maintenance Officer

a. Publish local command procedures (LCP) per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for ATA if not addressed in this NAMPSOP or Wing LCP. O-Level LCPs must be submitted to the Wing for consideration of incorporation in the Wing LCP.

b. Direct QA to provide NAMP indoctrination training on Aircraft Performance Auutomated Trending and Analysis (ATA) policy per 10.1.4.7. Verify personnel receive ATA familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

10.37.3.5 MMCO

a. Be knowledgeable of NAVAIRINST 4200.56, NAVAIRINST 13034.1F, NASSIP EC-435-000-013, and T/M/S HMS procedures.

b. (O-Level) Coordinate with QA on analysis of ATA Support Team HMS trend reports (10.37.3.1.1.c) and initiate corrective actions such as additional maintenance, NATEC assistance, or training for technicians as deemed necessary to improve aircraft performance.

c. (I-Level) Ensure HMS trend reports are distributed to Production Control, QA, and applicable work centers.

d. Coordinate NATEC and FST support as needed to determine root causes of abnormally high failure rates in aircraft systems and components.

10.37.4 Procedures

10.37.4.1 Organizational Level ATA

10.37.4.1.1 Activities operating aircraft must strictly adhere to the aircraft HMS utilization and management procedures specified in T/M/S aircraft technical manuals and Wing instructions.

10.37.4.1.2 Maintenance Control must:

a. Review HMS BIT/CI data after return from each flight and issue Work Orders (WO) with appropriate Equipment Operational Capability (EOC) code and Up/Down status whenever HMS data indicates exceedance of acceptable performance parameters. A detailed description of the malfunction and the associated HMS BIT/CI code(s) generated by the failure must be annotated in the WO discrepancy block.

b. Maintain HMS BIT/CI data for the last 10 flights with each Aircraft Discrepancy Book (ADB) and verify acceptable performance per technical manuals, NAVAIR, and Wing instructions before certifying the aircraft safe for flight.

c. Prior to commencing a major scheduled maintenance event, coordinate with Quality Assurance in reviewing Bureau Number (BUNO) HMS and the ATA Data Analysis Center reports to determine if additional maintenance may be needed, for example, end-to-end inspection of a particular wiring system due to recurring intermittent BIT/CI codes associated with components the wiring system feeds. If the aircraft is scheduled for depot rework, the additional maintenance actions will be noted on the Phased Depot Maintenance Special Work Request (OPNAV 4790/65) per paragraph 5.1.10.a.

d. Confer with the supporting Intermediate Maintenance Activity (IMA) if test and check of suspected substandard performing components is deemed necessary to fault isolate reasons for poor aircraft reliability.

e. Include complete HMS BIT/CI trend data with the logs and records when aircraft are transferred.

10.37.4.1.3 Quality Assurance must:

a. Compile and trend HMS BIT/CI data for the last 50 flights for each BUNO assigned.

b. At the end of each day's flight operations, coordinate with Maintenance Control to review HMS BIT/CI data for each aircraft flown, and add the data to the aircraft's trend report. Analyze HMS BIT/CI data for trends that indicate a possible degraded system or impending failure, and confer with Maintenance Control on recommended actions.

c. Review ATA Support Team reports, HMS trend reports, and NALCOMIS reports (Chapter 14) for each BUNO to identify abnormally high aircraft system discrepancies. Analysis will focus on indicators of degraded systems and possible causes, as indicated by factors such as:

(1) High rate of HMS BIT/CI fault code(s) per flight hour or per flight for a particular system.

(2) High rate of ground and flight aborts (When Discovered Codes A and C).

(3) High number of maintenance man hours (MMH) for unscheduled repairs for a particular system.

(4) Components with a high rate of Action Taken Code A with Malfunction Code 799 (no defect).

d. Investigate reasons for low aircraft performance. If a low reliability component is suspected to be causing high system failure rate, research maintenance history and check the ATA Support Team reports to determine if the component's serial number is identified as a substandard performance. If so, confer with Maintenance Control for decision to remove the component and turn it in for check and test, or to continue operating. If the item is removed, the first sentence in the WO discrepancy block will state "WRA is listed as a substandard performer on ATA Report (month and year of the report)." The WO discrepancy block will also provide a summary of any performance anomalies during the time the component was installed in the aircraft, and the number of flight hours and sorties flown prior to removal. HMS BIT/CI data produced during the time the component was installed must be turned-in with the component.

e. Submit Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) Hazardous Material Reports (HMR), Product Quality Deficiency Reports (PQDR), Technical Publication Deficiency Reports (TPDR) per paragraph 10.9 for deficiencies in HMS components and HMS technical manuals.

10.37.4.1.4 O-Level maintenance technicians must:

a. Be knowledgeable of HMS BIT/CI codes applicable to their duties.

b. Strictly adhere to the T/M/S technical manual direction for use of HMS BIT/CI codes for inspection, troubleshooting and repair.

10.37.4.2 Intermediate level ATA

10.37.4.2.1 Production Control must:

a. Direct AMSU to review the serial number of all components inducted for repair against the current ATA Data Analysis Team report. If the serial number is listed as a substandard performer, AMSU will notify PC. PC will direct AMSU to assign "QA Required" to the Maintenance Action Form (MAF). AMSU will make a copy of the section of the ATA report applicable to the serial number and include it in the component's turn-in documentation.

b. Obtain and distribute current ATA Data Analysis Team reports to each work center processing WRAs or SRAs covered in the report.

c. Apply Beyond Capability of Maintenance (BCM) code 8 (Administrative) to components that are reported by Hazardous Material Report (HMR) as a suspected Bad Actor per 10.37.4.2.2.b.

d. Include ATA training and testing requirements in Production Control Job Qualification Requirements (JQR).

10.37.4.2.2 QA must:

a. When a component is inducted that is identified as a substandard performer on the ATA Data Analysis Team report, contact QA of the squadron that turned in the part to determine if HMS BIT/CI data indicates a potential common fault or pattern of failure. If so, determine if additional troubleshooting is needed to determine the root cause of the high failure rate, and confer with the Work Center Supervisor on a plan for troubleshooting and testing the component. As necessary, contact NATEC for assistance.

b. Submit a Hazardous Material Report (HMR) per 10.9.3.8 for components that continue to test RFI, but are routinely identified as substandard performers after all I-Level testing and repair processes have failed to identify the root cause of unacceptable Mean Time Between Failure (MTBF).

c. Submit reports to the responsible FST when deficiencies in Automated Test Equipment (ATE) or Operational Test Program Set (OTPS) capabilities are suspected to be contributing to the inability to detect failures in a substandard performing component. If the affected component is a critical safety item, submit an HMR report.

d. Upon receipt of ATA Support Team reports, coordinate with the Supply Department to review the serial numbers of shelf stock components to determine if a component identified as a substandard performer is stocked. If so, review the repair history of the component. If the last maintenance action on the component was depot rework, no action is required. If the component was last repaired by another IMA, the component will be inducted for test and check per the procedures of 10.37.4.2.1.a. If the IMA does not have test and check capability, QA will contact the cognizant FST for direction to either issue the component or to remove the component from service and submit an HMR.

10.37.4.2.3 I-Level Maintenance technicians must:

a. Strictly adhere to the T/M/S technical manual direction for use of HMS BIT/CI codes for inspection, troubleshooting and repair.

b. Be knowledgeable of HMS BIT/CI codes and their use in I-Level fault troubleshooting.

10.38 Aircraft Battle Damage Repair (ABDR)

10.38.1 Reference

NAVAIR 01-1A-39, Naval Aircraft Battle Damage Repair

NOTE: NAVAIR 01-1A-39 is published for informational and training purposes only, and may not be referenced as the authoritative technical reference for ABDR procedures.

10.38.2 Introduction

ABDR is maintenance during combat conditions that may provide less than 100 percent restoration of an aircraft and its subsystems and components to original strength, mission capability, or configuration. ABDR evaluates and restores sufficient structural strength and serviceability to permit aircraft to fly additional combat sorties, or to make a one-time flight to a designated in-theater repair activity.

10.38.3 Requirements

a. Provide NAMP indoctrination training on Aircraft Battle Damage Repair (ABDR) policy per 10.1.4.7. Verify personnel receive ABDR familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

b. ABDR is authorized only for aircraft engaged in combat operations.

c. Authorization to perform ABDR is the responsibility of the battle group commander or first flag or general officer in the combat operations chain of command. ABDR authorization cannot be delegated.

d. ABDR procedures will be used only when authorized, and only when the time and resources needed to effect standard repairs are not available.

NOTE: ABDR procedures not specified in existing publications will only be performed if approved by engineering authority from the T/M/S aircraft Fleet Support Team (FST).

e. ABDR will be accomplished per the procedures of Type/Model/Series (T/M/S) aircraft publications and other applicable maintenance manuals. Reference (a) exists for informational and training purposes only and will not be used as authorization for ABDR procedures. For ABDR not addressed in previously mentioned resources, repair procedures must be approved by an appropriate T/M/S aircraft engineer.

f. Damaged aircraft will be evaluated by squadron personnel assisted by Designated Rework Point (DRP) Planner and Estimator (P&E) as required.

g. Squadrons may perform ABDR when the procedures and techniques are within O-Level repair capability. I-Level ABDR may be performed on-or-off aircraft when the repair is within the supporting I-Level activity's capability.

h. ABDR will be documented per normal WO or MAF procedures, and must be logged in the aircraft log book Miscellaneous History Record.

NOTE: When ABDR is completed, Maintenance Control will issue an "up" WO that will remain open until a conventional repair is completed.

i. All ABDRs are considered temporary and must be repaired in a conventional manner as soon as practical. Upon return to non-combat status, conventional repair will be performed for discrepancies corrected by ABDR procedures. Aircraft requiring conventional D-level repair will be inducted at the earliest possible date.

10.38.4 Responsibilities

10.38.4.1 Depot Fleet Readiness Centers

Depot FRCs will provide Planner and Estimator (P&E) and depot field team assistance, as required.

10.38.4.2 T/M/S Fleet Support Team (FST)

a. Provide ABDR engineering assistance.

b. Review and act as final approval authority for requests to perform ABDR not published in maintenance manuals.

10.38.4.3 CVW, ACE or MAG MO

a. Request ABDR authorization only if required to meet combat operational readiness, The request must be sent to the battle group commander or first flag or general officer in the combat operations chain of command by naval letter or message.

b. Assign ABDR priorities when a depot field team is assigned to the ship or operational site.

10.38.4.4 Squadron Maintenance Control

a. If P&E assistance is required for ABDR, submit requests per the procedures of paragraph 10.45.11.

b. Monitor cumulative ABDR actions, document flight restrictions, and brief flight crews on any flight or system operating limitations incurred by ABDR.

10.38.4.5 Intermediate Level Maintenance Activity (IMA)

IMAs will provide assistance for aircraft ABDR when the repair is within I-Level capability.

10.39 Gas Turbine Engine Maintenance (GTEM) Program

10.39.1 References

a. NAVAIR NOTE 4700, Gas Turbine Engine Maintenance Assignment By Depot Maintenance, Intermediate Maintenance and In-Service Support Center Activities

b. NA 17-1-114 Series, Organizational, Intermediate, and Depot Maintenance with Illustrated Parts Breakdown Inspection and Proof load Testing of Lifting Slings for Aircraft, Engines and Related Components

c. NA 15-01-500, Preservation of Naval Aircraft

d. NA 01-1A-503, Maintenance of Aeronautical Antifriction Bearings

e. NAVAIRINST 13700.15, Decision Knowledge Programming for Logistics Analysis and Technical Evaluation Engine/Propulsion System Module Management

10.39.2 Introduction

10.39.2.1 This NAMPSOP applies to aviation gas turbine engines their accessories and components, whether used for powering flight, providing auxiliary power, or for starting purposes (airborne or ground units). Unless stated otherwise, the term "engine" used in this NAMPSOP applies to gas turbine engines, engine modules, auxiliary power units (APU) and support equipment gas turbine engines (SEGTE).

10.39.2.2 The Gas Turbine Engine Maintenance Program is based on three levels (degrees) of repair. First-degree repair is the most in-depth level of repair, followed by second-degree, and third-degree. Engine intermediate level (I-Level) maintenance technical manuals have a maintenance allocation table that defines specific engine maintenance actions determined largely by degree of repair difficulty. The definitions in this paragraph are general descriptions associated with the degrees of engine repair.

NOTE: Refer to engine technical manuals and maintenance allocation tables for the degree of engine repair associated with specific engine inspection and repair functions.

a. First-Degree Repair. The repair of a damaged or non-operating gas turbine engine, its accessories, or components to an acceptable operating condition when the repair includes compressor rotor replacement or disassembly to the extent the compressor rotor could be removed. Additionally, any repair beyond that authorized for a second-degree activity, but not to the extent required to be performed at D-level, will be defined as a first-degree repair.

b. Second-Degree Repair. The repair of a damaged or non-operating gas turbine engine, its accessories, or components to an acceptable operating condition. Second-degree repairs will normally include: the repair or replacement of turbine rotors and combustion sections, including afterburners; the replacement of externally damaged, deteriorated, or time limited components, gearboxes, or accessories; and minor repairs to the compressor section. Further, the repair or replacement of reduction gearboxes and torque shafts of turboshaft engines and compressor fans of turbofan engines which are considered repairable within the limits of the applicable intermediate maintenance technical manuals. These will be accomplished by second-degree repair activities.

c. Third-Degree Repair. This repair encompasses major engine inspections and the same gas turbine engine repair capability as second-degree except certain functions which require high maintenance man-hours and are of a low incidence rate are excluded. Additionally, third degree repair also include the acceptances, transfers, preservation and de-preservations of engines.

10.39.2.3 NAVAIR NOTE 4700 assigns a specific degree of support for engines to selected Intermediate Maintenance Activities (IMA) and depot level (D-level) facilities. IMA engine repair assignment is based primarily on the types of engines operated by squadrons assigned to their station or operating from their ship. Selected IMAs are assigned to provide engine support for an entire geographical location or the entire aircraft population when this action supports the goal of repair with the least expenditure of material, manpower, and money. Engines not included in NAVAIR NOTE 4700 are supported per the applicable Weapons System Planning Document (WSPD).

NOTE: This NAMPSOP does not apply to Depot. For Depot refer to Chapter 12.

10.39.3 General Procedures

10.39.3.1 NAMP Indoctrination

Provide NAMP indoctrination training on Gas Turbine Engine Maintenance (GTEM) Program policy per 10.1.4.7. Verify personnel receive GTEM familiarization prior to performing maintenance while assigned to the work center.

10.39.3.2 Logbooks and Records

Refer to Chapter 8 for procedures for maintaining engine Aeronautical Equipment Service Records (AESR) and associated component records.

10.39.3.3 Engine Transfer and Shipment

10.39.3.3.1 Engines requiring I-Level inspection, repair, or modification will be forwarded to the supporting IMA, via the supporting supply activity. Associated hardcopy and CM ALS records will be transferred with the engine per 8.2.11 procedures, along with the turn-in document.

NOTES: 1. When there is no local IMA, the activity transferring the engine must preserve and prepare the engine for shipment prior to turn-in. The supporting supply activity will contact the applicable engine TYCOM for direction on where to ship the engine.

2. If the engine requires an engineering investigation (EI), it will be handled and shipped per 10.9.4.

3. Engines can be damaged during shipment if all components that contribute to their structural support are not installed. Engines must be shipped with all structural support components in place.

10.39.3.3.2 All engines forwarded to other activities will have a full inventory of repairable and non-repairable components, accessories, and appropriate reports. Additionally, all reportable components will be accompanied by the appropriate reports. NRFI components and accessories installed as a result of cannibalization will be clearly tagged and an appropriate AESR or CM ALS AESR entry made (refer to Chapter 15 for engine cannibalization documentation). If directed by

the TYCOM to ship an incomplete engine, a copy of the DOD Single Line Item Release Receipt Document (DD 1348-1) for each missing component must be placed in the AESR to indicate shipment of retrograde (not applicable for CM ALS). In addition, the component retrograde document number will be entered in the Miscellaneous/History (OPNAV 4790/25A) record or CM ALS AESR miscellaneous history record.

10.39.3.3.3 Engine shipment containers will be inspected and prepared per NAVAIR 15-01-500.

10.39.3.3.4 Aircraft engine transfers and receipts will be reported per NAVAIRINST 13700.15.

10.39.3.4 Supply Procedures

10.39.3.4.1 Due to their critical nature and high dollar value, several nonstandard procedures apply to requisitioning aircraft engines. Most engines in work at the IMA are supply assets. Engines in an awaiting parts status normally remain physically in the Power Plants Division due to the size of the component. Parts ordered to support an Expeditious Repair (EXREP) engine repair will be ordered using the priority associated with the requisitioning squadron's Force Activity Designator (FAD).

10.39.3.4.2 Parts and components identified as requiring replacement during engine pre-induction screening (10.39.5.2) will not be placed on order unless the required repairs are verified against the maintenance allocation chart of the applicable engine MIM, and the repair is within the activity's assigned degree of repair per NAVAIR NOTE 4700.

10.39.3.4.3 Replacement parts and components must be stored in the area which provides the highest degree of protection, preservation, and accountability.

10.39.3.4.4 Engine repair activities will develop a listing of Pre-Expended Bin (PEB) high usage consumable material items required to support the degree of repair assigned. High usage items are identified on the consumable material listing of the applicable engine maintenance technical manuals. The list will be provided to the Supply Officer for PEB establishment per 6.5.8.

10.39.3.5 Power Plant Technical Manuals

10.39.3.5.1 Power plant technical manuals are presented in several different arrangements. The engine inspection and repair method (installed or removed) usually indicates the major category (01- Aircraft or 02 - Power Plant). Technical information required for engine inspection and repair may be found in both of the major categories. Each engine T/M/S is unique in technical manual format, and must be researched by degree of repair to ensure the correct technical manuals are used. Refer to the NATEC website for particular engine T/M/S technical manuals. Examples of common power plant technical manuals:

a. Maintenance Requirement Cards (MRC) consisting of complete engine repair requirements cards (CERRC) and quick engine change assembly (QECA).

b. Maintenance Instruction Manual (MIM) in conventional and work package (WP) formats.

c. Sequence Control Cards (SCC).

10.39.3.5.2 Two groups of technical manuals are used for the control and performance of engine repair: CERRC and accompanying CERR SCC with conventional MIM, and MIM WP with accompanying CERR SCC. Each engine T/M/S may have one or the other. The following paragraphs explain and describe the various technical manuals required for repair:

a. Engine Inspection MRCs.

(1) Major. These inspections are accomplished using MRCs. These cards contain major QECA maintenance requirements to inspect the engine for material degradation and perform essential PM. The cards include the major engine requirements followed by a separate QEC section for each aircraft application. An SCC is included to program accomplishment of the inspection in proper sequence. Discrepancies discovered during inspection are corrected using instructions contained in the applicable maintenance technical manuals. These cards are used to perform major inspections on uninstalled engines.

(2) Phase. These inspections are accomplished using phase MRCs. These cards cover the total system scheduled maintenance requirements divided into phases, which are performed at specific intervals. All installed engine inspections and QEC components are included.

b. CERRCs

(1) CERRCs provide step-by-step procedures and instructions for engine disassembly to a controlled depth. The depth of disassembly is equal to that which is authorized for designated third, second, and first degree repair activities by NAVAIR NOTE 4700 and is consistent with the provisioning of spare parts, tools, and SE for these activities. There are no repair procedures within CERRC sets. For repair instructions consult the applicable engine MIM.

(2) The information in the CERRCs is based on the contents of the reference publications and on conclusions reached during verification. Should the information in the card sets conflict with the information in technical manuals with a later date, the most current information for the specific task will be followed.

(3) In using the CERRC set, it is unnecessary to perform maximum disassembly each time an engine is processed for repair. Perform disassembly only to the depth, which is required to ensure the engine is RFI. When less than complete disassembly is required, use only the applicable cards.

(4) Each card is identified by number for accountability purposes and to provide a means for crediting work accomplishment. The CERRC set numbering sequence does not reflect the sequence in which the work is to be accomplished. This is controlled by the associated CERR SCC.

(5) Task cards that contain major engine inspection requirements are identified by an asterisk (*) preceding the card title and the procedural steps within the cards. The affected task cards are identified on the SCC by an asterisk preceding the card number. The requirements that are preceded by an asterisk must be accomplished each time an engine is processed for first-degree repair. When the items preceded by an asterisk have been accomplished, the engine is to be considered zero time for inspection purposes.

(6) QA cards are included to emphasize the need for inspection during or after performance of critical procedures. To ensure accomplishment of these requirements in their proper sequence, review QA cards referenced on the task card before commencing the task.

c. CERR SCC. The CERR SCC is a graphic presentation that will sequence the accomplishment of CERR (third, second, and first-degree) in a logical order. The CERR SCC is oriented to actual work time and manpower usage. This element provides the only record of engine

status during repair, including QA inspections. CERR SCCs are used with both the CERRC and WP formats.

d. Work Package (WP). The procedures for the use of the WP format are identical to those identified for CERRCs except the WP format contains instructions for disassembly, inspection, repair, reassembly, and testing. In addition, it identifies SE and SE maintenance requirements.

e. Component repair technical manuals. These are accessory manuals containing I-Level and D-level procedures for check, test, inspection, and repair, and the associated Illustrated Parts Breakdown (IPB) of engine components.

10.39.3.6 Modular Engines

10.39.3.6.1 Newer model engines are constructed in separate modules, for example, compressor, combustion, turbine, afterburner, gearbox, torque meter, or combinations thereof to simplify the repair and maintainability process. Modular engines are routinely inspected while installed in the aircraft, and are removed only for cause, such as Low Cycle Fatigue (LCF), failure, and Maximum Operating Time (MOT).

10.39.3.6.2 When a modular engine is removed, the same AESR screening and pre-induction inspection process is performed as with other engines. Repair is accomplished by removal and repair or replacement of the defective modules per the applicable CERRC and accompanying CERR SCC or with conventional MIM or WP with accompanying CERR SCC.

10.39.3.6.3 Inspection requirements subsequent to or concurrent with engine repairs may vary. Some modular engines, for example, F404 and T700, have engine MRC decks with accompanying SCCs. Earlier designed modular engines, for example, T400 and T56, have the QECA MRCs with accompanying SCC. Subsequent to or concurrent with repair, the inspection requirements outlined in the applicable engine MRC and QECA MRCs will be performed.

10.39.3.7 Auxiliary Power Unit (APU) and Support Equipment Gas Turbine Engine (SEGTE)

10.39.3.7.1 APUs are repaired under the three-degree repair concept. Under this concept, each APU I-Level technical manual identifies specific maintenance actions as either first-, second-, or third- degree functions. These functions are determined largely by degree of difficulty and recurring frequency. Selected IMAs are assigned to provide a specific degree of support for specific APUs and SEGTEs, per NAVAIR NOTE 4700.

10.39.3.7.2 APUs assigned a three-degree repair function will be maintained by the APU SEGTE Shop (Work Center 412). Installed SEGTEs will undergo O-Level remove and replace maintenance plus preservation or de-preservation in the SE Gas Turbine Repair Shop (Work Center 91A).

10.39.3.7.3 APU and SEGTE inspections are accomplished per the applicable MRCs upon expiration of the established interval. A major APU inspection is a comprehensive inspection performed to determine the material condition of the APU. This inspection is often performed with the APU removed from the enclosure, but may be accomplished on certain installed APUs using a borescope or other inspection aids as directed in the MRCs. Major APU inspections are performed by the supporting IMA, unless directed otherwise by the ACC. APU inspections are accomplished during first degree repair. Therefore, APUs installed following first degree repair are zero timed for inspection purposes. MRCs prepared to the latest specifications are aligned with the level of

maintenance performing the inspections. All tasks performed by IMAs on installed APUs are in the applicable T/M/S aircraft MRCs.

10.39.3.7.4 IMAs will ensure that tracked serialized components are accurately reflected in the CM ALS and that all maintenance has been properly documented in CM maintenance task to correctly update the ALS.

10.39.3.7.5 RFI APUs and SEGTEs received from supply must have AESRs or CM ALS AESRs screened to determine which inspections, if any, have been performed and when the next inspection is due.

10.39.3.7.6 APU and SEGTE documentation procedures. The enclosure is considered the end item when work is performed on SEGTEs at an I-Level activity (Work Center 91A). Therefore, APUs and SEGTEs sent to Work Center 412 for inspection or repair must have a MAF turn-in document initiated.

10.39.3.8 Technical Directives (TD)

TDs will be complied with as directed in 10.10. TD parts and kits designated for O-Level compliance will be obtained from the O-Level activity that turned in the engine, if such parts and kits were previously furnished, but not incorporated.

10.39.3.9 Gas Turbine Engine (GTE) Test Facilities

GTE test facilities will be operated and maintained per 10.23.

10.39.3.10 Preservation and Storage

10.39.3.10.1 I-Level and D-level activities will preserve RFI and NRFI engines in their custody and comply with all preservation periodic maintenance requirements and NA 15-01-500, Preservation of Naval Aircraft, as applicable. This includes IMAs assigned caretaker status.

10.39.3.10.2 Replacement parts and components will be stored in the area which provides the highest degree of corrosion prevention and preservation, per 10.13 and NAVAIR 15-01-500 procedures. Hydraulic components will be protected from contamination per 10.5 procedures.

10.39.3.11 Engine bearing maintenance, storage, and preservation

Engine bearings will be carefully handled and protected against the elements at all times to prevent damage prior to installation. Refer to NA 01-1A-503, Maintenance of Aeronautical Antifriction Bearings for requirements regarding engine bearing maintenance and handling.

10.39.3.12 Engine slings and stands

Engine slings and stands will have pre-operational inspections, NDI and PM completed at the required intervals. Refer to NA 17-1-114 Series for engine sling maintenance requirements. For engine stand maintenance requirements, refer to applicable MIMs.

10.39.3.13 Overhead cranes and hoists

Overhead cranes and hoists will have pre-operational inspections, load test and PM requirements completed at the required intervals.

10.39.4 Intermediate Level Maintenance Activity (IMA) Procedures

10.39.4.1 Production Planning

10.39.4.1.1 Engine production goals will be established to maintain a sufficient quantity of RFI engines, modules, and QECAs to meet operational readiness requirements. Selective management of inductions, for example, repairs, inspections, and QECA buildups, is required to most effectively meet production. The following information will be considered in planning inductions to meet monthly production goals:

a. Historical demand - average monthly inductions for the following reasons:

(1) Repair.

(2) Inspection.

(3) Life limited component replacement.

(4) TD compliance.

(5) QECA buildup.

b. External demand:

(1) Forward deployment support.

(2) COMNAVAIRSYSCOM and ACC goals.

c. Cyclic demand - variations in inductions based on:

(1) Deployments.

(2) Operational commitments.

(3) Seasonal impacts.

10.39.4.1.2 Engines should be inducted into the repair cycle within 30 days of receipt, workload permitting.

10.39.4.2 Pre-induction Screening

10.39.4.2.1 Figure 10.39-1 depicts the procedures for screening non-ready for issue (NRFI) engines, APUs, and SEGTEs.

NOTE: Screening should be completed within 10 days of receipt.

10.39.4.2.2 AESR and CM ALS records will be screened per 8.2.11.2.

10.39.4.2.3 The maintenance allocation table of the applicable engine maintenance manual will be reviewed to determine the maintenance level of the inspection or repair for which the engine was turned in. If the inspection/repair is within the IMA's assigned degree of repair, the engine will be inducted and processed per 10.39.4.3.

NOTE: If there is no local repair capability, the unit at a minimum must verify engine and module preservation externally and make logbook receipt and transfer entries as appropriate. Any discrepancy noted will be resolved between the pool manager and the COMFAIRWESTPAC or TYCOM engine class desk per COMNAVAIRPAC/COMNAVAIRLANT 13700.1C.

10.39.4.2.4 If the required inspection or repair is not within the IMA's capability, the engine will be declared Beyond Capability of Maintenance (BCM), Action Taken Code 7 (BCM 7 – Beyond Authorized Repair Depth) will be documented on the Maintenance Action Form (MAF), and the engine will be turned into the supporting supply activity for shipment to the designated repair activity specified in NAVAIR NOTE 4700, or as directed by the TYCOM Engine Class Desk.

NOTE: Action Taken Code 8 (BCM 8 - Administrative) will be used if the required inspection/repair is within the IMA's capability but the TYCOM directs the engine to be repaired by another facility.

10.39.4.2.5 The following categories of engine discrepancies are considered beyond I-Level repair (BCM-1, repair not authorized) and will be forwarded to designated depot per NAVAIR NOTE 4700:

a. Engines with excessive damage due to fires or subjected to firefighting chemicals internal to the engine.

b. Crash damaged engines (after release by the safety board).

c. Engines subjected to extreme mishandling, such as being dropped.

d. Engines subjected to salt water immersion.

e. Engines exhibiting excessive or extensive corrosion.

f. Engines exhibiting massive oil contamination.

g. Engines recommended for removal by an oil analysis laboratory when the specific cause of the impending failure cannot be positively determined and corrected.

h. Engines with total gas path FOD of an extremely destructive nature requiring extensive parts replacement and high man-hour consumption.

i. Engines requiring Power Plant Changes (PPC) to parts that cannot be removed by the I-Level.

j. Engines requiring life limited part(s) removal that cannot be removed by the I-Level.

k. Engines turned in due to an Engineering Investigation (EI) will be shipped to the D-level repair facility selected to perform the EI. Refer to 10.9 for EI exhibit handling and shipment procedures.

10.39.4.3 Engine Inspection, Repair, and Testing

10.39.4.3.1 Engines inducted for inspection or repair will be inspected prior to disassembly, per the procedures specified in applicable T/M/S engine manuals (10.39.3.5).

NOTES: 1. Pre-disassembly inspection normally includes oil filters, fuel filters, freedom of rotation, external visual, and in some cases, borescope inspection.

2. If material condition of the engine permits, the engine should have a test cell run to verify engine operating parameters prior to disassembly.

10.39.4.3.2 Engine inspection and repairs will be performed using the applicable CERRC or WP manual and accompanying CERR SCC.

10.39.4.3.3 The next major engine inspection due will be performed on engines turned in for repair, per the following criteria:

a. All engine inspections will be accomplished during first-degree engine repair. Engines installed following first-degree repair will be "zero timed" for inspection purposes.

b. Engines with major inspection intervals of 400 hours or more will have major inspections performed if 25 percent or less of the interval remains until the next inspection.

c. Engines with major inspection intervals of less than 400 hours will have major inspections performed if less than 100 hours remain until the next inspection.

NOTE: Life limited parts must have sufficient time remaining, as determined by TYCOM and FST, to permit engine operation until the next scheduled major inspection.

10.39.4.3.4 Containerized engines that have been inducted due to being dropped or due to container damage will be removed from the container and given a thorough visual QA inspection. As a minimum, the inspection will include: Compressor and gas turbine area by bore scope or fiber optic methods (when accessible); accessible compressor and turbine rotors to ensure free movement; and seals or bearings for damage. If no physical damage is noted, the engine will undergo a thorough test cell run (including a vibration test and JOAP sample) and be re-inspected and certified by an IMA Power Plants QAR/CDQAR prior to installation in an aircraft.

10.39.4.3.5 Engines will be tested prior to being certified RFI.

10.39.4.3.6 A QAR or CDQAR will perform a FOD free inspection of all RFI engines prior to the closing of the engine container.

10.39.5 Responsibilities

10.39.5.1 COMNAVAIRSYSCOM

10.39.5.1.1 COMNAVAIRSYSCOM (Type Model Program Product Support Manager) will determine the degree of repair capability of each I-Level and D-level engine facility. Due to the high cost of establishing and supporting engine repair facilities, many factors must be taken into consideration before approving new or additional capability. Among these are:

a. Equipment requirements.

b. Facility requirements.

c. Engine test facility requirements.

d. Personnel requirements and associated technical training.

e. Proximity of other facilities to provide like support.

f. Productivity and capacity.

10.39.5.1.2 Activities requesting to establish a new repair facility or add repair capability to an existing facility must submit a letter (via the TYCOM) to COMNAVAIRSYSCOM (Type Model Program Product Support Manager) per NAVAIR NOTE 4700 procedures.

10.39.5.2 TYCOM Engine Class Desk

TYCOM Engine Class Desks will:

a. Coordinate with COMNAVAIRYSCOM (AC312000) to establish yearly production goals for each T/M/S engine.

b. Nominate IMAs to perform a selected degree of maintenance for specific engines.

c. Annually, review the engine, engine module, APU and SEGTE repair assignment of each IMA and forward any recommended changes to COMNAVAIRSYSCOM (Type Model Program Product Support Manager).

10.39.5.3 IMA Maintenance Officer

The MO will designate a Power Plants Division CPO or SNCO as GTEM Program Manager per 10.1.2.9.

10.39.5.4 IMA Assistant Maintenance Officer

I-Level AMOs will publish a standard I-Level GTEM Qualification Requirement (JQR) if training is not adequately covered in a Navy Qualified and Proficient Technician (QPT) or Marine Corps AMSTRP Aviation Maintenance Training and Readiness Program (AMTRP) syllabus.

10.39.5.5 IMA Quality Assurance

The IMA Quality Assurance Officer will designate a Power Plants QAR as GTEM Program Monitor per 10.1.2.9. The QA GTEM Program Monitor will:

a. Perform Program Monitor audits per 10.7.

b. Prepare individuals for Power Plant QAR, CDQAR, and CDI designations who have demonstrated knowledge and understanding of maintenance procedures, safe practices, demonstrate a high level a maturity, common sense, and have completed prerequisites.

10.39.5.6 GTEM Program Manager

The GTEM Program Manager will:

a. Perform Program Manager initial and annual audits per 10.7.

b. Provide NAMP indoctrination training on Gas Turbine Engine Maintenance (GTEM) policy per 10.1.4.7. Verify personnel receive GTEM familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Review CSEC information and reports in order to provide recommendations to the chain of command for process and improvements.

d. Ensure GTEM indoctrination is accomplished per 10.1.

e. Verify that all GTEM support equipment PMs, NDIs, and load test are being completed at the required intervals in accordance with the MIMs, MRC's and publications.

f. Ensure ETRs are submitted per NAVAIRINST 13700.15 Procedures Reference Guide and 9.1.3.3.

g. Maintain a program file to include:

(1) Applicable POCs

(2) Program related correspondence and message traffic

(3) Applicable references or cross reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

(5) If applicable, hardcopies of all ETRs and certification worksheets performed during periods of no connectivity with the DECKETR website, per NAVAIRINST 13700.15 and 9.1.3.3. Hardcopies will be maintained for a period of 2 years per the NAVAIRINST 13700.15 Procedures Reference Guide.

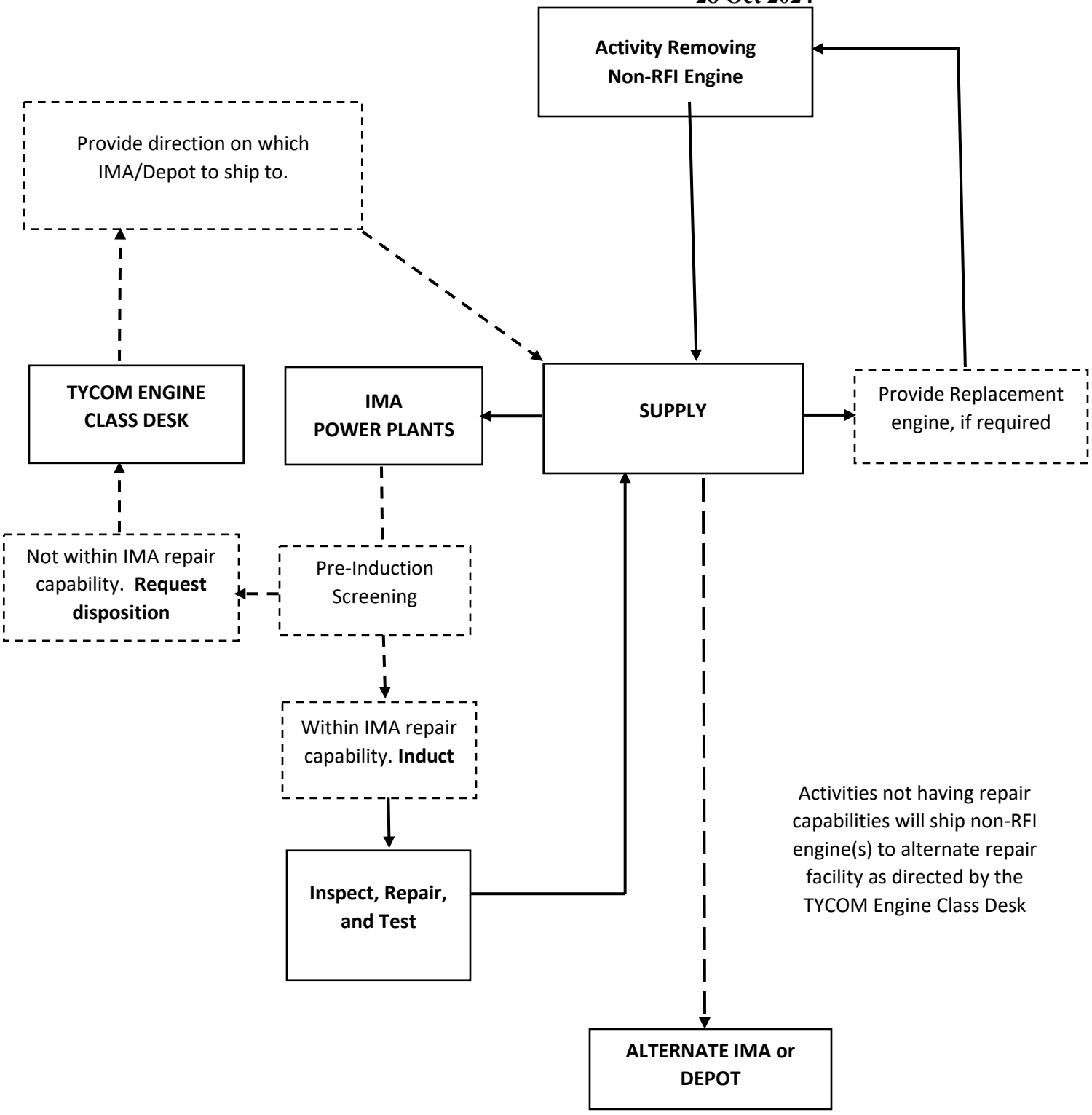


Figure 10.39-1: Engine Screening and Processing

10.40 Aviation Life Support Systems (ALSS) and Egress Systems Maintenance

10.40.1 References

NOTE: The list of references represents the majority of general publications used in the maintenance of ALSS and Egress Systems.

a. DON Defense Logistics Agency VOLUME SUPPLY ASHORE Volume II, paragraph 25841, Flight Clothing and Operational Equipment

b. NAVAIR 00-35QH-2, Allowance List, Aviation Life Support System and Airborne Operation Equipment for Aircraft Squadrons Navy and Marine Corps

c. NAVAIR 00-80T-96, U.S. Navy Support Equipment, Common, Basic Handling & Safety Manual

d. NAVAIR 00-80T-123, Aircrew Systems NATOPS Manual

e. NAVAIR 06-20-2, Gas Cylinder (Storage Type), Use, Handling, and Maintenance

f. NAVAIR 06-30-501, Oxygen/Nitrogen Systems Technical Manual

g. NAVAIR 11-100-1.1, Cartridge Actuated Devices (CADS) and Propellant Actuated Devices (PADS) (IETM)

h. NAVAIR 13-1-6 Series Manuals, Aviation Life Support Systems (ALSS)

i. NAVAIR 16-30PRC149-1, Radio Set AN/PRC-149 Part Number 2155-09093-00 Radio Set AN/PRC-149A Part Number 2155-09093-01 Radio Set AN/PRC-149-T1 (Training Unit)

j. NAVAIR 16-30PRQ7-1, Operator’s Maintenance Manual Radio Set AN/PRQ-7

k. NAVAIR 16-30PRQ7-2, Operational and Maintenance Procedures, CSEL Battery Charger PP-8562/U

l. NAVAIR 16-30URT140-1, Radio Beacon Set AN/URT-140 and Radio Beacon Set AN/URT-140-T1 (Training Unit)

m. NAVAIR 16-35AVS9-4, Technical Manual Operator's and Organizational Maintenance Manual Image Intensifier Set, Night Vision, Type AN/AVS-9(V)

n. NAVAIR 16-35CSEL-CPE-1, Operation and Maintenance Organizational CSEL Planning Equipment (CPE)

o. NAVAIR 19-1-270, Ground Support Equipment Manual Mobile Refill System (MRS III) P/N 1007-01

p. NAVAIR A6-215PC-MEB-000, Maintenance Instructions with Illustrated Parts Breakdown Industrial Sewing Equipment

q. NAVSEA OP 4, Ammunition and Explosives Safety Afloat

r. NAVSEA OP 5 VOL I, Ammunition and Explosives Ashore

s. NTTP 3-50-1, Navy Search and Rescue (SAR) Manual

t. COMNAVAIRFOR M-3710.7, NATOPS General Flight and Operating Instructions

u. OPNAVINST 3750.6, Naval Aviation Safety Management System

v. NAVSUP P-801 Notice of Ammunition Reclassification (NAR) Manual

10.40.2 Introduction

10.40.2.1 Properly functioning ALSS and Egress systems are critical to the safety and survival of aircrew and passengers. The Aviation Life Support Systems (ALSS) and Egress Systems Maintenance NAMPSOP establishes general policy to ensure ALSS and Egress system components are properly maintained and managed. This NAMPSOP is applicable to all Navy and Marine Corps aviation activities responsible for using or maintaining ALSS or Egress systems.

NOTE: For Depot ALSS and Egress System Maintenance refer to Chapter 12.

10.40.2.2 ALSS are those items of equipment and clothing needed to allow aircrew members and aircraft passengers to function within all parameters of the flight environment, safely egress from disabled aircraft and descend/ascend to the surface, and survive on land and water, and interface with rescue forces. ALSS encompasses escape systems, environmental systems, fire extinguishing systems, aircrew clothing, survival kits, personnel parachutes and associated hardware, life rafts and life preservers, anti-exposure suits, survival radios and other emergency signaling equipment, flight helmets, oxygen equipment, anti-G suits and associated hardware, and other miscellaneous survival and life support items.

NOTE: Personal Protective Equipment (PPE) items not installed in aircraft or used during flight for ALSS or egress purposes, such as aircraft passenger hearing protection, float coats and cranial helmets used by maintenance personnel are not considered ALSS.

10.40.2.3 Egress systems consist of ejection seats, interconnect and sequence systems, installed parachutes, installed seat survival kits, and the explosive devices and rocket motors used in their propulsion, and hatches or canopies which are shattered or jettisoned from the aircraft by use of explosive devices.

10.40.2.4 COMNAVAIRSYSCOM (PMA-202) is the lead engineering authority for ALSS and Egress Systems. PMA-202 also manages the Fleet Air Introduction Liaison Survival Aircrew Flight Equipment (FAILSAFE) Program for introduction and training of new or modified ALSS.

WARNING: ALSS AND EGRESS SYSTEMS EXPLOSIVE COMPONENTS AND OXYGEN EQUIPMENT ARE A RISK TO PERSONNEL IF NOT USED AS INTENDED OR CORRECTLY HANDLED. IMPROPER MAINTENANCE PROCEDURES, IMPROPER USE, AND LACK OF ATTENTION TO DETAIL WHEN WORKING ON AND AROUND THESE SYSTEMS CAN RESULT IN INJURY OR DEATH.

10.40.2.5 Provide NAMP indoctrination training on Aviation Life Support Systems (ALSS) and Egress Systems Maintenance policy per 10.1.4.7. Verify personnel receive ALSS and Egress System Maintenance familiarization prior to performing maintenance while assigned to the work center.

10.40.3 ALSS and Egress System Technician Qualifications

10.40.3.1 Only qualified ALSS technicians will perform ALSS maintenance.

a. Military ALSS technicians must be:

(1) Graduates of the Navy PR "A" School, and designated as a Navy PR or Marine Corps MOS 6048.

(2) Explosives handling qualified and certified per OPNAVINST 8023.24 or MCO 8023.3, as required.

b. Government Service (GS) civilian and contractor maintenance ALSS technicians must be:

(1) Graduates of Navy PR “A” School or equivalent Air Force or Army MOS courses

(2) Explosives handling certified per OPNAVINST 8023.24 or MCO 8023.3, as required.

NOTES: 1. O-Level activities with PR manning constraints must designate in writing a properly cross trained QAR or CDQAR to inspect work performed on ALSS equipment maintained by the ALSS work center. Cross trained QARs or CDQARs must use NAVAIR 13-1-6 series manuals for technical guidance. Personnel performing ALSS equipment maintenance and QARs or CDQARs inspecting work performed must be ordnance certified per OPNAVINST 8023.24/MCO 8023.3. The MO must sign a designation letter specifically identifying the T/M/S aircraft, equipment involved, and specific ALSS functions authorized for all cross trained personal performing O-Level maintenance on ALSS equipment.

2. Activities consistently operating under the detachment concept with authorized PR billet for the detachment, but due to manpower constraints, must designate one additional cross trained person to perform O-Level maintenance on assigned ALSS equipment. The cross trained personnel must be ordnance certified per OPNAVINST 8023.24/MCO 8023.3. Training will be provided by a senior (E-5 or above) PR assigned to the parent squadron or the supporting IMA/FRC and will be limited in scope and content to the maintenance that will be performed. The squadron MO must sign a designation letter specifically identifying the T/M/S aircraft, equipment involved, and specific ALSS functions authorized.

3. Personnel that maintain night vision systems must be medically qualified per the standards of NAVMED P-117.

10.40.3.2 Only qualified egress system technicians will perform egress systems maintenance.

a. Military egress system technicians must be:

(1) Graduates of the Navy Aviation Structural Mechanic (Safety Equipment) (AME) "A" School and designated as a Navy AME rate or Marine Corps Aircraft Safety Equipment Mechanic MOS.

(2) Graduates of the CNATTU T/M/S aircraft egress system training course or equivalent factory T/M/S specific egress system training course for the egress systems they maintain.

(3) Explosives handling trained and certified per OPNAVINST 8023.24/MCO 8023.3.

b. Government Service (GS) civilian and contractor maintenance personnel performing egress systems maintenance must be:

(1) Graduates of Navy AME "A" School or equivalent Air Force or Army MOS courses.

(2) Graduates of the CNATTU T/M/S aircraft egress system training course or equivalent factory egress system training for the egress systems they maintain.

(3) Explosives handling certified per OPNAVINST 8023.24/MCO 8023.3.

NOTE: AME personnel that have completed the CNATTU course for the F/A-18E/F aircraft SJU-17 Navy Aircrew Common Ejection Seat (NACES) are also qualified to perform work on SJU-17 NACES installed in F/A-18A-D and E/A-18G aircraft. Completion of the CNATTU F/A-18E/F SJU-17 NACES course does not qualify personnel to perform work on any other model of ejection seat installed in the F/A-18A-D.

10.40.4 ALSS and Egress System Quality Assurance Personnel Qualifications

10.40.4.1 Non-PR rated personnel will not be assigned as I-Level ALSS QARs, CDQARs, or CDIs due to specialized training requirements for parachute and life raft/life preserver packing and repacking, and other I-Level ALSS maintenance functions.

10.40.4.2 To be qualified as a CDQAR/QAR for aircraft with ejection seats, the member must be a graduate of the CNATTU T/M/S specific Initial training and Career training.

NOTE: Refer to Chapter 7 for ALSS QAR and CDQAR manning and training requirements.

10.40.5 Maintenance

NOTE: For simplicity, the term "PR" is used in this instruction to denote ALSS technicians, and the term "AME" is used to denote egress system technicians.

10.40.5.1 O-Level and I-Level maintenance requirements for ALSS and egress systems are outlined in NAVAIR 13-1-6 series manuals, COMNAVAIRFOR M-3710.7, and T/M/S NATOPS manuals.

10.40.5.2 The Aviators Breathing Oxygen Surveillance Program, Chapter 10, section 10.4, provides guidance for handling and maintaining LOX and gaseous oxygen used in ALSS and egress systems.

10.40.5.3 All Warnings and Cautions in technical manuals and this instruction will be strictly followed for LOX generation, handling, and servicing; low and high pressure gas generation, handling and servicing; pyrotechnics, cartridges, Cartridge Actuated Devices (CAD), ejection seats, canopy/hatch jettison systems and rocket motors.

10.40.5.4 ALSS and egress components will be replaced when total service life has expired, unless exceedance limits have been specifically addressed in the applicable maintenance manual or by naval message. Under no circumstances will a component be used if the service life history of the component cannot be verified.

10.40.5.5 Cannibalization of egress system components will be kept to an absolute minimum. Ejection seats, egress system components, cartridges, and CADs/PADs will not be cannibalized without prior Type Wing/MAG (ashore) or CVW/ACE (afloat) approval.

NOTE: A Notice of Ammunition Reclassification (NAR) is not authorized direction for the removal/replacement of aircraft or ALSS installed cartridges, pyrotechnics, CADs, or PADs. If a TD with amplifying direction has not been received within three days of receipt of a NAR, activities will request direction from their ACC. NAVSUP P-801 NAR Manual must be referred to when drawing ordnance from an RSL prior to installation into ALSS equipment. The NAVSUP P-801 is available at: https://my.navsup.navy.mil/apps/ops$nll.view_publication_details?P_PUBLICATION_ID=86609

10.40.5.6 ALSS components requiring I-Level maintenance must be delivered directly to the IMA division prescribed in the activities Individual Component Repair List (ICRL). The IMA will induct each component upon receipt from the O-Level using the "SD" MAF processing procedures of Chapter 16. Items that cannot be made RFI will either be signed off BCM (for pool items) or signed off with action taken code "D" (non-pool items) and returned to the O-Level.

10.40.5.7 ALSS components with calendar-based inspections are subject to the plus or minus 3 days deviation of per 5.3.10.1. Items not inspected after the end of the plus 3 days allowable deviation will be removed from service until inspected.

10.40.5.8 ALSS and egress components involved in an aircraft mishap will be processed per procedures in OPNAVINST 3750.6 and NAVAIR 13-1-6.2. Explosive devices involved in mishaps will be rendered safe and disposed of by explosive ordnance disposal personnel only, per NAVAIR 11-100-1.1, after release by the Aircraft Mishap Board (AMB). Ejection seats and escape system components that have been ejected or fired, regardless of apparent condition, must be disposed of per current regulations after release by the AMB.

10.40.5.9 All COSPAS-SARSAT radios must be registered in Joint SARSAT Electronic Tracking System (JSETS). JSETS contains information concerning the activity that the asset is assigned to as well as information concerning the POCs within each Squadron, Wing, IMA, and MAG. JSETS information must be updated as information changes. The Rescue Coordination Center (RCC) uses this information to contact the organization when a beacon is activated, therefore command phone numbers listed in JSETS must be a phone number that is manned 24 hours a day, 7 days a week.

10.40.5.10 Removed cartridges, flares, CADs, and PADs must be stored per NAVAIR 11-100-1.1, NAVSEA OP-4, and NAVSEA OP-5.

10.40.6 Technical Directives

10.40.6.1 COMNAVAIRSYSCOM is the engineering authority for modification of ALSS. ALSS modifications are normally issued by Aircrew System Change (ACC) Technical Directive (TD) or a change to the equipment procurement package.

10.40.6.2 TDs will be managed per the procedures of the Technical Directive Compliance NAMPSOP (10.10).

NOTE: Unauthorized deviation, alteration of configuration, or modification of any item of ALSS is strictly forbidden.

10.40.7 Logbooks and Records

ALSS and egress system records will be documented and managed per Chapter 8 and NA 13-1-6 series manuals.

10.40.8 ALSS Spare Pool Assets

10.40.8.1 O-Level activities will provide spare ALSS assemblies (parachutes, life rafts, seat survival kits, life preservers, oxygen regulators, oxygen hoses, and other pool assets) to the supporting IMA for the purposes of establishing and maintaining an ALSS pool. O-Level activities are authorized to requisition ALSS assemblies, but are not allowed to stock spare ALSS assemblies beyond those outlined in NAVAIR 00-35QH-2.

10.40.8.2 Shore-based IMAs will maintain a rotatable pool of spare ALSS assemblies (parachutes, life rafts, seat survival kits, life preservers, oxygen regulators, and oxygen hoses) located in the I-Level 800 Division. Pool will be established based on:

a. Total number of aircraft in each unit to determine aircraft mounted ALSS assemblies 10 percent gear required.

b. Total number of pilots/NFO/aircrew in each unit to determine man-mounted ALSS assemblies 10 percent gear required.

10.40.8.3 Personal survival equipment, such as helmets, survival vests, gloves, flight suits, anti-exposure assemblies or items of squadron equipment that are not normally inducted into the I-Level for maintenance, will not be included in ALSS pools.

10.40.8.4 Spare assets will be stored in a controlled area limited to access by authorized personnel only. The storage area must meet the environmental conditions set forth in NAVAIR 13-1-6 series manuals and comply with NAVAIR 11-100-1.1-CD (where applicable).

10.40.8.5 Spare assets must be physically segregated in three distinct groups: RFI assets, NRFI awaiting maintenance (M3), NRFI awaiting parts (WP), and NRFI in excess of current demand (M9).

a. The RFI assets area will contain items of ALSS that have been repaired/inspected and made fully RFI and are awaiting issue (in an RFI shelf cycle status) to an O-Level activity.

NOTE: Spare RFI assets in the rotatable pool are authorized up to 90 days RFI shelf life before they begin to accumulate time for inspection purposes. The 90 day RFI shelf life ends and time will commence for inspection purposes when the ALSS asset is removed from the I-Level pool storage facility. The 90 day shelf life is restricted to those specific items which are fully supported by the pool.

b. The NRFI M3 area will contain all ALSS assemblies that are awaiting maintenance.

c. The NRFI WP area will contain all ALSS assemblies that are in an “awaiting parts” status. The assemblies must have the MAF attached, listing the outstanding parts requisitions.

d. The NRFI M9 area must contain all ALSS assemblies that are in an “M9” status.

10.40.8.6 ALSS pool assets will be issued on a one-for-one exchange (one work order for each component). The IMA must process each component as a special discrepancy (Type MAF Code

SD), Transaction Code 31 or 32 as appropriate, and the applicable Action Taken and Malfunction Code specified in Appendix E. If a repairable component is BCM, the IMA will order the replacement component.

10.40.8.7 When a pool item is issued, the corresponding OOMA Auto Log-Set (ALS) will be transferred to the receiving activity OOMA database along with a hardcopy printout of the related AER and completed MAF. The issuing IMA must sign and annotate the date issued and next scheduled removal date on the lower right side of the AER.

10.40.8.8 When a shore or ship-based deployment site does not have a supporting I-Level with an ALSS pool, the supporting shore-based IMA is responsible for providing the deploying squadron with spare RFI ALSS assets equal to 10 percent of the number of aircraft and aircrew on the deployment/detachment.

a. The spare ALSS ALS will be electronically transferred by the IMA to the squadron. Squadron will maintain the ALS set in a separate OOMA folder until installed.

b. The in-service inspection cycle begins when the squadron assumes custody of the spare assets.

c. The squadron will maintain custody of the spare assets during the deployment.

d. The squadron must return the same number of assets to the supporting I-Level upon return from deployment.

e. Operational commanders, Navy Carrier Air Wing (CVW) and Marine Corps Aviation Combat Element (ACE) commanders will submit request for 10 percent ALSS spare pool assets no later than 60 days prior to scheduled deployments or detachments.

10.40.8.9 When a squadron/detachment deploys to a ship or shore site with an IMA that supports ALSS, the home base IMA is responsible for providing the deployment site IMA with spare RFI ALSS equipment equal to 10 percent of the full outfitting allowance for the squadron/detachment.

a. ALSS pool assets will be maintained by the deployment site AIMD/MALS, in their ALSS pool.

b. Assets will remain in the “shelf life” cycle until issued. In-service inspection time starts once the asset is issued.

c. The deployment site IMA will provide all repair parts and components required to support the squadron/detachment ALSS pool.

d. Upon completion of deployment, the deployment site IMA is responsible for returning the same number of RFI assets originally provided by the home base IMA. If the deployment site IMA has to return a NRFI asset due to awaiting parts, they must provide the home base IMA with the document numbers for the parts. MAFs must also be provided with discrepancies clearly documented.

e. Operational commanders, Navy Carrier Air Wing (CVW) and Marine Corps Aviation Combat Element (ACE) commanders will submit request for 10 percent ALSS spare pool assets no later than 60 day prior to scheduled deployments or detachments.

10.40.9 ALSS and Egress Systems Acceptance and Transfer

10.40.9.1 ALSS and Egress Systems data must be verified for accuracy in all maintenance data systems (DECKPLATE, OOMA, CADPAD, etc.) upon acceptance and transfer of aircraft and ALSS equipment.

10.40.9.2 Upon acceptance or transfer of an aircraft, the aircraft-installed ALSS and CADS and PADs must be verified for service life and serial number. Refer to 8.5.15 for procedures.

10.40.9.3 OOMA commands will review the Configuration Management (CM) ALS.

10.40.9.4 Custody of ALSS equipment will be transferred to the accepting command electronically.

10.40.10 ALSS Work Order and Maintenance Action Form Documentation

O-Level ALSS WOs will be documented per the procedures of Chapter 15. I-Level ALSS MAFs will be documented per the procedures of Chapter 16.

NOTES: 1. Only the individual that performed or inspected the work will sign the associated WO, MAF, OOMA ALS, performance test sheets and history records (as applicable).

2. IMAs using OOMA for managing CM ALS must use an electronic CDI stamp in lieu of the rubber stamp for related documentation, for example, ALSS CM ALS. The following procedures for maintaining and assigning an electronic CDI stamp apply: Upon CDI/CDQAR qualification, the CDI/CDQAR will submit approved CDI/CDQAR certification document and the CDI stamp number assigned by QA to the activity's SA for SMQ and electronic CDI stamp assignment. The activity's SA will add, via the Personnel Module, the stamp number to the front of the CDIs rate, for example, 301PR1, 543AM2, 678AD2.

10.40.11 ALSS Configuration Management Auto Log-Set (CM ALS)

10.40.11.1 All ALSS items with an inspection requirement must have a task that covers the inspection. If the inspection requirement is covered by an inspection task on a higher assembly, then that higher task must be set to an Active/Pending status. All items that require removal due to expiration or High-time that have a removal task must be set as Active/Pending. Examples include:

a. All ALSS items with recurring inspections within their Aircrew ALS will be covered by the ALL FLIGHT GEAR inspection task (as required). Aircrew assigned ALSS that is not on cycle with the ALL FLIGHT GEAR task but have O-Level or I-Level inspection requirements, will have the specific equipment task Active/Pending (e.g., Dry Suits, CSEL Radio, etc.).

b. Non-Aircrew assigned ALSS that requires an inspection will have inspection and removal tasks set to Active/Pending. If all of the components are installed in a higher assembly that can be covered by one inspection task then that task is the only task required to be Active/Pending (e.g., 180 Day ALL SAR EQUIPMENT).

c. ALSS subject to I-Level inspection will have the Removal/Hi Time task set to Active/Pending with the deadline date set no later than the Aircrew Equipment Record (AER) next scheduled removal date annotated by the issuing IMA. The IMA Inspection task will be set to

Active/Pending with dates matching the AER next scheduled removal date annotated by the issuing IMA. ALSS that have varied inspection cycles depending on application (e.g., aircraft installed life rafts and life preservers) will have the appropriate cycle Active/Pending.

10.40.11.2 Task forced completion must be kept to a minimum. At no point should a task be forced completed if the task cannot be verified with a physical copy of the WO/MAF or a review of DECKPLATE. For consistency and control, only Maintenance Control or Production Control Logs and Records Clerks will perform force completions. If a task is force completed, the following information must be entered into the NOTES section of the task:

a. Date completed and MCN for the actual WO/MAF.

b. Organization that completed the maintenance/inspection.

c. Names of worker and CDI (stamp number if applicable) who performed the maintenance/inspection.

d. Reason for the force completion.

10.40.11.3 Refer to 8.2.5 for general CM ALS procedures.

10.40.12 Responsibilities

10.40.12.1 Maintenance Officer

a. Designate a PR or AME, E-5 or above, as the ALSS and Egress Systems Program Manager per 10.1.2.9.

b. Publish a local command procedure (Appendix D) if required to direct geographic, TMS-specific or command-directed action for ALSS or egress systems not listed in the NAMPSOP. Command LCPs will be submitted to the Wing/MAW for consideration of developing a Wing LCP.

10.40.12.2 Program Manager

a. Perform Program Manager initial and annual audits per the NAMP Compliance Auditing NAMPSOP, 10.7.

b. Provide NAMP indoctrination training on ALSS policy per 10.1.4.7. Verify personnel receive ALSS familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Verify ALSS and egress system records are maintained per the NAMP.

d. Organize parachute maintenance and storage spaces in accordance with NAVAIR 13-1-6.2, WP 003 00.

e. Maintain the currency of COSPAS-SARSAT radios and command points of contact in JSETS.

f. Review Baseline Trouble Reports (BTR) and Baseline Change Reports (BCR) daily for changes to the baseline, which can be accessed via the NATEC website at https://mynatec.navair.navy.mil/.

g. (O-Level only) Provide the OOMA ALSS Component Near Due report to the supporting IMA no later than the 25th day of each month.

h. (O-Level only) Track ALSS spare pool assets established for use at the activitie per 10.40.8.1.

i. (I-Level only) Verify an ALSS pool has been established per 10.40.8.2 through 10.40.8.9.

j. Coordinate transfer of ALSS pool assets to support deployment ALSS pools.

k. Maintain an ALSS TD binder to include:

(1) Current NAT04 – verified/signed by a CDI/CDQAR, at a minimum, each month.

(2) All applicable B coded TDs listed on the active NAT04.

NOTES: 1. Controlled copies of applicable B coded TDs from the NAT04 (including amendments with no additional work required) must be maintained in the ALSS work center.

2. There is no need to verify or maintain D-Code Aircrew System Bulletins (ACB) and Aircrew System Changes (ACC).

l. Maintain a program binder to include:

(1) Applicable POCs.

(2) Most recent QA program audit, turn-over, self-audit, last MPA, and last AMI results.

(3) All outstanding Baseline Trouble Reports and Software Maintenance Tracking System (SMTS) pertaining to the ALSS work center.

(4) Applicable correspondence and message traffic (Naval Messages, Aircrew System Advisories (ASA), applicable Maintenance Engineering Advisories (MEAs), etc).

(5) JSETS inventory of all radios in possession of the command.

(6) Results of Air Quality tests for commands with breathing air compressors (retain for one year).

(7) LCP (if applicable).

10.40.12.3 Quality Assurance Officer

Designate a QAR, (PR if assigned) as the ALSS and Egress Systems Program Monitor per 10.1.2.9.

NOTE: Non-PR rate Program Monitors must receive training in the ALSS and Egress Systems program elements they will inspect.

10.40.12.4 Program Monitor

Perform QA audits per the NAMP Compliance Auditing NAMPSOP, 10.7.

10.40.12.5 Work Center Supervisors

a. Assign only qualified, certified personnel to perform ALSS and egress systems maintenance.

b. Verify PPE is used by personnel during all hazardous ALSS maintenance, such as servicing oxygen systems. Physically check the material condition of PPE weekly and replace when necessary.

c. Monitor the preparation, handling and storage of cartridges, flares, CADS, PADS, AEPS, and rocket motors (installed or removed) for compliance with the NA 11-100-1.1, NAVSEA OP 4, NAVSEA OP5 and other applicable directives.

d. Strictly enforce the ALSS tool control procedures outlined in paragraph 10.12.3.9.

e. Restrict all NRFI ALSS from use. A copy of the associated WO/MAF will be attached to all NRFI items.

f. Periodically spot check work to ensure maintenance is being conducted per applicable technical manuals/MRCs.

g. Verify ALSS support equipment, such as CO2 transfer pumps, webbing cutters and sewing machines, etc., is operational and being correctly maintained.

h. Manage the OOMA Configuration Management/AERs for all ALSS components.

i. (O-Level only) Verify all ALSS tasks are set IAW paragraph 10.40.11.

j. Organize work centers in accordance with NAVAIR 13-1-6.2.

10.40.12.6 ALSS and Egress Systems Technicians

a. Strictly adhere to maintenance and inspection procedures specified in technical manuals, with particular attention to CAUTIONS and WARNINGS.

b. Wear PPE during hazardous operations. Check the condition of PPE prior to use. Any worn or unserviceable PPE must be immediately removed from service.

10.40.12.7 Aircrew

a. Be trained and comply with pre-flight/post-flight inspection procedures of their aircrew personal protective equipment as outlined in COMNAVAIRFOR M-3710.7, NA 13-1-6 series manuals, and NA 00-80T-123.

b. Perform pre-flight/post-flight inspections of their aircrew personal protective equipment as outlined in COMNAVAIRFOR M-3710.7, NA 00-80T-123, and NA 13-1-6 series manuals.

c. Initiate a Work Order for any discrepancies found within their ALSS equipment.

10.41 Maintenance Department Safety (NAMPSOP)

10.41.1 References

a. OPNAVINST 5100.23, Navy Safety and Occupational Health Program

b. OPNAV M-5100.23 Navy Safety and Occupational Health Program Manual

c. OPNAVINST 5100.19, Navy Safety and Occupational Health Program Manual for Forces Afloat

d. OPNAVINST 5100.27/MCO 5104.1 Navy and Marine Corps Laser Hazards Control Program

e. OPNAVINST 3750.6 Naval Aviation Safety Management System

f. OPNAVINST 3500.39 Operational Risk Management

g. COMNAVAIRFORINST 5100.5, Commander, Naval Air Forces Safety Management System

h. NAVMC DIRECTIVE 5100.8, Marine Corps Occupational Safety and Health (OSH) Program Manual

10.41.2 Introduction

10.41.2.1 Per references (a) and (b), all naval operational forces and shore establishments must implement the Navy Safety Management System (SMS). Reference (c) applies to afloat naval forces and embarked units. Reference (d) directs laser hazards controls. Reference (e) directs SMS applicable to naval aviation. Reference (e) provides information and directions for managing risk. Reference (f) provides direction on managing risk. Reference (g) directs safety policy specific to Navy activities assigned to COMNAVAIRPAC, COMNAVAIRLANT, COMNAVAIRFORES, and COMNAVAIRTRA. Reference (h) directs safety policy specific to Marine Corps activities.

10.41.2.2 The Maintenance Department Safety Program establishes policy to identify and report the causes of mishaps and to reduce and eliminate mishaps through prevention, education, and training. In addition to personnel risk mitigation, a proactive culture of risk identification and management will reduce costs, avoid wasted man-hours, and improve operational readiness.

10.41.2.3 This NAMPSOP applies to all Navy and Marine Corps O-Level and I-Level aviation maintenance activities.

10.41.3 General Requirements

10.41.3.1 Navy Occupational Safety and Health (NAVOSH) and Safety Training

a. All personnel must receive NAVOSH and safety training applicable to their duties. Training requirements are extensive. Each command must review references (b), (c) and (h) and other instructions applicable to their operating environment and location.

b. Training must be completed within 30 days upon checking into the Maintenance Department or before being exposed to occupational hazards. Figure 10.41-1 provides an example for documenting NAVOSH and safety training.

10.41.3.2 Safety Stand Down (SSD)

All maintenance activities must conduct quarterly SSD focusing on operational requirements, performing duties in the work center, and off-duty activities to align with the fleet Safety Management System (SMS) per reference (g).

10.41.3.3 Mishap and Hazard Reporting

Reference (e) contains policy for Maintenance Department participation in aviation safety, including investigation and reporting of aviation hazards that are not reportable under the Naval Aviation Maintenance Program (NAMP). Reference (e) contains detailed report preparation procedures.

NOTE: Submission of mishap or hazard reports required by OPNAVINST 3750.6 does not negate the requirement for submission of reports required by the NAMP.

10.41.3.4 Industrial Hygiene Survey

Maintenance activities must have a current Industrial Hygienist (IH) survey. The survey must cover the requirements specified in references (b), (h) and NAVAIR 01-1A-509-2, as applicable to the maintenance operations performed. IH Surveys should be accessible to all hands.

NOTE: An update to the IH baseline survey is required whenever there are changes to work processes and materials that may affect worker occupational exposure. For example, changes in painting location, equipment, methods, or the type of paint being applied (if isocyanates are involved) require a new survey. Contact your local supporting IH program office for assistance.

10.41.4 Navy Occupational Safety and Health (NAVOSH) Programs

The following programs are to be maintained IAW references (b), (h) and other applicable directives.

10.41.4.1 Personal Protective Equipment (PPE)

Personnel required to use or manage PPE must be familiar with references (b), (c), and (h), including responsibilities of key personnel, training, maintenance, inspection and stowage of head protection, foot protection, hand protection, safety clothing and personal flotation devices.

10.41.4.2 Hazardous Materials Control and Management (HMC&M)

a. Activities must comply with the hazardous materials control and management procedures of 10.19, references (b) and (h).

b. Personnel assigned duties involving the opening, mixing, or application of coating materials must receive pre-placement and annual refresher training on the health hazards associated with the coating materials they use. The training must include instruction on exposure controls, such as PPE and occupational exposure limits (OEL) specified in the facility's IH survey, references (b), (c), or (h) when embarked.

c. Personnel assigned duties involving exposure to potentially harmful dusts, mists, and vapors must use the PPE and clothing required by references (b), (c), (h), NAVAIR 17-1-125, NAVAIR 01-1A-509 SERIES, NAVAIR 01-1A-75, and as specified in the facility IH Survey.

d. Unprotected personnel will be restricted from areas with exposure to potentially harmful dusts, mists, or vapors, and areas where polyurethane or other potentially hazardous coatings are

used, including opening, mixing, and application. Refer to Safety Data Sheets (SDS) and the IH survey to determine the specific hazards.

10.41.4.3 Fall Protection

All aviation maintenance activities must comply with a Fall Protection Program per references (b), (h), and the Department of the Navy Fall Protection Guide, as applicable to their operations.

NOTE: Per reference (b) and (h) naval vessels must provide NAVSEA-approved fall protection equipment to embarked squadrons required to work atop aircraft/equipment.

10.41.4.4 Respiratory Protection Program

a. Maintenance activities must maintain a Respiratory Protection Program as directed in reference (b), their facility IH survey, (when embarked) reference (c) and (Marine Corps only) reference (h).

b. Personnel must receive medical evaluations and respirator fit-testing, as specified in the IH survey.

NOTE: Per references (b) and (h) a cartridge change schedule must be established for all respirator types.

10.41.4.5 Asbestos Management Program

I-Level maintenance activities must prepare written asbestos control procedures if they conduct work processes are identified in their IH survey as involving asbestos containing material (ACM), such as insulation blankets or hot section engine clamps. Procedures must set forth engineering and work practice controls and disposal guidelines as outlined in references (b), (h) and the IH survey.

NOTE: Commander, Naval Facilities Engineering Command (NAVFAC) provides technical oversight of the facility Asbestos Management Program Ashore.

10.41.4.6 Hearing Conservation Program (HCP)

The HCP is a program of record involving noise exposure control, training, audiograms, and injury investigation. All aviation maintenance activities must use the current IH survey to identify hazardous noise areas and equipment and implement program requirements as directed in references (b) and (h).

10.41.4.7 Sight Conservation Program

All aviation maintenance activities must implement a sight conservation program for all eye hazardous areas and operations in accordance with references (b) and (h).

10.41.4.8 Lead Control Program

Maintenance activities must establish a lead control program that complies with Federal OSHA regulations applicable to the type of operation. Maintenance departments whose employees have occupational exposure to lead must have a written compliance program specific to their department. This includes operations performed aboard vessels while in port or a repair facility. See references (b) and (h) on how to tailor program requirements.

NOTE: Lead Hazard Awareness training is required for personnel using tin alloy solder.

10.41.4.9 Non-Ionizing Radiation Program

All maintenance activities employing sources of non-ionizing radiation which may affect the safety and health of personnel must observe radiation protection requirements, exposure standards and safety guidelines. References (b) and (h) provides additional program details.

10.41.4.10 Ergonomics Program

Maintenance activities must identify ergonomics risk factors as part of, or in conjunction with, workplace inspections required by references (b) and (h) and IH surveys. Activities may seek technical assistance from the resource list in references (b) and (h).

10.41.4.11 Laser Hazard Control Program

Activities operating and maintaining laser equipment must establish a Laser Hazard Control Program per reference (d).

10.41.5 Responsibilities

10.41.5.1 Type Wings and Marine Air Wings (MAW)

a. Publish a Wing LCP to standardize Maintenance Department Safety for their activities. The LCP will include at a minimum:

(1) A list of NAVOSH/Safety Training requirements (Figure 10.41-1) tailored to T/M/S maintenance and operational location, and supplemental CSEC questions.

(2) Requirements for CPR qualification as follows:

(a) 50 percent of personnel from all electrical and electronic associated ratings or equivalent MOS.

(b) Personnel identified by the Commands Industrial Hygienist (IH) survey.

(c) Personnel with the following qualifications/ duties under the Aircraft Confined Space Program (ACSP) and ACSP Manager, Entry Supervisors, Safety Observers, and Fire Watch.

NOTE: COMNAVAIRFOR requires commands to strive for 100 percent CPR qualification to the maximum extent practical. If 100 percent is not possible, then at a minimum, 75 percent of the Maintenance Personnel determined to work in a high-risk environment must be CPR qualified as outlined above.

b. Identify and define high-risk maintenance events unique to their T/M/S aircraft and operational environment, such as aircraft moves and dynamic events, and publish Aviation Maintenance Evolution ORM worksheets with the factors listed in reference (d).

10.41.5.2 Maintenance Officer (MO)

a. Designate the Quality Assurance Supervisor (QAS) as the Maintenance Department Safety Program Manager per 10.1.2.9.

NOTE: In activities without a QA Supervisor billet, the MO will designate a QAR as the Maintenance Department Safety Manager.

b. (O-Level) Publish local command procedures (LCP) per Appendix D, if required to direct geographic, T/M/S specific, or command directed actions for maintenance safety not addressed in this NAMPSOP or Wing LCP. O-Level LCPs must be submitted to the Wing or MAG for consideration of incorporation in a Wing LCP.

c. (I-Level) Publish local command procedures (LCP) per Appendix D to address maintenance safety applicable to high-risk maintenance tasks performed by the activity not addressed in this NAMPSOP, other areas of the NAMP, or other safety directives. Example: Engine Test Facility (ETF) operations.

d. Forward NAVOSH Safety Walk Through Checklist discrepancies to the applicable Division for corrective actions as required.

10.41.5.3 Quality Assurance Officer (QAO)

a. Perform QA audits of the Maintenance Department Safety Program per 10.7.

b. Coordinate and monitor NAVOSH Safety Walk Through Checklist discrepancy corrective actions by the divisions.

10.41.5.4 Program Manager

a. Perform initial and annual Program Manager audits of Maintenance Department Safety Program per 10.7.

b. Perform Program Manager responsibilities addressed in reference (b) for ashore activities, reference (c) for afloat activities, and reference (h) for Marine Corps activities as applicable.

c. Be familiar with all ACC/TYCOM safety directives (reference (h) Marine Corps activities).

d. (Navy) Coordinate maintenance department Occupational Safety and Health (OSH) compliance with the local region Commander, Naval Installations Command per reference (b).

e. Ensure quarterly inspections of maintenance division, maintenance equipment and facilities are performed utilizing the NAVOSH Safety Walk-Through Checklist on NAVSAFCEN website https://intelshare.intelink.gov/sites/navsafe/Pages/AvMaintenanceBstPrac.aspx. Discrepancies will be routed to the MO via the QAO for corrective actions by the applicable division.

f. Provide NAMP indoctrination training on Maintenance Department Safety policy per 10.1.4.7. Verify personnel receive Maintenance Department Safety familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

g. Collect and provide maintenance and material data necessary for the preparation of reports required by reference (e).

h. Provide Maintenance Department Safety Program indoctrination training per 10.1.

i. Maintain a program file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

10.41.5.5 Division Officers

a. Review NAVOSH Safety Walk Through Checklist discrepancies and coordinate corrective actions as required. Report corrections to QAO.

b. Maintain a division program audit file to include:

(1) POCs

(2) Program related correspondence and message traffic

(3) References or cross-reference locator sheets

(4) Initial and most current Computerized Self Evaluation Checklist (CSEC) audit

(5) NAVOSH Safety Walk Through Checklist results and corrective actions as required

10.41.5.6 Work Center Supervisors

a. Provide NAVOSH and safety training to personnel upon reporting to work center. The training will be specific to the maintenance performed by the work center. Training will be recorded in ASM.

b. Report all safety hazards to Maintenance Control/Production Control and the Maintenance Department Safety Program Manager.

c. Assist Division Officer and Division Branch Chief with corrective actions resulting from program manager NAVOSH Safety Walk Through Checklist inspections.

10.41.5.7 Maintenance Personnel

a. Comply with all safety requirements applicable to the maintenance tasks they perform.

b. Immediately report all safety hazards to the Work Center Supervisor.

NAVOSH/SAFETY TRAINING

NAME:
DATE REPORTED:

TOPIC (Periodicity)	REFERENCE	INSTRUCTOR/ DATE	INSTRUCTOR/ DATE
NAVOSH Program Topics (Annually): • Identification of key personnel and chain of command. • Hazard Identification • Hazard Communication • Mishap Prevention • Safety Precautions and Standards	OPNAV M-5100.23, B0611		
Hearing Conservation (Annually)	OPNAV M-5100.23, B1806		
Sight Conservation (Annually)	OPNAV M-5100.23, B1901		
Lead (Annually)	OPNAV M-5100.23, B2101		
Radio Frequency Radiation (Annually)	OPNAV M-5100.23, B2212		
Ergonomics (Annually)	OPNAV M-5100.23, Appendix B23-E		
Reproductive Hazards (Annually)	OPNAV M-5100.23, B2903		
Fire Prevention/Equipment (Annually)	OPNAV M-5100.23		
Mishap Reporting (Annually)	OPNAVINST 5102.1		
ORM (Quarterly)	OPNAVINST 3500.39		
Laser (Annually, if applicable)	OPNAVINST 5100.27B/MCO 5104.1		
Asbestos Hazards (Annually, if applicable)	OPNAV M-5100.23, B17		
Chemical Biological Radiological Nuclear Explosives (CBRNE, if applicable)	OPNAV M-5100.23, B26		
Confined Space Entry (Annually, if applicable)	OPNAV M-5100.23, B27		
Battery Safety (Quarterly, if applicable)	NA 17-15-BAD-1		
First Aid /CPR (Annually, if applicable)	OPNAV M-5100.23		

NOTE: This list is not all inclusive. Other safety training may be applicable due to types of maintenance performed and operational location.

Figure 10.41-1: NAVOSH/Safety Training

10.42 Aircraft Engine/Auxiliary Power Unit (APU) Turn-up License and Aircraft Taxi License Procedures (NAMPSOP)

10.42.1 References

a. COMNAVAIRFOR M-3710.7, NATOPS General Flight and Operating Instructions

b. T/M/S aircraft NATOPS

c. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual

d. NAVAIR 00-80T-105, CV NATOPS Manual

e. NAVAIR 00-80T-106, LHA/LHD NATOPS Manual

f. NAVAIR 00-80T-122, Helicopter Operating Procedures for Air-Capable Ships NATOPS Manual

10.42.2 Introduction

This NAMPSOP establishes the minimum procedures for licensing maintenance personnel to perform aircraft engine/APU turn-up or aircraft taxi operations.

NOTES: 1. Refer to Chapter 12 for Depot FRC licensing procedures.

2. Aircraft mounted gas turbine starters are subject to APU turn-up licensing requirements.

10.42.3 Aircraft Engine/APU Turn-up Licensing

WARNINGS: 1. AIRCRAFT MUST BE PROPERLY SECURED PER T/M/S MAINTENANCE MANUALS AND APPLICABLE NATOPS PRIOR TO MAINTENANCE TURNS.

2. PER COMNAVAIRFOR M-3710.7, ONLY NATOPS QUALIFIED NAVAL AVIATORS AND PERSONNEL AUTHORIZED BY WAIVER AUTHORITIES DEFINED IN NAVAIRINST 3710.1 ARE AUTHORIZED TO ENGAGE HELICOPTER ROTORS DURING ENGINE TURNS.

10.42.3.1 Commanding Officers (CO) may issue an Aircraft Engine/APU Turn-up License (OPNAV 4790/162) (Figure 10.42-1) or ASM equivalent to enlisted military, government service civilian, or contractor maintenance personnel. Prior to initial licensing, personnel must complete a comprehensive training and testing syllabus developed by a T/M/S Pilot NATOPS instructor. The syllabus must include:

a. Hands-on training in engine/APU start procedures and safety precautions specified in references a. through f. (as applicable to the aircraft and operational mission of the command). Training must cover each turn-up qualification (APU, low power, high power) the individual is being licensed to perform. Training will be conducted and signed off by a T/M/S Pilot NATOPS instructor, assistant NATOPS instructor, qualified FCF pilot, enlisted aircrew NATOPS instructor qualified to perform engine/APU turn-up per 10.42.3.2, or designated Turn Qualification Instructor (TQI) per 10.42.5.7.

NOTE: F-35 aircraft are equipped with an Integrated Power Package (IPP) which can be externally operated from the Maintenance Interface Panel (MIP), outside of the cockpit. When an operator is licensed to externally operate the IPP that license does not authorize them to operate the IPP from the cockpit.

b. Open and closed book written tests. The closed book test will contain questions related to APU/engine turn-up emergency procedures (as applicable to the license being issued). The test may be administered by a T/M/S NATOPS instructor, assistant NATOPS instructor, enlisted aircrew NATOPS instructor, or a QAR. Minimum passing score is 90% on the open book section and 100% on the closed book section.

c. Practical Evaluation. The practical evaluation must be equal to the highest level qualification for the license, and administered by a T/M/S Pilot NATOPS Instructor, assistant NATOPS Instructor, qualified FCF pilot, or enlisted aircrew NATOPS Instructor qualified to perform engine/APU turn-up per 10.42.3.2. It will consist of the following:

(1) On aircraft safety walk around

(2) Engine/APU turn

NOTES: 1. The practical evaluation for licenses issued only for turn-up of the APU may be administered by a designated TQI.

2. Aircraft simulators may be utilized to conduct practical evaluations of the Engine/APU turn for initial licensing to create an enhanced training environment for the evaluation of emergency procedures.

10.42.3.2 In activities with enlisted aircrew personnel that perform engine/APU turn-up as part of their aircrew duties, completion of the aircrew NATOPS training curriculum and designation via the NATOPS Evaluation Report (OPNAV 3710/7) qualifies them to perform engine/APU turn-up for those systems (engine or APU) they are NATOPS qualified to perform. Requalification is per NATOPS.

10.42.3.3 To maintain qualification, licensed Aircraft Taxi personnel must:

a. Perform a turn-up at least once every 180 days. Multiple level qualification operators (APU/Low power/High power) must perform a turn for the highest level qualification they hold. Personnel exceeding the 180 day proficiency turn will have their license placed “Not in Use” in ASM, the working copy of the MPP will be updated, and the operators SMQ’s will be removed from OOMA and they will not be allowed to turn engines/APUs until they have completed a practical evaluation per 10.42.3.1.c. The retest will be documented on the Part I of the Aircraft Engine/APU Turn-up License (OPNAV 4790/192) or ASM equivalent.

NOTE: Aircraft simulators may be utilized to maintain qualification for Aircraft Engine/Auxiliary Power Unit (APU) Turn-up Licensing.

b. Retake and pass the open and closed book written tests and practical evaluation every 12 months. For example, a turn-up license issued 17 June 2020 requires retesting no later than 30 June 2021. The annual retest will be documented on Part I of the Aircraft Engine/APU Turn-up License (OPNAV 4790/192) or ASM equivalent. The renewal syllabus must be completed before the current qualification is expired, otherwise, they will be restricted from any engine/APU runs, the

working copy of the MPP will be updated, and the operators SMQ's will be removed, until the renewal syllabus is complete.

10.42.3.4 NAMP Indoctrination. Provide NAMP indoctrination training on Aircraft Engine/APU Turn-up License policy per 10.1.4.7. Verify personnel receive Aircraft Engine/APU Turn-up License familiarization prior to performing maintenance while assigned to the work center.

10.42.4 Aircraft Taxi License

WARNING: DUE TO THE INHERENT DANGERS ASSOCIATED WITH TAXIING OPERATIONS, AIRCRAFT MUST ONLY BE TAXIED TO FACILITATE MAINTENANCE IF NO OTHER MEANS ARE AVAILABLE TO POSITION THE AIRCRAFT.

10.42.4.1 COs may issue an Aircraft Taxi License (OPNAV 4790/191) (Figure 10.42-2) to government service civilian or contractor maintenance personnel, only. Prior to initial licensing, personnel must complete a comprehensive training program developed by a T/M/S Pilot NATOPS instructor. As a minimum, the training program will include:

a. Hands-on training in taxi procedures and precautions specified in the applicable aircraft NATOPS manual. Training will be conducted and signed off by a T/M/S Pilot NATOPS Instructor, assistant NATOPS instructor or FCF Pilot.

b. A written test. The written examination may be administered by a T/M/S Pilot NATOPS instructor or assistant NATOPS instructor.

c. An practical evaluation administered by a T/M/S Pilot NATOPS instructor or assistant NATOPS instructor.

10.42.4.2 To maintain qualification, licensed Aircraft Taxi personnel must:

a. Perform a taxi evolution at least once every 180 days for the T/M/S aircraft for which they are qualified. Personnel that exceed 180 days without completing a taxi evolution will not be allowed to taxi aircraft until they have completed a practical evaluation per 10.42.4.1.c. The retest will be documented on Part I of the Aircraft Taxi License (OPNAV 4790/191).

b. Retake and pass the written test and practical evaluation every 12 months. For example, a taxi license issued 17 June 2020 requires retesting no later than 30 June 2021. The annual retest will be documented on Part I of the Aircraft Taxi License (OPNAV 4790/191). Personnel that exceed the annual testing requirements will not be allowed to turn engines/APUs until they have completed testing.

10.42.4.3 Restrictions:

a. Per COMNAVAIRFOR MANUAL 3710.7:

(1) No one will be permitted to taxi an aircraft except persons authorized to fly the aircraft or those specifically designated by their commanding officer as taxi pilots after, appropriate training or checkout.

(2) Only personnel authorized to fly helicopters will be permitted to taxi helicopters.

(3) Only personnel authorized to fly tilt rotor aircraft will be permitted to taxi tilt rotor aircraft.

b. Only NATOPS qualified Unmanned Aircraft (UA) naval aviators or ground personnel designated by the CO as UA Taxi Operators will be permitted to taxi UA.

10.42.5 Responsibilities

10.42.5.1 Type Wings and Marine Air Groups (MAG)

a. Type Wings and MAGs must publish a local command procedure (LCP) for Aircraft Engine/APU Turn-up and Aircraft Taxi Licensing. The LCP will contain all the elements of 10.42.3.1 and 10.42.4.1 for each T/M/S aircraft operated. The training syllabus and testing requirements must be sufficient to ensure licensed personnel are knowledgeable and skilled in their duties. If applicable, Personnel Qualification Standards (PQS), Training and Readiness Manual (T&R), and other prerequisites will be integrated into the syllabus. The LCP will also establish experience, qualification, rank, and designation procedures for TQIs per 10.42.5.7. The LCP must be reviewed for currency annually or when applicable references change.

b. A list of currently approved simulators can be found in Appendix K of reference (a). All other simulators will be approved by Type Wing or MAG based on their demonstrated ability to provide realistic turn qualification requirements and emergency procedures.

10.42.5.2 Commanding Officer

a. Approve personnel to perform aircraft engine/APU turn-up or aircraft taxi by signing Part III of the Aircraft Engine/APU Turn-up License (OPNAV 4790/192) or Aircraft Taxi License (OPNAV 4790/191).

NOTE: COs may not delegate authority to approve Aircraft Engine/APU Turn-up or Aircraft Taxi Licenses.

b. Revoke engine/APU turn-up and aircraft taxi licenses whenever licensed personnel display a disregard for safety or procedures. Revoked licenses will not be reinstated until the individual has completed the entire initial training and testing syllabus and is issued a new license.

10.42.5.3 Maintenance Officer

a. Designate the Power Plants/Power Line Division Officer as the Aircraft Engine/APU License Program Manager per 10.1.2.9.

b. Certify and recommend aircraft Engine/APU Turn-up candidates by signing Part II of the Aircraft Engine/APU Turn-up License (OPNAV 4790/192).

10.42.5.4 Program Manager

a. Perform initial and annual program manager audits per 10.7.5.8.

b. Provide NAMP indoctrination training on Aircraft Engine/APU Turn-up License policy per 10.1.4.7. Verify personnel receive Aircraft Engine/APU Turn-up License familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

c. Publish a schedule of renewal due dates in the MPP per 10.1.5.3.e, and verify licensed personnel are maintaining proficiency and renewal requirements per paragraph 10.42.3.3 and 10.42.4.2.

d. Maintain a program file to include:

(1) POCs.

(2) References or cross-reference locator sheets.

(3) Most current program assessment and QA audit.

(4) Program correspondence and message traffic.

(5) List of licensed personnel and TQIs, including name, rate or rank, or series or grade, Aircraft and Engine T/M/S, date designated, renewal due date, and projected rotation date.

e. Copy of TQI designation letters (if not documented in ASM).

10.42.5.5 Quality Assurance (QA) Officer

Designate a QAR licensed to perform engine/APU turn-up or aircraft taxi (if applicable) as the Program Monitor per 10.1.2.9.

10.42.5.6 Program Monitor

Perform QA audits per paragraph 10.7.5.7.

10.42.5.7 Turn Qualification Instructors

a. Provide thorough training in all elements specified in the Engine/APU Turn-up training syllabus. A training element will not be signed off until the trainee demonstrates knowledge and skill in the area.

b. Assist trainees in preparing for the written and practical evaluation, and notify the Program Manager when personnel are ready for testing.

10.42.5.8 Engine/APU/Taxi Operators

a. Maintain currency and proficiency in all areas covered in the training syllabus.

b. Ensure aircraft are properly secured per T/M/S maintenance manual and applicable NATOPS prior to maintenance turns.

c. Strictly follow prescribed engine/APU/taxi operating procedures and safety precautions at all times.

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

AIRCRAFT ENGINE/APU TURN UP LICENSE

PART I - REQUEST

1. NAME - LAST, FIRST, MIDDLE INITIAL:	2. RATE/GRADE:	3. DEPARTMENT/DIVISION:	
4. AIRCRAFT TYPE/MODEL/SERIES:	5. UNIT:	6a. TYPE OF LICENSE:	6b. HIGH/LOW POWER:

7a. DATE OF WRITTEN EXAM(S):	7b. RESULTS:	8a. ADMINISTERED BY *(Print Name)*:	8b. ADMINISTERED BY SIGNATURE:
9a. DATE OF OPERATIONAL EXAM:	9b. RESULTS:	10a. ADMINISTERED BY *(Print Name)*:	10b. ADMINISTERED BY SIGNATURE:

PART II - CERTIFICATION

I certify that I understand my responsibilities as set forth in applicable Wing/MAG instruction, NATOPs manual and COMNAVAIRFORINST 4790.2.

11a. PRINTED NAME OF MEMBER:	11b. SIGNATURE DATE:	11. SIGNATURE OF MEMBER:

I certify the member has completed all training and testing requirements. Recommend approval.

12a. PRINTED NAME OF MAINTENANCE OFFICER:	12b. SIGNATURE DATE:	12c. SIGNATURE OF MAINTENANCE OFFICER:

PART III - APPROVING OFFICIAL ACTION

Member in Part I is authorized to turn-up the T/M/S aircraft system(s) indicated in Block 6 for a period of one year from this date.

13a. PRINTED NAME OF COMMANDING OFFICER:	13b. SIGNATURE DATE:	13c. SIGNATURE OF COMMANDING OFFICER:

ORIGINAL TO: INDIVIDUAL QUALIFICATION CERTIFICATION RECORD.

OPNAV 4790/192 (04/2016)

Figure 10.42-1: Aircraft Engine/APU Turn-up License (OPNAV 4790/192)

OPNAVINST 4790.2 (Series)
COMNAVAIRFORINST 4790.2 (Series)

AIRCRAFT TAXI LICENSE

PART I - REQUEST

1. NAME - LAST, FIRST, MIDDLE INITIAL:	2. JOB TITLE:	3. DEPARTMENT/DIVISION:

4. AIRCRAFT TYPE/MODEL/SERIES:	5. UNIT:	6. TYPE OF LICENSE:

7a. DATE OF WRITTEN EXAM(S):	7b. RESULTS:	8a. ADMINISTERED BY *(Print Name)*:	8b. ADMINISTERED BY SIGNATURE:

9a. DATE OF OPERATIONAL EXAM:	9b. RESULTS:	10a. ADMINISTERED BY *(Print Name)*:	10b. ADMINISTERED BY SIGNATURE:

PART II - CERTIFICATION

I certify that I understand my responsibilities as set forth in applicable Wing/MAG instruction, NATOPs manual and COMNAVAIRFORINST 4790.2.

11a. PRINTED NAME OF INDIVIDUAL:	11b. SIGNATURE DATE:	11c. SIGNATURE OF INDIVIDUAL:

I certify this member has completed all training and testing requirements and recommend approval.

12a. PRINTED NAME OF MAINTENACE OFFICER:	12b. SIGNATURE DATE:	12c. SIGNATURE OF INDIVIDUAL:

PART III - APPROVING OFFICIAL ACTION

Member in Part I is authorized to taxi the T/M/S aircraft indicated for a period of one year from this date.

13a. PRINTED NAME OF COMMANDING OFFICER:	13b. SIGNATURE DATE:	13c. SIGNATURE OF COMMANDING OFFICER:

ORIGINAL TO: INDIVIDUAL QUALIFICATION CERTIFICATION RECORD.

OPNAV 4790/191 (04/2016)

Figure 10.42-2: Aircraft Taxi License (OPNAV 4790/191)

10.43 Unmanned Aircraft Systems Ground Maintenance Vehicle Operator (GMVO) Program (NAMPSOP)

10.43.1 References

a. COMNAVAIRFORINST M-3710.7, NATOPS General Flight and Operating Instructions

b. COMNAVAIRFORINST 1542.7, Navy and Marine Corps Crew Resource Management Program

c. T/M/S aircraft NATOPS

d. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual

e. NAVAIR 00-80T-96 CH-1, US Navy Support Equipment Common Basic Handling & Safety Manual

10.43.2 Introduction

10.43.2.1 Preflight, Engine Start and Maintenance Ground Checks are an integral part of organizational aircraft evolutions. Aircraft evolutions must be facilitated by qualified maintenance personnel who are authorized to operate the air vehicle on the deck.

10.43.2.2 Local authorities may institute additional safety procedures as appropriate. The following procedures are the minimum requirements.

10.43.3 Requirements

10.43.3.1 Commanding Officers (CO) may issue in writing a GMVO License (Figure 10.43-1) and GMVO Instructor designation (Figure 10.43-2) or via Advanced Skills Management (ASM) per 10.1.2.9 to enlisted military, civilian government employees, or contractor maintenance personnel. Prior to initial licensing, personnel must complete a comprehensive training Job Qualification Requirement (JQR), testing syllabus and oral board developed by a T/M/S Pilot NATOPS instructor. The syllabus must include:

a. Hands-on training in engine start procedures and safety precautions specified in references 10.43.1 a. through e. (as applicable to the aircraft and operational mission of the command). Training will be conducted and signed off by a T/M/S Pilot NATOPS instructor, Assistant NATOPS Instructor, qualified FCF Pilot, GMVO Instructor, or GMVO qualified enlisted aircrew NATOPS instructor.

b. Practical Evaluation. The practical evaluation may be administered by a T/M/S Pilot NATOPS instructor, Assistant NATOPS Instructor, qualified FCF Pilot, GMVO Instructor, or GMVO qualified enlisted aircrew NATOPS instructor qualified to perform engine or APU turn-up.

c. Open and closed book written tests. The closed book test will contain questions related to engine turn-up emergency procedures. The test may be administered by a T/M/S Pilot, NATOPS instructor, Assistant NATOPS Instructor, GMVO Instructor, GMVO qualified enlisted aircrew NATOPS instructor, QAR or a CDQAR. Minimum passing score is 90 percent on the open book section and 100 percent on the closed book section.

d. Oral examination board. The oral examination board will consist of five members at a minimum and must include the MO (chair member), GMVO Program Manager, Safety Officer, one

T/M/S pilot, and Program Coordinator. Oral boards will ensure GMVO participants fully comprehend the GMVO program requirements prior to being qualified.

e. Failure to attain a minimum grade of 90 percent on the GMVO open book written exam, 100 percent on the emergency procedures closed book exam, and/or a grade of "SAT" on the practical examination will require a ten working day remedial period prior to retesting/re-examination. During remedial period, the member will document additional training prior to re-examination. The remedial training must comprise of, at a minimum, emergency procedures and any other area of the training syllabus the member was found deficient. The MO may determine if an additional oral board is required as part of the remedial retesting or re-examination.

10.43.3.2 To maintain GMVO qualification, licensed personnel must:

a. Perform a proficiency turn at least once every 180 days. Qualification proficiency turns will be documented on GMVO License (Figure 10.43-1) or in ASM. Personnel exceeding the 180 day proficiency turn or TAD in excess of 180 days from activity will have their license placed "Not in Use" in ASM, the working copy of the MPP will be updated accordingly, and the operators SMQ's will be removed from OOMA. GMVO qualified personnel with licenses placed in "Not in Use" status will not be allowed to turn engines until they have completed a practical examination per 10.43.3.1.b.

b. Retake and pass the open and closed book written tests and a practical examination every 12 months from initial qualification. For example, a GMVO turn-up license issued 17 June 2020 requires retesting no later than 30 June 2021. Annual qualification retesting will be documented on a new GMVO license or via ASM. The renewal syllabus must be completed before the current qualification is expired; otherwise, qualified personnel will be restricted from any engine runs, the working copy of the MPP will be updated, and the operator's SMQ's will be removed until the renewal syllabus is complete. Re-qualifications should be completed within three months of deployment to ensure qualification does not expire during deployment.

10.43.4 Responsibilities

10.43.4.1 Type Wings and Marine Air Groups (MAG)

Type Wings and MAGs will publish a local command procedure (LCP) per Appendix D for GMVO qualification specific to the T/M/S of air vehicle being operated. The LCP will include all of the elements of 10.43.3 for each T/M/S operated. The training syllabus, developed test, and testing requirements must be sufficient to ensure licensed personnel are knowledgeable and skilled in their duties. If applicable, Personnel Qualification Standards (PQS), Training and Readiness Manual (T&R), and other prerequisites will be integrated into the syllabus. The LCP will also establish experience, qualification, and rank requirement for GMVO Instructor and licensed personnel. The LCP must be reviewed for currency annually or when applicable references change.

10.43.4.2 Commanding Officer

a. Designate in writing the NATOPS Officer as the GMVO Program Manager and GMVO Instructors utilizing the sample Designation Letter (Figure 10.43-2), and qualify personnel as GMVO utilizing the sample GMVO License (Figure 10.43-1) or per 10.1.2.9 in ASM.

b. Revoke qualifications and licenses whenever licensed personnel display a disregard for safety or procedures. Revoked licenses will not be reinstated until the individual has completed the entire initial training, testing syllabus, and is issued a new license.

NOTE: COs may not delegate authority to designate GMVO Instructors or qualify GMVO personnel.

10.43.4.3 Maintenance Officer

a. Designate a GMVO Program Coordinator. The Program Coordinator must be E-5 or above assigned to the Maintenance Department. Designation will be in writing per 10.1.2.9 or via ASM.

b. Chair all GMVO oral examination boards or designate alternate GMVO board chair in writing during time of absence via the MPP.

c. Recommend to the CO, personnel who have satisfactorily completed the training program for designation utilizing GMVO License via (Figure 10.43-1) or in ASM.

d. Recommend personnel who are currently GMVO licensed, CDI, QAR or CDQAR qualified and have satisfactorily passed the written examination given by the GMVO Program Manager for designation as a GMVO Instructor to the CO, utilize GMVO Designation Letter in (Figure 10.43-2) or in ASM.

10.43.4.4 GMVO Program Manager

a. Designated by the CO to perform duties as the GMVO Program Manager per the MPP via 10.1.2.9.

b. Manage the GMVO Program per this NAMPSOP and applicable Type Wing/MAG LCP.

c. Perform an audit using the Computerized Self Evaluation Checklist (CSEC) within 60 days of initial assignment and annually thereafter.

d. Ensure all GMVO NATOPS qualification records, designation letters, and GMVO licenses are current.

e. Annually review written open book, closed book, and practical examinations using CSEC, which will be administered by a pilot NATOPS instructor, qualified FCF pilot, or GMVO Instructor. QARs or CDQARs may administer the written examinations only.

10.43.4.5 GMVO Program Coordinator

a. E-5 or above licensed as GMVO and designated by the CO as a GMVO Instructor, responsible to the GMVO Program Manager.

b. Track progress of candidates and ensure syllabus completion. Publish a schedule of renewal due dates in the MPP per 10.1.5.3.e, and verify licensed personnel are maintaining proficiency and renewal requirements.

c. Screen qualification documentation for personnel recommended for designation as GMVO Instructors.

d. Forward Operator licenses and Instructor designation letters to the CO for approval via the MO.

e. Ensure GMVO practical examinations are administered by a T/M/S Pilot NATOPS Instructor, Assistant NATOPS Instructor, qualified FCF pilot, GMVO Instructor, or GMVO qualified enlisted aircrew NATOPS instructor qualified to perform engine or APU turn-up utilizing CSEC and NATOPS evaluation worksheet.

f. Document Qualification revocation in member's GMVO NATOPS record.

g. Coordinate and convene oral examination boards for GMVO candidates upon successful completion of GMVO JQR, open and closed book written examinations, and Practical examination. The oral examination board will consist of five members at a minimum and must include the MO, GMVO Program Manager, Safety Officer, one T/M/S pilot, and Program Coordinator.

h. Maintain a program file to include:

(1) POCs

(2) References or cross-reference locator sheets

(3) Initial program assessment and most recent QA audit

(4) Program correspondence and message traffic

(5) List of licensed personnel and designated GMVO Instructors, including name, rate and rank, series and grade, or contractor, as applicable. Include aircraft and engine T/M/S, date designated, 180 day proficiency turn due date and completion date, twelve month renewal due date, and projected rotation date.

(6) Copy of GMVO designation letters (if not documented in ASM)

i. Provide NAMP indoctrination training on GMVO policy per 10.1.4.7. Verify personnel receive GMVO familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

10.43.4.6 Quality Assurance Officer (QAO)

a. Designate a GMVO qualified QAR as the GMVO Program Monitor via the MPP.

b. Ensure all tests are secured and that a test log is maintained via ASM or paper as necessary, that include at a minimum the member's name, rate and rank, series and grade, or contractor (as applicable), work center, name of exam, date of exam, exam score and name of QAR or CDQAR who administered and graded the examination. Personnel who do not reach the minimum passing score must wait ten working days from the date of the unsuccessful attempt.

c. Oversee the administration of GMVO written tests by QAR or CDQARs to candidates after their successful completion of the GMVO JQR.

d. Ensure a comprehensive review of GMVO tests are accomplished annually and provide any information to the WING or MAG that would require a change to the examination, with the assistance of the Program Manager.

10.43.4.7 GMVO Program Monitor

a. Maintain qualification as a GMVO.

b. Perform audits using CSEC per the procedures of 10.7.5.7.

c. Assist in administering of GMVO written examinations.

10.43.4.8 GMVO Instructor

a. Maintain current GMVO qualification and be a QAR, CDQAR or CDI.

b. Pass a NATOPS practical examination with the GMVO Program Coordinator or Program Monitor.

c. Maintain designation in writing by the CO or via ASM in the MPP and Program Coordinator program file.

d. Assist the Program Coordinator in administering written and practical examinations.

10.43.4.9 Ground Maintenance Vehicle Operator (GMVO)

a. Complete GMVO JQR.

b. Maintain GMVO qualifications per this NAMPSOP utilizing GMVO License (Figure 10.43-1) or via ASM.

c. Conduct a Maintenance Control brief and screen the Aircraft Discrepancy Book (ADB) or Automated Aircraft Discrepanxcy Book (AADB) per 5.1.5.3 for relevant discrepancies prior to turning the air vehicle.

d. Ensure air vehicle engine is operated only within approved areas.

e. Use the T/M/S NATOPS manual and applicable Preflight Checklists to complete an aircraft walk around prior to air vehicle start.

f. Ensure that a fire bottle watch, and all applicable GSE operators are present for the duration of the turn. All turn personnel must attend Maintenance Control brief or have a Maintenance Controller present if done on the flight line.

g. Maintain currency with all safety precautions, emergency procedures, danger areas, and general air vehicle operation procedures associated with each T/M/S licensed to operate.

h. Sign Block 9 of the Aircraft Inspection and Acceptance Record (OPNAV 4790/141), as required.

10.43.4.10 Training Petty Officer

a. If not using ASM, ensure that completed training documentation is placed in the individual's training record. A copy of the signed designation letter will be placed on top of the GMVO License and the corresponding training records.

b. During times of ASM inaccessibility utilize Figure 10.43-1 and Figure 10.43-2 as necessary, ensuring all data is uploaded upon ASM availability.

GROUND MAINTENANCE VEHICLE OPERATOR (GMVO) LICENSE

From: GMVO Program Coordinator
To: Commanding Officer
Via: (1) GMVO Program Manager
(2) Maintenance Officer
Subj: (T/M/S) GROUND MAINTENANCE VEHICLE OPERATOR LICENSE
Ref: (a) COMNAVAIRFORINST 4790.2 (series)
(b) CNAF M-3710.7 (series)

1. Per references (a) and (b), _____ has completed all requirements and is fully qualified to perform the duties of a (T/M/S) Ground Maintenance Vehicle Operator (GMVO).

_____
GMVO Program Coordinator / Date

FIRST ENDORSEMENT
From: GMVO Program Manager
To: Maintenance Officer

1. Above named individual meets all requirements and is recommended for approval as an (T/M/S) GMVO.

_____
GMVO Program Manager / Date

SECOND ENDORSEMENT
From: Maintenance Officer
To: Commanding Officer

1. Forwarded recommending approval as a GMVO.

_____
Maintenance Officer / Date

From: Commanding Officer
To: _____

1. You are hereby qualified as a GMVO.

_____
Commanding Officer / Date

180 DAY PROFICIENCY TURN COMPLETION DATE: _____

Figure 10.43-1: GMVO Qualification License Example

GROUND MAINTENANCE VEHICLE OPERATOR (GMVO) INSTRUCTOR DESIGNATION

From: GMVO Program Coordinator

To: Commanding Officer

Via: (1) GMVO Program Manager

(2) Maintenance Officer

Subj: (T/M/S) GROUND MAINTENANCE VEHICLE OPERATOR INSTRUCTOR DESIGNATION

Ref: (a) COMNAVAIRFORINST 4790.2 (series)

(b) CNAF M-3710.7 (series)

1. Per references (a) and (b), _____ has completed all requirements and is fully qualified to perform the duties of a (T/M/S) Ground Maintenance Vehicle Operator (GMVO) Instructor.

GMVO Program Coordinator / Date: _____

FIRST ENDORSEMENT

From: GMVO Program Manager

To: Maintenance Officer

1. Above named individual meets all requirements and is recommended for approval as an (T/M/S) GMVO Instructor.

GMVO Program Manager / Date: _____

SECOND ENDORSEMENT

From: Maintenance Officer

To: Commanding Officer

1. Forwarded recommending approval as a GMVO Instructor.

Maintenance Officer / Date: _____

From: Commanding Officer

To: _____

1. You are hereby designated as a GMVO Instructor.

_____

Commanding Officer / Date

Figure 10.43-2: GMVO Instructor Designation Example

10.44 Low Observables Maintenance Program (LOMP) (NAMPSOP)

10.44.1 References

a. MIL-HDBK-2089, Aircraft Survivability Terms

b. OPNAVINST 9070.2, Signature Control Policy for Ships and Craft of the U.S. Navy

c. MIL-STD-2161C (AS), Paint Schemes and Exterior Markings for U.S. Navy and U.S. Marine Corps Aircraft

d. OPNAVINST 3750.6, Naval Aviation Safety Program

e. OPNAVINST 5100.19, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat

f. OPNAVINST 5100.23, Navy Occupational Safety and Health (NAVOSH) Program Manual

g. NAVAIR 00-80T-121, Chemical and Biological Defense NATO PS Manual

h. NAVAIR 0l-1A-509-1, Cleaning and Corrosion Control, Volume I, Corrosion Program and Corrosion Theory

i. NAVAIR 0l-lA-509-2, Cleaning and Corrosion Control, Volume II (Aircraft)

j. NAVAIR 15-01-500, Preservation of Naval Aircraft

k. Air Force Technical Manual T.O. 1-1-694, Application and Removal of Low Observable Coatings on Aerospace Platforms

l. DODINST 6050.5, DOD Hazardous Communications Program

m. NAVAIR 01-1A-75, Consumable Material Applications and Hazardous Material Authorized Use List

n. COMNAVAIRFORINST 4790.5, Organizational Maintenance Material Condition Inspection

10.44.2 Introduction

Low Observables Maintenance Program (LOMP) establishes policies, responsibilities, and requirements for Navy and Marine Corps squadrons maintaining low observable aircraft and I-Level activities responsible for repair and maintaining respective systems, components, and support equipment. Properly managing low observable weapons systems is critical to maintaining mission effectiveness, aircraft and aircrew survivability, and the overall aircraft stealth characteristic signature to ensure aircraft and aircrew can safely operate in combat. LO maintenance is a combination of inspection, evaluation, repair, restoration, and verification. The purpose of LOMP is to ensure the integrity of the low observable system through preservation of the aircraft or air vehicle's stealth characteristics. Improper LO maintenance considerably not only endangers aircraft and aircrew to safely operate in a combat mission environment, but can result in significant repair costs, manpower increases, and decreased low observable capabilities.

Observables are defined as detectable emissions (e.g. radar, infrared, visual) from an aircraft (MIL-HDBK-2089). Low Observables (LO) is the field of engineering that focuses on the reduction of these emissions, which in turn reduces the aircraft signature. This is accomplished by the use of LO treatments, which are key to aircraft signature management. LO treatments and shaping include,

but are not limited to, the application of Radar Absorbent Material (RAM). For specific details on aircraft signature control requirements, refer to OPNAVINST 9070.2.

NOTE: For additional guidance on the content of this chapter, contact the NAVAIR LO Groups in Collaboration (LOGIC) Team at navair-logic@us.navy.mil.

10.44.3 Requirements

All squadrons maintaining low observable aircraft must place special emphasis on the physical requirements of this program. LO maintenance is critical and must only be performed by qualified personnel. Activities maintaining LO treatments will comply with type/model/series (T/M/S) specific requirements for maintaining LO, to include inspection, evaluation, repair, restoration, verification, and certification. Each activity employing low observable aircraft will ensure that Low Observables Technicians and Supervisors are qualified to the minimum training required, as defined by local command procedures (LCPs) and NAVAIR program requirements.

a. LO repair and restoration on-aircraft must only be performed using the T/M/S-approved technical publications. Deviations may only be authorized through the cognizant engineering authority.

b All LO activities will conduct, review, and verify annual system audits on low observable T/M/S and signature assessment software to verify integrity of maintenance procedures and electronic inputs (if applicable).

NOTES: 1. Improper LO maintenance increases the risk to survivability and mission effectiveness. Improper LO maintenance may also increase the risk of corrosion, which can lead to significant repair costs, manpower increases, decreased low observable capabilities, and decreased mission readiness. LO and Corrosion Prevention and Control Programs are complimentary and their requirements must be managed as such.

2. Paragraph 10.13.3.8 describes aircraft and equipment painting requirements, including those for low observable aircraft.

10.44.4 Navy and Marine Corps Activities

All Navy and Marine Corps O-Level and I-Level activities responsible for maintaining low observable aircraft (including respective systems, components, and support equipment (SE)) will comply with the LO Maintenance Program.

NOTE: All low observable T/M/S are developed and supported with different requirements. This NAMPSOP only defines the general requirements applicable to all low observable T/M/S.

10.44.5 Training

Only qualified personnel will perform LO maintenance, as per T/M/S-specific minimum training required, as defined by the Type Wing or Marine Aircraft Group (MAG) LCPs and NAVAIR program requirements.

a. T/M/S-specific JQR and or PQS in ASM must be used to ensure personnel are capable of performing LO maintenance and assessment functions in order to achieve and retain an effective LO Program.

b. All newly reporting maintenance personnel will receive Naval Aviation Maintenance Program (NAMP) Indoctrination Training on the LO Maintenance Program per paragraph 10.1.

c. All personnel performing maintenance on low observable aircraft or LO components and systems to include certifying low observable aircraft as Safe for Flight (SFF), must receive job specific training on the LO program requirements.

10.44.6 Responsibilities

10.44.6.1 NAVAIR LOGIC Team and Program Offices

a. Coordinate with Type Wing or MAG and support T/M/S-specific Signature Management Plan (SMP). The SMP must outline:

(1) Current and projected Planning, Programming, Budgeting, and Execution (PPB&E) requirements.

(2) Evaluative methods for assessing low observable T/M/S stability, durability, and maintainability throughout the entire life cycle.

(3) Establish Level of Repair details for all applicable levels of maintenance.

(4) Outline process for dissemination of recurring reports to communicate SMP findings to low observable T/M/S activities.

b. Coordinate with Type Wing or MAG to correct deficiencies that are constraining LO mission capable rates and or negatively impacting LO capabilities.

c. Receive, analyze, and disseminate LO system audit trends and SMP results from LO activities for sustainment and training deficiency resolution via: navair-logic@us.navy.mil.

d. Coordinate with engineering and production leads at applicable Depot FRCs to ensure they have the required personnel, facilities, and training to sustain low observable aircraft and any applicable Aircraft Armament Equipment (AAE).

10.44.6.2 COMNAVAIRFOR N422C

a. Verify utilization of developed LO LCPs within activities.

b. Include LO Program in Aviation Maintenance Inspections (AMI) using Computerized Self Evaluation Checklist (CSEC) questions.

10.44.6.3 Type Wing/MAG/Intermediate Level FRCs/AIMDs/MALS

a. Designate a Type Wing/MAG/FRC I-Level/AIMD LO Program Manager via the Monthly Personnel Plan (MPP) per paragraph 10.1.2.9. Program Manager must maintain applicable Collateral and Special Access Program (SAP) security clearances and be qualified on T/M/S specific low observable systems and maintenance.

b. Type Wings and MAGs must develop an aircraft T/M/S-specific LO local command procedure (LCP) maintenance policy for the O-Level maintenance activities under their cognizance per Appendix D. At a minimum, the LCP will include the minimum training requirements for LO technicians and supervisors, as determined by the NAVAIR program requirements. Additionally, develop an in-depth, written, open book LO maintenance test for inclusion with airframes CDI testing requirements.

c. For AIMD, I-Level, and MALS repair activities with LO repair capabilities, must ensure the activity is manned, trained, and equipped to support the LO intermediate level repair requirements

by developing an LCP for LO Maintenance. At a minimum, the LCP will include the minimum training requirements for LO technicians and supervisors per paragraph 10.44.5 as determined by the NAVAIR program requirements. Additionally, develop an in-depth, written, open book LO maintenance test for inclusion with airframes CDI testing requirements.

d. Coordinate and enforce the provisions and requirements provided in the SMP for all low observable aircraft.

e. Verify the information in submitted LO system audit reports or equivalent, as received from the originator. When incomplete or incorrect information is noted, contact the originating author to make the necessary changes prior to forwarding to NAVAIR LOGIC team via navair-logic@us.navy.mil.

f. Include the low observable system into the Material Condition Inspection (MCI) requirements specified in CNAFINST 4790.5.

NOTE: LO trends and SMP findings must be the basis for LO system MCI requirements.

g. Develop and maintain a Concept of Operations (CONOPS) to ensure all LO materials and components are handled appropriately and classified Support/Test equipment is stored and operated in authorized areas IAW DODM 5200.01.

10.44.6.4 Maintenance Officer/Aircraft Maintenance Officer

a. Publish LCP per Appendix D, if required, to address any T/M/S-specific or local procedures not addressed in this NAMPSOP.

b. Designate a LO qualified Airframe technician in writing as the LO Program Manager and a LO qualified Airframe technician QAR as the LO Program Monitor via the MPP per paragraph 10.1.2.9.

c. Designate via the MPP a list of Work Center 120/12L/12C personnel qualified in the handling of damaged classified LO components as applicable per T/M/S.

d. Verify annually with program security personnel that the LO Program Manager and Monitor maintain applicable Collateral and Special Access Program (SAP) security clearances and/or access for low observable T/M/S (e.g. collateral and/or SAP) as applicable per T/M/S.

e. Ensure appropriate procedures for handling of classified material when damaged LO components are incorporated into the unit per CONOPS as applicable per T/M/S.

f. Establish a 12L work center. Designations will be in writing, via the MPP. Work Center 12L personnel must be qualified to perform LO maintenance per T/M/S requirements.

10.44.6.5 Maintenance Control/Production Control

a. Screen maintenance workload daily and prioritize LO maintenance accordingly.

b. Maintenance Control is responsible for ensuring all LO discrepancies are addressed through proper maintenance management and scheduling IAW T/M/S Type Wing or MAG policy and Mission Essential Subsystem Matrix guidance. Failure to do so may result in loss of mission capability, long-term outer mold line (OML), airframe material degradation, and will add significant cost to maintaining or reconditioning the system.

c. Verify LO material damages and repairs are within limits specified in T/M/S-specific MIMs prior to releasing aircraft Safe for Flight.

d. Brief pilots and aircrew if any conditions affecting LO exist prior to each flight.

e. Ensure up-to-date status of LO integrity for each aircraft assigned is displayed on Visual Electronic Display (VED) or equivalent maintenance monitoring system for visual reference by all maintenance personnel IAW paragraph 5.1.3.3.

10.44.6.6 Program Manager

a Perform a CSEC program manager audit within 60 days of designation as Program Manager and annually thereafter per 10.7.5.8.

b. Maintain knowledge currency in the requirements of all applicable references cited in this instruction and applicable T/M/S maintenance manuals.

c. Provide technical advice and assistance to work centers in matters pertaining to LO.

d. Provide NAMP Indoctrination Training on the LO Program per paragraph 10.1.

e. Maintain a LO Program binder to include:

(1) Applicable POCs, at a minimum, must include AMMT LO Program Inspectors, Type Wing or MAG LO Program Manager and Inspectors, and designated LO Field Support Engineer (FSE) (if applicable).

(2) Program related correspondence and message traffic.

(3) Applicable references or cross reference locator sheets.

(4) Most current Computerized Self Evaluation Checklist (CSEC) assessment.

(5) Industrial Hygienist, Safety Officer, and Environmental Officer contact information.

(6) Ensure all uninstalled LO components are handled and stored in a manner that prevents damage or destruction of coating or structure per CONOPS.

(7) Coordinate with the Corrosion Control Manager and ensure LO programs comply with corrosion control requirements.

(8) Provide and update a list of work center personnel qualified in handling damaged classified components for inclusion into the MPP.

(9) Ensure work center personnel only use authorized procedures when working on and around low observable systems.

WARNING: LOSS OF AIRCRAFT AND OR AIRCREW MAY OCCUR IF THERE IS FAILURE TO EXPLICITLY COMPLY WITH REQUIREMENTS IN TECHNICAL PUBLICATIONS. FAILURE TO COMPLY WILL RESULT IN UNKNOWN SIGNATURE VALUES AND UNPREDICTABLE MATERIAL DEGRADATION THAT MAY IMPACT AIRWORTHINESS OF THE AIRCRAFT.

(10) Ensure LO maintenance complies with the Hazardous Material Control and Management (HMC&M) Program (NAMPSOP) 10.19, to include training and qualification requirements per paragraph 10.19.3.2.

(11) Provide LO Program NAMP Indoctrination Training to all maintenance personnel annually and report via the MPP. Training must include personnel responsibilities and be documented on the NAMP Indoctrination training sheet in the individual's training record.

(12) Assist QA or program monitor in any action that may require a Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) report or equivalent when reporting concerning LO discrepancies or non-standard discrepancies or repairs.

(13) Ensure LO maintenance, inspection, evaluation, repair, verification, and mission planning is accomplished and supervised by qualified personnel.

(14) Review and submit LO system audit results received from LO Program Monitor to applicable Type Wing or MAG.

10.44.6.7 Program Monitor

a. Perform audits using NAMP CSEC per paragraph 10.7.

b. (O-Level) Review annually general LO questions for inclusion in all CDI tests administered by Quality Assurance.

c. (AIMD/FRC I-Level/MALs) Develop an in-depth, written, open book LO maintenance test for inclusion with airframes CDI testing requirements.

d. Perform trend analysis on LO system audits and report findings and data to LO Program Manager.

e. Conduct annual system audits on low observable T/M/S and signature assessment software to verify integrity of maintenance procedures and electronic inputs (if applicable).

10.45 Additive Manufacturing (AM) Program NAMPSOP

10.45.1 References

a. NAVAIRINST 4790.41 Policies and Procedures for the Implementation and Execution of Additive Manufacturing for the Naval Aviation Enterprise

b. NAVAIR SOP 4790.41 Standard Operating Procedures for Additive Manufacturing Process and Procedures

b. NAVAIRINST 13034.1 Airworthiness Policy

c. NAVADMIN 226/20 Process For Parts and Supplies Produced by Organic Navy Additive Manufacturing

d. NAVSEAINST 4870.10 Guidance On The Use Of Additive Manufacturing

e. NAVAIRINST 4130.1 Naval Air Systems Command Configuration Management Process

10.45.2 Introduction

NAVAIR Additive Manufacturing (AM) Integrated Production Team (IPT) is the technical lead for this NAMPSOP and for the AM Program. JTDI AM (https://www.jtdi.mil/group/am) is the fleet interface for the program.

10.45.3 Requirements

This NAMPSOP is applicable to Navy and Marine Corps Organizational, Intermediate, and Depot levels of maintenance. The I-Level is tasked to operate organic AM equipment that the O-Level and D-Level may receive, and utilize AM parts and Job Aids as defined in references a. through e. from the I-Level.

10.45.4 Part Requirements

AM parts produced within Work Center 550 for the installation on Naval aircraft, Aircraft Launch and Recovery Equipment (ALRE), Support Equipment (SE), or weapons platforms must be manufactured as follows:

a. In accordance with approved Technical Data Packages (TDP's) per paragraph 10.8.2.3.

b. By qualified personnel designated in Advanced Skills Management (ASM) as Work Center 550 Operators, CDI's, QAR's, and CDQAR's designated per Chapter 7.

c. On equipment authorized by the AM IPT per reference a. (waiver request will be submitted to the NAVAIR AM IPT at NAVAIR_AdditiveManufacturing_Home@us.navy.mil).

d. Must be documented via MAF and include manufacturing information in the corrective action block.

e. Conform with the requirements outlined in NAVADMIN 226/20.

NOTE: These requirements do not apply to items classified as AM Job Aids.

10.45.5 AM Job Aid Requirements

a. Items produced using AM supporting Naval Aviation that are not for installation on Naval aircraft, ALRE, SE, or weapons platforms are classified as AM Job Aids. A Job Aid is a non-certified expendable item fabricated and used during a specific maintenance process.

NOTE: AM Job Aids may be upgraded to AM parts by the Program Offices for adoption across the enterprise or inclusion in a publication or TD.

b. AM Job Aids may be used within O, I, and D-Level maintenance activities.

c. Job Aids must:

(1) Not be specified in published technical data to include maintenance manuals, Technical Directives (TDs), Tool Control Manuals (TCMs), and Interactive Electronic Technical Manuals (IETMs).

(2) Not damage parts, components, or cause injury to personnel.

(3) Must be documented using the Job Aid form via https://www.jtdi.mil/group/am

(4) Must be documented via separate MAF for initial development and ultimate manufacture through the use of work requests to Work Center 550. Manufacturing MAFs for Job Aid's must contain the following information in the corrective action:

1. Local tracking number assigned
2. Nomenclature
3. Job Aid intended location of use
4. Date of manufacture
5. Estimated cost and time savings per maintenance evolution

d. Approval for any Job Aid can be granted by the Fleet Support Team (FST) Fleet Engineering Disposition (FED) AM IPT Chief Engineer (CHENG) or within a maintenance activity by the Quality Assurance Officer (QAO).

e. Approved AM Job Aid's must be uploaded to https://www.jtdi.mil/group/am.

f. AM Job Aids may not be added to tool boxes or TCM's without written permission from the program office (elevation to an AM part as SE is the preferred method).

g. AM Job Aids must be tracked at all times by the activity utilizing the manufactured Job Aid by the QA work center. The following information must be provided in the Job Aid Tracking Binder within QA:

(a) Local tracking number

(b) Nomenclature

(c) Date of manufacture

(d) Work Center Job Aid issued

(e) CDI name (from the work request MAF)

(f) Date of destruction (from the work request MAF)

(g) CDI name and signature (witnessing proper destruction and disposal)

h. AM Job Aids may be used within O, I, and D Level maintenance activities.

i. If Job Aids are used outside of the I-Level operating Work Center 550 then the activity using the AM Job Aid will track the compliance of the requirements listed above through their QA office per 10.45.5.g.

10.45.6 Equipment Requirements

a. All AM equipment fielded by NAVAIR AM IPT to I-Level organizations per NAVAIRINST 4790.41 Policies and Procedures for the Implementation and Execution of Additive Manufacturing for Naval Aviation Enterprise is classified as Individual Material Readiness List (IMRL) and will be assigned to Work Center 550 as outlined in Appendix E.

b. Computers are provided as part of the IMRL outfitting for Work Center 550. Issued computers are the only authorized hardware devices to be connected to NAVAIR fielded systems per Cyber Worthiness Determination for Naval Aviation Additive Manufacturing Tier One and Tier Two Deployment Enterprise Mission Assurance Support Service (EMASS) reference number #14989.

10.45.7 Manpower Requirements

Work Center 550 will maintain at a minimum one qualified operator, one CDI, or CDQAR in ASM.

10.45.8 Facilities and Environmental Requirements

a. Commands operating Work Center 550 are responsible for the upkeep of facilities required to operate all AM equipment. For sites operating Tier Two equipment, it is essential to maintain clean air and electricity to the equipment at all times.

b. Any degradation of the facilities affecting the use or performance of the AM equipment for more than a 24 hour period, must be reported to the AM IPT within 72 hours per 5.2.8.

c. Activities operating Tier Two equipment~~,~~ must maintain a current Industrial Health (IH) survey in the work center.

10.45.9 Responsibilities,

10.45.9.1 COMNAVAIRSYCOM (NAVAIR)

a. Establish and implement policy, instructions, and manuals required to implement AM functions and responsibilities within NAVAIR and subordinate commands.

b. Liaison with subordinate activities and leadership as required on AM policy.

c. Monitor LCP submissions from Immediate Superior In Command for compliance with written instructions and best practices related to AM.

d. Establish initial fleet training requirements and Naval Air Systems Additive Manufacturing Program (NASAMP) requirements.

e. Monitor subordinate activity's use of AM and report findings to COMFRC, CNAF, USMC HQ, and DON Leadership.

10.45.9.2 NAVAIR Program Offices

a. Perform all functions outlined in the AM NAVAIRINST 4790.41.

b. Coordinate with ASD per paragraph 6.6 on the identification of AM candidates as well as the assignment of AM (NAVAIRINST 4790.41) workload priorities.

c. Issue Technical Directives (TD) and Illustrated Parts Breakdown (IPB) updates as required, to include the addition of AM components in accordance with configuration management policies and procedures per NAVAIRINST 4130.1.

d. Conduct and provide the AM IPT with a yearly review of AM Red Category components defined in AM NAVAIRINST 4790.41 under the respective PMA's preview for applicability.

e. Assign an AM POC to field questions from the Fleet and NAVAIR AM IPT.

10.45.9.3 Type Wing or MAG

Coordinate with the AM IPT prior to training evolutions, work-up cycles, deployments, or any other conditions where NAVAIR fielded AM equipment will be operating outside of normal CONUS operations to ensure adequate AM material supply, current software licensing, and cyber compliance for the duration of operational commitments.

10.45.9.4 AIMD Afloat

a. While the use of AM in support of Naval Aviation is controlled by NAVAIR; AIMD Work Center 550 must adhere to the material requirements specified in NAVSEAINST 4870.10, Enclosure 4, Table 2.

b. AIMDs must coordinate with NAVAIR AM IPT and NAVSEA 05T before manufacturing any components intended for shipboard use. AM components authorized for use by NAVSEA 05T and NAVAIR AM IPT to be manufactured within AIMD Work Center 550 will adhere to the following:

(1) Comply with the requirements outlined in NAVSEAINST 4870.10.

(2) Initiate a work request to Work Center 550 on each item to document the manufacturing performed.

c. Coordinate with AM IPT prior to training evolutions, work-up cycles, deployments, or any other conditions where NAVAIR fielded AM equipment will be operating outside of normal CONUS operations, to ensure adequate AM material supply, current software licensing and cyber compliance for the duration of operational commitments.

10.45.9.5 Maintenance Officer (MO)

a. (I-Level) Designate a command AM Program Manager in writing via the Monthly Personnel Plan (MPP) per 10.1.2.9.

b. (I-Level) Publish an LCP per Appendix D as needed to specify any procedures not addressed in this NAMPSOP for the use of AM components manufactured in Work Center 550.

c. (O-Level) Publish an LCP per Appendix D, with steps to request I-Level AM support as needed, if required, to specify any procedures not addressed in this NAMPSOP for the use of AM components manufactured in Work Center 550. Command LCPs will be submitted to the Type Wing or MAG for consideration of inclusion into the Type Wing or MAG LCP.

NOTE: LCPs will be submitted to the ISIC for consideration of inclusion in their LCP.

10.45.9.6 Supply Officer

Assist the MO in creating command LCP to ensure proper reporting of AM component manufactured IAW NAVADMIN 226/20.

10.45.9.7 Assistant Maintenance Officer (AMO)

Ensure Work Center 550 is manned appropriately as per paragraph 10.45.7

10.45.9.8 Individual Component Repair List (ICRL) Manager

Perform audits per 10.20 to ensure Work Center 550 maintains up-to-date ICRL capability listings for approved parts on JTDI https://www.jtdi.mil/group/am and verification of all other Work Center 550 throughout the Naval Aviation Enterprise.

10.45.9.9 Work Center 550 ICRL Program Representative

a. Submit ICRL Change Requests (Figure 10.20-1) to the Work Center 550 Supervisor for review. Additive manufacturing components will be designated as M1 for the ICRL Capability Code.

NOTE: M1 - Assemble/Manufacture. This code identifies material which can be assembled or fabricated at I-Level.

b. Update local ICRL quarterly to reflect all components available on https://www.jtdi.mil/group/am.

10.45.9.10 AM Program Manager

a. (I-Level) Prior to and while deployed, verify the activity's library of relevant AM TDPs to support the activity.

b. Perform an audit of the program within 60 days of assignment, and annually thereafter per paragraph 10.4.7.4.c.

c. Publish lesson guides based on information from https://www.jtdi.mil/group/am and activity's LCP if the AM program training requirements are not sufficient to cover the activity's requirements.

d. Provide NAMP indoctrination and refresher training on Additive Manufacturing (AM) policy per 10.1.4.7 and 10.1.4.8. Verify personnel receive AM familiarization prior to performing maintenance while assigned to the work center and annually thereafter

10.45.9.11 QAO

a. Designate a QAR for the AM program via ASM per 10.1.2.9 to oversee QA responsibilities pertaining to Work Center 550. Designation letters will be submitted to the AM IPT via NAVAIR_AdditiveManufacturing_Home@us.navy.mil.

NOTE: Submission of designation letter is required for elevated access at https://www.jtdi.mil/group/am.

b. Assist the MO in the establishment of the activity's LCP.

c. Ensure and verify activity's adherence of Authority to Operate and all local cyber policies.

d. Approve all AM Job Aids for use within unit.

e. Ensure all Job Aids are accurately and continuously tracked in a local Job Aid binder.-

f. Make sure all items used as AM Job Aids meet the intended requirements. Job Aids will not be used as tools, installed on aircraft, or SE without an authorized deviation from the Program Office.

10.45.9.12 AM QAR

a. Oversee QA responsibilities pertaining to Work Center 550.

b. Maintain access to JTDI NAVAIR AM Central and NAVAIR Fleet Ltd Access to support Blue category components as defined in reference a. and cyber security requirements.

c. Verify AM computers remain up to date with Gold Disk issued quarterly.

d. Update AM computers as required via provided disks or download from JTDI onto authorized Government Furnished Equipment (GFE) data storage units.

e. Conduct periodic inspections on Work Center 550 to ensure only authorized TDP files are used within the work center.

f. Review all Job Aid forms prior to QAO submission.

10.45.9.13 Work Center 550 Supervisor

a. Maintain communication with all supported activities to include Aviation Supply Division (ASD), squadrons, detachments, local Wing or MAW, and CAG or ACE when deployed. Provide all supported activities with Work Center 550 operating capabilities and assistance with NAVAIR policies applicable to AM.

b. Ensure cyber requirements adhere to AM equipment Authority to Operate.

c. Maintain facilities required to operate all AM equipment and compliance with IH standards.

10.46 Miscellaneous Programs and Processes

This section contains miscellaneous programs and processes not covered by a NAMPSOP. Activities will implement applicable processes per this instruction and specific program related instructions and maintenance technical manuals which are identified within the program text. Additionally, Provide NAMP indoctrination training on Miscellaneous Programs and Processes policy per 10.1.4.7. Verify personnel receive Miscellaneous Programs and Processes familiarization prior to performing maintenance while assigned to the work center. Training must be specific to the duties the individual performs.

10.46.1 Explosives Handling Personnel Qualification and Certification Program

10.46.1.1 The purpose of the Explosive Handling Personnel Qualification and Certification Program within the NAMP is to eliminate these mishaps by training maintenance personnel on the dangers of aircraft installed egress and explosive systems. OPNAVINST 8020.14 and OPNAVINST 8023.24 provide additional details.

NOTE: Improper handling, loading, processing, disposal, demilitarization, or testing of explosive devices can cause injury to personnel, loss of life, and damage to aircraft and equipment and loss of life, damage amounting to millions of dollars, and reduced operational effectiveness.

10.46.1.2 All maintenance personnel handling explosive cartridges, CADs, pyrotechnics, and PADs must be qualified and certified per OPNAVINST 8023.24 and MCO 8023.3, as applicable. The CO must establish an Ordnance Certification Board to certify personnel that handle ordnance, per OPNAVINST 8023.24.

10.46.2 Aircraft Maintenance Material Readiness List (AMMRL) Program

10.46.2.1 The AMMRL Program governs the administrative management and distribution of SE at all levels of aircraft maintenance. AMMRL covers over 37,000 end items of aircraft maintenance SE and OTPS elements used throughout the Navy and Marine Corps. AMMRL recognizes ship, MALS, base, FRC, and Marine Aviation Logistics Support Program (MALSP) loading combinations and the various requirements for numerous airframe configurations, power plants, and avionics systems. AMMRL procedures for allowance and inventory control are defined in NAVAIRINST 13650.1 and Support Equipment Controlling Authority (SECA) instructions.

10.46.2.2 All Navy and Marine Corps activities must review their Individual Material Readiness List (IMRL) frequently, with emphasis on the evaluation of SE allowances to ensure they remain consistent with their actual maintenance support requirements. Submit all reports concerning SE inventory, SE transactions, and proposed changes to SE allowances, following NAVAIRINST 13650.1 and SECA instructions.

NOTE: For roles, responsibilities and training requirements refer to CNAP/CNAL 13650.3 series.

10.46.3 Joint Depot Maintenance Program

The Joint Depot Maintenance Program provides for the depot rework of repairable components performed by one Service for another. Program procedures and responsibilities are in OPNAVINST 4790.14.

10.46.4 Fleet Air Introduction Liaison Survival Aircrew Flight Equipment (FAILSAFE) Program

The FAILSAFE Program is intended to ensure proper fleet introduction of new or modified ALSS. FAILSAFE is sponsored by COMNAVAIRSYSCOM (Naval Air Warfare Center, Human Systems Engineering Department) and implemented by the aviation physiology training units to supplement formal training.

10.46.5 Naval Ordnance Management Policy (NOMP)

OPNAV M-8000.16 issues the policies, procedures, and responsibilities for activities supporting or performing ordnance maintenance. The NOMP encompasses all Navy and Marine Corps activities concerned with the use, maintenance, overhaul, production, and support of naval ordnance weapons and associated equipment. In addition to specifying maintenance processes, OPNAV M-8000.16 addresses interactive programs including maintenance management, maintenance engineering, fleet support, inventory management, asset and fiscal resources and associated reporting, and MIS. The ordnance weapons and equipment addressed in OPNAV M-8000.16 include, but are not limited to, air launched missiles, airborne ordnance, and ammunition, AWSE, AAS, targets, weapons handling procedures, and the Airborne Weapons Performance Evaluation and Reporting Program.

10.46.6 Mobile Facility (MF) Program

10.46.6.1 Mobile Facilities (MF) are relocatable tactical shelters used onboard ship and ashore for aviation weapon system maintenance and SE maintenance functions. MFs are also used for aviation operational and tactical functions, such as aerial photographic processing, automated data processing, and metrological functions. Transporting or shipping MF units require a NAVAL Message five days prior to moving. Prior to installation, a site survey must be completed.

10.46.6.2 NAVAIR M-13670.1, Mobile Facilities Program Operations Manual, provides management principles, definitions, policies, funding, organizational responsibilities, program administration, and other pertinent information related to managing and maintaining MFs. MCO 13670.1, Management and Administration of United States Marine Corps Mobile Facility (MF) Program and Related Equipment, contains the allowances for Marine Corps MF equipment items. The Mobile Facility page on the Weapons System Planning Document (WSPD) contains the allowance for Navy MFs.

10.46.6.3 Physical custodians must submit annual MF inventory reports per ACC, TYCOM, or MARFOR direction, which will be consolidated and forwarded to COMNAVAIRSYSCOM per NAVAIR M-13670.1.

10.46.6.4 Physical custodians must report all transfers and receipts of MFs and major related equipment by naval message. MFs with inventory shortages will not be transferred without

approval of the responsible ACC, TYCOM, or MARFOR. NAVAIRINST 13670.1 provides detailed instructions on receipt and transfer.

10.46.6.5 Activities will perform MF, Power Distribution Box (PDB), and Electronic Control Unit (ECU) Acceptance/Transfer Inspections using the appropriate Acceptance/Transfer Checklist (Figures 10.46-1 and 10.46-2). MF ancillary equipment will utilize the SE Acceptance/Transfer Inspection Checklist (Figures 10.17-1 page 1 and 2).

10.46.6.6 Refer to 8.5.18 for direction on MF records.

10.46.7 Depot Fleet Readiness Center (FRC) Customer Liaison Program

10.46.7.1 The Depot FRC Customer Service Program provides depot-level support for aeronautical material and equipment. Customer service required for other than aviation work will be accomplished if funds are provided to cover the cost of the service and manpower is available without jeopardizing accomplishment of aviation workload.

10.46.7.2 Depot FRC customer service is intended to supplement, not replace, existing supply and I-Level support. Requests for depot customer service must be limited to services not involving repairs or services within the capability of the requesting IMA. Customer service assistance will be requested through the use of a Work Request Customer Service (OPNAV 4790/36A) (Figure 10.46-3). Requests must include certification that the required service is beyond the capability of the IMA, and a replacement part cannot be readily obtained.

10.46.7.3 Available depot services:

a. Correction of specific discrepancies or replacement of minor malfunctioning parts requiring special tools, test equipment, or facilities not available at the IMA.

b. Plating, magnetic particle inspection, heat treatment, and machinist services.

c. Chemical, physical, and metallurgical laboratory testing.

d. Check and test of equipment and components.

e. Engineering and consultation services.

NOTE: Material processed under customer service will not be repaired beyond the depth stated on the work request or that necessary to return the component to RFI condition.

10.46.7.4 Materials beyond the repair capability of the IMA, including the manufacture of parts, must be referred to the ASD for further action. ASD must determine the system availability for NMCS, PMCS, and work stoppage items prior to submitting requests for FRC customer service. If it is determined customer service support is required, the ASD must notify the IMA to prepare a Work Request Customer Service (OPNAV 4790/36A) (Figure 10.46-3) describing the specific work to be accomplished. ASD is responsible for transportation of customer service work to the supporting Depot FRC.

10.46.7.5 Aircraft components and equipment requiring extensive repairs or overhaul will not normally be processed by Depot FRC customer service. However, when situations warrant, and the item on which customer service is requested is not on the BO-8, or Hi-Burner,

COMNAVAIRSYSCOM Sustainment HQ in coordination with the cognizant Type Wing, may authorize customer service on these items to preclude NMCS, PMCS, or work stoppage conditions.

10.46.8 Reliability Centered Maintenance (RCM) Program

10.46.8.1 RCM is a disciplined logic which establishes required failure management strategies, for example, periodic maintenance tasks, to enable equipment to perform with a specific probability of success at the lowest possible total expenditure of resources for system operation and support over the life cycle. RCM is a continuous process, with initial periodic maintenance tasks being possibly refined through application of age exploration (AE). AE collects information reflecting actual operating experience. Data collected through AE, such as using threshold and opportunity-sampling programs, is used to refine the engine RCM Program. Responsibilities:

10.46.8.2 COMNAVAIRSYSCOM has directed the application of RCM to all in-service and future aircraft, engines, aircrew systems, weapon systems, aircraft launch and recovery equipment, and SE, from technology development through disposal, per NAVAIR 00-25-403 and NAVAIRINST 4790.20.

10.46.8.3 COMNAVAIRSYSCOM (Commander, Fleet Readiness Centers, Fleet Support Team Maintenance Department) will use RCM to identify failure management strategies to enable equipment to perform with a specific probability of success at the lowest possible total expenditure of resources for system operation and support over the entire life cycle. These failure management strategies include scheduled inspections to determine if the equipment is, and will remain in, satisfactory condition until the next scheduled inspection; scheduled removal of items which will exceed life limits; failure finding, or operational checks; and engineering designed servicing and lubrication tasks. It is critical that accurate fleet operational and failure data is documented in naval maintenance management systems in order for RCM to identify, refine, safe operational and economical effective failure management strategies.

10.46.9 Service Life Management Programs

10.46.9.1 Aircraft Service Period Adjustment (ASPA) Program

The ASPA Program applies to only a small number of airframes that have not been converted to Integrated Maintenance Concept/Program (IMC/P), Phased Depot Maintenance (PDM), or Enhanced Phase Maintenance (EPM). Refer to OPNAVINST 3110.11 for procedures.

10.46.9.2 Conversion In Lieu Of Procurement (CILOP) Program

The primary purpose of CILOP is to provide an alternative to procurement of new aircraft. CILOP includes aircraft conversion, service life extension, update, expansion or change of mission capability, and improvement of combat capability. OPNAVINST 3110.11 contains additional details.

10.46.9.3 Modification, Corrosion and Paint Program (MCAPP)

MCAPP includes incorporation of D-Level technical directives, inspection of aircraft for corrosion damage and repair as required, and evaluation of the material condition of the aircraft paint system. Other repairs will be made when beyond the capability of O-Level or I-Level maintenance or when safety of flight is a consideration. MCAPP is sponsored by CNO (N980L).

10.46.9.4 Reclamation in Lieu of Procurement (RILOP) Program

RILOP is the removal of installed equipment from a stricken or damaged aircraft or engine prior to disposal. Equipment to be removed is determined by the NAVSUP WSS master save list. Chapter 6 provides additional information. CM ALS tracked items will have an entry made stating "Removed for RILOP", before the item and its CM ALS are transferred to the designated site.

10.46.9.5 Service Life Extension Program (SLEP)

SLEP is the restoration or replacement of primary aircraft structures that have reached fatigue life limits. SLEP is performed for the express purpose of establishing an extended service life beyond the original design. COMNAVAIRSYSCOM determines the duration of the service life extension resulting from the accomplishment of SLEP. OPNAVINST 3110.11 contains additional details.

10.46.9.6 Structural Appraisal of Fatigue Effects (SAFE) Program

SAFE provides for accurate fatigue life tracking of individual aircraft component service life limits specified as fatigue indexes rather than flight hour limits. Tracking fatigue indexes is predicated on the submission of flight loads, launch, and landing data per NAVAIRINST 13920.1. SAFE facilitates the use of time compliances for component modification, rework, and replacement to accommodate individual aircraft usage rates and eliminate schedule inflexibility or conservatism associated with specifying life limits in terms of flight hours. Consequently, a more accurate analysis of fleet aircraft results in better planning and timely induction for structural rework. SAFE Program Reports are published quarterly by COMNAVAIRSYSCOM (Naval Air Warfare Center Aircraft Division, Air Vehicle Engineering Department) and are available on the MyTeam SharePointe SAFE website at https://myteam.navair.navy.mil/AIR/SAFE/SitePages/Home.aspx.

10.46.9.7 Structural Life Limits Program

10.46.9.7.1 The Structural Life Limits Program assures continuing structural safety of aircraft throughout their assigned service life. This program also provides a means for documenting basic life limitations, for example, maximum flight hours, catapults, arrestments and landings, which must be properly managed to ensure safety and structural integrity throughout the service life of each T/M/S aircraft.

10.46.9.7.2 All levels of maintenance are responsible for ensuring structural life limited items and components do not exceed the specified limits per NAVAIRINST 13120.1 (fixed wing aircraft) and NAVAIRINST 13130.1 (rotary wing aircraft). General responsibilities and procedures are summarized as follows:

a. COMNAVAIRSYSCOM will:

(1) Develop technical and engineering solutions, determine life limits and publish them via NAVAIRINST 13120.1 and NAVAIRINST 13130.1. They will also ensure the publication and distribution of quarterly SAFE Program reports.

(2) Ensure FSTs incorporate limits into applicable PMIC decks and provide logistics resources planning to preclude reaching any structural life limits.

(3) Ensure Depot FRCs, FSTs and commercial rework facilities review records for all D-level life-limited items requiring replacement during the next operating period.

(4) Ensure structural fatigue life expenditure status is incorporated into planning for D-level modifications in order to preclude reaching structural life limits.

(5) Issue structural modifications or alteration of life limited items and components via Technical Directive (TD).

b. COMNAVAIRSYSCOM Baseline Managers must ensure proper inventory class and subclass is assigned to each life-limited component, as provided in the Baseline Data Management Plan and incorporate current limitations, as listed in the applicable directives in the preceding paragraphs, for all life-limited components.

c. Aircraft Controlling Custodians (ACC) will:

(1) Ensure reporting custodians adhere to limits published in NAVAIRINST 13120.1, NAVAIRINST 13130.1, SAFE Program reports, applicable PMICs, TDs, and IRACs.

(2) Plan and coordinate aircraft D-level modification schedules to preclude exceeding structural life limits.

d. Aircraft reporting custodians must:

(1) Adhere to limits published in NAVAIRINST 13120.1, NAVAIRINST 13130.1, SAFE Program reports, applicable PMIC, and TDs.

NOTE: Aircraft will not be permitted to exceed specified structural life limits without prior approval from the responsible COMNAVAIRSYSCOM FST. Approval must be requested via the chain of command.

(2) Incorporate all current limitations on structural life limits into aircraft logbooks.

(3) Submit flight loads, launch, and landing data as required by NAVAIRINST 13920.1, and monitor actual aircraft usage to preclude exceeding any structural life limits.

10.46.9.8 Phased Depot Maintenance (PDM) Program

PDM replaces ASPA inspections and Standard Depot Level Maintenance (SDLM) in order to decrease periods of unavailability due to depot rework. PDM divides an aircraft's total Standard Rework requirements into phases based on fixed Operating Service Periods (OSP), expressed in months tailored to the depot maintenance requirements for each T/M/S aircraft. Upon reaching its Fixed Induction Date (FID), the aircraft is inducted into scheduled PDM event. Several titles are used to denote PDM events: F/A-18 aircraft PDM events are called Planned Maintenance Intervals (PMI) events; H-60 aircraft PDM events are called Integrated Maintenance Concept (IMC) events. OPNAVINST 3110.11 contains additional details in OSP and FID.

10.46.9.9 Integrated Maintenance Concept (IMC) Program

IMC replaces ASPA inspections, Standard Depot Level Maintenance (SDLM), and the Modification, Corrosion and Paint Program (MCAPP) for certain T/M/S aircraft in order to decrease periods of unavailability due to depot rework. IMC emphasizes a Fixed Induction Date (FID) and may segregate the Operational Service Period (OSP) into smaller periods called Planned Operational Interval (POI) or Planned Maintenance Interval (PMI). The goal is to ensure that the appropriate level of maintenance performs these tasks at the right location and interval that will

produce the highest degree of aircraft availability and readiness at the lowest overall life cycle cost. NAVAIRINST 4790.33 provides direction on the transition of aircraft to IMC.

10.46.9.10 Material Condition Inspection (MCI)

MCI replaces ASPA and SDLM for a specific T/M/S aircraft that have been designated by OPNAV N980L as nearing the end of their service life. These aircraft are no longer funded for standard rework. The purpose of MCI is not a PED adjustment, but to ensure airworthiness for an additional operational flying period specified by OPNAV. Upon review and recommendation by the NAVAIR-managed Airframes Management Board, a PED-based standard MCI plan for the designated T/M/S non-funded aircraft to ensure appropriate maintenance or upkeep is sustained until the end of their service life.

10.46.9.11 Life Limited Repair (LLR) Program

The LLR Program uses naval messages to identify certain aircraft (by BUNO) and components having life limits that require reoccurring inspections not listed in Service Life Bulletins (SLB) or Maintenance Requirement Cards (MRC), or due to the lack of structural maintenance technical manuals. Every structure discrepancy requires engineering analysis and disposition, which in some cases results in a life limiting message. OOMA baseline managers are authorized to use LLR naval messages to authorize initiation of reoccurring inspections in OOMA.

10.46.9.12 Enhanced Phase Maintenance (EPM) Program

The EPM program directs the performance of standard depot maintenance at fleet facilities. Under EPM, a depot field team (with O-Level assistance) performs inspections and repairs during periodic phase inspections. Structural and systems tasks are performed at RCM justified intervals and comply with all issued TDs. EPM identifies and corrects material deficiencies allowing aircraft to be maintained at the O-Level with assurance of a high level of availability. EPM is performed per NAVAIRINST 4790.33.

10.46.10 Vibration Analysis

10.46.10.1 Vibration analysis detects faults and degradation in aircraft, dynamic components, and engines by the analysis of trends in vibration characteristics. The objectives are to reduce vibration related material failures, reduce crew fatigue, and improve safety, reliability, and readiness.

10.46.10.2 O-Level activities are responsible for performing vibration analysis for aircraft, engines, and dynamic components. O-Level is required to perform vibration analysis and troubleshooting with applicable maintenance technical manuals. Vibration analysis results must be recorded and trended.

10.46.10.3 I-Level and D-Level maintenance activities are responsible for performing vibration testing on aircraft engines and dynamic components undergoing repair, as directed in the applicable engine/dynamic component I-Level and D-Level technical manuals.

10.46.10.4 Personnel performing vibration analysis must be trained and qualified in vibration testing procedures and limitations specified in applicable T/M/S aircraft, engine and dynamic component technical manuals.

10.46.11 Planner and Estimator (P&E) Services

10.46.11.1 P&E services provide Depot FRC support for aircraft damaged or deteriorated beyond the capability of O-Level and I-Level maintenance to restore the aircraft to service.

10.46.11.2 Type Wings and Marine Air Groups will coordinate and monitor P&E services requests from subordinate commands. Fleet Readiness Center Western Pacific (FRCWP) Atsugi Japan is responsible for providing P&E support to Navy and Marine Corps forces permanently sited in or deployed to Pacific Command, European Command, and Central Command areas of responsibility.

10.46.11.3 Prior to submission of a P&E services request for aircraft repairs, the aircraft custodian must obtain concurrence from the supporting I-Level and Wing that D-Level assistance is required. Requests will be submitted via the JDRS Web site (https://jdrs.mil) with copies of all supporting documents. Naval messages will be used to request P&E services for repairs only if JDRS connectivity is not available. A unique Report Control Number (RCN) must be used for each P&E request and will be documented in the RCN log per 10.9.3.2. Depot activities must acknowledge P&E Requests within 1 working day of submission. If a P&E request is not received via JDRS, the depot must enter the request in JDRS.

NOTES: 1. Depot repairs in excess of 250 hours require TYCOM Class Desk approval.

2. Requests for P&E services to perform an ASPA or MCI must be submitted by naval message. I-Level concurrence is not required.

10.46.11.4 To assist P&E services, the aircraft custodian will:

a. Prepare the aircraft for maintenance per applicable maintenance technical manuals.

b. Remove spare and loose gear.

c. If required, preserve the aircraft per applicable technical publications.

d. Report aircraft status changes per Chapter 9.

e. Provide appropriate assistance to the P&E inspector and D-level repair team to expedite repair or restoration of damaged or defective aircraft.

f. Remove all classified equipment.

g. Update the JDRS P&E Preliminary Damage Aircraft Condition Disposition (DACD) tool with required part/material (requisition number, requisition status, and date received) fields as annotated by the DMA activity.

h. Send a JDRS Technical Dialog to the servicing depot activity when all parts or materials have been annotated “received” within the JDRS P&E Preliminary DACD tool.

i. Retain physical custody of aircraft safety, security, reporting, and maintenance.

j. Provide, connect, and service ground equipment. Accomplish positioning, jacking, or servicing of the aircraft. Remove and reinstall aircraft parts and components within O-Level capability or level of maintenance for access to accomplish the D-level repair.

k. Perform operational test/leakage checks.

l. Prepare the aircraft for flight and accomplish a post maintenance check flight (if required).

m. If depot induction is required, deliver up-to-date engine logbooks and associated records with the aircraft.

10.46.12 Recovery and Reclamation of Crash Damaged Aircraft

NOTE: Refer to OPNAVINST 3750.6 for general procedures for recovery, reclamation, and transfer of crash damaged aircraft.

10.46.12.1 When an aircraft crashes within the land area of a naval district in CONUS and the reporting custodian requests recovery assistance from the cognizant Type Wing or CGMAW, the nearest Navy or Marine Corps air station, facility, or activity designated by the cognizant Type Wing or CGMAW is responsible for recovering the damaged aircraft. The reporting custodian will provide officers and enlisted personnel to assist in the recovery, if requested.

10.46.13.2 When an aircraft crashes outside CONUS, the reporting custodian notifies COMFAIRFORWARD (USN aircraft) or CGMAW (USMC aircraft), who will:

a. Make the necessary arrangements for disposition and reclamation of the aircraft.

b. Arrange for qualified personnel to determine the suitability of aircraft damaged outside CONUS for repair, rework, or other disposition. If possible, the crash-damaged aircraft should be inspected at the scene of the mishap by a Depot Planner & Estimator (P&E).

c. Designate the station, facility, or unit to recover and accept physical custody of the aircraft.

10.46.12.3 Disposition and salvage procedures for stricken aircraft:

a. When a crash-damaged aircraft is determined to be beyond rework, the aircraft must be reported as a category one strike, per Chapter 9. In this case, the aircraft may be transferred to the nearest CONUS naval air activity for return to COMNAVAIRSYSCOM FS custody and final disposition.

b. When it is impractical to return the aircraft to COMNAVAIRSYSCOM Fleet Support (FS) custody, the reporting custodian must physically transport the aircraft to the supporting supply activity designated by the ACC or TYCOM. The supporting activity Supply Officer will provide the Master Salvage List (MSL) and process the aircraft per Stricken Aircraft Reclamation and Disposal Program (SARDIP), Chapter 6. Requests for stricken aircraft components will be directed to the CO of the salvaging activity, marked "Attention Supply Officer."

c. Hardcopy logs and records forms and Configuration Management Auto Log Set (CM ALS) records for stricken aircraft, components, and assemblies will be processed per Chapter 8.

d. After reclamation, the aircraft, engine or equipment carcass will be reported to COMNAVAIRSYSCOM, who will respond within 90 days with final disposition instructions.

10.46.13 Management Information Systems (MIS)

10.46.13.1 Configuration Management Information System (CMIS). CMIS is an automated system for tracking the composition, location, and operating time/cycle counts of life limited aircraft and engine components. The CMIS Component Tracking System for Aircraft is used to develop schedules for inspections, replacement procurements, and forced removal actions for aircraft components based on usage requirements and fixed or variable operating time/cycle counts or limits. The CMIS Component Tracking System for Engines is used to develop long range

schedules for inspections, removals, replacements, procurements, and rework schedules for aircraft engines, propulsion systems, modules, and related life limited components, based on usage requirements and fixed or variable usage rates. Using usage rates derived from CMIS experiments and tests, workloads for maintenance and rework facilities can be forecast for 5 years. In addition, long range requirements for new and newly reworked components can be developed. The FST, or in some cases the APML, is responsible for maintaining and updating the CMIS database. The cognizant T/M/S aircraft FST can provide management information on the following rotary wing aircraft: H-1, H-53, and H-60, and the following engines: J85, T700, TF34, J52, T64, T76, T58, T56, and T400. The CMIS database can supply reports which specify the time/cycle counts or LUIs remaining on each tracked component before it must be inspected or removed and replaced. Fleet units and others may obtain CMIS information directly. For further information concerning development of this direct data access capability, contact COMNAVAIRSYSCOM (COMFRC Digital Department). For some activities, CMIS has been replaced by the Aircraft Component Tracking System (ACTS) as the authoritative source for the tracking of life limited components. ACTS provides all historical information on a component, no longer requiring extensive manpower or time for reconstruction.

10.46.13.2 Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE). DECKPLATE tracks location and status (installed, uninstalled, RFI, and non-RFI) of engines, propulsion systems, and modules world-wide, and provides reasons for any changes. DECKPLATE also tracks both RFI and non-RFI spare engines, propulsion systems, and modules which are in transit, awaiting repair or rework, or actually in repair or rework. DECKPLATE is used extensively by controlling custodians and other managers to make decisions on the most efficient distribution of engine assets. Refer to NAVAIRINST 13700.15 and ACC instructions for detailed procedures.

10.46.13.3 The NAVAIR Depot Maintenance System (NDMS) is a production control system used by depot Fleet Readiness Centers to schedule, induct, and control D-Level workload. The Depot Maintenance Data System (DMDS) is a module of the NDMS and is designed to gather all basic information generated by maintenance personnel through documentation procedures, data automation and storage techniques, and common data retrieval routines. Information for DMDS will be gathered from mechanics, technicians, inspectors, and supervisory personnel in all of the basic organic D-Level endeavors.

10.46.13.4 The Flight Information Recording and Monitoring System monitors and records data critical to the determination of the life limits of aircraft and engine components. The data is collected in the aircraft's Maintenance Signal Data Recording System and is downloaded to a ground station for diagnostics and to update life usage indexes. When coupled with MAFs, WOs, NAVFLIRS, and Naval Flight Documents, this non-tactical data provides a database for detailed analysis of engine performance, engine life limited items, material usage and life remaining, and in-flight airframe structural loading. Additionally, the data can be used in support of the SAFE Program.

10.46.13.5 Support Equipment Resource Management Information System (SERMIS) is a collection of technical and catalog data identifying SE end items required for O-Level, I-Level, and D-level aircraft maintenance. SERMIS provides visibility of source, allowance, inventory, and rework data to aid in inventory control, and is the repository of master data for printing IMRLs.

10.46.13.6 Support Equipment Standardization System (SESS) is a computer based asset control system for SE.

10.46.13.7 Local Asset Management System (LAMS) is an automated management information system that provides standardized data for local management of IMRL assets.

10.46.13.8 Master Component Rework Control System is a system to provide a consolidated, comprehensive on-line catalog of component and SE stock numbers, designated overhaul point assignment and capability data, production history, and financial performance and obligation data.

10.46.13.9 Metrology Automated System for Uniform Recall and Reporting (MEASURE) is a system for the recall and reporting of test equipment by means of automatic data processing techniques. MEASURE maintains records of calibration and automatically recalls test equipment when due for calibration.

10.46.13.10 Naval Aviation Logistics Command Management Information System (NALCOMIS). Refer to Chapter 13 for information on NALCOMIS.

10.46.13.11 Naval Aviation Logistics Data Analysis (NALDA) is the Navy's major logistics information system used in support of the COMNAVAIRSYSCOM Life Cycle Logistics System. NALDA provides remote hardware, telecommunications, central computing, and a database management system for fleet support operations.

10.46.14 Management of Permitted Radioactive Commodities on Naval Aircraft

Some naval aircraft contain radioactive materials that, if not properly controlled, handled, stored, or disposed of, increase the probability of injury to personnel resulting from exposure. COMNAVAIRFOR, NAVSUP WSS, and COMNAVAIRSYSCOM are responsible for proper acquisition, storage, transport, control, inventory and disposal of naval aircraft systems containing radioactive materials or by-products under special license or permit from the Navy Master Material License issued by the Nuclear Regulatory Commission. As such, those activities must establish specific management and accountability programs per OPNAVINST 6470.3, NAVSUPINST 4000.34, MCO 5104.3, NAVSEA A0420-AA-RAD-10, and NAVAIRINST 5104.2.

Mobile Facility (MF) Acceptance/Transfer Checklist

Generate this form whenever a MF is received and maintain in the LIR. Populate the transfer fields once the MF is transferred to a new activity or approved for disposition to DLA Disposition Services.

Mobile Facility/PDB Information

Accepted by: _____ UIC: _____ Date Received: _____
Transferred to: _____ UIC: _____ Date Shipped: _____
Reference: _____
Nomenclature: _____ Serial Number: _____
Part Number: _____ Cage: _____
Configuration: _____ TEC: _____ Authority: _____

Mobile Facility/PDB Acceptance

Quality Assurance validates PM and Maintenance references. Signature: _____

Verify a TEC specific subsequent NAT02 is on file within 1 year. Signature: _____

Validate current Technical Directives against 51 Card Sec. IV. Signature: _____

NOTE: Request TD MAF/KIT from TD Coordinator as necessary.

Make appropriate TD screening entry on 51 Card Section. VI. Signature: _____

Make appropriate custody entry to 51 Card Section I. Signature: _____

Gain asset into SESS Item Add screen appropriately. Signature: _____

Establish PM cycle through SESS Maintain screen as per reference Signature: _____

NOTE: New MF's may be on a 5 year manufacturer CSC inspection.

Make appropriate gain and PM cycle entry on 51 Card Section. VI. Signature: _____

Generate initial Acceptance Inspection in NALCOMIS. MCN: _____Signature: _____

Generate Support Equipment Accept/Transfer for any IMRL. MCN: __ Signature: _____

NOTES: 1. Not all MF's have IMRL. NA this block if IMRL is not present.
2. Ancillary equipment and calibrated IMRL assets are documented on SE form.

Figure 10.46-1 (page 1): Mobile Facility (MF) Acceptance/Transfer Checklist

Mobile Facility (MF) Acceptance/Transfer Checklist (page 2)

Perform receipt CSC inspection and generate DA Form 2404 if necessary. CSC Signature: _____

Perform initial operation check and inventory of hardware. CDI Signature: _____

NOTE: Shortages must be annotated on shortage form OPNAV 4790/75A

Generate maintenance and corrosion MAF's as necessary. Signature: _____

Route and release acceptance message: DTG: _____ MFC Signature: _____

Mobile Facility/PDB Transfer

Generate Transfer Inspection in NALCOMIS. MCN: _____ Signature: _____

Verify all maintenance and corrosion MAF's are completed if necessary. Signature: _____

Inventory equipment listed on OPNAV 4790/74A and secure all items for shipment. CDI Signature: _____

Ensure CSC inspection has at least 6 months remaining prior to shipping MF. CSC Signature: _____

NOTES: 1. MF authorized for disposition to DRMO do not require 6 months remaining on the CSC inspection.
2. MF authorized for disposition to DLA Disposition Services should follow local requirements.

File Support Equipment Accept/Transfer for IMRL items in LIR. Signature: _____

NOTES: 1. Not all MF's have IMRL. Input an NA in this block if IMRL is not present.
2. Ancillary equipment and calibrated IMRL assets are documented on SE form.

Make custody transfer entry on 51 Card Section. I: Signature: _____

NOTE: Locks should be placed on all doors prior to shipment and plug safety hardware applied.

Delete SESS record and place LIR with all transfer forms in MF. MFC Signature: _____

Route and release transfer message: DTG: _____ MFC Signature: _____

Figure 10.46-1 (page 2): Mobile Facility (MF) Acceptance/Transfer Checklist

Environmental Control Unit (ECU) Acceptance/Transfer Checklist

Generate this form whenever an ECU is received and maintain on record in the LIR. Populate the transfer fields once the ECU is transferred to a new activity or approved for disposition to DLA Disposition Services.

Environment Control Unit (ECU) Information

Accepted by: _____ UIC: _____ Date Received: _____
Transferred to: _____ UIC: _____ Date Shipped: _____
Reference: _____
Nomenclature: _____ Serial Number: _____
Part Number: _____ Cage: _____
Configuration: _____ TEC: _____ Authority: _____

ECU Acceptance

Quality Assurance validates PM and Maintenance references. Signature: _____

Verify a TEC specific subsequent NAT02 is on file within 1 year. Signature: _____

Validate current Technical Directives against 51 Card Section IV. Signature: _____

NOTE: Request TD MAF/KIT from TD Coordinator as necessary.

Make appropriate TD screening entry on 51 Card Section VI. Signature: _____

Make appropriate custody entry on 51 Card Section I. Signature: _____

Gain assist into SESS Item Add screen appropriately. Signature: _____

Establish PM cycle through SESS Maintain Screen as per Ref. Signature: _____

Make appropriate gain and PM cycle entry on 51 Card Section VI. Signature: _____

Generate initial Acceptance Inspection in NALCOMIS. MCN: _____ Signature: _____

Perform initial operational check and inventory of equipment listed on OPNAV 4790/74A. CDI Signature: _____

NOTE: Equipment shortages listed on OPNAV 4790/74A. will get a discrepancy MAF initiated.

Generate maintenance and corrosion MAFs as necessary. Signature: _____

ECU Transfer

Generate transfer inspection in NALCOMIS. Signature: _____

Ensure all maintenance and corrosion MAFs are completed if necessary. Signature: _____

Inventory hardware and secure ECU for embark. CDI Signature: _____

Figure 10.46-2 (page 1): Environmental Control Unit (ECU) Acceptance/Transfer Checklist

Environmental Control Unit (ECU) Acceptance/Transfer Checklist (page 2)

Make custody transfer entry on 51 Card Section I:	Signature: _____
Delete SESS record and place LIR with all transfer forms in MF.	MFC Signature: _____

ECU Disposition

Generate disposition MAF as per local procedures.	Signature: _____
Properly evacuate the refrigerant using Robin Air.	EPA Tech: _____
Remove accumulator and compressor from ECU.	Signature: _____
Properly drain removed assemblies for HAZMAT disposal.	Signature: _____
Certify the evacuated, drained, and cleaned assemblies.	EPA Tech: _____

NOTE: Verify EPA certification is clearly written on side of assemblies.

Complete disposition and all other outstanding MAF's.	CDI Signature: _____
Delete SESS record and remove ECU from LIR properly	PC Signature: _____

Figure 10.46-2 (page 2): Environmental Control Unit (ECU) Acceptance/Transfer Checklist

OPNAVINST 4790.2
COMNAVAIRFORINST 4790.2
OPNAV M-8000.16

WORK REQUEST CUSTOMER SERVICE

PART I: TO BE COMPLETED BY IMA (INTERMEDIATE MAINTENANCE ACTIVITY)

1. DATE	2. JCN	3. ISSUE DOCUMENT NUMBER

4. PART NUMBER	5. PART SERIAL NUMBER	6. MANUFACTURE CODE	7. NOMENCLATURE

8. NATIONAL STOCK NUMBER	9. QUANTITY	10. TYPE AIRCRAFT/EQUIPMENT	11. BU/SER NUMBER

12. CATEGORY *(Amplify on back of form)*

☐ NORS ☐ NFE ☐ WORK STOPPAGE ☐ OTHER

13. WORK REQUESTED: JUSTIFICATION FOR WORK REQUESTED. *(Attach amplifying instructions if required)*

14. CERTIFICATION: I CERTIFY THAT THIS WORK IS BEYOND THE CAPABILITY OF IMA. SIGNATURE	DATE

15. FOR FURTHER INFORMATION CONTACT: *(Activity and telephone number)*	16. REQUIRED COMPLETION DATE	17. AUTHORIZED BY

PART II: TO BE COMPLETED BY SSC (SUPPLY SUPPORT CENTER)

18.

☐ LOCAL AREA AVAILABILITY CHECKED ☐ SUPPLY AVAILABILITY CHECKED ☐ REQUIREMENT SATISFIED FROM ABOVE SOURCES ☐ REQUIREMENT FORWARDED TO NADEP FOR ACTION

SSC SIGNATURE	DATE

19. CERTIFICATION/APPROVAL: I CERTIFY THAT THIS REQUIREMENT CANNOT BE SATISFIED FROM OTHER RESOURCES SIGNATURE *(Supervisor)*	DATE

PART III: TO BE COMPLETED BY NADEP (NAVAL AVIATION DEPOT)

20 RECEIVED BY	20a. DATE	20b. PCN/WORK ORDER	20c. PRIORITY	20d. DATE WORK STARTED

21. ACTION TAKEN

22a. COMPLETED BY	22b. DATE	22c. INSPECTED BY	22d. SUPERVISOR	22e. MAN-HOURS	22f. EMT

23. SUPPORTED ACTIVITY NOTIFIED THAT WORK HAS BEEN COMPLETED: BY	PERSON NOTIFIED	DATE	TIME	CHARGE TO FAN

24. DISPOSITION

☐ WORK COMPLETED ☐ F/J UNIT PROVIDED ☐ SUPORTED ACTIVITY NOTIFIED TO ORDER FROM SUPPLY *(Explain in Remarks)*

25. RECEIVED FROM SUPPORTING ACTIVITY: BY	DATE	TIME

26. REMARKS

27. ☐ APPROVED ☐ DISAPPROVED	27a. REASON *(If work disapproved)*	27b. SIGNATURE *(Supporting Activity)*

OPNAV 4790/36A (REV 1/2015) Page 1 of 1

Figure 10.46-3: Work Request Customer Service (OPNAV 4790/36A)

CHAPTER 11

Contract Maintenance, Commercial Derivative Aircraft Maintenance Programs, and Common Support Policies

Table of Contents

11.1 CONTRACT MAINTENANCE 1

11.1.1 Background 1

11.1.2 Scope 1

11.1.3 Policy 2

11.1.4 Responsibilities 3

11.1.5 Planning Contract Maintenance 6

11.1.6 Developing the Performance Work Statement (PWS)/Statement of Work (SOW) 7

11.1.7 General Rules of Government Contract Administration and Contract Writing 9

11.1.7.1 Introduction 9

11.1.7.2 Maintenance 10

11.1.7.3 Maintenance Management and On-Site Organization 12

11.1.7.4 Materials/Supply 14

11.1.7.5 Operational Requirements 15

11.1.7.6 Government Responsibilities 15

11.1.7.7 Overhaul Requirements. 15

11.1.7.8 Support Equipment (SE) Maintenance 16

11.1.7.9 Real Property 16

11.1.7.10 Technical Directives (TDs) 16

11.1.7.11 NAMDRP Reporting 16

11.1.7.12 Physical Security 16

11.1.7.13 FCF Requirements 16

11.1.7.14 Transition 16

11.1.7.15 Safety 16

11.1.7.16 Records, Reports, and Distribution 17

11.1.7.17 Personnel, Training, and Qualifications 17

11.1.7.18 Discrepancy correction 17

11.1.7.19 Mishap and accident responsibility 17

11.1.7.20 Ordnance 18
11.1.7.21 Transient Services 18
11.1.7.22 Component Replacement Analysis Non-Provisioned Aircraft (NPA) 18
11.1.7.23 Master Index of Repairable Items 18
11.1.7.24 Funding Arrangements 18
11.1.7.25 ALSS 18
11.1.7.26 Proposed configuration changes 18
11.1.8 Contract Clauses, Changes and Waivers 18
11.1.8.1 Contract Changes 18
11.1.8.2 Contract Waivers 19
11.1.8.3 Contracting Clauses 19

11.2 COMMERCIAL DERIVATIVE AIRCRAFT (CDA) 22

11.2.1 Objective 22
11.2.2 Background 22
11.2.3 Scope 23
11.2.4 Airworthiness 23
11.2.5 Maintenance Planning 23
11.2.6 Responsibilities 23
11.2.7 Resources 24
11.2.8 Configuration Management (CM) 25
11.2.9 Recording Accuracy 26
11.2.10 Supply Support 27

CHAPTER 11
Contract Maintenance, Commercial Derivative Aircraft Maintenance Programs, and Common Support Policies

11.1 Contract Maintenance

To provide standards for planning, management, and government oversight of contract maintenance programs on Navy and Marine Corps aircraft, aircraft engines, and aviation related equipment.

11.1.1 Background

a. Contract maintenance operations include unique considerations and varying requirements. Contract maintenance may be used as an alternative to military maintenance, to provide interim shore-based maintenance pending development of organic capabilities, or to accommodate peak workloads of a temporary or permanent nature when it is determined to be in the best interest of the government. When a decision has been made to explore contract maintenance or flight operation in Navy and Marine Corps owned, leased aircraft, or Contractor Owned, Contractor Operated (COCO) aircraft, the scope of the contract must be considered. Contract support may include "O", "I", and D-level maintenance, provide supply support, or may be a mix between NAMP processes and industry standards. Combining NAMP and industry standards can introduce unique challenges for program management personnel. Contract requirements may call for contractors to work side-by-side with military or government employees in support of Navy and Marine Corps aviation units. Some contracts include the requirement to fulfil squadron and wing management responsibilities, such as AMO, MMCO, Maintenance Control, and Work Center Supervisor, while other contracts limit contractor involvement solely to the performance of maintenance.

b. While the DOD can leverage FAA processes and standards for commercial derivative aircraft (CDA), the DON, and not the FAA, is ultimately responsible for the airworthiness of DON aircraft. This means that the NAVAIR Airworthiness and CYBERSAFE Office sets the airworthiness and continued airworthiness standards governing the maintenance, operations, and sustainment of CDA aircraft. Once established, the contractor must follow procedures agreed upon by all parties involved.

c. Work performed by contractors on DON aircraft is governed exclusively by the content of the contract. Ultimately, this means the standards and enforcement of contract maintenance are not dictated by the NAMP, other DON policy, or by the FAA; they are strictly governed by the contents of the contract. This is why identifying the standards and getting the contract language correct up front is imperative.

11.1.2 Scope

a. Consider contract maintenance when it is economically advantageous to the government and when candidate systems or equipment meet the following criteria:

(1) Procurement of contractor services will not disrupt or materially delay combat effectiveness.

(2) A satisfactory commercial source is available.

(3) When performance metrics can be established to evaluate the contractor's performance.

(4) When directed by higher authority or when in support of an Office of Management and Budget (OMB) A-76 cost study.

(5) When the aircraft (CDA or COCO) is maintained to FAA standards.

b. Guidelines for planning, developing, and administering contracts are provided by FAR 42.202 and 42.302. This chapter provides specific amplifying maintenance management policy and contract planning requirements for Navy and Marine Corps aviation activities.

c. The Ground and Flight Risk Clause (GFRC) (DFARS 252.228-7001) mandates incorporation of NAVAIRINST 3710.1 (also referred to as DCMA INST 8210.1) requirements in all contracts involving DOD aircraft for which the government assumes some of the financial risk of aircraft loss or damage. NAVAIRINST 3710.1 guidance acts as risk mitigation by providing uniform DOD policy for aircraft ground and flight operations and the maintenance of aircraft and associated equipment.

NOTE: If a conflict occurs between sources of guidance, the contract has precedence over Navy guidance.

d. In the initial planning for a contract maintenance program, careful attention must be given to the legal and contractual aspects of the procurement or service. Comprehensive understanding of the applicable instructions, standards, performance requirements, and early coordination with the appropriate procurement office, program office, Weapon System Manager (WSM), contracting specialists, and the Office of the General Council for the command is essential. Local commands are not authorized to procure contractor services unless approval is received via the chain of command.

e. Government personnel administering contracts and providing contract maintenance oversight must understand their responsibility, limits of authority, and relationship with contractor personnel. Failure to do so can put the government at risk and can lead to "constructive changes" to the contract.

f. Navy and Marine Corps personnel involved in the development and administration of contracts must attend the appropriate training courses prior to assuming responsibilities in support of the contract. Government Flight Representative (GFR)/Ground Government Flight Representative (GGFR) training requirements include mandatory DAU courses. The procuring contract agency will determine any other minimum acquisition qualification requirements for personnel assigned to administer the contract and provide oversight of contractor operations.

11.1.3 Policy

a. Use of contract maintenance must be consistent with the effective and efficient accomplishment of the Navy and Marine Corps mission. Navy and Marine Corps aviation units

employ contract maintenance in activities with stable mission environments, such as training, test, or support functions.

b. Contracts must be written to ensure contract maintenance programs comply with approved maintenance plans, User's Logistics Support Summaries (ULSSs), and other applicable policy requirements pertaining to the upkeep and support of an aircraft or system.

11.1.4 Responsibilities

a. Commander, Naval Air Systems Command (NAVAIRSYSCOM). The DON has designated NAVAIRSYSCOM as the naval aviation authority with responsibility for NAVAIRINST 3710.1.

b. In accordance with SECNAVINST 5400.15, NAVAIRSYSCOM has unique management authority and accountability for assigned naval aviation programs with the exception of authority and responsibilities specifically assigned to a PEO or Direct Reporting Program Manager (DRPM). This includes designing, developing, procuring, and supporting naval aviation systems used by the Navy and Marine Corps. NAVAIRSYSCOM's acquisition areas of cognizance include aircraft, aeronautical weapons and IT systems, and associated subsystems to include life support, propulsion and power, armament/ordnance, avionics, mission support, and aviation support equipment, and related systems and equipment including training, photographic and reconnaissance, airborne mine countermeasures, aircraft launching and recovery, and target systems. This translates to the fact that the majority of the NAE Procuring Contracting Officers are centralized within NAVAIRSYSCOM.

c. NAVAIRSYSCOM Aviation Safety is the Naval Aviation Cognizant Service Safety Office (CSSO) for safety issues associated with contract maintenance programs, and operational issues on contracts requiring NAVAIRINST 3710.1 compliance. The NAVAIRSYSCOM Government Flight Representative (GFR) is also located at this office and works for the NAVAIR Aircraft Controlling Custodian Program Office. If a unit GFR has questions, they should contact their Wing GFR or Aircraft Controlling Custodian (ACC) GFR. Unanswered questions can be elevated to NAVAIR Aviation Safety or to the NAVAIR Controlling Custodian Program Manager.

d. NAVAIRSYSCOM (responsible supporting program office) is responsible for maintaining the Bidders Library website to provide technical data for all bidders to use to review requirements for determining their bid, and ensuring the Bidders Library contains the latest and most up-to-date information.

e. Aircraft Controlling Custodians (ACCs). The ACC that provides funding for procurement of contract maintenance efforts is responsible to ensure oversight control (to include staffing and funding as required), technical support, and support the administration of contracts under their authority.

f. Aviation Maintenance Management Teams (AMMT). COMNAVAIRFOR and NAVAIRSYSCOM operate AMMTs to evaluate performance of maintenance activities, including contractor maintenance. Requirements for AMMT evaluations are in Chapter 10, Section 10.24, of this instruction. While the evaluation standard may change based on contractual requirements, the requirement to conduct AMMT inspections on aircraft reporting custodians is not affected by who

maintains the aircraft. Whether the aircraft is maintained by military personnel, government civil service, or contract maintenance is irrelevant to the requirement. When an AMMT is scheduled to conduct an inspection of an activity with contract maintenance, the AMMT Team Leader, with the assistance of the responsible GFR/GGFR, Technical Point of Contact (TPOC) or Contracting Officer's Representative (COR), must familiarize themselves with the contract, performance standards, and applicability of NAMP requirements. Conflicts regarding the conduct of ground or flight operations covered by NAVAIRINST 3710.1 will be referred to the GFR/GGFR. Conflicts regarding the application of contractual requirements will be referred to the COR/TPOC and the GFR/GGFR. Ultimately, the resolution of contract requirement conflicts is the responsibility of the PCO.

g. Contract Administrative Services (CAS). Federal Acquisition Regulation (FAR) 42 lists various CAS functions applicable to several different types of contracts. FAR 42.302 (a) (56) Maintain surveillance of flight operations, is the core CAS function performed by the GFR/GGFR.

Note: With respect to CAS, the terms "flight operations" and "aircraft operations" are used synonymously.

h. CAS requirements are assigned in several ways through the contract or through acquisition regulations. CAS responsibilities are normally identified in the contracts themselves. This information is usually found in Section A on Solicitation/Contract (standard forms 33, 26, 1447, etc.) or in Section G – Contract Administration Data, of the contract.

i. The procuring activity usually assigns the administration of a contract to a CAS Component (DCMA, ACC, TYCOM or TYPE WING). The procuring activity may elect to withhold the assignment of specific CAS functions per DFARS 242.202 or assign additional functions via FAR 42.202.

j. CAS are delegated the authority to administer the day-to-day operational requirements, play a critical role in the Contractor Performance Assessment Reporting System (CPARS) process, document past performance information that can be used in source selection evaluations, develop/modify the Performance Work Schedule/Statement of Work (PWS/SOW), and oversee administration of payments and source selection issues.

k. Procuring Contracting Officer (PCO). The only individual authorized to issue a solicitation and award a contract is the PCO. The PCO is warranted and appointed by the head of the contracting agency. In most instances, the term "contracting officer" refers to the PCO. The PCO is responsible for overseeing the contract from start to finish, including drawing up the procurement package, Request for Proposal (RFP), and contract award, as well as administration during the contract's lifecycle.

l. Administrative Contracting Officer (ACO). The ACO is an individual possessing a contracting warrant with delegated authority from the PCO to perform transactions on behalf of the government in support of assigned contracts pursuant to FAR 42.302.

m. Contracting Officer's Representative (COR)/Technical Point of Contact (TPOC). PCOs may appoint a COR/TPOC to monitor contractor support contacts, including delivery orders under indefinite contracts and basic order agreements (BOAs). The COR/TPOC provides on-site/field team contract administration for specifically delegated functions. A COR/TPOC may also be appointed to monitor contracts supporting other contract services, including hardware requirements. When assigned, COR/TPOCs play a critical role in the CPARS process, documenting past performance information that can be used in source selection evaluations including development of the PWS/SOW, administration of payments, and source selection issues. The PCO will determine the specific training requirements for the COR/TPOC per USD (AT&L) Memorandum "DoD Standard for Certification of COR for Service Acquisitions" dated 29 MAR 2010. COR/TPOC duties normally include the following:

(1) Surveillance of Contract Performance: a function of contract administration used to determine contractor progress and to identify factors that may delay performance.

(a) Monitoring of contract performance and progress.

(b) Review and evaluation of contractor reports (i.e., progress deliverables; review of invoices using Wide-Area Workflow (WAWF)) to ensure accuracy.

(c) Communication with the PCO regarding contract performance.

(2) Certifying receipt, inspection, and acceptance of contract products.

NOTE: A COR/TPOC does not have the authority to make "constructive changes" which affect price, quantity, quality, delivery or other terms and conditions of the Contract.

n. Government Flight Representative (GFR), Ground/Government Flight Representative (GGFR) or Government Ground Representative (GGR)

o. GFR/GGFR/GGR responsibilities are defined in NAVAIRINST 3710.1 (also called the "combined instruction", or "8210.1"). Their primary function is to act as the subject matter expert (SME) for the PCO/ACO contracting officer, helping to ensure the contractor properly performs contract requirements.

p. The GFR performs the CAS function of maintaining surveillance of flight operations. GFRs are responsible for ensuring contractors establish and follow approved written procedures. GFR responsibilities include approval of procedures, aircrew qualifications, and flight authorizations. The GFR also acts as advisor and SME to the squadron Commanding Officer regarding contract oversight and contractor flight and ground operations.

q. A GFR or GGFR is required when maintenance contracts do not include flight operations. The GGFR has delegated responsibility for approval of procedures related to aircraft ground operations (GOPs) and ensuring contractor compliance.

r. The GGR is responsible for surveillance of contractor aircraft ground operations as part of an Aviation Program Team (APT). GGRs differ from GFRs/GGFRs in that GGRs have no authority to approve GOPs and are tasked with assisting the GFR/GGFR. GGRs must know the status of all

contractor facilities, equipment, group personnel training and certification, technical data, and procedures involving aircraft ground operations.

s. Aviation Program Team (APT). The Aviation Program Team (APT) is responsible for monitoring and evaluating the CAS mission. APTs consist of the GFR, GGR, Contract Safety Specialist/Contract Safety Manager (CSS/CSM), and where appropriate, the Quality Assurance Representative/Specialist (QAR/QAS). The GFR/GGFR leads the APT. On maintenance only contracts where no GFR is assigned, the APT consists of the GGFR, GGR (if assigned), CSS/CSM, and where appropriate, the QAR. After the contract is in place, government oversight responsibilities include, but are not limited to:

(1) Supporting the GFR/GGFR in the approval of contractor written procedures for all flight and ground operations and daily administration of the contract, per requirements established in NAVAIRINST 3710.1.

(2) Providing in-house training and guidance to the command on operating within the constraints of the contract.

11.1.5 Planning Contract Maintenance

a. The first step in planning for contract maintenance is determining if the Ground and Flight Risk Clause (GFRC) (DFARS 252.228-7001) is required on the contract. DFARS 228.370 defines the requirements for the GFRC on contracts (involving government aircraft) except for those:

(1) That are strictly for activities incidental to the normal operations of the aircraft (e.g., refueling operations, minor non-structural actions not requiring towing such as replacing aircraft tires due to wear and tear);

(2) That are awarded under FAR Part 12 procedures and are for the acquisition, development, production, modification, maintenance, repair, flight, or overhaul of aircraft; or otherwise involving the furnishing of aircraft;

(3) For which a non-DoD customer (including a foreign military sales customer) has not agreed to assume the risk for loss or destruction of, or damages to, the aircraft; or

(4) For CDA that are to be maintained to Federal Aviation Administration (FAA) airworthiness standards when the work will be performed at a licensed FAA repair station.

Note: If seeking an exemption from using a licensed FAA repair station, the selected repair station must hold private insurance covering damage to any aircraft being supported, to include DoD aircraft.

b. The GFRC functions as a government self-insurance clause. It indemnifies the contractor against the cost of damage (except for a deductible) if certain prerequisites are met. This allows the government to avoid reimbursing the contractor for the cost of commercial insurance on the aircraft.

c. Contract maintenance programs are usually planned to accommodate normal peacetime missions. However, activities must consider provisions for effective support under emergency and wartime conditions.

d. Contract maintenance programs for new systems will be developed per the approved acquisition logistics support plan. Program planning should be completed well in advance of the introduction of the equipment into the inventory to allow the contractor to adequately plan and equip for the start date.

e. When contract maintenance is planned for in-service systems, provisions must take into account the contract procurement cycle, including time to support requests for proposal/quote preparation, advertising, solicitation, and bid evaluation. Successful contract operations are dependent on ensuring sufficient time is allocated to permit the selected contractor to adequately plan and equip for the contract start date.

11.1.6 Developing the Performance Work Statement (PWS)/Statement of Work (SOW)

11.1.6.1 The PWS/SOW provides the requirements and performance metrics for the contracted effort. Close coordination between the ACC, PMA or Weapon System Manager (WSM), and PCO, in conjunction with the user organization or parent activity of the systems/aircraft under their cognizance, is essential to achieving a timely and quality contract. The contract is the primary reference when evaluating a dispute or litigation. Directives, including maintenance and operations manuals, standards, and specifications referenced in the contract, require contractor compliance. Preparation of the PWS/SOW for the contract will be coordinated by the cognizant contracting agency. The customer activity will prepare the draft PWS/SOW and submit to higher level authority, for example, ACC, PMA, Type Wing, etc., for review.

11.1.6.2 In developing the PWS/SOW, the planners must:

a. Determine the appropriate type of contract, for example, Performance-Based Firm-Fixed Price, or Time and Materials Cost-Plus Fixed-Fee, which best suits the type of work and mission of the activity.

b. Clearly set forth the government's minimum requirements with the objective of producing a quality product at the best value to the Navy and Marine Corps.

(1) The contract determines what work the contractor is required to perform. The organization writing the contract, in collaboration with the customer unit, must consider and decide on all aspects of the situation and what the PWS/SOW must define.

(2) Pay special attention to manning requirements and billet responsibilities. Who, government or contractor, will hold management positions?

(3) Failure to define the role of the contractor almost invariably results in confusion, if not contract challenges.

(4) When considering the use of the NAMP on the contract, the following applies:

(a) The NAMP was written for Sailors and Marines to maintain Naval aircraft (to include all experience levels, all ground and shipboard conditions, in peace and in combat). It was never written to define how a contractor, with experienced, qualified maintainers in a stable maintenance environment, should work on our aircraft. The NAVAIRINST 3710.1 was written to provide the required government oversight for contractors.

(b) Sometimes, and in some specific areas, it makes sense to include compliance with the NAMP as a contract requirement. For instance, when aircraft records must be in the Service format to meet NALCOMIS OOMA documentation requirements, to document completed repairs, or when aircraft are to be maintained to fleet standards (e.g., FRS aircraft).

(c) Commands must weigh the benefits versus the costs when including NAMP requirements on a contract. Unless specified, when the NAMP is on contract, it is not all-inclusive; therefore, it is imperative that commands accurately identify the Chapters, Programs and/or NAMPSOPs with which the contractor must comply. However, understand that it may be more expensive to the government as the contractor may have policy development, manpower considerations, and associated training costs requirements.

(d) The entire NAMP must not be put on a contract. Specific sections must be defined by section or process to define the government requirements for that contract. When NAMP Chapters, Programs and/or NAMPSOPs are specified as contract requirements, the contractor must write their NAVAIRINST 3710.1 required Ground Operation Procedures (GOPs) (when the NAVAIRINST 3710.1 is on the contract) in a way that fulfills the requirements of the NAMP. Administrative and Command relationship requirements in the NAMP do not apply to the contractor when the NAMP is on contract as contractors have proprietary structures, and there is no benefit to requiring the contractor to adjust to the military structure. It may not always be possible for the contractor to meet all the requirements in the NAMP program due to the local situations (e.g., manpower, organizational structure, facilities available), so the Government Flight Representative (GFR) is authorized to approve procedures that are as close as is reasonable to meeting the NAMP intent, given the situational constraints.

(e) Consistent with contracting procedures, the NAMP version in effect on the day the contract is awarded is the version the contractor must comply with, and will remain in effect until a contract change is negotiated and the new version is put on contract. Contractors are encouraged to seek contract modifications to keep the most current version on contract. Contractors must keep the contractually required version current, complying with all appropriate changes as they are released.

c. Divide the PWS/SOW into readily measurable end items. The objective is to purchase a product, not to purchase man-hours or personnel equivalents.

d. Identify measurable performance-based metrics to evaluate and hold the contractor accountable, for example, aircraft Ready For Tasking, sorties completed, and tasks accomplished.

e. Contract Phase-in/Phase-out periods in accordance with FAR 52.237-3, Continuity of Services.

11.1.6.3 The following items may be required by the PCO to complete the contracting process:

a. Funding document

b. Technical Evaluation Plan

c. Independent government estimate of cost

d. Sole source justification (if applicable)

e. Government Furnished Property (GFP) listing

f. Repair parts lists associated with the equipment and items to be maintained at the various levels of maintenance

g. The nature of supply support to be used in the contract (government or contractor provided)

h. Specific identification and location of systems to be maintained

i. Inspection and test procedures and output standards for end products

j. Quantitative input and output schedules and priorities for accomplishment of workloads to meet operational requirements

k. Special instructions for rework/component repair/replacement

l. Disposition instructions for repairable items

m. Maintenance Information System (MIS) requirements and frequency of reports

n. Expected duration of the contract. Contracts may range from a short duration to 10 years depending on the type of contract written

o. Special Navy programs. Safety procedures for reporting and investigating accidents or incidents

p. Classified material access and handling procedures

q. Configuration Management (CM) documentation and process requirements

11.1.7 General Rules of Government Contract Administration and Contract Writing

11.1.7.1 Introduction

a. Proper contract development is accomplished through coordinated planning and intensive review by all levels of the chain of command. After Contract award, the contractor will develop procedures (FOPs/GOPs) which must be approved by the GFR/GGFR and will be based on National Aerospace Standards, commercially accepted equivalent references and processes, the combined instruction or this instruction (if this instruction is listed as guidance in the contract).

NOTE: Procedures may be approved in sections; however, contractors will not conduct ground operations until the applicable procedure has been approved. Flight operations are prohibited until ALL procedures have been approved.

b. DON contracts should include the following items:

(1) Purpose. State the purpose of the proposed contract (providing a clear explanation of products or services being procured), and include required Navy guidance. Ensure inclusion of the GFRC when applicable.

(2) System Description. Describe the aircraft or weapon system supported.

(3) Mission. Describe the mission of the subject weapon system or activity.

(4) Support Concept. Describe support required of the contractor as well as support to be provided by the government, for example, contractor provides all maintenance materials and SE, full government support, or combinations of both. Address special emphasis programs, such as FOD prevention or Corrosion Control programs. Address the location of aircraft to be supported and the anticipated Concept of Operations (CONOPs).

NOTE: The PMA, or other responsible supporting program office, must coordinate supply support requirements as soon as practicable. The coordination must insure that the supply activity's chain of command has been included in accordance with applicable command requirements.

(5) The PWS/SOW should include any government provided property, information or services.

(6) Definitions and Abbreviations. Include definitions and abbreviations used in the PWS.

11.1.7.2 Maintenance

The O-level, I-level, and Conditional maintenance elements listed in this section must be addressed (if applicable) when writing the requirements for contract maintenance. The list is not all-inclusive and each specific requirement and situation must be examined to ensure contractor's requirements are adequately defined so government's oversight responsibilities can be achieved. For example, since DON aircraft do not have a U.S. Civil Airworthiness Certificate, work performed on them by a FAA Certified Repair Station (14 CFR Part 145) is technically not covered under the FAA rules. That is why the contract needs to clearly identify that work performed on US Navy aircraft is to be in accordance with the requirements of 14 CFR 43, either by a "Part 145 Repair Station" or by FAA certified mechanics (Part 65). Without specifying that maintenance is to be performed to FAA standards, the contractor would not be required to meet FAA standards. Likewise, since there is no regulatory requirement to perform maintenance on Navy aircraft under 14 CFR Part 43, or a return to service by a person certified under Part 65 or an organization certified under Part 145, it is unlikely that the FAA would become involved in a dispute about quality of workmanship or traceability of parts. For maintenance of components (not installed on aircraft), that could be installed on a civil US Registered aircraft, the FAA would have an interest since the return to service is independent of the

aircraft (FAA Form 8130-3 most likely) and the part could conceivably be installed in a civil aircraft having a U.S. Airworthiness Certificate.

NOTE: When developing a PWS or SOW, the Contracting Officer will ensure contractor ALSS and Egress personnel and other contractors involved with certification, loading, and handling of ordnance meet the intent of the requirements established in OPNAVINST 8023.24 in accordance with NAVAIRINST 3710.1. The full requirements of OPNAVINST 8023.24 apply when the contractor is acting in direct support of, and with, military ordnance personnel or perform ordnance functions on a Navy or Marine Corps Air Station.

a. O-Level Maintenance. NAVAIRINST 3710.1, Section 5, provides a minimum list of GOPs the contractor must develop and use. NAMP programs and areas not covered by the NAVAIRINST 3710.1, Chapter 5, must be considered when preparing a PWS/SOW, not after the contract has been award. The following must also be considered:

(1) Operational Schedule Commitments. Address criteria for meeting the operational schedule.

(2) Off-Site Support. Address required detachment support ashore or afloat.

(3) FCFs. Describe support required by the contractor.

(4) Aircraft Acceptance and Transfer Inspections. Describe tasking and define minimum requirements.

(5) Contractor logistics support, including engineering, parts obsolescence, etc.

(6) Other Support Services. Describe functions required by the contractor that are not covered by other major headings, for example, Safe for Flight and air cargo Safe for Flight. Other support services may include:

(a) Maintenance of display aircraft

(b) Support for Change of Commands

(c) Other ceremonies

b. I-Level Maintenance. Include the applicable items from paragraph 11.1.7.2.a and the items listed below. Describe the functions to be performed in each of the following areas:

(1) Airframe systems and component repair

(2) Power plants and component repair

(3) Propeller and rotary wing dynamic systems component repair

(4) Electrical systems and component repair

(5) Avionics systems and components repair, to include TMDE

(6) Armament systems and component repair

(7) ALSS repair

(8) SE repair

c. Conditional Maintenance. Ensure the contract includes a list of conditional maintenance functions to be performed by the contractor.

11.1.7.3 Maintenance Management and On-Site Organization

If the agency being supported is outsourcing management functions, such as AMO, MMCO, Maintenance Control, and Work Center Supervisors, the contract needs to specify the requirements and authority of those positions. Additionally, the activity must have a plan in place to ensure government oversight of those contracted positions. While it is understood that certain supervisory roles may be contracted out, other roles, including government oversight and CPI requirements, will be maintained by the activity (Military or Civil Service).

a. Physical Plant and Equipment

(1) Address physical plant management roles of the government and contractor.

(2) List responsibilities and requirements for government furnished and contractor managed equipment. The following must be addressed:

(a) Office equipment

(b) IMRL/SE

(c) Plant property/Government Furnished Equipment (GFE). PWS/SOW will ensure an annual wall-to-wall inventory is performed for all GFE.

(d) Test bench installations to include test bench harness, maintenance and modification.

(e) Hand tools. Ensure tool control plans are in place. Address government or contractor tools.

b. Housekeeping and Daily Security. Describe the contractor's responsibilities for:

(1) Housekeeping

(2) Security support

(3) Hazardous materials and waste

(4) Precious metals

c. Personnel and Interface. Address the required interfacing between contractor and government representatives.

d. Management Support. Outline management functions such as scheduled work, NMCS validation, and training programs.

e. Record keeping and reports

NOTE: The PWS/SOW must identify government records, reports and property to be turned over during the Phase-in portion of the contract. Shortages must be immediately identified to the PCO/ACO.

(1) Maintenance records. Identify maintenance records to be maintained by the contractor and the required periodicity for review.

(2) Configuration Management (CM) Documentation. Identify maintenance records to be maintained by the contractor and the required periodicity for review. Define within the applicable PWS/SOW the CM documentation required to include Configuration Status Accounting (CSA) requirements.

(a) CM documentation can come in many forms and must be tracked.

(b) When the supplier is obligated or mandated to track the CM documentation this must be delineated correctly in the contract. OPR/PMA CM personnel must have oversight of this contractual language to ensure documentation is correctly managed and maintained in the correct format.

(3) Aircraft readiness status reporting. Address readiness reports required and their frequency.

(4) NAVFLIR (OPNAV 3710/4). Address the contractor's obligation to use NAVFLIR.

(5) Aircraft Inventory and Readiness Reporting System (AIRRS). Address inventory report requirements and their frequency.

(6) VIDS/MAF (OPNAV 4790/60) and NALCOMIS MAF/WO. Address any data fields the contractor is not required to populate. If the contractor is authorized to use company forms, determine which blocks must be populated to complete a maintenance action.

(7) Logbooks. Navy logbooks must be used when appropriate; Commercial Derivative Aircraft (CDA) may use logbooks and records meeting FAA minimums. List required forms and documentation to be maintained for specific systems.

(8) Aircraft incident/mishap reports. Address tasking and reporting requirements of the contractor that are over and above the requirements defined in NAVAIRINST 3710.1.

(9) Other reporting requirements. All reports the contractor must submit must be identified in the Contract Data Requirements List (CDRL).

f. Quality Control (QC) Program. The Request for Proposal (RFP) must establish the standard by which the contractor's Quality Control program is evaluated. Quality clauses can be added to the contract but are completely separate from the NAVAIRINST 3710.1 processes managed by the GFR. The level of insight necessary can vary depending on the type of contract negotiated. It is common for the government to require insight and/or oversight of QA and for those requirements to be defined

in the contract. The Quality Clauses listed in paragraphs 11.1.8.3.b and 11.1.8.3.e, range from basic insight and the government's right to inspect, to higher quality requirements, such as adherence to specific standards, or the establishment of Critical Safety Items (CSI) that must be witnessed by government personnel during the manufacturing or rework processes. These clauses are normally managed by separate quality representatives, not the GFR. However, just like the GFRC, Quality Clauses are aspects of CAS and supported by the APT. Quality Clauses can be used in conjunction with the GFRC or on contracts where the GFRC is not applicable.

(1) Program management. Address frequency of QC Program reviews and audits.

(2) Records. Address how often QC data is to be updated and how long the data must be maintained.

(3) Program elements. List programs to be monitored or audited by the contractor's QC Program.

(4) Inspections. List mandatory inspections required of the contractor that must be witnessed by a government quality representative. These inspections are normally identified as CSIs.

(5) Technical Library. Describe responsibilities for establishing and maintaining the technical library per applicable Navy guidance.

g. Ordnance Qualification/Certification Board. Task the contractor with establishing a qualification and certification program meeting the intent of OPNAVINST 8023.24.

h. Aircraft Confined Space Program. Describe procedures to be used along with qualification and certification processes per NA 01-1A-35.

11.1.7.4 Materials/Supply

a. General. Describe overall responsibilities for the contractor's material control functions.

b. Material control criteria. Address specific material control procedures.

c. Repairable items. Address procedures for the ordering, turn-in, and inventory of repairable items; i.e., RFI vs. non-RFI.

d. Consumable items. Address procedures for ordering direct support consumable items.

e. Inventory management and tracking system. The contractor must establish a government approved system for gathering usage data for items not identified by a National Stock Number (NSN) and ensure proper identification, storage, and control of NSN and non-NSN assets. Common types of system outputs needed include the following:

(1) Daily NMCS/PMCS component list

(2) Monthly financial inventory report

(3) Quarterly inventory status report

(4) Notification when on-hand assets are less than or equal to established minimum quantities

f. Inventory Accuracy. Address procedures for spot inventory checks and an annual physical inventory of government owned material

11.1.7.5 Operational Requirements

a. Base Loading/Use. Give base loading for site and planned annual use in flight hours.

b. Annual Flight Program. Summarize, in an annex, examples of daily, weekly, and holiday flight schedules.

c. Environment. Describe plans, requirements, support, and tasking, (if applicable) for:

(1) Weather

(2) Night operations

(3) Cross-country flight operations

(4) Weekends and holidays

(5) Rescheduling

(6) Surge capability

(7) Detachment operations

(8) I-Level/D-Level environment:

(a) Workload. Address annual average workload.

(b) Hours of operation. Address expected hours.

(c) Production control. Address periods of manning.

11.1.7.6 Government Responsibilities

Describe what the government will provide to support the contract. This information is provided as an attachment to the contract.

11.1.7.7 Overhaul Requirements.

Describe tasking requirements for:

a. Engine

b. Propeller

c. Landing gear

d. Tires and wheels

11.1.7.8 Support Equipment (SE) Maintenance

Describe contractor tasking for the maintenance, repair, and documentation requirements of SE.

11.1.7.9 Real Property

Describe contractor responsibilities to report loss, damage, destruction, or theft of government property. Provide floor plans of facilities as an annex to the contract.

11.1.7.10 Technical Directives (TDs)

Describe procedures for TD incorporation, and documentation.

11.1.7.11 NAMDRP Reporting

Describe contractor requirement for NAMDRP Reporting.

11.1.7.12 Physical Security

Ensure specific requirements for "Prevention of Unauthorized Access or Operation of Government Aircraft" are provided.

a. Describe off-site security tasking (as required).

b. Describe contractor responsibilities for Physical Security Program (if applicable).

11.1.7.13 FCF Requirements

Describe who will perform the FCF, correct discrepancies found, and sign-off of flight critical discrepancies generated during the FCF.

11.1.7.14 Transition

a. Phase-In. Describe responsibilities for Phase-In by site.

b. Phase-Out. Describe responsibilities to coordinate with successor(s) to maintain continuity during any required Phase Out (data systems and spare parts are of specific concern).

(1) Inventory transition. Define tasking for the incumbent's transfer of inventory to the successor(s).

(2) Inventory management/Tracking system. State requirements for an orderly transition from the incumbent's to the successor's data system with no loss of data quality or quantity.

NOTE: All aircraft data, such as logbooks, AIRRs, aircraft historical records, publications, aircraft drawings, and schematics must be addressed.

11.1.7.15 Safety

a. Safety program. Describe contractor requirement to establish and maintain a Safety Program as required per NAVAIRINST 3710.1.

NOTE: This Contractor Safety Program does not relieve the activity from OPNAVINST 3750.6 requirements.

b. OSHA. In matters affecting the safety and health of the contractor's employees, the contractor will be responsible to the Department of Labor or to the State office (where OSHA has approved a State plan).

11.1.7.16 Records, Reports, and Distribution

Describe contractor responsibilities to maintain and submit required reports.

11.1.7.17 Personnel, Training, and Qualifications

a. Personnel. Qualification requirements for contractor personnel can be stated in terms of military experience/training, industry standards, Department of Labor skill classifications or FAA certification, and should be clearly defined. FAA certifications are achieved by using a Part 145 repair station, or having the contractor maintenance signed-off by an FAA A&P mechanic qualified in the discipline being performed. When possible, contractor personnel in positions with no corresponding commercial job description, such as Plane Captain or IMRL Coordinator, must meet the same or equivalent standards as Navy and Marine Corps personnel assigned to such positions. If the sole source of training is the DOD, the contract should specifically state the training that will be provided as government furnished instruction (GFI). Define special training/certification requirements to operate all GFE/SE, vehicles, MHE/WHE, and other maintenance equipment required per the PWS/SOW.

NOTE: ACCs may develop more stringent personnel qualification requirements as needed to meet diverse operational commitments per the Defense Acquisition Workforce Improvement Act.

b. Training. Require the contractor to maintain a training program that ensures personnel skills meet contractual requirements.

c. Qualifications. Define minimum qualifications for all specialties.

d. Government provided training. Identify required training available from the government to be provided to the contractor.

11.1.7.18 Discrepancy correction

Describe requirements for contractor support for correction of discrepancies.

11.1.7.19 Mishap and accident responsibility

Describe requirements for contractor support of investigations in preparation of aircraft mishap and accident reports. NAVAIRINST 3710.1 provides specific guidance.

11.1.7.20 Ordnance

a. Ordnance Storage, Buildup, and Transportation. Describe requirements and guiding instructions.

b. Ordnance Certification. Describe requirements ensuring Navy certification requirements are established in accordance with the intent of OPNAVINST 8023.24. The full requirements of the instruction apply when the contractor is acting in direct support of, and with, military ordnance personnel or performing ordnance functions at a Navy or Marine Corps Station.

11.1.7.21 Transient Services

Describe requirements, including performance of inspections and discrepancy corrections.

11.1.7.22 Component Replacement Analysis Non-Provisioned Aircraft (NPA)

Describe contractor responsibilities.

11.1.7.23 Master Index of Repairable Items

Describe contractor responsibilities.

11.1.7.24 Funding Arrangements

Describe funding requirements.

11.1.7.25 ALSS

a. Aviator's Breathing Oxygen (ABO). Describe program management requirements.

b. ALSS pool management. Describe requirements and provide procedures to identify the process and the office/title of the responsible individual(s) and methods used for issuing, care, inspection, cleaning, and storage of equipment.

11.1.7.26 Proposed configuration changes

Proposed configuration changes are delivered via Engineering Change Proposal (ECP) to include any prototyping requirements (when applicable). NAVAIR SOP 4130.1 provides the necessary guidance.

11.1.8 Contract Clauses, Changes and Waivers

11.1.8.1 Contract Changes

Contracts can be changed by a Supplemental Agreement, Change Order, or Constructive Change.

a. A Supplemental Agreement is a contract modification based on prior agreement of both parties and incorporates equitable adjustment to contract costs and schedules as a result of the change.

b. A Change Order is a written order issued by a PCO directing the contractor to make a change without prior agreement. A Change Order creates an undefined government liability. It is used when

the government needs the contractor to act and cannot wait for agreement on liability to be reached. When a Change Order is used, the contractor may be entitled to an equitable adjustment.

c. A Constructive Change is an unauthorized contract modification in oral or written format that occurred through an affirmative act, the failure to act, or a formal or informal action by a government official, construed by the contractor as having the same effect as a written change order. It must involve a change in the performance, beyond minimum contract requirements, that is not part of the contract. When a constructive change occurs, the contractor may be entitled to an equitable adjustment.

NOTE: When dealing with a contractor, it is imperative all personnel understand their roles, authorities, and responsibilities. A seemingly harmless suggestion by a military or civilian government representative can result in the contractor taking action and subsequently billing the government for that action. Personnel involved in government oversight or visiting contractor-supported activities must receive the proper training. Interaction and communication with contractors will be managed through the members of the Contract Oversight Team, ACO, and PCO.

11.1.8.2 Contract Waivers

a. On contracts that include the Ground Flight Risk Clause (GFRC), the contractor requests for waivers to governing maintenance requirements must be submitted through the GFR/GGFR for review and forwarded, via the chain of command, to the appropriate authority. Specific guidelines for processing waivers are outlined in NAVAIRINST 3710.1, Chapter 2.

b. For contracts that do not include the GFRC, the contractor's request for waivers to governing maintenance requirements must be submitted through the COR for review and forwarded to the appropriate authority.

NOTE: When addressing a waiver or deviation that affects contractor operations, it is important to determine if the request is for relief from the contract, NAVAIRINST 3710.1, or other Navy guidance.

c. Contractor requests for non-maintenance waivers, changes or modifications to specific contractual requirements must be submitted through the COR/TPOC and the GFR/GGFR for review and forwarded, via the chain of command, to the designated contract administration office. Specific guidelines for processing waivers, changes or modifications are provided by the ACO or PCO.

11.1.8.3 Contracting Clauses

Stakeholders need to understand the clauses normally associated with supporting naval aircraft. Recognizing that contract work can often be subcontracted, users need to understand which of these clauses must flow down to a subcontractor, which of the clauses becomes the responsibility of the Prime contractor to enforce, and which place requirements on the government.

NOTE: It should be noted and understood that NAVAIRINST 3710.1 does not address quality; rather, it addresses the contractor's responsibility to establish and enforce safe and

effective written Procedures. Prime contractors must ensure their subcontractors comply with the provisions of the NAVAIRINST 3710.1. See paragraph 11.1.7.3.f for details on the Quality Control (QC) Program.

a. Ground and Flight Risk Clause (GFRC), DFARS 252.228-7001.

(1) When a contractor comes in contact with a DON aircraft under contract, there is a potential that the contractor's actions could result in damage to that government asset. Whether the contractor is building the aircraft at a production facility, modifying or repairing, painting, preparing for flight, testing/monitoring onboard systems, or piloting that aircraft, there is a risk of damage.

(2) As a general rule, the Federal Government is self-insured. As required by DFARS 228.370, with some exceptions, the government implements its policy to self-insure with respect to risk of loss for Navy aircraft under DoD contracts. The government's assumption of risk is based upon a determination that it is ultimately more economical for the government to pay for certain damages which occur to government aircraft while under contract, than to pay the increased contract price/cost that would result if the contractor were required to obtain commercial insurance.

(3) The USG accomplishes this by application of the Ground and Flight Risk Clause (GFRC), DFARS 252.228-7001 which indemnifies the contractor. This requirement is defined in DFARS Part 228.3, Insurance, 228.370.

(4) The GFRC defines aircraft for purposes of the clause and refers to aircraft to be delivered to the government under a contract, those furnished by the government to a contractor, and aircraft furnished by the contractor (either before or after government acceptance). It states that the government self-insures and assumes risk of damage to, or loss or damage to aircraft (1) in the open, (2) during operation, and (3) in flight. "In the open" means located wholly outside of buildings on the contractor's premises. It goes on to say government furnished aircraft are considered "in the open" at all times while in the contractor's possession, care, custody, or control, regardless of location, whether assembled or disassembled. "Operation" means operations and test of the aircraft and its installed equipment, accessories, and power plants while the aircraft is in the open or in motion. The term does not apply to aircraft on any production line or in flight. Finally, "Flight" generally means any flight demonstration, flight test, taxi test, or other flight made in performance of the contract. The DFARS identifies only four standing exemptions as rational for not including the GFRC on a contract involving aircraft:

(a) During activities incidental to the normal operations of the aircraft (e.g., refueling operations, minor non-structural actions not requiring towing, such as replacing aircraft tires due to wear and tear);

(b) If awarded under FAR Part 12 procedures and are for the acquisition, development, production, modification, maintenance, repair, flight, or overhaul of aircraft; or otherwise involving the furnishing of aircraft;

NOTES: 1. This exemption would apply if an activity procured the C-37A (or similar commercial aircraft) and, either in combination or at some later time, contracted

maintenance services from a commercial company (e.g., Gulfstream) that competes in the public sector to service C-37A. This exemption does not apply to conventional military aircraft procured specifically for military purposes, e.g., MV-22B. Such aircraft are not commercial items; subsequently, there is not a commercial market place for such maintenance services.

2. This means that DOD cannot contract for CLS maintenance support of a military aircraft with a FAR Part 12 COTS contract, because no Commercial Off The Shelf (COTS) standards for maintaining a military aircraft exist. This exemption is based on Commercial Off The Shelf (COTS) capabilities and the availability of Part 145 commercial repair facilities certified and monitored by the FAA. There is no FAA certification for purely military aircraft and therefore no Part 145 repair station is certified to repair military (non-CDA) aircraft. This exemption only applies if an activity procures a commercial aircraft (e.g., C-37A) and, either in combination or at some later time, contracts maintenance services from an FAA certified Part 145 company (e.g., Gulfstream) that competes in the public sector to service that commercial aircraft. This exemption does not apply to conventional military aircraft procured specifically for military purposes, (e.g., MV-22B). Such aircraft are not commercial items; subsequently, there is not a commercial market place for such maintenance services.

(c) When a non-DoD customer (including a foreign military sales customer) has not agreed to assume the risk for loss or destruction of, or damages to, the aircraft; or

(d) For CDA that are to be maintained to FAA airworthiness when the work will be performed at a licensed FAA repair station.

NOTE: One must always remember that the GFRC is ultimately an insurance plan. As such, the assumptions are that there are adequate commercial standards in place to govern the effort and that the contractor has sufficient commercial insurance in place to protect the aircraft. If these conditions are not met (with the exclusion of the exception on FMS work) then these exemptions cannot be leveraged and the GFRC must be included to protect government equities.

(5) To manage the risks associated with indemnification, the GFRC requires the contractor to comply with the operating procedures contained in the combined instruction entitled “Contractor's Flight and Ground Operations” (NAVAIR Instruction 3710.1) in effect on the date of contract award.

b. Quality Assurance Clauses. The contractor is responsible for quality in most contracts. However, there are government quality assurance clauses that allow the government access during the contractor’s support of our aircraft, and provides a means to verify that the contractor is living up to their contractual obligations and holding to the standards that have been contractually mandated.

c. Standard Inspection Requirements, FAR 46.202-3

(1) Standard inspection requirements are contained in the clauses prescribed in FAR 46.302 through 46.308, and in the product and Navy specifications that are included in solicitations and contracts.

(2) The clauses require the contractor to provide and maintain an inspection system that is acceptable to the government; give the government the right to make inspections and tests while work is in process; and require the contractor to keep complete, and make available to the government, records of its inspection work.

d. Higher Level Quality Requirements, FAR 46.311. A private company depends on the FAA to ensure the contractor maintains standards when supporting their aircraft. Even though the Navy can leverage FAA standards, the FAA has no authority to act on behalf of the DON when Navy Aircraft are involved. Therefore, contracting officers must insert the Higher-Level Contract Quality Requirement clause, FAR 52.246-11, in solicitations and contracts when the inclusion of a higher-level contract quality requirement is necessary (see FAR 46.202-4). Any higher-level quality clause must define the standards against which the government intends to measure the contractor. Examples of higher-level quality standards include ISO 9001, ASQ/ANSI E4, ASME NQA-1, SAE AS9100, SAE AS9003, and ISO/TS 16949, and product or process specific quality standards such as SAE AS5553 or FAA Order 8900.1 governing repair station standards. Sometimes the only standard that needs to be called out is FAR 52.246-4, Inspection of Services -- Fixed-Price.

e. Other Quality Assurance Clauses. The following are FAR and DFARS clauses that may be used; the Program Manager and PCO must be familiar with each:

(1) FAR 46.202-1, Contracts for commercial items

(2) FAR 46.202-4, Higher-level quality requirements

(3) FAR 52.246-2, Higher-level quality requirement for inspection of supplies

(4) FAR 52.246-11 Higher-level contract quality requirement

(5) DFARS 246.408-71, Quality Assurance Surveillance Plan

11.2 Commercial Derivative Aircraft (CDA)

11.2.1 Objective

Provide policy to fleet operating personnel regarding the planning, developing, and managing of CDA.

11.2.2 Background

CDA have been used by the Navy and Marine Corps to meet logistics and passenger-carrying needs, and are increasingly being used to meet other unique mission requirements. When appropriately matched to these roles, and applying FAA approved civil maintenance plans, CDA offer significant life-cycle cost savings to the government.

11.2.3 Scope

Applies to the Navy and Marine Corps CDA used for operations.

11.2.4 Airworthiness

The PMA is responsible for establishing a plan that includes, when necessary, engineering design, testing, sustainment, and modifications to CDA. To maximize life cycle cost savings, the Navy and Marine Corps will seek to ensure its CDA, to the extent practicable, comply with civil airworthiness standards set by FAA Regulations. CDA owned, leased, or operated by the Navy and Marine Corps are, in most cases, conducting Public Aircraft Operations (PAO), as defined by the U.S. Code. As such, the Navy, not the FAA, is the responsible agent for certification of airworthiness per NAVAIRINST 13034.1 and NAVAIR Manual 13034.1. Ultimately, NAVAIRSYSCOM has responsibility for airworthiness and will leverage FAA airworthiness artifacts and FAA approved maintenance plans wherever practicable.

11.2.5 Maintenance Planning

a. Maintenance of CDA can apply to all maintenance levels.

b. The PMA will determine whether the use of an Original Equipment Manufacturer (OEM), organic maintenance plan, or combination of both is the most cost-effective for aircraft supportability and operational requirements and will be responsible for developing and publishing maintenance and support plans.

c. When an aircraft receives its original design approval (e.g., Type Certification (TC)) from the FAA, the Operator develops maintenance and operations procedures. In civil aviation, once the operator develops these procedures, they submit their proposed Minimum Equipment List (MEL) to the Flight Services District Office (FSDO). After the FSDO approves it, it becomes part of the TC. When a CDA aircraft is performing PAO, NAVAIR Airworthiness and CYBERSAFE Office becomes the approving office of the MEL for that aircraft.

11.2.6 Responsibilities

a. NAVAIRSYSCOM is responsible for assisting PMAs and WSMs in the acquisition and development of aircraft and weapon systems.

b. PMAs are responsible for overall management of maintenance and logistics programs for systems under their cognizance and will:

(1) Conduct business case analysis, including analyzing proprietary data/licensing considerations, to determine whether contractor or organic maintenance is more beneficial.

(2) Determine, in cases where an approved OEM maintenance plan exists, the implementation of best commercial practices in lieu of the NAMP.

(3) Develop T/M/S specific maintenance and support plans that contain detailed guidance to address operational considerations, OEM/organic maintenance policy, requirements, safety and

airworthiness. The maintenance and support plan must cover all Integrated Logistic Support (ILS) elements and define applicable and non-applicable NAMP policies. The plan must be updated as required for program or funding changes.

(4) Coordinate with OPNAV and ACCs for development, implementation, revisions, and changes to the respective maintenance and support plans.

(5) Provide interim maintenance and support guidance to ACCs when problems, design changes, or operational experience indicate a change is required. This interim guidance will be issued as an attachment to the maintenance plan. The interim guidance will be rescinded by the cognizant Assistant Program Manager for Logistics (APML) when the approved change is issued.

c. ACCs, in conjunction with PMA, are responsible for determining specific CDA maintenance, support, and operational requirements and will:

(1) Ensure Navy personnel are thoroughly trained in CDA maintenance, associated support plans and practices.

(2) Conduct reviews of support strategies and performance measures. Revise, correct, and improve sustainment strategies as necessary to meet performance requirements.

11.2.7 Resources

a. The FAA Military Certification Office (MCO) was established via a MOA to support the services in dealing with CDA issues. It serves as an FAA Aircraft Certification Office (ACO) and the FAA point of contact for coordination with the applicable US Armed Services Airworthiness Authority (AA).

b. All US military CDA programs requiring FAA "type certification" projects are now initiated through the MCO. This assures higher priority in the FAA queue, standardization for military certification programs, and a staff knowledgeable in military processes. Type certification projects may be conducted by the MCO, coordinated with the FAA type certificate management office for execution, or delegated to another ACO if in the best interest of the FAA.

c. MCO provides certification of modifications to commercial aircraft that generally meet the following criteria:

(1) The aircraft's primary mission (for example, carriage of passengers and/or cargo) is not altered.

(2) The flight usage spectrum is within the FAA certified flight usage (or can be accommodated by maintenance concepts).

(3) FAA expertise and/or civil standards exist.

(4) The aircraft are operated and maintained in a manner consistent with the way the aircraft was certified for civil use.

(5) The modification is of a type that a civil applicant would typically request.

11.2.8 Configuration Management (CM)

a. CM for military aircraft must be processed per NAVAIRINST 4130.1. Configuration change proposals must be submitted either as ECPs or as RAMECs processed per NAVAIR SOP 4130.1.

b. CM of CDA is managed by NAVAIRSYSCOM, which has final authority to approve or disapprove incorporation of all military and non-mandatory FAA changes. CM of naval aircraft will not be contracted out, but commercial CM data can be used to support government CM processes. NAVAIRSYSCOM will establish a baseline configuration for all contractor maintained equipment prior to award of a contract.

c. ULSS and Maintenance Support plans must contain explicit details on all methods of configuration control for the applicable aircraft, Contractor-Furnished Equipment (CFE), and Peculiar Support Equipment (PSE).

d. Commercial aircraft also undergo aircraft modifications to remain flight ready, and to maintain their FAA certification. Any other information from a manufacturer is considered to be advisory unless the "Inspection and maintenance program" says otherwise (a high percentage of commercial aircraft are certified under a maintenance plan that requires the manufacturer's recommended program be followed). Service Bulletins, Service Letters, and such are part of the Instructions for Continued Airworthiness of an aircraft required by 14 CFR 21.50. Most times they result from either changes in parts or from service difficulties, and provide greater reliability. In some cases, they may be incorporated by reference into Airworthiness Directives (AD) under 14 CFR 39. If they aren't incorporated into an AD, they aren't mandatory from that standpoint, but could be mandatory depending on the maintenance and inspection program identified for the aircraft.

NOTE: Airworthiness Directives (AD) are part of 14 CFR 39 and are REGULATORY and are always MANDATORY.

e. FAA directives not having mandatory compliance, along with Navy originated TDs and RAMECs, must be complied with as directed by the PMA. Either the WSM, when assigned, or the PMA will prepare, process, and present these change requests to the appropriate NAVAIRSYSCOM Change Board (an emergency AD that says, "Before further flight" may not allow sufficient time for a formal Board action. Prior coordination should be considered). Major (Class I) engineering changes to naval (Navy, and Marine Corps) Configuration Items (CIs), especially aircraft or components which are commercially controlled, may be documented and submitted as Federal Aviation Administration (FAA) airworthiness directives or certifications, contractor service bulletins and other such commercially acceptable means. However, all such changes will still require the NAVAIRSYSCOM Configuration Control Board (CCB) or De-Centralized Configuration Control Board (DCCB) approval and reporting, and implementation via a Technical Directive (TD) following the process governed by NAVAIRINST 5215.12 and NA 00-25-300 manual.

f. Commercial configuration changes for CDA may be exempt from certain military specification requirements including drawings, kit assembly, and kit proofing. Commercial changes, when issued, have met FAA approval for engineering logic and safety, however, the military may use the CDA in a manner or environment that differs from its commercial counterpart. The NAVAIRSYSCOM

Airworthiness and CYBERSAFE Office, in coordination with the PMA, will make the determination whether the FAA approvals have met the Navy's full requirements, or if further engineering review is required per NAVAIRINST 13034.1. The FAA Military Certification Office routinely interacts with the NAVAIR Airworthiness and CYBERSAFE Office on matters specific to CDA.

g. Provisions for funding the installation or compliance with approved configuration changes and subsequent amendments or modifications for contractor maintained Navy and Marine Corps aircraft must be included in the maintenance contract per DOD 7000.14-R and NAVSO P-1000. Known or anticipated configuration changes to fielded aircraft requiring funding must be planned for and identified in the Operational Safety Improvement Plan.

h. Configuration status accounting provides an audit trail for changes from the baseline configuration. It provides information necessary for the accomplishment of related tasks resulting from configuration changes. Status accounting data and reports may exist in a variety of forms, some of which may be automated. In some instances this information may be provided from data reports used by the contractor. Overall responsibility for status accounting is assigned to the PMA. Content of the configuration status report must, at a minimum, contain records and reports which reflect the following:

(1) Technical documentation comprising the configuration baseline and other essential data.

(2) Approved changes to the configuration, including the quantity and nomenclature to which these changes apply, the implementation status of such changes, and the activity responsible for implementation.

(3) Current configuration.

(4) In accordance with NAVAIR SOP 4130.1, Configuration Status Accounting (CSA).

i. CM and configuration status accounting procedures for CDA must be performed per NAVAIR SOP 4130.1 as defined in the PMA CM plan and as approved by NAVAIR Configuration Management. The PMA will coordinate with the ACC in approving which commercially originated maintenance directives and component modification requirements (ADs, ASBs, CEBs, CSLs, SBs, and AOLs) are determined necessary or mandatory. All resulting changes must be compliant with the TD Program. The PMA or Fleet Support Team (FST) will furnish the Contracting Officer a Contract Data Requirements List as part of the procurement request, defining all configuration status accounting information, data, and reports.

j. CM for systems other than aircraft is a responsibility of the PMA and must include configuration control and status accounting procedures and requirements for all issued changes.

11.2.9 Recording Accuracy

a. Accurate recording of maintenance is the foundation of an effective maintenance program and must provide managers with the current configuration of aircraft and equipment, historical record of work accomplished, hours, and cycles accumulated.

b. Logbooks, forms, records, and reports must conform to and meet the minimum provisions of COMNAVAIRFOR and NAVAIRSYSCOM requirements. When required or advantageous to the PMA and accepted by NAVAIRSYSCOM, a CDA may use logbooks and records meeting FAA standards as listed in FAA regulations.

c. The contract should be written such that the contractor will be required to certify the completion of maintenance actions accomplished on the aircraft. Additionally, the contractor may be authorized to certify the aircraft Safe for Flight. Personnel authorized to certify completion of maintenance and release aircraft Safe for Flight must complete a company approved training syllabus to include qualifications, required reading, and OJT. GOPs must identify the final approval authority and processes to certify company artisans. The GFR will in turn, validate the qualification process through the approval of GOPs. The GOPs must stipulate that the contractor be required to maintain a current list of contractor personnel qualified to sign-off maintenance actions and to release aircraft Safe for Flight.

d. Depending on the contract maintenance construct or approved CDA maintenance program, the recording requirements may involve maintenance of aircraft and SE official logs and records. The contract or approved CDA maintenance program must specify the format and minimum information that must be recorded and maintained. All consideration should be given to using existing and accepted Navy records, practices, and information systems/programs prior to accepting a contractor's proposal to develop a new or proprietary system.

11.2.10 Supply Support

a. Supply support can be provided through the military supply system or through commercial resources for either military unique weapons systems or CDA.

b. When the government uses commercial sources for supply, the civilian marketplace determines availability of spares and repair parts. Supply support must when necessary, be tailored to each individual platform by the logistics manager. Considerable flexibility must exist to ensure required support at a minimum cost.

c. To assist in budgeting, a Weapon System Planning Document (WSPD) and GFE list has been established for each model aircraft. The government supply system must be used for GFE stock or items common to other Navy aircraft including general aeronautical material such as nuts, bolts, and sheet aluminum, except when prohibited by the contract.

d. There are many variations of contractor support which should be considered when seeking the most efficient and economical method. Competitive sources for repairable items are normally available and should be considered where practical. CFE should be supported commercially for the life-of-type if more advantageous to the government.

e. The PCO is permitted to contractually authorize the contractor to pursue commercial sources for parts as long as military specifications and standards are met and the standard stock price is not exceeded. A documented waiver should be obtained if it is necessary to exceed the standard stock price when the Navy supply system has been proven not operationally responsive. Ensure contract

provisions require appropriate mandatory procedures to ensure the contractor maintains auditable documentation to verify material accountability.

f. The following contains examples of special areas that need to be addressed when tailoring supply support for CDA:

(1) Contractor managed storage facility at the O-level.

(2) Consignment of parts using organization with payment upon consumption.

(3) O-level activity local procurement authority to purchase from prime manufacturer or other commercial sources where available.

(4) GFP item acquired by manufacturer part number and not processed in the federal supply system.

(5) Contractually required Support Material List of commonly used replaceable parts, including prices.

(6) Proposed cost to the government for CFE spares, PSE, and publications, versus cost to commercial customers.

(7) Contractor comparison of commercial and government support to determine method to be followed.

(8) A pool of spares at the O-level.

g. Operational support details will be determined by the APML or Logistics Element Manager and will indicate procedures for requisitioning spares, turn-in of repairable items, exchange of items, and any other details necessary for using organizations to maintain the required support for the aircraft.

h. The local supporting supply activity, designated to provide supply support for the contract, must be fully appraised of contractual requirements of any new contract. The PMA must coordinate support requirements as soon as practicable.

i. The ULSS must contain sufficient operational detail to ensure organizational compliance in maintaining complete support. The plan will be updated as required for significant changes due to program or funding changes.

CHAPTER 12

COMNAVAIRSYSCOM Aviation Depot Level Industrial Program, Depot Special Process Certification, and Naval Air Technical Data and Engineering Service Center (NATEC) Engineering Technical Services (ETS)

Table of Contents

12.1 COMNAVAIRSYSCOM Aviation Depot Level Industrial Program 1

12.1.1 Introduction 1

12.1.2 Depot Quality Management System (QMS) 1

12.1.2.1 Overview 1

12.1.2.2 Quality Management 1

12.1.3 Depot Level Technical Support and Programs 4

12.1.3.1 Fleet Support Teams (FST) and FRC Maintenance, Repair and Overhaul (MRO) Engineering and Logistics 4

12.1.3.2 Technical Authority, Certification, and Qualification 5

12.1.3.3 Reliability and Maintainability (R&M)/Reliability Centered Maintenance (RCM) Program 5

12.1.3.4 Structural Life Limits (SLL) Program 5

12.1.3.5 Integrated Maintenance Concept/Program (IMC/P) 6

12.1.3.6 Aircraft Service Period Adjustment (ASPA) Program 7

12.1.3.7 Naval Sustainment System Aircraft (NSS-A) Depot Event Induction 7

12.1.3.8 Automatic Test Equipment (ATE) and ATE Test Program Sets (TPS) 9

12.1.3.9 Mobile Facility (MF) 10

12.1.3.10 Joint Deficiency Reporting System (JDRS) 10

12.1.3.11 System Safety Program 10

12.1.3.12 Central Technical Publications Library (CTPL) 11

12.1.3.13 Critical Item Management (CIM) 14

12.1.3.14 Material Engineering Disposition Program (MEDP) 16

12.1.3.15 Nondestructive Testing and Inspection (NDT/I) Program 17

12.1.4 Industrial Operations Programs and Processes 19

12.1.4.1 Industrial Operations Programs and Processes (IOPP) Training 19

12.1.4.2 Fuel Surveillance Program 26

12.1.4.3 Joint Oil Analysis Program (JOAP) 29
12.1.4.4 Aviators Breathing Oxygen (ABO) Surveillance Program 29
12.1.4.5 Hydraulic Contamination Control Program 31
12.1.4.6 Tire and Wheel Maintenance Safety Program 32
12.1.4.7 Technical Directive (TD) Compliance 37
12.1.4.8 Foreign Object Damage (FOD) Prevention Program 38
12.1.4.9 Tool Control Program 45
12.1.4.10 Corrosion Prevention and Control Program 55
12.1.4.11 Emergency Reclamation 56
12.1.4.12 Egress/Explosive Systems Checkout Program 57
12.1.4.13 Support Equipment (SE) Operator Training and Licensing Program 59
12.1.4.14 Support Equipment (SE) Planned Maintenance System (PMS) 67
12.1.4.15 Metrology and Calibration (METCAL) Program 68
12.1.4.16 Hazardous Material Control and Management (HMC&M) Program 73
12.1.4.17 Electrostatic Discharge (ESD) Protection and Electromagnetic Interference (EMI) Reporting Program 75
12.2 Depot Special Process Certification 78
12.2.1 General 78
12.2.2 Responsibilities 79
12.2.3 Requirements 81
12.2.3.1 Miniature/Microminiature (2M) and Basic Solder 81
12.2.3.2 Nondestructive Testing and Inspection (NDT/I) 82
12.2.3.3 Aeronautical Equipment Welding 83
12.2.3.4 Aircraft Taxi 84
12.2.3.5 Aircraft Turn-up 85
12.2.3.6 Engine Test Cell Operators 86
12.2.3.7 Aviation Life Support Systems (ALSS) 86
12.2.3.8 Plane Captain Basic Duties and Qualifications 87
12.3 Naval Air Technical Data and Engineering Service Center (NATEC) Engineering Technical Services (ETS) 89

CHAPTER 12

COMNAVAIRSYSCOM Aviation Depot Level Industrial Program, Depot Special Process Certification, and Naval Air Technical Data and Engineering Service Center (NATEC) Engineering Technical Services (ETS)

12.1 COMNAVAIRSYSCOM Aviation Depot Level Industrial Program

12.1.1 Introduction

COMNAVAIRSYSCOM is responsible for the management of the Aviation Depot Level Industrial Program. Management responsibilities include planning for and developing resource capabilities to meet industrial level material support needs for naval aviation active and reserve operating forces, and issuing policy and procedures for the operation of Depot Fleet Readiness Centers (FRC) within the Department of the Navy (DON).

a. The Aviation Depot Level Industrial Program provides depot level (D-level) maintenance, rework, and manufacturing within the Depot Fleet Readiness Centers (Depot FRC). It also provides support services to organizational level (O-level) and intermediate level (I-level) maintenance activities, such as providing technical expertise and repairs that exceed O-level or I-level responsibility or capability.

b. The following sections provide information and policy regarding processes and functions that are unique to the COMNAVAIRSYSCOM Aviation Depot Level Industrial Program.

12.1.2 Depot Quality Management System (QMS)

12.1.2.1 Overview

The Depot QMS is a single, formalized system which documents processes, procedures, and responsibilities for achieving quality policies and objectives while conforming to aerospace standard (AS) 9110 Quality Management Systems – Requirements for Aviation Maintenance Organizations. The Depot QMS is the system used to manage product and service quality.

12.1.2.2 Quality Management

The Depot FRC must manage quality by establishing quality policies and quality objectives, developing, maintaining, and improving processes to achieve these quality objectives through quality planning, quality assurance, quality control, and quality improvement. The primary quality management positions include:

a. Quality Manager (QM). The Quality Manager (QM) is responsible to the Depot FRC Commanding Officer for ensuring conformance of the Quality Management System to aerospace standard (AS) 9110 Quality Management Systems – Requirements for Aviation Maintenance Organizations and for the periodic certification of conformance. The QM is responsible establishing quality policies, objectives, and processes, and for achieving quality objectives through the application of quality planning, quality assurance, quality control, and quality improvement. The QM must form Integrated Quality Teams and take such actions as may be necessary to improve Depot QMS effectiveness and efficiency.

b. Integrated Quality Team Lead (IQTL). Integrated Quality Teams (IQT) will be formed by the QM and assigned responsibility for improving the quality of specific products or services. Each IQT must have a leader assigned who is overall responsible to the QM for the IQT's performance in monitoring and improving the quality of the IQT's assigned products and services. The primary responsibility of the IQT must be to collect and analyze data, conduct root cause analysis, and make recommendations to the QM for corrective and preventative actions necessary to improve the effectiveness and efficiency of processes, procedures, and/or policies with regard to quality.

12.1.2.2.1 Quality Planning (QP)

Quality Planning is that part of quality management focused on setting quality objectives and specifying necessary operational processes and related resources needed to achieve the quality objectives. The QM is responsible for quality planning and must collaborate and coordinate with appropriate Depot FRC departments when setting quality objectives and conducting quality planning.

12.1.2.2.2 Quality Assurance (QA)

Quality Assurance is that part of quality management focused on providing confidence that quality requirements will be fulfilled. Auditing is the primary quality assurance activity at Depot FRCs. Audits are a systematic, independent and documented process for obtaining objective evidence and evaluating it, objectively, to determine the extent to which the audit criteria are fulfilled. There are many tools used to conduct audits, at a minimum, audits will use Computerized Self Evaluation Checklists (CSEC), ePower Audit Tracking System (ATS) for scheduling and Evaluation Request/Action Request (ER/AR) for documentation of findings needed to be corrected. Audits at Depot FRCs will be broken into four specific types: Product Audits, Process Audits, Aerospace Audits (internal & external) and NAMP Audits.

a. Product Audits. Product audits are conducted either in-process or final product; to include components and aircraft. Product is verified for conformance to specifications delineated in technical data and local engineering documents. A percentage of final product will be sampled based on a surveillance plan developed by the QM during quality planning. Product audits are performed by the IQT as required.

b. Process Audits. D-level processes, either special processes or other processes will be audited on a regular basis as deemed necessary based on a surveillance plan developed by the QM during quality planning. Process focused audits utilize the NAMP, local specifications, and technical data to compare outputs to objectives to determine effectiveness and efficiency of the process, and are conducted by competent and qualified process auditors. Processes are audited from start to finish for conformance to the applicable industry or local specifications. The special processes audited are identified in paragraph 12.2 and within Advanced Skills Management (ASM).

c. Aerospace Audits. Internal and External Aerospace audits are a requirement for certification/registration to AS9110. Internal and External Aerospace audits are performed by trained auditors independent of the process and activity being audited thereby ensuring objectivity and impartiality of the process audited. These audits are conducted to ensure ongoing compliance with requirements of the QMS standards, organization's own requirements (policies and

procedures), customer requirements, and applicable external standards (e.g., AS9110). A systematic, independent and documented process approach is used for obtaining audit evidence and evaluate it objectively to determine the extent to which audit criteria are fulfilled.

(1) Internal Audits. Internal audits, sometimes called first-party audits, must be conducted by the Depot FRC internal auditors for management review, to evaluate the effectiveness of the QMS, to identify improvement opportunities, and for other internal purposes. Internal audits will form the basis for the Depot FRC's declaration of conformity to AS9110.

(2) External Audits. External audits include those generally called second and third-party audits. Second party audits are conducted by parties external to the Depot FRC but with an interest in the organization, such as customers, or by other persons on their behalf. The QM may undertake second-party audits for purposes of improving QMS effectiveness and efficiency. Third-party audits are conducted by parties external to the Depot FRC, such as independent auditing organizations providing certification and registration of conformity, or governmental agencies. Depot FRC third party Aerospace audits are performed by a contracted Certification Body (CB) to achieve and maintain Aerospace certification status.

d. NAMP Audits. NAMP programs are managed by program managers or subject matter experts (SME) and are audited on a regular basis by those individuals charged with their management based on risk assessed through a surveillance plan and the NAMP Depot Auditing Program Manager. For specific NAMP auditing roles, responsibilities, and requirements please refer to COMFRCINST 4790.4.

12.1.2.2.3 Quality Control (QC)

Quality Control is that part of quality management focused on fulfilling quality requirements. Quality control focuses on identifying defects through physical and practical inspection, examination, and testing of product. Quality control requires determining the degree to which the products' inherent or acquired characteristics conform to applicable standards and specifications. Quality Characteristics (QC) are those characteristics considered critical or which positively determine product acceptability. QCs must be identified, classified, and integrated into work documents. This is especially important for Safety of Flight, Flight Critical, or Critical Safety Items. The QM is responsible to define quality control requirements for specific products and services during quality planning.

12.1.2.2.4 Quality Improvement (QI)

Quality Improvement is that part of quality management focused on increasing the Depot FRC's ability to fulfil quality requirements. The QM is responsible for instituting and overseeing recurring activity as necessary to enhance performance of the QMS in order to increase the Depot FRC's ability to fulfil quality requirements. This recurring activity must include the process of establishing quality objectives and finding opportunities for improvement, continually, through the use of audit findings and audit conclusions, analysis of data, QMS management reviews, or by any other means that generally leads to corrective action or preventive action.

12.1.3 Depot Level Technical Support and Programs

D-level technical support and programs include all the engineering and logistics sustainment products and processes directly supporting Depot FRC production activities, including production engineer support, logistics support, material disposition and special process certification.

12.1.3.1 Fleet Support Teams (FST) and FRC Maintenance, Repair and Overhaul (MRO) Engineering and Logistics

a. The COMFRC FST Group enables end-to-end management and execution of sustaining engineering and their logistics products and services. FSTs provide support to PMAs, including designing, modifying and repairing assigned aircraft, engines, avionics, and components, and in-service fleet support. They integrate engineering and logistics technical authority functions that sustain products across the FRC enterprise, the Naval Aircraft Warfare Centers, and the Naval Air Technical Data and Engineering Service Center. The FSTs are staffed for their assigned areas of equipment, systems, and platform cognizance as a primary mission element in support of Fleet maintenance organizations. FSTs are assigned to various COMNAVAIRSYSCOM related weapons systems, such as aircraft, engines, and components. The FSTs provide responsive support to Fleet maintenance organizations when engineering and logistics technical support issues are encountered, to include issuing AMEAs to emphasize compliance to existing or new technical information. FSTs also provide acquisition support to the PMAs to ensure new equipment and modifications and upgrades to existing equipment are designed, tested, and fielded with Fleet support and in-service sustainment as a primary consideration.

b. Each major FRC site (FRC East, FRC Southeast, and FRC Southwest) includes MRO Engineering and Logistics Departments dedicated to providing sustaining engineering and logistics products and services in support of the local depot level MRO function. This includes providing engineering support for In-Service Repairs (ISRs), depot production, capability establishment, equipment and system troubleshooting, process improvement, repair dispositions, material analysis, technical data and work documentation, metrology and calibration, and technology evaluation and insertion. It also includes all phases of material management such as initial planning, provisioning and requirements determination; acquisition and distribution; accountability; and ultimate issue for consumption, retention or disposal.

c. COMFRC FST AMEAs emphasize T/M/S-specific maintenance procedures requiring the attention of Fleet activities to ensure consistent performance. AMEAs are published and disseminated by the responsible Fleet Readiness Center FST on the NATEC website, with concurrence from the applicable CNAF/CNAFR/CNATRA aircraft class desk.

NOTE: 1. AMEAs will not be used as a supplemental or replacement for technical publications, to circumvent existing integrated logistics support practices, or to bypass standing policy.

2. AMEAs will not be issued to address technical data deficiencies meeting the criteria for an IRAC or Technical Directive.

d. TYPEWINGs, MAWs and other Fleet activities may submit recommendations for AMEA messages via the applicable aircraft or equipment class desk. Submissions must include the following information:

(1) Aircraft and/or equipment application

(2) Situation statement (a brief description of the problem)

(3) Problem definition (details of the underlying cause of the problem)

(4) Summary (specific information to assist the FST in improving fleet performance)

12.1.3.2 Technical Authority, Certification, and Qualification

The COMNAVAIRSYSCOM Engineering and Sustainment Groups empower Technical Warrant Holders, Deputy Technical Warrant Holders and subject matter experts across the COMFRC Echelon organizations. Engineers empowered with technical authority provide:

a. Safe for Flight requirements for FRC production and quality processes and FST one-time flight recommendations.

b. Provide engineering and technical oversight, guidance, and assistance to FRC Depots.

c. Provide engineering and technical oversight, guidance, and assistance Center for Naval Aviation Technical Training (CENNAVAVNTECHTRA).

d. Develop and issue engineering requirements for special skill certifications for maintenance technologies, such as non-destructive inspection (NDI), welding and brazing, and composite repair.

e. Provide products and services in the establishment of training materials and methods, such as course content and testing and examination procedures, as requested by COMNAVAIRFOR, CENNAVAVNTECHTRA, and COMFRC.

12.1.3.3 Reliability and Maintainability (R&M)/Reliability Centered Maintenance (RCM) Program

a. COMNAVAIRSYSCOM has directed the application of R&M/RCM to all in-service and future aircraft, engines, aircrew systems, weapon systems, aircraft launch and recovery equipment, and support equipment (SE), from technology development through disposal per NAVAIR 00-25-403 and NAVAIRINST 4790.20.

b. R&M/RCM must be applied as a continuous, integrated activity based on sound engineering and sustainment principles for developing safe and affordable failure management strategies. Conduct of this analysis must be the basis for any effort that establishes or adjusts preventive maintenance (PM) tasks and intervals as an element of the overall maintenance planning process.

12.1.3.4 Structural Life Limits (SLL) Program

The SLL Program provides policy and assigns responsibilities to ensure continuing structural safety of fixed and rotary wing aircraft throughout their assigned service life. All levels of maintenance are responsible for ensuring structural life limited items and components do not exceed the specified limits per NAVAIRINST 13120.1 for fixed wing and NAVAIRINST 13130.1 for rotary wing

aircraft and applicable Service Life Bulletins (SLB), periodic maintenance information cards (PMIC), technical directives (TD), and interim rapid action changes (IRAC). Structural modification or alteration of life limited items and components may be changed by applicable TDs, but not without determining the effect on aircraft assigned service life and approval by COMNAVAIRSYSCOM. Responsibilities:

a. FSTs must verify all structural life limited items and dynamic components are incorporated in applicable aircraft PMICs.

b. Depot FRCs must verify all individual aircraft logbooks and auto log-sets (ALS) reflect work accomplished by the Depot FRC which may affect the structural life limited items or dynamic components service life. For aircraft reworked on-site, reflect work accomplished in aircraft logbooks or provide the documentation for aircraft logbook entry by the operating activity (as applicable). The FST must include instructions for any required logbook or scheduled removal component (SRC) card entries with Fleet Engineering Dispositions (FED).

12.1.3.5 Integrated Maintenance Concept/Program (IMC/P)

IMC/P is a multi-phased (Prototype-to-Implementation) program maintenance philosophy based on RCM analysis and focused on developing pro-active Preventive Maintenance Plans. NAVAIR AL-081AO-IMC-000 is used by the PMA for planning to transition to the IMC/P and will be used in preparing for the prototype and final approval processes to ensure all programmatic requirements are anticipated and put in place prior to the commencement of the first PMI at the IMC/P site. This handbook contains the general requirements which must be met for the plan before seeking concurrence from the Integrated Maintenance Review Board and CNO (N980L). The planned maintenance interval (PMI) Specification details inspection and processing specification requirements necessary to perform scheduled aircraft D-level maintenance. The PMI Specification can be used by both government and commercial contractor activities.

a. Key aspects of the IMC/P include:

(1) A comprehensive RCM analysis that includes the justification of all maintenance tasks without regard to specific levels of repair. It relies on decision logic for defining PM tasks that are applicable and effective for a specific set of failure modes and outcomes. RCM engineering analysis will be used to develop and identify PM tasks that will produce the highest degree of availability and readiness at the lowest overall life cycle cost. IMC/P targets improvement in the overall material condition of the aircraft, optimum life-cycle costs, and reduced out-of-service time while retaining safety considerations.

(2) The consolidation of maintenance tasks that safely minimizes the duplication of effort among O-level, I-level, and D-level. Eliminating redundant tasks and combining multi-level artisan skill sets will allow programs to achieve a wider range of tasks without regard to location. This initiative allows programs to move D-level skilled artisans closer to the warfighter, improves Fleet readiness through personnel training, and reduces aircraft downtime.

(3) Fixed Service Periods (FSP) are established by type/model/series (T/M/S) and are based on RCM analysis, operational requirements, safety, and economic considerations. Fixed Induction Dates (FID) for IMC/P events are set for the specific Month and Year. Planners may induct an

IMC/P aircraft any time during that specified month, or up to 2 months earlier if required, for scheduling purposes to support operational requirements, promote level scheduling of D-level events, or compliment budget submission timelines.

(4) Calendar Based induction scheduling consists of Fixed Induction Dates (FID) for IMC/P events set for a specific Month and Year. Planners may induct an IMC/P aircraft any time during that specified month, or up to 2 months earlier if required, for scheduling purposes to support operational requirements, promote level scheduling of D-level events, or compliment budget submission timelines.

(5) Block Scheduling inductions consists of prescribed blocks (i.e. induction) at each designated repair point (D-level facility) while also allowing the flight experience of the aircraft dictate which aircraft are to be inducted by filling the pre-determined induction blocks at said designated repair point (DRP). The concept aligns with OPNAV requirement in that the prescribed blocks meet the budget forecast requirement. The concept meets the Fleet requirement where filling the blocks based on aircraft flight experience provides the Fleet with more flight line time and flexibility to adjust to changing mission requirements as well as eliminate the early inductions that are taking away valuable utilization time from the Fleet.

12.1.3.6 Aircraft Service Period Adjustment (ASPA) Program

The purpose of the ASPA Program is to establish a process to evaluate the material condition of a small number of aircraft that have not converted to the Integrated Maintenance Concept (IMC). ASPA processes are defined in OPNAVINST 3110.11 and NAVAIR 00-25-403.

12.1.3.7 Naval Sustainment System Aircraft (NSS-A) Depot Event Induction

12.1.3.7.1 Introduction. The following requirements must be adhered to during the scheduling, induction, and completion of depot events and are in effect for all Type/Model/Series (T/M/S) aircraft scheduled for induction into a CONUS-based Fleet Readiness Center (FRC) or field site for a depot event. Depot events refer to Planned Maintenance Intervals (PMIs), Phased Depot Maintenance, Aircraft Condition Inspections, or any scheduled depot level process excluding modifications.

12.1.3.7.2 Pre-Induction Requirements. Adherence to the requirements in paragraphs (a) thru (h) must be met prior to acceptance of an aircraft for a depot event. Any deviation from these requirements require Aircraft Controlling Custodian (ACC) and Commander, Fleet Readiness Center (COMFRC) Production Group authorization for acceptance.

a. An OPNAV 4790/65, Phased Depot Maintenance Special Work Request will be submitted to the Depot FRC prior to induction per paragraph 5.1.10.

b. COMFRC with Depot FRCs, PMAs, ACCs, Type Wings, MAWs, Naval Supply Systems Command (NAVSUP), Defense Logistics Agency (DLA), squadrons, and supporting stakeholders will facilitate pre-induction planning meetings to properly schedule all requirements and perform production reviews and inspections per:

(1) Pre-induction planning reviews will be conducted 120-days, 90-days, 60-days, and 30-days prior to induction, as applicable per T/M/S, to ensure funding and all required logistic elements

are in place to support the event. Pre-induction planning will include reliability centered maintenance analysis. This will include fleet maintenance trends, corrosion trends, and material support posture. This information will be presented to respective squadrons, ACC, Program Manager-Aviation (PMA), NAVSUP Integrated Weapons Support Team (IWST), DLA stakeholders and FRC sites.

(2) Heavy maintenance and modification requirements identified during the pre-induction planning process may adjust scheduled depot event Turnaround Times (TAT). Any TAT adjustment beyond the published workload standard must be approved by the ACC with concurrence from COMFRC and documented in the Pre-Induction Review meeting minutes.

c. Aircraft inducted will be configured per particular T/M/S depot event specification.

d. Aircraft must have been flown within 5 calendar days prior to depot event induction for aircraft towed to the depot facility. Deviations may be granted by the ACC with concurrence from COMFRC and Type Wing or MAW. Aircraft that have approved deviations must be electrically, hydraulically, and mechanically (flight controls and dynamic components) operational prior to induction, regardless of depot event location.

e. The depot FRC will be formally notified during Pre-Induction review meetings of prototype systems or flight test mods (FTM) installed on aircraft to enable evaluation of potential issues with conducting required inspections and repairs.

f. Repairable components missing on induction must be approved by the ACC prior to induction.

g. Type Wings and MAWs will ensure adequate spaces are available to support depot field events when conducted at the reporting custodians location.

12.1.3.7.3 Post Induction Requirements

a. Post-induction assessment discrepancies from the evaluation and estimation phase, regardless of defect correction criteria, will be documented and provided to the Fleet as part of an Aircraft Delivery Deficiency Report (ADDR), per the procedures of par. 10.9.3.3.

b. Cannibalization procedures will be adhered to per paragraph 5.1.8 and will not occur on aircraft or preclude rebuild unless authorized by the ACC Class Desk.

NOTE: Cannibalizations will not be authorized until after the completion of the induction phase, i.e., all examination and evaluation actions are complete, unless agreed upon by the applicable Depot FRC, ACC, Type Wing or MAW and have delivery dates prior to build stage of the depot event.

c. Cannibalization replacement payback plans will be identified by the activity requesting the cannibalization prior to ACC approval and part(s) must be delivered to depot FRCs no later than the production line determined need by date.

d. Aircraft without required parts for operational checks or Functional Check Flights (FCF) will complete the depot event when required parts are delivered. The depot FRC will notify the ACC

and Type Wing or MAW within 24 hours via email any time operational checks or FCFs are delayed.

12.1.3.7.4 Depot Event Completion Requirements

a. Depot FRCs will not return an aircraft with incomplete or with open depot event requirements without the approval of ACC, concurrence from COMFRC Production Group, and coordination with the Integrated Maintenance Concept coordinator and Fleet Support Team (FST).

b. Any Non-Mission Capable depot level discrepancy will be repaired prior to being returned to the Fleet.

c. Depot FRCs will perform a FCF if the requirement is part of the depot rework specification. ACC, Type Wing, or MAW will establish post depot event timelines for completing O-level work and conducting post depot event FCFs.

d. Depot FRCs will communicate all production support barriers to the appropriate stakeholder(s) when they become known.

e. Production support barriers will be documented and directly communicated to the Type Wing, MAW, COMFRC and ACC during BUNO reviews.

f. Depot FRCs will conduct a Post Production Assessment (PPA) within 30 days after completion of a depot event to identify and document those factors that negatively affected the scheduled completion of the depot event. Focus of the PPA will be to perform root cause analysis of supportability deficiencies and develop preventative course of actions to keep the same deficiencies from occurring with subsequent inductions. Squadrons will submit Aircraft Inspection Deficiency Reports, per 10.9.3.4.

g. A post-depot event corrosion correlation feedback review will be completed by the respective PMA's FST. Data from this review will be analyzed against O-Level scheduled maintenance inspection requirements to improve corrosion prevention at the O-Level and mitigate same deficiencies from occurring with subsequent inductions. Correlation results will be provided to the respective Type Wing or MAW and squadron via the ADDR.

12.1.3.7.5 NSS-A Heads Up Display (HUD) Reporting. Aircraft TAT will be monitored via T/M/S HUDs with constraints and barriers impacting TAT performance elevated for resolution. Event TAT begins when the Depot FRC assumes aircraft physical custody and ends when the aircraft is either FCF complete for fly-in and fly-out events or returned to the reporting custodian for tow-in and tow-out events. NAVAIRINST 4710.24, Production Status Reporting, will be used as the authoritative source to document and record all aircraft depot cost and schedule performance.

12.1.3.8 Automatic Test Equipment (ATE) and ATE Test Program Sets (TPS)

a. ATE are required to support present and future complex aircraft weapon systems. The development of Navy organic capability to support these weapon systems includes the requirement to support the required ATE TPS. Functionally, the TPS computer program operates within an ATE system and is connected to a unit under test (UUT) in such a manner to isolate and detect faults within the UUT to its defective part(s). All ATE and ATE TPS used in common by I-level or D-level maintenance activities in support of designated airborne weapon systems, and all D-level only

ATE and ATE TPSs are funded and developed by COMNAVAIRSYSCOM IAW OPNAVINST 3960.16.

b. The FST is the COMNAVAIRSYSCOM Technical and Certification Authority for designated ATE and ATE TPS. The FST has the responsibility and accountability to establish, monitor, certify, and approve technical products and processes in conformance to higher authority policy, requirements, architectures, and standards including Test Workaround Procedures.

c. TPS Development is provided by COMNAVAIRSYSCOM. The TPSs provided by TPS Development are made up of hardware and software elements and all supporting documentation. The TPSs provide the Fleet and FRCs the capability to maintain and repair complex aircraft weapon and avionic systems using ATE. COMNAVAIRSYSCOM furnishes organic TPS Development teams to provide Fleet introductions and on site verifications of the TPSs.

d. Consolidated automated support system (CASS), electronic (eCASS) and reconfigurable transportable (RT) CASS Installation/Validation/Verification support is provided by COMNAVAIRSYSCOM in the form of effective, reliable CASS and RTCASS testing and support to the naval aviation warfighter on all aircraft carriers and amphibious assault ships (CVNs, LHAs, and LHDs), Naval Air Stations (NAS), and Marine Corps Air Stations (MCAS) per the requirements of PMA-260, COMNAVAIRSYSCOM, Patuxent River, MD.

12.1.3.9 Mobile Facility (MF)

COMNAVAIRSYSCOM is designated as the Technical and Certification Authority on MF used by the Navy and Marine Corps. The FST has the responsibility and accountability to establish, monitor, certify and approve technical products and processes in conformance to higher authority policy, requirements, architectures, and standards per NAVAIR M-13670.1.

12.1.3.10 Joint Deficiency Reporting System (JDRS)

a. JDRS is used to report deficiencies concerning aircraft, systems, and equipment. The system provides notification to appropriate stakeholders and their support teams responsible for investigating and correcting the discrepancy, guides responses, compiles data, helps resolve problems, and serves as a historical resource to research prior occurrences. The goal is to resolve every safety deficiency promptly and to provide effective leading indicator metrics to prevent reoccurrence of safety, reliability, and maintainability issues.

b. For details of the reporting tools, methods and processes for NAMDRP deficiencies refer to paragraph 10.9.

c. The CIM module in JDRS is used to report and identify item criticality (critical safety item (CSI)/critical application item (CAI)). Details of the reporting methods and processes for CIM are in paragraph 12.1.3.12.

12.1.3.11 System Safety Program

a. The purpose of the System Safety Program is to identify, eliminate, or mitigate risks in the design of weapons systems to an acceptable level. This includes risks to hardware, software, and human systems interfaces and risks to the system, personnel and the environment.

b. DODINST 5000.02 requires program managers to establish a System Safety Program, regardless of ACAT category per the methodology in MIL-STD-882. The DODINST 5000.02 and SECNAVINST 5000.2 identify the risk acceptance authorities for System Safety Risks. The COMNAVAIRSYSCOM Engineering and Cyber Warfare Group Director is responsible for implementing, maintaining, and overseeing NAVAIR System Safety Policy per NAVAIRINST 5100.3.

c. FSTs will conduct analysis to determine the high priority projects that present the greatest cost mishaps through EI files, incident and mishap reports, and PQDRs. In addition, FSTs will conduct initial risk assessments of hazards identified as a screening process to determine if the EI is safety critical and gather, track, and trend safety data from OPNAVINST 3750.6, HAZREPs, EIs, PQDRs, and MIL-STD-882D reports.

12.1.3.12 Central Technical Publications Library (CTPL)

NOTE: Fleet Readiness Center Western Pacific (FRCWP) will manage CTPL per Chapter 7. All other Depot FRCs will manage their CTPL per this chapter.

a. The CTPL serves two important functions. It provides a central source of up-to-date aeronautical reference material and is a ready reference source for personnel training and individual improvement. To perform these functions, the Technical Data Manager (TDM) must manage and control the distribution of technical publications for every T/M/S aircraft and related equipment in the organization's physical custody consistent with the maintenance level of responsibility involved. Retention of master copies of publications in the CTPL is optional if the same publications are held by one or more dispersed libraries. Controlled electronic media technical publications and directives should be used whenever available on any approved Navy Marine Corps Internet (NMCI) devices.

b. Management of the CTPL includes determining which technical publications are needed to support the organization, controlling receipt and distribution, and ensuring all publications are current and in good condition. Internal control and distribution of this instruction is a TDM responsibility.

c. Depot FRCs will adhere to NAVAIR 00-25-100, which contains detailed information about establishing and operating a CTPL. It also describes the requirements, functions, and responsibilities of personnel assigned to maintain aeronautical technical publications. In addition, Depot FRCs will establish local command procedures (LCP) per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions for the management and control of technical data to include:

(1) Responsibilities.

(2) Portable Electronic Maintenance Aids (PEMA) inventory control and update procedures per NAVAIR 00-25-100, WP 011 01. Procedures must emphasize the following:

(a) Compliance with all cybersecurity and communications security protocols per DODINST 8500.01 and 8560.01.

(b) Installing only authorized technical data and software.

(c) PEMAs will be used to support maintenance only. PEMAs will not be used for personal or non-maintenance purposes.

(d) Limiting administrative privileges to only authorized personnel.

(e) Installing PEMA Service Packs within 15 working days of receipt.

(f) PEMAs will be stored in a locked space, container, or locker during off shift work hours when not in use.

(3) Technical Directives (TD) management procedures, to include a process to track and maintain positive control of TDs, and will use Electronic Library Management System (ELMS) to store and manage controlled and distributed TDs.

d. Audit Requirements.

(1) Annual and Turnover Audits. All Annual and Turnover Audits will be conducted by the TDM, a SME on library management, or a designated representative at the Depot FRC facilities, to ensure that manuals and TDs used by the activity are up-to-date. All CSECs, proof of routing, inventories and other supporting documentation of completed Annual and Turnover audits must be kept on file for a minimum of 2 years. At a minimum, Annual and Turnover audits will consist of the following:

(a) A complete wall-to-wall inventory of all technical data held within the CTPL and all DTPLs, satellite libraries, and library service areas (LSA) will be conducted whenever the Technical Data Program Manager is replaced, annually, or when directed by higher authority.

NOTE: Replacement of FRC TDM does not require a complete wall to wall inventory. The inventory only applies to the affected libraries under the responsibility of the TDM being replaced.

(b) All manuals must be verified that they are properly stamped, arranged properly, and identification strips on binder spines are correctly annotated per NAVAIR 00-25-100.

(c) Perform the Library Audit function in ELMS to include, Audit Options and Report Options per NAVAIR 00-25-100, comparing the FRC's database contents to the latest information in TMAPS and records in ELMS.

(d) Requisition any manuals or changes necessary to update the CTPL.

(e) Compare the verified or corrected work center list to the current copy of the FRC's ADRL and update the record in ELMS, as necessary.

(f) Complete CSEC (refer to COMNAVAIRFORINST 4790.2 series).

(2) DTPL Semi-annual Audit. The TDM or designated representative will perform a semi-annual Audit on all DTPL, satellite libraries and LSA operations. If the TDM is not available, Quality Assurance/Depot FRC manager personnel will perform the audit. Additional audits will be

conducted when directed by higher authority or when a new dispersed, satellite libraries, or LSA librarian is assigned. Dispersed library audit results with copies of the annotated audit inventory list must be retained by the TDM in work center order, for two consecutive audits (one year) and must be reviewed for repeat discrepancies. At a minimum, the semi-annual must consist of the following:

(a) A complete inventory of all DTPL publications media, which include TMs contained on PEMAs, and all digital manuals, using the ELMS Program Locator Report or ELMS Complete Work Center Report as the primary inventory tool. Discrepancies identified on the Program Locator Report or ELMS Complete Work Center Report must be annotated with the error and corrected as they are detected.

(b) Reproduced pages of manuals properly controlled and disposed of.

(c) Manuals and media properly stored and readily available to the user.

(d) Review Part 2 of CECRs against manuals.

(e) IRACs properly incorporated to include proper placement in manuals, i.e., directly behind the TM title page and in IRAC number order.

(f) For TMs on CD, maintain IRACs in accordance with established procedures per NAVAIR 00-25-100.

(g) Work Center audit listing.

(h) Page check of dispersed, satellite or LSA library publications. Fifty percent of publications held are to be page-checked during each semi-annual audit, ensuring that all manuals have been page checked during the calendar year.

(i) For electronic media, such as JTDI or JKCS, perform access verification to ensure all users are able to search and find applicable manuals in a reasonable timeframe.

(j) All digital TMs loaded to NMCI assets, or to SharePoint, controlled by CTPL, will be audited by performing the audit function in ELMS, verifying most current manual, and IRACs are loaded in the electronic IRAC binder.

(3) Semi-Annual ADRL Verification. The TDM or designated SME must conduct a semi-annual verification against the FRC's ADRL. The review will include a physical inventory, comparing all technical publications (including all digital TMs on PEMAs and NMCI assets) against the ADRL, and Work Center Supervisor verification that each publication is required. Annotate changes and discrepancies on the Complete Work Center Report, take corrective action, update the ADRL in ELMS, and maintain the annotated listing in the CTPL transaction files.

(4) CTPL Weekly Reconciliation. The TDM will perform a Weekly Reconciliation for the activity's ELMS operations. The Library Audit function in ELMS compares database contents to the latest information in TMAPS. In ELMS, discrepancies are indicated by anything other than a normal Adobe icon. The Weekly ELMS Library Audit must consist of the following:

(a) Perform the library audit and PEMA audit functions in ELMS per NAVAIR 00-25-100.

(b) Verify all flagged status codes, research and requisition any manuals or changes necessary to update the CTPL ELMS Program.

(c) Verify incorporation of TM updates by reviewing Issued CECRs and Overdue CECRs in ELMS per NAVAIR 00-25-100.

(d) Verify the Weekly IRAC Tracker and Technical Manual Report. This report is available weekly by naval message and is also available on the NATEC Website at https://mynatec.navair.navy.mil/. Upon receipt, a review and annotation must be conducted by the CTPL or SME to verify that all applicable IRACs and TMs have been received or cancelled.

(e) Verify the Weekly Summary for Issued TDs. This report is issued by naval message and is also available on the NATEC Website at https://mynatec.navair.navy.mil/.

(5) CTPL Monthly Reconciliation. The TDM will perform a Monthly Reconciliation and must consist of a reconciliation of TMs on order each month per the following procedures:

(a) Verify the currency of the Requisition Log.

(b) Query the Pubs on Order report from the Tech Manual Search in ELMS.

(c) Follow-up on requisitions submitted via either Defense Automatic Addressing System (DAAS) or "on-line" when utilizing the ELMS Requisition Log. Requisition status may also be checked via the Naval Logistics Library (NLL) P2003 Online Search, Order, and Status Tool (https://nll.navsup.navy.mil).

e. If the Depot FRC determines local maintenance requirements cards (LMRC) are required for scheduled maintenance requirements not covered by other technical manuals, LMRC procedures will be followed per 10.8.3.5. Designated depot personnel will have final approval authority on LMRCs.

12.1.3.13 Critical Item Management (CIM)

a. FSTs are designated as the Engineering Support Activity (ESA) for each aircraft platform for which they are defined as the cognizant authority. The term ESA is synonymous with Design Control Activity. The ESA is responsible for CIM for their platform. CIM denotes the sourcing, manufacturing, and repairing of naval aviation CAIs and CSIs, collectively referred to herein as CIs. CIs are items the failure of which has been determined to result in MIL-STD-882 severity Category I or Category II consequences.

b. Technical empowerment levels related to CIs is categorized by technical domain and is delegated by the Technical Warrant Holder for each domain.. Engineers within an ESA that have authority to officially sign off on completed work related to CIs within their purview are designated as basic design engineers (BDE). BDE tasking includes but is not limited to:

(1) Item criticality determinations using Failure Modes and Effects Analysis (FMEA) and determination of critical characteristics for CSI items.

(2) Development and approval of manufacturing plans for local one-time manufacture of CIs.

(3) Technical review of DLA 339 (Request for Engineering Support) and provide engineering guidance.

(4) Participation in the resolution of CIM policy issues related to the BDEs platform and area of competence.

(5) Participation in the resolution of conflicting initial capabilities documents (ICD) for items that are used on multiple platforms.

(6) Participation in the resolution of issues related to alternate sources for CIs.

(7) Review of Source Approval Requests (SAR).

(8) Development of Quality Assurance Provisions (QAP) for alternate source qualification.

(9) Approving sources of supply, technical data packages and site surveys as applicable for CSI.

c. Each FRC has a Critical Items Management Coordinator (CIMCO). The CIMCO duties fall into the following categories:

(1) CIM Oversight. The CIMCO is the local site process owner and functions as a liaison for COMNAVAIRSYSCOM Engineering, NAVSUP WSS, and DLA for emergency or problem issues with specific vendors. The CIMCO is a member of the Navy CIM Policy Team, and manages CIM funding and metrics for their FRC. The CIMCO maintains the CIM database inputs for their FRC.

(2) Engineering Request Coordination. The CIMCO or their delegated representative provides overarching guidance and ownership of DLA/NAVSUP WSS engineering requests to the ESAs at their FRC. This includes tracking and assigning tasks to the appropriate engineering teams, tracking and recording all engineering responses, and expediting turn-around times, questions, etc.

(3) Source Approval Request (SAR) Package Review Coordination. SAR packages are formal proposals from vendors seeking to become alternate sources for items procured by or repaired for the Government. The CIMCO receives all SAR packages from DLA and NAVSUP WSS that are sent to ESAs at their site. The CIMCO then verifies item criticality, FMEA, any relevant Product Quality Deficiency Reports (PQDR), and Hazardous Materials Reports (HMR)/Engineering Investigations (EI) for the SAR packages received and then performs an in-depth review of the SAR package using the SAR checklist. Once the SAR package has any discrepancies corrected the CIMCO routes the SAR packages to the appropriate ESA. Once completed, the CIMCO will review and add relevant QAP and Contract Data Requirement List (CDRL) forms or templates then closes out the SAR packages per the SAR review process.

(4) First Article Test and Production Lot Test Process. Each FRC performs First Article Testing and Production Lot Testing for items procured from alternate sources. Testing is performed as required by the contract, and typically includes some combination of dimensional validation, material property validation, and form/fit/function testing. Upon completion of testing, the FRC notifies the customer (NAVSUP WSS or DLA) of test results (pass, fail, or conditional acceptance).

(5) Item Criticality Database (ICD) System. The Navy has developed and implemented an ICD module into the JDRS (https://www.jdrs.mil/)JDRS is the official database for item criticality determinations. In addition to an item's criticality, the database also contains information on an item's critical characteristics, its national stock number (if any), and approved sources. CIMCOs can provide assistance with the JDRS ICD to engineering on an as needed basis. CIMCO will review and research all ICDs including FMEA. CIMCO will verify approved source entry, attachment of SAR packages, and verify critical characteristics entry for CSI items for any approved alternate sources of supply and repair.

12.1.3.14 Material Engineering Disposition Program (MEDP)

a. The MEDP is used to systematically evaluate whether material that does not conform to specification can be scrapped, reclaimed and used "as is", reworked, or repaired without compromising the end product's quality.

NOTE: Material disposition is performed by the cognizant Engineering Group.

b. The MEDP applies to all aeronautical material, including SE, when authorized repair has not been established. The MEDP may apply to material determined to be in critical supply. The MEDP does not apply to deficient material reported per paragraph 10.9.

c. Depot FRC-caused discrepancies that affect the conformity of material will be annotated as an ER/AR in ePower. Engineering will provide Temporary Engineering Instructions (TEIs) for the disposition of the material.

d. When material is found to be in nonconformance of specifications or procedural requirements and cannot be processed normally, the material will be identified by being appropriately tagged, segregated, and stored in a designated MEDP holding area.

e. The Depot QMS must include a control system for retaining MEDP data on file for a minimum of 1 year.

f. The MEDP Request for Engineering Information (REI) form must be prepared prior to submission of the material to the MEDP.

g. MEDP action must commence within 10 workdays of discovery. The FST will decide if the material will be used "as is", reworked, or scrapped. Decisions regarding acceptance of recurring discrepancies must consider corrective action, number of items involved, and frequency of recurrences. If material can be made acceptable by rework or repair, it will be reworked or repaired by specific procedures designated or provided by the MEDP and reviewed by Quality Control for all necessary work instructions and needed verification lines.

h. Material identified for scrap must be mutilated to prevent reuse, intermingling with conforming material, or future reclamation. Depot FRCs must develop disposition procedures.

12.1.3.15 Nondestructive Testing and Inspection (NDT/I) Program

12.1.3.15.1 Purpose

The purpose of the NDT/I Program is to establish and maintain an NDT/I Program that responds to the needs of naval aviation. The specific objectives of the Depot FRC NDT/I Program are to:

a. Determine serviceability of new and used parts by using NDI techniques to check them for hidden defects.

b. Provide training

c. Provide technical services

d. Maintain periodicity in all NDI disciplines

12.1.3.14.2 Responsibilities

The following duties and responsibilities are defined and assigned.

a. COMNAVAIRSYSCOM is responsible for managing a program of research, development, training, and application of NDI techniques and equipment.

(1) A program manager must be designated to provide overall management direction.

(2) NAVAIRINST 13070.1 assigns responsibilities within COMNAVAIRSYSCOM.

(3) Designating an NDI Program coordinator responsible for monitoring, evaluating and standardizing the Depot FRC NDT/I application and training program elements, including scheduling and conducting periodic NDI Program review.

b. Each Depot FRC that maintains NDI capability is responsible for assigning an NDT/I Program Manager to direct and implement the internal NDT/I Program. The Program Manager must:

(1) Act as the primary NDI point of contact for fleet activities and all external NDI matters.

(2) Provide technical coordination of all NDT/I functions.

(3) Develop and approve NDI procedures for dissemination both in-house and to the fleet activities.

(4) Review and approve all outgoing directives involving NDI procedures.

(5) Ensure properly manned, equipped, qualified, and certified NDI personnel are maintained at all Depot FRCs.

(6) Provide technical assistance to I-level and O-level activities on NDI matters related to supported weapons systems.

(7) Coordinate with ACC or TYCOM prior to issuing NDI directives and techniques for fleet implementation.

(8) Maintain a documented NDI training, qualification, certification, and recertification program for assigned personnel.

(9) Maintain communication with lead NDI Program personnel at COMNAVAIRSYSCOM and all FRCs/FSTs.

(10) Provide technical support to the Fleet NDI training program as requested by COMNAVAIRSYSCOM, CNATT, or COMNAVAIRFOR.

c. Each Depot FRC must have a radiation safety program sufficient to ensure safe X-ray operations. Program requirements include, but are not limited to, compliance with all X-ray radiation safety requirements per NAVSEA S0420-AA-RAD-010. A Radiation Safety Officer and an Assistant Radiation Safety Officer must be assigned to monitor this program.

NOTE: RAD 010 takes precedence over radiation safety procedures contained in NAVAIR 01-1A-16.

d. Written procedures for NDI directives for fleet implementation must be explicit and verified by the ACC or TYCOM. When references are used they must be those normally available to the maintenance level involved. Whenever possible, equipment and material required must be those listed in NAEC-MISC 52-0385. When this is not practical, the FST will identify required equipment and materials, for example, transducers, wedges, fixtures, probes, standards, and provide such items to fleet activities concurrently with inspection directives. If the directed inspection is of a continuing or repetitive nature, a support equipment recommendation data form must be submitted by the originating FST per MIL-HDBK-2097A. Each NDI directive must indicate an NDI point of contact.

NOTE: When deemed necessary by the cognizant FST and NDI Program Manager, TDs requiring complex NDI inspection techniques or where the area of interest and nonrelevant indications may be misinterpreted must be supplemented by drawings, photographs, or video tape for clarity. This supplemental material must be dated, serialized, and controlled by the TDM as part of the TD.

e. Depot FRCs must ensure the focus of the NDI Program is to provide a quality product not to be compromised by production expediency.

12.1.3.15.3 Fleet Training Program

a. Depot FRCs must provide NDI training examination and qualification per NAVAIRINST 1500.2 and as identified in the CANTRAC (NAVEDTRA 10500).

b. COMNAVAIRSYSCOM must:

(1) Provide Depot FRCs with current, complete training courses

(2) Monitor and update the CANTRAC

(3) Coordinate training requests for military and civilian NDI personnel with the cognizant Depot FRC. Quota control authority for military personnel is normally delegated to the Depot FRC that teaches the course. A requesting activity, in receipt of ACC or TYCOM approval to obtain a course quota, will normally contact that D-level directly. In emergency situations where course

quota conflicts cannot be resolved between the requestor's chain of command and the Depot FRC, COMNAVAIRSYSCOM will be contacted to arbitrate a solution.

c. Depot FRCs must:

(1) Provide NDI operator training

(2) Provide NDI Technician recertification training

(3) Submit proposed NDI course changes

(4) Administer standardized practical and written examinations to fleet personnel. One retake of the examination will be permitted. Repeated failure will be reported to the individual's CO and TYCOM for appropriate action.

12.1.4 Industrial Operations Programs and Processes

Industrial Operations Programs and Processes are intended to be implemented using this instruction and specific program related maintenance technical manuals which are identified within the program text. Generation of supplemental instructions below the COMNAVAIRSYSCOM level (with the exception of local command procedures per OPNAVINST 5215.17) to augment these policy management documents are not authorized. Depot FRCs have resources such as Training Management Offices, Fleet Support Teams (FST), material laboratories, engineering and logistics capabilities, and subject matter experts (SME) better suited to perform testing, training, qualifications, and publication management. To leverage these resources, Commanding Officers may assign program and process management responsibilities per OPNAVINST 5215.17 via a SME Listing to effectively accomplish these requirements.

12.1.4.1 Industrial Operations Programs and Processes (IOPP) Training

12.1.4.1.1 Introduction

12.1.4.1.1.1 A proficient civilian workforce is key in supporting Naval Aviation operational readiness. All Depot FRCs are responsible for ensuring their personnel are adequately trained and qualified in their duties. Industrial Operations Programs and Processes (IOPP) Training includes the training required to support job tasks **and** attain required licenses, qualifications, certifications, and designations, to include indoctrination and refresher training. IOPP Training will be documented in Advanced Skills Management (ASM). Depot FRCs will establish, if required, local command procedures (LCP) per OPNAVINST 5215.17 to direct geographic, T/M/S specific, or command directed actions for the management of their training program.

12.1.4.1.1.2 IOPP training provides basic, intermediate, and advanced levels of training to depot personnel involved with aircraft, engines, components, related equipment, and facilities. Maintenance training is aligned to maintenance tasks and manning concepts required and arranged in a continuum of formal training.

12.1.4.1.1.3 On-the-job training (OJT) is the primary training element in attaining technical proficiency and skill in performing maintenance and administrative duties. OJT consists of personnel performing tasks under the supervision of qualified personnel. The trainee gains knowledge, skill, and experience by observing and participating in the work.

12.1.4.1.1.4 Job Qualification Requirements (JQR). Nationally or locally produced PQS type qualification training syllabi for maintenance duties not included in an existing Qualification Certification License (QCL).

12.1.4.1.1.5 The Advanced Skills Management Program (ASM) is an unclassified Management Information System (MIS) that contains job task requirements, archives for completed training, qualifications, certifications, designations, duties, or billet assignments; it tracks personnel progress in completing all required training items. ASM is the primary training database for personnel designation management, qualifications**,** and certifications for Depot maintenance activities. All designations, qualifications, and certifications are complete when signed off by the designation authority and will be tracked by the approver's signature date in ASM.

NOTE: All activities will use ASM for all NAMP designations. Activities not on ASM may continue to use the SME listing.

12.1.4.1.2 Formal Training

12.1.4.1.2.1 Formal Training. Training with an approved course curriculum which, may or may not produce an NEC or MOS. Formal training courses deliver specific weapon system task training that provides familiarization in the operation and maintenance of the system, support equipment, or program being maintained.

12.1.4.1.2.2 Site Training Model Managers (STMM). STMM provide systematic review and evaluation of training for respective T/M/S systems. STMM is normally the cognizant Depot FRC with expertise on specific systems and**,** therefore**,** best able to evaluate or propose changes to training curricula or syllabi.

12.1.4.1.3 Training Requirements

12.1.4.1.3.1 JQR. The JQR must include all elements required to attain qualification (as applicable):

a. Formal training courses

b. Required reading

c. Related general qualifications, for example, cardiopulmonary resuscitation (CPR)

d. Prerequisite requirements

e. OJT in specific maintenance and administrative tasks related to the job

12.1.4.1.3.2 OJT. OJT tasks may be conducted and documented until the trainee is qualified. Supervisors will recommend final qualification only when confident the individual is knowledgeable and skilled in that area. Once the Supervisor certifies an individual as qualified in a task, OJT documentation for that task is no longer required.

a. OJT will be performed under the supervision and instruction of qualified and designated personnel. Designated qualifiers will sign-off completion of tasks (line items), only if the individual demonstrates thorough knowledge and skill in the practical application of the task.

b. The preferred method of OJT is hands-on performance of the task. Simulation may be used when it is impractical to perform the actual task. At a minimum, OJT will include:

(1) General administrative duties, for example, work orders (WO) and logs and records entries

(2) Use of technical manuals, reports, and reference materials

(3) Use of tools and test equipment

(4) Inspection and maintenance procedures

(5) General and T/M/S or equipment specific corrosion control inspection, treatment, and prevention procedures

(6) Quality certification requirements

(7) Post task question and answer session to assess the trainee's level of comprehension

NOTE: OJT refresher training in technical or administrative procedures is required whenever personnel demonstrate a lack of knowledge or skill in task areas for which they have been previously signed off as qualified to perform.

12.1.4.1.3.3 Lesson Guides

a. Lesson guides may be used to conduct non-OJT maintenance training. Lesson guides must be based on current technical references; for example, technical manuals, Interactive Electronic Technical Manual (IETM), COMNAVAIRSYSCOM manuals, instructions, or policy directives, such as the NAMP, NAVAIR, and TYCOM.

b. Lesson guides are required only if the content in manuals, instructions, or videos is insufficient for the presenter to cover the topic. A list of In-Service training courses is also available at https://learning.nel.navy.mil under Course Catalog, Navy Learning Centers and Programs, Center for Naval Aviation Technical Training (CNATT), In-Service.

c. Lesson guides or supplemental training may include the following elements, as required:

(1) Lesson number

(2) Time required to conduct the lesson

(3) Date prepared

(4) Date reviewed

(5) Prepared or reviewed by

(6) Title

(7) Objective

(8) Instructional aids (if required) and where they can be obtained

(9) References

(10) Presentation. If the lesson is covering a procedure in a maintenance technical manual or instruction, the presentation section will state, "Cover the procedures of (reference) with emphasis on key topics." All safety precautions, emergency procedures, applicable Aviation Maintenance Advisories (AMA), and QA requirements must be thoroughly covered.

(11) Summary. At a minimum, the summary must include any safety precautions and emergency procedures covered in the lesson.

(12) Question and answer period

12.1.4.1.4 Indoctrination Training

The purpose of IOPP indoctrination training is for Depot FRCs to provide newly hired personnel with a fundamental overview and understanding of IOPP.

a. IOPP indoctrination training will be provided to all newly hired personnel as determined by LCPs within 90 days. Although the training does not need to be in any specific format, IOPP indoctrination training topics will include, at a minimum, the basic maintenance processes of foreign object damage, tool control, safety, egress, and hazardous material control and management.

b. IOPP indoctrination training may be taught by the applicable Program Manager, Program Monitor, or anyone designated by management, to an individual or in a group setting.

c. Primary means to document IOPP Indoctrination Training is ASM. Commands not implemented with ASM will document IOPP Indoctrination Training by utilizing Figure 10.1-3.

12.1.4.1.5 Refresher Training

a. IOPP and OJT refresher training is only required for personnel when directed by QA management, IOPP Managers and Monitors, or by Naval directives. In addition, refresher training will be accomplished as follows:

(1) Upon release of an updated NAMP (revision or change)

(2) When directed by higher authority or dictated by operational environment (e.g., quality escape, non-conformance)

(3) When directed by an AMA

b. IOPP refresher training must be documented in ASM

12.1.4.1.6 Qualification/Certification Record

a. Activities using ASM must activate or initiate a Qualification/Certification Record in ASM for each individual that requires a NAMP qualification, license, certification, individual development plan (IDP), OJT, individual qualification record (IQR), stamp, or designation. All duties/billets, letters of designation, qualification, certification, course completion, medical certification, and completed PQS and JQR will be filed in the ASM Qualification/Certification Record, Enterprise Safety Application Management System, or where designated by higher authority.

NOTES: 1. Each individual that requires a NAMP qualification, license, certification, or designation will maintain an ASM account.

2. Duplicate paper records and forms are not authorized for activities using ASM. In the event a qualification/certification equivalency within ASM does not fulfill the requirements of the NAMP, the Unit ASM Fleet Administrator will contact the COMFRC Maintenance Training Model Manager (MTMM) Fleet Administrator for resolution. Paper records may be used until the ASM deficiency is corrected.

3. Scanned images of individual training documents are not required to be maintained in ASM once the subject course, qualification, or license has been signed electronically within ASM. If the task list does not support accreditation, supporting documents must be scanned-in and maintained in ASM.

b. Activities not using ASM or other approved electronic training documentation system must maintain a hardcopy Qualification/Certification record. Hardcopy Qualification/Certification

records will only contain documents required by the individual to perform their current duties. All other documents will be given to the individual for their personal file.

c. ASM Qualification/Certification Record Transfer procedures:

(1) When employees transfer to another command, the transferring command will perform a Permanent Change of Station (PCS) check out in ASM upon transfer of each individual. The gaining command will perform PCS check-in upon reporting.

(2) When employees retire, resign, are dismissed, or depart the command for any other reason (e.g., separation) the record will be placed in the appropriate status.

12.1.4.1.7 Responsibilities

12.1.4.1.7.1 COMFRC (HQ) and Depot FRCs

a. (HQ) Designate a COMFRC ASM Program Manager and MTMM.

b. (HQ)Approve for subordinate activities in the Developer role for the T/M/S Master Task List (MTL), accreditation, test banks, review of ASM task lists, and tests for currency and content.

c. (HQ) Publish JQRs for any duty or function not covered by a QCL. JQRs will include the minimum elements specified in paragraph 12.1.4.1.3.1.

d. (HQ) Review and update JQRs and other training requirements every 24 months (not to include Special Process JQRs) or sooner if changes or modifications to related systems or components have occurred.

e. (HQ) Participate in Training Requirement Reviews (TRR).

f. (Depot FRCs) Manage the ASM database and system security as follows:

(1) Assign, modify, and delete user access privileges and passwords

(2) Review the accuracy of ASM database files

(3) Troubleshoot user problems and submit trouble tickets

(4) Publish a contingency plan for procedures during ASM system downtime

g. (Depot FRCs) Provide COMNAVAIRFOR Maintenance Training (Code N422A) with the number of A and C school quotas required for each assigned Unit Identification Code (UIC), for publishing in the Fleet Training Management and Planning System (FLTMPS).

h. (Depot FRC Site Training Branch Manager) Designate a Unit ASM Fleet Administrator. The Unit ASM Fleet Administrator has the ability to modify, change, and remove Depot Configuration Data based on concurrences from the COMFRC MTMM and all other Depot FRCs. The assigned Unit ASM Fleet Administrator will also have the Data Developer ability in the Depot Configuration groups.

12.1.4.1.7.2 Training Division

a. Publish local command procedures (LCP) per OPNAVINST 5215.17, if required, to direct geographic, T/M/S-specific, or command-directed actions for maintenance training not addressed in this chapter.

b. Obtain quotas and prioritize attendance of formal training courses.

c. Submit ASM software discrepancies and MTL change recommendations to the COMFRC MTMM, and if technical in nature, forward to the appropriate T/M/S Lead STMM listed in Figure 12.1.4.1-1 for review.

d. Coordinate with subject matter experts to develop lesson guides for topics not covered by Interactive Multimedia Instruction or video, per paragraph 12.1.4.1.3.3.c.

12.1.4.1.7.3 Unit ASM Fleet Administrator

a. Manage ASM within the activity, assist the Program Manager, Developer, and site representative in matters pertaining to ASM.

b. Provide ASM training to personnel. If needed, contact ASM Fleet Service Representatives or the ASM Help Desk to request training from the ASM Support Team. Video teleconference and web-based training are also available.

c. Submit ASM software discrepancies and MTL change recommendations to the COMFRC MTMM.

NOTE: Depot FRCs will not make any changes to the Depot Configuration Group without approval from the COMFRC MTMM and all other Depot FRCs.

d. Monitor defect reports and correspond with the ASM Help Desk for resolution as applicable.

e. Maintain ASM system security per SECNAVINST 5211.5**.**

f. Assign, modify, or delete ASM user access privileges and passwords**.**

g. Perform ASM PCS check-in or check-out when individuals report or transfer.

12.1.4.1.7.4 Shop Supervisors

a. Track completion of shop personnel training to include assigning task lists, new or renewal certifications, and qualifications etc.

b. Verify training, qualifications, and certifications are documented in each IQR.

c. Assign an IDP to all personnel every fiscal year, at a minimum.

d. Nominate JQR, OJT, and IQR qualifiers based on technical knowledge and skills.

e. Assign qualified personnel to conduct OJT.

f. Sign-off qualification in OJT task areas only if the individual has demonstrated sufficient knowledge and skill to independently perform the task.

g. Recommend personnel for final qualification, certification, or designation only when confident the nominee is knowledgeable and skilled in the area.

h. Direct refresher training for personnel that demonstrate a lack of knowledge or skill in areas they were previously signed off as qualified.

i. Coordinate with the Unit ASM Fleet Administrator to provide ASM training to work center personnel**.**

j. Review training content and requirements**,** including IQRs, Training Requirements Worksheet (TRW), IDPs for required series and or grade(s)**.**

FRCE	FRCMA	FRCSE	FRCSW
AH-1Z	C-2A	F/A-18A/B/C/D	AH-1Z*
AV-8/TAV-8B*	E-2C/D	F-35	AV-8/TAV-8B
CH-53E*	MH-60R/S	F-5N/F*	CH-53E
F/A-18A/B/C/D		MH-60R	E-2C/D*
F/A-18E/F/EA-18G		P-8A*	F/A-18A/B/C/D*
F-35*		T-44A*	F/A-18E/F/EA-18G*
KC/C-130*		T-6A/B*	MH-53E
MH-53E*			MH-60R/S*
MQ-8B/C*			MQ-8B/C
MV-22B*			MV-22B
UH-1N/Y			P-8A
			UH-1N/Y*

NOTES: 1. This is only for Depot required QCL items. Any QCL items mirrored or shared with the NAE, the responsibility to update/review/change requirements falls to the NAE.

2. Each T/M/S marked with an asterisk is designated as the T/M/S Lead STMM and cognizant/responsible activity for each T/M/S. All T/M/S training changes for QCLs will be led by these designated activities.

Figure 12.1.4.1-1: T/M/S Lead Site Training Model Managers (STMM)

12.1.4.2 Fuel Surveillance Program

a. The quality surveillance of aviation fuels is a continuous process. All activities that refuel aircraft must establish a formal, written Fuel Surveillance Program. A properly administered Fuel Surveillance Program must ensure:

(1) Personnel charged with sampling aircraft fuel systems have the necessary technical information.

(2) A process is in place to identify and locally record, by aircraft, the cell, tank that was sampled, and the name of the person taking the sample. All results must be recorded in a log that can be easily searched for providing history and for auditing purposes.

(3) Flight crews and pilots are familiarized with sampling requirements, procedures and contamination identification prior to any flight, which may require refueling/fuel sampling without maintenance personnel available at an away from home location.

NOTE: COs may authorize pilots-in-command to conduct applicable T/M/S NATOPS pilot inspection, ensure servicing requirements are accomplished, and sign the Aircraft Inspection and Acceptance Record (OPNAV 4790/141) in the certification block while operating away from home, without qualified maintenance personnel, for periods not exceeding 72 hours. Accomplishing these requirements, rather than completing all daily, turnaround, and fuel sampling requirements, is sufficient for safe for flight certification.

(4) Fuel drained from aircraft during fuel sampling is safely and properly disposed of per published procedures.

(5) Proper sampling procedures are followed. This will be monitored per local command procedures.

b. Free of water and foreign contaminants in aircraft fuel systems, singularly or in combination, constitute a hazard to naval aircraft. The harmful effects of water, particulates, and microbiological growth include erratic or incorrect fuel quantity indications, icing of filters, valves, and other fuel system components, engine failure caused by carburetor/fuel control icing or malfunction, and jet engine starting difficulties. Further, if contamination remains undetected, rubber fuel cells will deteriorate and be permanently damaged. Constant vigilance is required to ensure that clear, bright, and water free fuel is delivered to aircraft and engines.

c. Aviation fuels are produced under rigidly controlled specifications. To maintain this high quality after it is received from the refinery, careful and continuous measures must be taken to prevent deterioration and contamination. Contamination can occur from mixing with other bulk petroleum products as well as from dirt, rust, and water. The fuel systems of modern aircraft are complex and experience has shown that serious engine and airframe problems will develop if inadequate attention and effort are given to maintaining fuel quality. Since no two fuel systems, either ashore or afloat, are identical, it is not possible to establish rigid and detailed procedures which will apply in all situations. NAVAIR 00-80T-109, MIL-HDBK-844(AS), and MIL-STD-3004-1 contain specific information pertaining to establishing minimum requirements for maintaining quality of fuel. These instructions contain the minimum procedures that must be

applied and background information that can assist the fuels supervisor of a Depot FRC in issuing specific detailed fuel handling and testing procedures. It is the responsibility of the individual fuels supervisor to establish adequate procedures peculiar to the organization. Additional technical advice and assistance can be furnished by: Naval Air Warfare Center Aircraft Division, Fuels and Fuel Systems Branch or NAVSUP Energy Office (Code 70).

d. The Fuel Surveillance Program Manager, designated by the CO, is responsible for maintaining quality and limiting contamination of aircraft fuels and will refer to NAVAIR 00-80T-109 and MIL-HDBK-844 for specific details concerning:

(1) Characteristics of aircraft fuels

(2) Allowable limits of deterioration and contamination in aircraft fuels

(3) Disposition of fuel removed from aircraft

(4) Principles of aircraft fuel handling

(5) Equipment standards for fuel handling and quality surveillance of aviation fuels

(6) Sampling and testing requirements and procedures for aircraft fuels

(7) Sampling procedures and sample shipping instructions

(8) Quality surveillance equipment

(9) Change of grade procedures for aircraft fuels

(10) Aviation fuel visual quality standards

(11) Petroleum testing laboratories

e. Effective filtration, handling procedures, and quality assurance of fuel delivered to naval aircraft have minimized incidences of fuel contamination problems. However, small amounts of free water are introduced in aircraft fuel tanks as a result of the condensation of moist air in empty or partially filled tanks and by the separation of water in fuels when exposed to relatively low ambient temperatures. Microbiological growth, consisting of living organisms that grow at a fuel-water interface, can grow to a troublesome stage if free water is present. Particulate matter contamination may be generated within aircraft fuel tanks and lines or introduced during maintenance. Aircraft operators must inspect for and remove water and foreign matter in aircraft fuel tanks on a regularly scheduled basis as determined by T/M/S MRCs.

f. Aircraft fuel sampling must be conducted per the T/M/S maintenance technical manuals by qualified personnel. For aircraft without specified fuel sampling procedures, follow the general requirements of NAVAIR 01-1A-35. Additional sampling requirements:

(1) Fuel samples must be taken with clean sample bottles and within 24 hours preceding the aircraft's initial launch, unless specified otherwise by T/M/S MRCs. Fuel samples are not valid for more than 24 hours.

(2) Allow maximum possible time before sampling on aircraft moved or refueled to allow for water and solids to settle. Aircraft must have a minimum of 2 hours settling time.

(3) Qualified aircrew, shift supervisor, or inspector must visually inspect all fuel samples per NAVAIR 01-1A-35. The sample must then be swirled to form a vortex. Contaminants if present, will settle in the bottle directly beneath the vortex for easier detection.

g. Engine Test Cell fuel sampling will be conducted by qualified personnel as follows:

(1) Fuel samples must be taken prior to the first engine run of the day, at a minimum.

(2) Fuel samples must be taken from all fixed and portable engine test stands fuel cells/tanks, supply lines, or accumulators.

(3) PPE must be worn including chemical-resistant gloves, chemical resistant apron, and goggles, while taking, handling, and disposing of fuel samples.

(4) Drain or draw sample from the lowest possible point below the fuel pick-up point (approximately one pint of fuel for each sample) using a one-quart, clear, clean glass or polyethylene round bottle. The round bottle allows the sample to be swirled and the vortex created will concentrate any contamination for easier detection.

(5) Tell Cell supervisor or qualified personnel must visually inspect all fuel samples per NAVAIR 01-1A-35. If contaminants are present, retain sample, drain and draw approximately 5 gallons (but no more than 10 gallons) of fuel from the low point and take another sample. If more than 10 gallons are drained to achieve a satisfactory sample, initiate a downing discrepancy against each test cell the contaminated tank feeds. A quality assurance specialist (QAS) must inspect all failed samples.

h. Use of Aircraft Engine Fuels. Aircraft engine fuels are presently classified into type, that is, piston engine fuel and turbine engine fuel, and by grades within each type. There are certain limitations regarding the interchangeability of the various grades. These limitations listed in the individual T/M/S NATOPS must be adhered to at all times. Flight Check/Flight Test/Test line must be notified when fuel other than JP-5 has been used.

NOTE: Whenever emergency fuels are used, consult the applicable aircraft T/M/S NATOPS or flight handbook regarding operating restrictions.

i. Hot Refueling and Hot Seating. Hot refueling and hot seating are defined as follows:

(1) Hot Refueling. An operational evolution where an aircraft is refueled while the engine(s) is (are) operating.

(2) Hot Seating. An operational evolution where the pilot and crew of an aircraft is changed while the engine is operating and the aircraft is to be immediately relaunched.

(3) Turnaround inspections are not required for aircraft participating in hot refueling or hot seating evolutions. All applicable NATOPS checklists must be complied with during such ground periods. When servicing or minor maintenance is performed during such ground periods only those portions of turnaround inspections applicable to that servicing or maintenance need to be performed, as directed by maintenance control. This is not intended to limit commands from exercising their prerogative of performing inspections they deem necessary. Inspection or servicing intervals must not be exceeded during successive evolutions.

12.1.4.3 Joint Oil Analysis Program (JOAP)

a. The JOAP provides a diagnostic technique to monitor aeronautical equipment without removal or extensive disassembly. The JOAP is outlined in and operates in conformance with OPNAVINST 4731.2. Participation by all Navy and Marine Corps activities operating aeronautical equipment is required when RCM analysis by the FST indicates a requirement, and is specified in applicable MRCs. The FST will establish and maintain sampling information in respective equipment or weapon systems MRCs or MIMs. The FST must conduct continuing engineering reviews and evaluations to determine the effectiveness of the JOAP in regards to any particular T/M/S of equipment and must provide recommended evaluation criteria to the JOAP Management Office for coordinated approval and inclusion in NAVAIR 17-15-50 series.

b. OPNAVINST 4731.2 establishes program objectives and assigns responsibilities for operation of the JOAP per OPNAVINST 4731.2 and its interrelationship with other services and activities.

c. NAVAIR 17-15-50 series provides instructions for sampling, filling out the Oil Analysis Request (DD 2026), submitting samples to the assigned supporting laboratory, feedback information, laboratory operations, evaluation criteria, laboratory certification, data recording, laboratory correlation, and obtaining special technical assistance if required.

d. Depot FRCs participating in the JOAP must:

(1) Ensure samples are taken from engines/gearboxes/accessories at the intervals established in appropriate MRCs and MIMs, documented, and delivered to the assigned monitoring laboratory per NAVAIR 17-15-50 series and OPNAVINST 4731.2.

(2) Ensure an appropriate logbook or AESR miscellaneous/history entry is made whenever oil analysis results indicate abnormal or out of limits wear metal or other oil contamination. The entry will include type and amount of wear metal or other contaminant, corrective action taken and results of subsequent sample analysis. For ASR and SRC card items this entry will be made in the repair/rework/overhaul section of the applicable record. For EHR card items this entry will be made in the maintenance record section of the applicable record.

(3) The program must be monitored per local depot directives.

(4) Develop and publish local command procedures (LCP) per OPNAVINST 5215.17, if required, to direct geographic, T/M/S-specific, or other command-directed actions for oil analysis and oil consumption monitoring.

12.1.4.4 Aviators Breathing Oxygen (ABO) Surveillance Program

a. The Aviators Breathing Oxygen (ABO) Surveillance Program establishes requirements to reduce risk to personnel working with ABO and prevent the contamination of aircraft oxygen systems and components through strict quality control measures and periodic surveillance procedures. ABO surveillance begins with the generation or procurement of liquid oxygen (LOX) or gaseous oxygen and continues through the storage, handling, transfer, and servicing of aircraft and oxygen systems. It involves thorough testing and monitoring of oxygen and oxygen systems to ensure contaminants; such as hydrocarbons, inert solids, particulate matter, moisture, carbon

dioxide, toxic and odorous contaminants, nitrous oxide, and halogenated compounds are detected and eliminated. If required, all activities which handle ABO must establish a formal, written ABO Surveillance Program, by developing and publishing local command procedures (LCP) per OPNAVINST 5215.17 to direct geographic, T/M/S specific, or other command directed actions for ABO Surveillance. A properly administered ABO Surveillance Program must ensure:

(1) All personnel dealing with ABO are familiar and comply with proper safety and operating procedures.

(2) All personnel associated with the ABO Surveillance Program have a thorough knowledge of the characteristics of LOX and gaseous oxygen, the hazards of contamination, and adhere to NAVAIR A6-332AO-GYD-000 quality standards.

(3) Proper protective equipment is available for and utilized by all personnel charged with handling LOX.

(4) Aircraft oxygen systems are purged per MRCs, MIMs, or other directives at intervals specified.

(5) Periodic maintenance is performed per MRCs, MIMs, commercial or manufacturer's manual on all oxygen servicing equipment in the possession of the Depot FRC to ensure oxygen quality standards are maintained.

(6) Reports of contamination or odors in ABO are promptly acted upon by cognizant personnel.

(7) ABO quality standards are maintained and monitored per NAVAIR A6-332AO-GYD-000, NAVAIR 13-1-6.4, and LCP.

b. Supervisors will ensure:

(1) All personnel associated with the ABO Surveillance Program are trained and comply with the procedures in the current NAVAIR A6-332AO-GYD-000.

(2) All personnel associated with the ABO Surveillance Program have a thorough knowledge of the characteristics of LOX and gaseous oxygen, the hazards of contamination, and the need for quality standards.

(3) All oxygen servicing equipment is in proper working order prior to use and all safety devices are in place and functioning properly.

(4) All operations involving the handling of liquid or gaseous oxygen are performed by two or more qualified persons except for the removal and replacement of aircraft LOX converters.

(5) All personnel wear required PPE per NAVAIR 13-1-6.4 and NAVAIR 06-30-501 when working with LOX and gaseous oxygen.

(6) Qualified personnel are properly trained and licensed for tasks involving the handling of LOX and gaseous oxygen and the servicing and maintaining ABO systems and components.

(7) Tools and toolboxes used to maintain or service aircraft oxygen systems or oxygen servicing SE must be used for oxygen system maintenance and servicing only. Tools and toolboxes

must be marked "OXYGEN USE ONLY", be clean, and free of foreign objects and hydrocarbons per NAVAIR 13-1-6.4.

(8) A 6-inch deep drip or drain pan must be used to catch LOX overflow. LOX drip or drain pans must be clearly marked “LOX USE ONLY", be clean, and FOD and hydrocarbon free per NAVAIR 13-1-6.4.

(9) Keep equipment and areas around oxygen system components, SE, and storage areas clean, free of hydrocarbons and combustible materials.

12.1.4.5 Hydraulic Contamination Control Program

a. Hydraulic contamination is the presence of foreign matter in hydraulic fluid. Typical contaminants include metallic and nonmetallic debris (both self-generated and externally introduced), water, and other foreign fluids, all of which may not be visible and serve to degrade hydraulic system performance and component life.

b. The objective is to achieve and maintain a satisfactory level of fluid purity in hydraulic systems, thereby providing for the safe and efficient operation of aircraft and SE. This program must address the design requirements, technical documentation, training, maintenance practices, standards, and equipment to ensure Navy standard class 5 or better, as defined in the Aviation Hydraulics Manual, NAVAIR 01-1A-17, is maintained for hydraulic fluid in aircraft and class 3 or better in SE.

c. Maintaining acceptable purity levels must be assured, in part, by means of a fluid surveillance program in which hydraulic fluid from all operating equipment is sampled and tested as determined by T/M/S-specific maintenance technical manuals. When equipment fails to meet the required Navy standard class level, decontamination procedures must be used to restore the affected system to an acceptable level per T/M/S-specific maintenance technical manuals or NAVAIR 01-1A-17.

d. Hydraulic contamination control requirements affect all phases of maintenance, design, procurement, and logistics support for aircraft hydraulic systems, components, and related SE. Direction provided here is applicable to all Navy and Marine Corps activities and personnel concerned with the operation, maintenance (including rework), design, development, production, training, and other support of aircraft hydraulic systems, airborne hydraulic equipment, components, related SE, supporting facilities and installed equipment. The requirements of this instruction must be required of commercial activities and other government agencies performing contract maintenance, production, or other support functions on naval aircraft and related hydraulic equipment by specific inclusion in procurement or contractual documentation. Hydraulic contamination control encompasses the following program elements and each must be addressed (as applicable) by cognizant activities:

(1) Hydraulic system design requirements affecting maintainability and reliability.

(2) Contamination standards and acceptance levels for aircraft and SE hydraulic systems.

(3) Equipment and procedures for fluid sampling, fluid analysis, and equipment decontamination.

(4) Scheduled and unscheduled maintenance requirements.

(5) Training and indoctrination.

(6) Technical documentation.

(7) Maintenance practices, including cleanliness and housekeeping standards.

e. General Responsibilities. Activities responsible for design, development, support, manufacture, and allocation of resources for maintenance of aeronautical weapon systems and related equipment must ensure prevention of hydraulic system contamination to the maximum extent practicable. Every artisan performing maintenance on hydraulic systems must be aware of the causes and effects of hydraulic contamination and those practices and procedures required to prevent contamination. Supervisory personnel must be informed and must ensure acceptable standards, i.e. when aircraft or SE hydraulic system integrity is broken, all affected fittings, lines, and components will immediately be capped or plugged using approved closures, per the NAVAIR 01-1A-17. Depot FRCs must ensure:

(1) A governing directive which outlines the activity's Hydraulic Contamination Control Program is in force. This directive must assign responsibilities and establish procedures for management of the entire program.

(2) Each responsible area has ready access to technical references and complies with existing hydraulic contamination control program directives.

(3) Responsible areas use proven methods to prevent the contamination of hydraulic systems that have been opened for maintenance and ensure approved closures listed in NAVAIR 01-1A-17 are used to protect fluid systems or components being returned to supply.

(4) Only SE authorized per NAVAIR 01-1A-17 will be used to service or maintain aircraft hydraulic systems. Authorized SE will be configured, maintained and operated consistent with requirements of the Hydraulic Contamination Control Program. Refer to T/M/S specific MIMs, MRCs, or NAVAIR 01-1A-17 for applicable minimum requirements.

(5) Responsible areas comply with hydraulic contamination control requirements and procedures per this instruction, NAVAIR 01-1A-17, the Hydraulic Contamination Control Program directive, and applicable MIMs and MRCs.

(6) Cognizant supervisory personnel are thoroughly familiar with the requirements of NAVAIR 01-1A-17, the activity’s hydraulic contamination control program directives, and this instruction.

(7) Hydraulic contamination logbook entries will be made as specified in 10.5.3.6 when analysis reveals a contamination level requiring decontamination per NAVAIR 01-1A-17 and upon acceptance and transfer aircraft or SE.

(8) The hydraulic contamination program is monitored as defined in local instructions.

12.1.4.6 Tire and Wheel Maintenance Safety Program

a. The Quality Organization must monitor the program. The program must be managed by the appropriate division.

b. Tire and wheel maintenance personnel who perform tire and wheel maintenance are cautioned to handle inflated and partially inflated wheel assemblies with the same respect and care as live ordnance due to the destructive potential of gas under pressure. Depot FRCs must:

(1) Ensure personnel complete the specified required reading.

(2) Ensure personnel protect bearings against careless handling and contamination from abrasives, solids, and fluids per the NAVAIR 01-1A-503 manual.

(3) Display a current Aircraft Tires, Tubes, and Wheels Inflation and Deflation Safety Precautions poster in each work center performing tire and wheel assembly maintenance. Posters can be obtained by contacting: COMMANDER, NAVAL SAFETY CENTER, 375 A STREET, NORFOLK VA 23511-4399, DSN 564-3520 or COMM (757) 444-3520 or at Web site https://navalsafetycommand.navy.mil/media/posters/aviation-posters.

(4) The Tire and Wheel Program Manager must ensure that all personnel performing tire and wheel servicing or maintenance are trained and certified for the specific tire and wheel servicing and maintenance tasks in which they perform. Training and certification will be documented in Advanced Skills Management (ASM) and include the following minimum training and certification elements:

(a) Required reading to include at a minimum:

1. OPNAV M-5100.23, Section B, Chapters 7, 10, 15, 19, and 20
2. NAVAIR 00-80T-96, WPs 004 00, 005 00, and 007 00
3. NAVAIR 01-1A-20, WP 006 00, pars. 28 and 29
4. NAVAIR 01-1A-509-2
5. NAVAIR 04-10-1
6. NAVAIR 04-10-506
7. NAVAIR 04-10-508
8. NAVAIR 17-1-123
9. NAVAIR 17-1-125
10. NAVAIR 17-1-129
11. NAVAIR 17-15G-1
12. NAVAIR 17-600-174-6-1
13. NAVAIR 19-1-55
14. AG-200GT-TIC-POM-000
15. All applicable type, model, and series (T/M/S)-specific required reading.

NOTE: All required reading must be completed prior to starting OJT.

(b) Completed Phase I and II Support Equipment (SE) license training for Nitrogen Servicing Equipment (if used).

NOTE: Not required for AWSE qualifications and certifications.

(c) OJT. Only tire and wheel certified personnel are authorized to verify OJT. A minimum of three OJT tasks are required for each T/M/S of the following certifications:

NOTE: Certifications assigned should only be based on the scope of work performed by the artisan. However, the Tire and Wheel Maintenance Safety Program Manager may assign additional tasks as necessary.

1. O-level Aircraft Tire and Wheel Maintenance:

a. (T/M/S) _____ Nose/Tail Wheel Assembly Bearings Removal/Cleaning/Inspection/Handling/Lubrication/Installation

b. (T/M/S) _____ Main Mount Wheel Assembly Bearings Removal/Cleaning/Inspection/Handling/Lubrication/Installation

c. (T/M/S) _____ Outrigger Wheel Assembly Bearings Removal/Cleaning/Inspection/Handling/Lubrication/Installation

d. (T/M/S) _____ Nose/Tail Wheel Assembly Deflation/Removal/Inspection/Handling/Lubrication/Installation/Service

e. (T/M/S) _____ Main Mount Wheel Assembly Deflation/Removal/Inspection/Handling/Lubrication/Installation/Service

f. (T/M/S) _____ Outrigger Wheel Assembly Deflation/Removal/Inspection/Handling/Lubrication/Installation/Service

g. (T/M/S) _____ Operation of Remote Inflator Assembly

h. (T/M/S) _____ Aircraft Jacking Procedures

i. Documentation Procedures

j. Beryllium Safety Procedures (if applicable)

2. D-level Aircraft Tire and Wheel Maintenance:

a. (P/N) _____ Tire/Wheel Assembly Bearings Removal/Cleaning/Inspection/Lubrication/Installation

b. (P/N) _____ Tire/Wheel Assembly Tear Down/Build-Up

c. Use of Bead Breaker

d. Use of Inflation Cage

e. Operation of Nitrogen Servicing Equipment/Remote Inflator/Monitor Assembly

f. Documentation Procedures

g. Use/Handling of Beryllium

3. Supplemental D-level Tire and Wheel Maintenance:

a. (P/N) _____ Tire/Wheel Assembly Bearings Removal/Cleaning/Inspection/Lubrication/Installation

b. P/N) _____ Tire/Wheel Assembly Tear Down/Build-Up

4. O-level Support Equipment (SE) and Armament Weapons Support Equipment (AWSE) Tire and Wheel Maintenance:

a. Bearings Removal/Cleaning/Inspection/Handling/Lubrication/Installation

b. Solid Rim Deflation/Removal/Replacement/Service

c. Split Rim Deflation/Removal/Replacement/Service

d. Demountable Flange Deflation/Removal/Inspection/Service

e. SD-2 Spotting Dolly Deflation/Removal/Replacement/Service (if applicable)

f. Operation of Nitrogen/Air Servicing Equipment/Remote Inflator Assembly (if applicable)

g. Equipment Jacking Procedures

h. Documentation Procedures

5. D-level Support Equipment (SE) and Armament Weapons Support Equipment (AWSE) Tire and Wheel Maintenance:

a. Bearings Removal/Cleaning/Inspection/Handling/Lubrication/Installation

b. Tear Down/Build-Up Inflation of Solid Rim Assembly

c. Tear Down/Build-Up Inflation of Split Rim Assembly

d. Tear Down/Build-Up Inflation of Demountable Flange Assembly

e. Tear Down/Build-Up Inflation of SD-2 Spotting Dolly (if applicable)

f. Use of Bead Breaker (if applicable)

g. Use of Inflation CAGE

h. Operation of Nitrogen/Air Servicing Equipment/Remote Inflator Assembly

i. Documentation Procedures

6. D-level Tire and Wheel servicing only:

a. Nose/Tail Wheel Assembly Inspection/Service

b. Main Mount Wheel Assembly Inspection/Service

c. Outrigger Wheel Assembly Inspection/Service

d. Operation of Remote Inflator Assembly

e. Documentation Procedures

(d) Practical Proficiency. Qualifying personnel must demonstrate practical proficiency in each of the applicable OJT tasks listed in par. 12.1.4.5.c. Only tire and wheel certified personnel are authorized to verify Practical Proficiency.

(e) Pass an open book written examination with a minimum passing score of 90 percent with an emphasis on safety precautions.

(f) Tire and Wheel Safety training course provided by technical training instructors and provide/proctor tire and wheel testing.

NOTE: Activities will establish the minimum training requirements for those personnel assigned duties which involve taking tire pressures. These requirements will be met prior to performing any inspections which involve taking tire pressure.

(5) Proper storage and shipping tire pressures are kept as per NA 04-10-506 and NA 17-1-123.

(6) Ensure Supply Department personnel who handle tires and wheels are trained on the hazards and safety procedures associated with handling inflated and deflated tire and wheel assemblies and components containing beryllium.

c. Bearing Handling Procedures. The protection and maintenance of bearings installed in aeronautical equipment becomes extremely important if the expected service life of the assembly is to be realized. This protection must be initiated at the time the bearing is removed from its sealed package and maintained during mounting and assembly periods, through storage and installation, and during the operating life of the bearing. Bearings must be protected against rough or careless handling. Every precaution must be used to prevent contamination from abrasives, improper grease, solids, and fluids. As outlined in NAVAIR 01-1A-503, conscientious maintenance programs that include periodic inspection and lubrication requirements will ensure long bearing life that will often exceed the useful life of the next higher assembly. NAVAIR 04-10-1 provides additional requirements on how to protect bearings and bearing cups.

d. Tire Rebuilding Determination. All aircraft tires are considered to be potentially rebuildable (retreadable), although due to technical or economic considerations certain tires are not being rebuilt. Tires must not be discarded or scrapped until determined they are nonserviceable per NAVAIR 04-10-506. Strict adherence to these requirements will ensure a successful tire rebuilding (retreading) program.

e. The ISSC for aircraft tires is COMMANDING OFFICER, FRCSW NORTH ISLAND, CODE 4.9.4.3.1, SAN DIEGO, CA 92135-7058, DSN 735-2960 and 735-8675 or COMM (619) 545-2960 and (619) 545-8675. The ISSC for SE and AWSE tires and wheels is COMMANDING OFFICER, NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION, CODE 4.8.6.9, LAKEHURST NJ 08733-5000, DSN 624-7906 or COMM (732) 323-7906.

12.1.4.7 Technical Directive (TD) Compliance

a. Depot FRC TD Compliance is accomplished per the Aircraft Modification Program (06). The Aircraft Modification Program (06) workload is budgeted, funded, and managed as a separate direct program (06) from its parent Aircraft Rework Program (00). The modification of missiles, power plants, components, and SE included in their respective parent direct programs.

b. Aircraft Modification Workload Description. Work performed that changes the original design of an aircraft for the purpose of improving safety, performance, reliability, physical maintainability, readiness, or mission effectiveness.

c. Aircraft Modification Workload Requirements. The applicable T/M/S Program Manager based upon actual and projected availability of the modification change kits and the availability of the aircraft develops the requirements for the installation of modification changes. These requirements are normally generated by the Operational/Safety Improvement Program and ECP items that are approved by COMNAVAIRSYSCOM with the follow-on purchase of kits and the issuance of TDs prescribing the incorporation of the modification change in aircraft. This type of work is accomplished at the naval aviation industrial establishments (either Navy organic, inter-service, or commercial contractor) or on-site by industrial field teams.

d. Aircraft Modifications Workload Specifications. The TD system is the authorized medium for directing the accomplishment and recording of modifications and one-time inspections of COMNAVAIRSYSCOM accepted aircraft either in the contractor's or the Navy's possession. Requirements for the development and preparation of TDs are detailed in NAVAIR 00-25-300 and AR-41.

e. Aircraft Modification Workload Scheduling. The installation of modification change kits in aircraft may be performed concurrent with standard rework. They may also be installed by industrial field teams or at a naval aviation industrial establishment on a drive-in basis. COMNAVAIRSYSCOM allocates direct labor man-hours specifically for the installation of modifications in aircraft under a pre-established schedule.

f. O-level and I-level TD Compliance. Unless directed by the ACC, Depot FRCs will only incorporate O-level and I-level TDs if the aircraft or item is sufficiently disassembled during normal D-level processing, incorporation does not require a controlled kit, parts are readily available, and compliance adds no additional direct man-hour cost. Depot FRCs will comply with O-level and I-level TDs if incorporation is needed in order to modify a part required to complete depot rework. Rapid Action Minor Engineering Changes (RAMEC) will not be incorporated during depot rework, unless directed by the ACC.

g. Engine/Module TD Compliance.

(1) Immediate Action TDs issued while an engine or engine module is undergoing disassembly, repair, reassembly, or test must be incorporated regardless of whether or not completed work has to be redone.

(2) Urgent Action TDs with safety impact that are issued while an engine or engine module is in the repair, reassembly, or test cycle must be incorporated regardless of whether or not

completed work has to be redone. If not specifically addressed in the TD, a request for direction to incorporate or not incorporate an Urgent Action TD issued while an engine is in the post-assembly test cycle will be sent to the ACC Engine Class Desk.

(3) Urgent Action TDs without safety impact and Routine Action TDs issued while an engine or engine module is in the repair, reassembly, or test cycle will be incorporated only if no completed work has to be redone.

h. DECKPLATE - Technical Directives Reporting System (TDRS) Procedures.

(1) Depot FRCs will follow the TDRS procedures per NAVAIR 00-25-300, Section IV.

(2) Receipt of a new TD. The Logbook Clerk, Planner and Estimator (P&E), or Examiner and Evaluator (E&E) will screen all TDs for applicability to assigned aircraft and related equipment and perform the following:

(a) Notify planning and management of application and priority

(b) Ensure required TD kits are ordered

(c) Make appropriate logbook entries upon receipt. Some TDs may require multiple entries in the logbook and applicable records.

(d) Add new TD to TDRS LIST 02 if it is an AFC or AFB. All other TDs will be logged on the appropriate TD record.

(e) Complete logbook and record entries upon incorporation, and annotate LISTS 02 and LIST 04 (if applicable) or complete TD record entry requirements per Chapter 8.

(f) Depot FRCs have direct access to DECKPLATE - TDRS and are required by NAVAIR 00-25-300 to submit compliance reports and retrieve LISTS 02 and 04. Upon completion of rework, Depot FRCs must ensure current, updated LISTS 02 and 04 are provided in the logbook prior to transferring the aircraft or equipment to the operating activity.

12.1.4.8 Foreign Object Damage (FOD) Prevention Program

12.1.4.8.1 Scope. This paragraph provides uniform policy and procedural guidelines for planning, developing, and managing D-level FOD Prevention and Reporting Programs. The FOD Prevention Program applies to all Navy, Marine Corps, and commercial aviation activities engaged in D-level industrial support.

12.1.4.8.2 Background. The engine ingestion of tools, hardware, and debris is a continuing problem. It accounts for a large percentage of premature removals of gas turbine power plants from naval aircraft. The presence of a foreign object in any space or area of an aircraft, its systems, components, or related SE is of equal concern. Foreign objects consist of tools, hardware, and debris, such as metal shavings, washers, spacers, safety wire, wire terminals, clamps, plastic or metal caps, and various fasteners, left in an aircraft and are potential causes of material failures and aircraft mishaps. Leaving aircraft systems, hoses, and component parts open or uncapped during the rework or maintenance process is an unacceptable work practice of major concern. Failure to secure these openings allows entry of foreign objects. An aggressive FOD Prevention Program contributes significantly to the effectiveness and safety of naval aircraft.

12.1.4.8.3 Objective. The FOD Prevention Program provides a systematic and efficient method for gathering, analyzing, and maintaining information on the FOD prevention effort, the source and nature of incidents, and their immediate impact on operating force readiness. It provides management with data that highlights problem areas so action can be taken to:

a. Improve the work environment through proper housekeeping.

b. Improve the quality, uniformity, and reliability of all maintenance practices.

c. Eliminate unnecessary man-hour and dollar expenditures resulting from carelessness.

12.1.4.8.4 Terms and Definitions

a. Foreign Object (FO). A substance or article alien to an aerospace product or assembly that has invaded the product.

b. Foreign Object Damage (FOD). Damage attributed to foreign objects that can be expressed in physical or monetary terms and degrade product safety or performance characteristics.

c. FOD Prevention Program. A formally documented and disciplined program designed to prevent FOD.

d. Engine FOD. Defined as damage caused by ingestion of objects not organic to the engine (including FOD due to natural causes, such as birds or ice) while operating in an aircraft or on a test cell or stand.

e. Engine FOD incidents are categorized as reportable and non-reportable. Reportable FOD is defined as that which requires engine/module removal; occurs on an engine test cell; or in the case of engines, for example, the F414 or T56 engines, requiring fan blade removal or turbine replacement, without engine removal. Non-reportable FOD is defined as repair without engine, fan blade, or module removal.

WARNING: INTERNAL ENGINE FAILURES WHICH, IF NOT CORRECTED, COULD RESULT IN DEATH OR INJURY TO PERSONNEL, OR DAMAGE TO OR LOSS OF AIRCRAFT, EQUIPMENT, OR FACILITIES MUST BE DOCUMENTED AND REPORTED VIA HAZARDOUS MATERIAL REPORT (HMR) PER 10.9.3.8 PROCEDURES. A MISHAP REPORT MAY ALSO BE REQUIRED PER OPNAVINST 3750.6.

NOTE: Damage caused by failure of internal engine components is not FOD. Minor roughness or erosion of blades/vanes within serviceable limits is not FOD.

f. Potential FOD. The condition where foreign object debris is in a position to cause damage when a product or system is used. Examples are:

(1) Tools, rags, manufacturing or inspection hardware, and other objects left in the vicinity of or in the migratory path of engine inlets.

(2) Metal or wire clippings, solder balls, and other debris lying in the vicinity of electrical terminals, circuitry, connectors, or components.

(3) Tools, hardware, or debris left in the vicinity of or in the migratory path of a vehicle's control system.

(4) Tools, hardware, or debris lying on runways, ramps, and taxiways.

(5) Residue from plastic media blasting during paint removal.

(6) Personal items to include clothing, pens, keys, coins, and cellular telephones.

12.1.4.8.5 Responsibility. The Depot FRC CO must establish a FOD Prevention Program, FOD Prevention Committee, and appoint a FOD Committee Chairperson. Each Depot FRC manages its own FOD Prevention Program as per this instruction, COMFRCINST 4790.4, and their local command procedure (LCP) per OPNAVINST 5215.17A.

12.1.4.8.6 Reporting Requirements. Ensure each FOD incident occurring at, or initially discovered by, a depot activity (including FOD due to natural causes, such as birds or ice) is investigated and an Engine FOD Incident Report (FOD-IR) is submitted in JDRS or if unavailable as per Figure 12.1.4.8-1. The report must be submitted for each reportable FOD within 5 working days of discovery. In cases where two or more engines on a multi-engine aircraft are FODed during a single incident, reporting custodians may include all reportable engines on a single FOD-IR. A copy of the Engine FOD-IR will accompany all FOD related engine retrogrades. Refer to OPNAVINST 3750.6 for all FOD mishap reporting requirements and responsibilities. In addition, a supplemental Engine FOD-IR, which provides additional significant information, may be submitted. The supplemental report will reference the initial Engine FOD-IR in JDRS, or if JDRS is unavailable list applicable message DTG in item 2.I(3) of Figure 12.1.4.8-1.

12.1.4.8.7 Training. The success of a good FOD Prevention Program depends on the quality of training provided. Personnel should be regularly trained to familiarize them with the problem of FOD. FOD training must include an explanation of what FOD is, how and where it occurs, and its consequences. Personnel should be shown how their job relates to the FOD Prevention Program. Training should focus on areas which have FOD causing potential as well as prevention methods that can be employed. They should know what actions they can take to prevent FOD and be able to identify conditions which, if left uncorrected, could cause FOD. Additionally, FOD prevention training must be included in the driver training syllabus for all personnel who operate self-propelled vehicles on the flight line.

12.1.4.8.8 FOD Prevention Program Requirements. Each Depot FRC must establish written FOD Prevention Program procedures and maintain an effective FOD Prevention Program that is planned, integrated, and developed in conjunction with production, maintenance, test, safety, and quality functions. In support of the FOD Prevention Program, each Depot FRC must:

a. Plan fabrication sequences and employ manufacturing techniques that prevent foreign object entrapment.

b. Maintain cleanliness of production and manufacturing areas during the performance of work, also known throughout Industry as “clean as you go”.

c. Establish requirements for the thorough inspection and cleaning of components, assemblies, and completed products.

d. Establish a Tool Control Program (TCP).

e. Require proper use and care of assembly and equipment protective devices including stringent use of masking materials.

f. Protect the end product and its components during handling, installation, and operation.

g. Require all personnel identify and properly dispose of potential foreign objects.

h. Audit the FOD Prevention Program at least annually to evaluate its effectiveness and ensure adequacy and compliance. The Aviation Safety Program and QMS at each Depot FRC must monitor the FOD Prevention Program and will perform periodic audits, investigations, and verifications in accordance with OPNAVINST 3750.6, COMFRCINST 4790.4 AND COMFRC M-4855.6.

i. Ensure effective foreign object prevention practices are followed throughout all aspects of production, handling, test, and storage.

j. Conduct FOD walk downs on all flight areas to include but not limited to, engine test facilities, hangars, and adjacent aprons per LCP.

k. Ensure aircraft compartments and hidden areas are verified to be free of foreign objects before closure. Inaccessible areas found to contain foreign objects that are not removable will be noted by a logbook entry. Conduct foreign object inspections of all closed areas, entrapment compartments, and migratory routes prior to final sealing. The approval of personnel designated to perform the quality verification function must be obtained before closing designated critical areas and any compartment. If subsequent access should be required, prior certification must be voided and the area, compartments, and routes must be re-inspected, recertified, and re-verified as necessary prior to closure.

l. The FOD Prevention Committee must develop and implement plans and programs to prevent hardware damage during storage, transporting, flight line, and launch operations. The committee will be responsible for providing information to update the status of the local FOD Prevention Program and will ensure prevention efforts are in consonance with local policy, direction, and procedures.

m. The FOD Prevention Committee must have sufficient authority and organizational freedom to identify and implement FOD prevention measures whenever and wherever required. Do not appoint Quality organization managers nor Safety officers as chairpersons of the FOD prevention Committee.

n. Consider introducing a FOD Prevention Publicity Program and an Incentive Awards Program. Cooperative programs in FOD prevention between organizational units are strongly encouraged.

o. Develop plans, procedures, schedules, and controls needed to ensure sustainment of a viable FOD Prevention Program.

p. Implement policies and controls that deter personal items from causing FOD.

FM ORIGINATOR

TO AIRCRAFT CONTROLLING CUSTODIAN

TYPE WING or MAG

CVW (If assigned.)

INFO COMNAVAIRFOR SAN DIEGO CA//N42/N421//

COMNAVAIRSYSCOM PATUXENT RIVER MD//AIR-6.6.5//

COMNAVSAFECEN NORFOLK VA//12//

CTF/CSG/FMF/MEU

COMFAIRFWD ATSUGI JA//N42// (If deployed in WESTPAC.)

SHIP/NAS/MCAS (Where the FOD occurred.)

SURFPAC SAN DIEGO CA//N42// or SURFLANT NORFOLK VA//N42// (If FOD occurred onboard a ship)

SUPPORTING INTERMEDIATE MAINTENANCE ACTIVITY

DEPOT REPAIR POINT

BT

UNCLAS//N04790//

MSGID/GENADMIN/-//

SUBJ/(COMMAND) ENGINE FOD INCIDENT REPORT SERIAL NUMBER (Sequential number within each calendar year, followed by the last two digits of the calendar year. Use sequential numbering regardless of whether this is an initial or supplemental report.) EXAMPLE: “VFA-123 ENGINE FOD INCIDENT REPORT SERIAL NUMBER 03-16”//

REF/A/DOC/COMNAVAIRFORINST 4790.2D

AMPN/REF A IS THE NAMP.//

POC/NAME/RANK/CODE/PHONE/EMAIL (POC will be the Senior Member of the FOD Investigation Team)//

RMKS/1. SUMMARY (Summarize the contents of the report in 2 lines or less.)

2. DATA:

Figure 12.1.4.8-1 (page 1): Engine FOD Incident Report

A. AIRCRAFT

(1) TYPE/MODEL/SERIES (“N/A” if FOD occurred on a test cell.)

(2) BUREAU NUMBER (“N/A” if FOD occurred on a test cell.)

B. ENGINE(S)

(1) TYPE/MODEL/SERIES

(2) SERIAL NUMBER(S)/PSSN(S)(If applicable.)

(3) INSTALLED POSITION(S) AT THE TIME OF FOD (“Test Cell” if FOD occurred on a test cell.)

C. JULIAN DATE(S)/TYPE OF LAST MAINTENANCE

(1) ON AIRCRAFT (“N/A” if FOD occurred on a test cell.)

(2) ON ENGINE(S)/MODULE(S)

D. LOCATION OF ENGINE(S) AT TIME OF FOD (Example: “MCAS MIRAMAR”, “NAS OCEANA”, “CVN-72”, “FRCSE JACKSONVILLE TEST CELL”.)

E. EMPLOYMENT OF UNIT AT TIME OF FOD (Example: “FLEETEX”, “WEAPONS DET”, “I-LEVEL REPAIR ACTIVITY”.)

F. JULIAN DATE FOD DISCOVERED

(1) WHERE DISCOVERED (Example: FLIGHT LINE, FLIGHT DECK, WORK CENTER 41U)

(2) HOW DISCOVERED (Example: DAILY, TURNAROUND, PRE-INDUCTION INSPECTION)

G. DISPOSITION OF ENGINE(S)/MODULE(S)(Example: “BLENDING”, “I-LEVEL TURN IN”, “RETURN TO DEPOT”.)(If turned in, list the receiving activity.)

H. PREVIOUS ACTIVITY OPERATING ENGINE(S)/MODULE(S). (State only if a factor, for example: “FOD DISCOVERED UPON RECEIPT FROM VFA-XXX”.)

I. OTHER REFERENCE(S) TO SAME FOD INCIDENT

(1) ETR SERIAL NUMBER(S)(Ensure the Engine FOD Incident Report Serial Number is included in Remarks Section of the original ETR, listing Reason for Removal Code 5C OR 5D.

NOTE: Reason for Removal Code 3Q will not be used for engines damaged by ingestion of foreign objects.)

Figure 12.1.4.8-1 (page 2): Engine FOD Incident Report

(2) JCN(S) (Ensure the Engine FOD Incident Report Serial Number is included in the Discrepancy Field of the Turn-in Work Order.)

(3) OTHER APPLICABLE MSG DTG (List each separately)

3. COST DATA

A. ENGINE(S) REPAIR COST (Based on current NAVSAFECEN Reportable Engine Repair Cost)

B. AIRCRAFT DAMAGE COST (Based on P&E Report, if beyond O/I-level to repair.)

C. TOTAL INJURY COST (Refer to APPENDIX 4B OF OPNAVINST 3750.6)

D. OTHER PROPERTY DAMAGE COST

E. TOTAL COST (Total of A, B, C, AND D above)

4. INVESTIGATION

A. WHEN FOD OCCURRED (Example: “IN FLIGHT” or “DURING GROUND TURN”).

B. CAUSAL FACTORS (Describe what caused the FOD, for example, “FASTENER FROM PANEL 4L CAME OUT DURING GROUND ENGINE RUN”, “TOOL LEFT IN INTAKE”)

C. ACTUAL FOREIGN OBJECT INGESTED (NSN and Part Number. If not known, use “UNKNOWN”)

D. SUSPECTED FOREIGN OBJECT INGESTED (Use “N/A” if actual object is reported in 4.c.)

5. DATE/SERIAL NUMBER OF LAST FOD INCIDENT MESSAGE

6. CORRECTIVE ACTION

A. CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE

B. RECOMMENDED CORRECTIVE ACTION (If corrective action is beyond the capability of the originator to implement.)

7. COMMANDING OFFICER'S COMMENTS//

Figure 12.1.4.8-1 (page 3): Engine FOD Incident Report

12.1.4.9 Tool Control Program

12.1.4.9.1 Introduction

Aviation Depot facilities must have a comprehensive, integrated, and monitored Tool Control Program in areas where tooling is required for the performance of flight operations as well as the maintenance, repair and overhaul on Naval Aviation aircraft, engines, components and equipment. The primary objective of the TCP is the elimination of foreign object damage (FOD) to aircraft and equipment caused by misplaced tools. The level of detail in this chapter is intentionally designed to maintain the same tool container requirements as previously established in Chapter 10. This will minimize tool container modifications and ensure the continued standardization of tool containers. This chapter also allows for the use of eCAMS and MAXIMO Asset Management Application which provides the means to better control the higher number of tools as compared to the Organizational and Intermediate level activities.

12.1.4.9.2 Requirements

12.1.4.9.2.1 Tool Control Local Command Procedures (LCP)

Depot FRCs must publish LCPs per OPNAVINST 5215.17 specifying at a minimum:

a. The assignment of Tool Container numbers. This policy must ensure the assignment of a unique number to every tool container in the organization. Minimum requirements must include the activity's ORG Code as assigned in DECKPLATE.

b. The manner in which to track and account for consumable items.

c. Tool tag tracking and usage if site utilizes tool tags internal to operations.

d. Policy, supplemental forms and procedures for handling missing tool communication with external customers.

e. Develop a locally prepared form for container issuance to Supervisor if a Controlled Equipage Custody Record (NAVSUP Form 306) is not utilized for the issuing of tool containers.

f. Develop a locally prepared Contractor/Field Maintenance Team TCP and FOD Brief form (if applicable).

g. The methods in which the requisition status will be tracked on tool container shortage sheets with-in each tool container, if not utilizing a Navy Supply document number.

h. The manner in which consumable tools, for example, acid brushes, wired brushes, sandpaper, etc will be controlled.

i. The means in which rechargeable batteries will be etched or serialized and the manner in which they will be accounted for during all the requirements listed in paragraph 12.1.4.8.2.6.

j. Clearly define what the term "in use" means for daily tool check out.

k. Define a process for controlling tools or items not covered under the Tool Control Program such as, but not limited to, lathes, milling machines, hydraulic stands, CnC equipment, Plant maintenance tools, and items used in support shipping and packaging.

l. (If applicable) Define a process to control special tools or locally manufactured for completion of Technical Engineering Instruction (TEI) dispositions.

12.1.4.9.2.2 Tool Marking and Serial Numbers

a. All tools must be marked with a serial number of the tool container or wallboard to which assigned.

b. Contractor owned tools may have unique organizational codes and numbering systems providing identification to the same level of accountability as stated within the Ground Operating Procures (GOP) or Performance Work Statement (PWS).

c. The use of mechanical etching is the preferred method for tool marking. Use indelible ink where mechanical marking is impractical. Every tool or consumable used on product must be marked to the maximum extent possible in accordance with this chapter and local command procedures. Document tools that are too small or unsuited to be etched on the Tool Container Inventory in accordance with paragraph 12.1.4.8.2.4.b.

WARNING: DO NOT ETCH, CUT, MELT, WELD, GRIND OR MODIFY BERYLLIUM TOOLS DUE TO THE RISK OF CREATING BERYLLIUM DUST, WHICH IS A HEALTH HAZARD. TOOL CONTAINER INVENTORIES MUST IDENTIFY ANY TOOL CONTAINING BERYLLIUM ALLOYS BY ANNOTATING THE WORD "BERYLLIUM" NEXT TO THE TOOL.

d. Multiple piece tool sets with individual pieces that are assembled/disassembled during use, taken apart for common reasons, and tools with parts that are routinely replaced during use, will have each piece marked with the corresponding tool container. Examples include Allen wrench sets, feeler gauge sets, stamping dye sets, and flashlights.

e. Restore markings as they become unreadable.

12.1.4.9.2.3 Tool Containers

a. Silhouette the position of each tool against a contrasting background to highlight its location within the container. Silhouetting may be accomplished by use of paint, etching, or other method that does not cause a risk of FOD. Number each tool location to correspond with the tool's number on the inventory list.

b. Fabricate tool pouches to hold individual tools in separate positions. Each tool pouch will have a flap cover that attaches securely on all edges to prevent tools from falling out.

c. Stencil the outside of the container with applicable warnings, for example, "CONTAINS TOOLS TOO SMALL TO ETCH", "CONTAINS TOOLS UNSUITABLE FOR ETCHING" or "OXYGEN USE ONLY".

d. Use Wallboards and lockers to provide rapid inventory of work equipment or tooling not specified to be in a container, for example, communications cords, electrical cords, and personal protective equipment (PPE). Silhouette and mark items assigned to wallboards and lockers.

e. Each tool container, board and locker will have a Tool Inventory List, diagram, and a Tool Container Shortage List (Figure 12.1.4.9-1). Firmly attach lists and diagrams to eliminate the possibility of FOD.

NOTES: 1. For Automated Tool Containers that utilize photographic tool identification and have a digitalized picture of the tool drawer layout, a separate physical version of the diagram is not required.

2. To reduce the possibility of FOD, keep lists and diagrams for tool pouches and for tools used in ESD work areas in a folder separate from the tool container or tool pouch.

f. Keep tools, tool containers and tool lockers FOD-free and clean of contaminants such as grease, oil, hydraulic fluid, dirt, fuel and corrosion.

g. Do not use tool containers and lockers to store any materials or equipment not on the inventory list.

12.1.4.9.2.4 Tool Inventory Lists

a. Tool inventory lists will identify each tool by item number, nomenclature, and quantity. List tools with multiple pieces by annotating the number of pieces on the right hand side next to the item or where practical within MAXIMO.

NOTES: 1. Items which have been modified to not come apart and documented accordingly, are no longer considered multiple piece tools.

2. If Automated Tool Containers are used in lieu of non-automated tool boxes, the Automated Tool Container manufacturer's operating system will direct how tools contained within will be identified and inventoried.

b. Tools too small or unsuitable to be etched or marked will be identified on the Inventory List by placing an asterisk (*) on the left hand side of the item's nomenclature or where practical within the MAXIMO character fields, for example "*Jewel Scribe". If the item is a multiple piece tool and only some of the pieces are too small to etch, the inventory will specify each non-etched piece. For example, in a 10 piece Allen Wrench set where the 3/32 wrench is the only piece too small to etch, the nomenclature would be annotated "Allen Wrench Set, 10 pieces plus case = 11 pieces * 3/32".

NOTES: 1. Tools too small to etch only applies to situations where the removed item is by itself a fully functional tool. Items such as flashlight springs, O-Rings, and small items of intricate tools do not classify as tools too small to etch. All of these pieces must be accounted for in total pieces for tool, but do not need to be annotated as tools too small to be etched.

2. Due to character limits within MAXIMO, activities that use MAXIMO will mark total number of tools too small to etch (TSTE) or total number of tools unsuitable for etching (UFE) after total piece count. For example, in a 10 piece Allen Wrench set where the 3/32 wrench is the only piece too small to etch, the nomenclature will be marked as "10 pieces/1 piece TSTE" in an available MAXIMO character field.

c. Tools requiring hardware to be secured to prevent potential FOD (for example, the lock nut on a hex key set or pliers) will be identified on the inventory list by annotating the securing method (such as "SPOT WELDED", "PEENED", or "ADHESIVE") next to each affected item.

NOTE: Activities that use MAXIMO, the Tool Control Program Manager (TCPM) and Tool Control Program Coordinator (TCPC) may develop and ensure accuracy of a comprehensive list of all tools modified upon receipt from the supply system and prior to issue. This list must include Nomenclature, PN or NSN and all methods of modification. Inventory records for individual tool containers will then use the "#" with-in the available MAXIMO character field to indicate the tool was modified prior to issue.

d. Work Center Supervisor or Work Center Tool Control Representative use Tool Container Shortage Lists (Figure 12.1.4.9-1) to document any tools missing from the container. Procedures:

NOTE: Automated Tool Containers may track tool status' utilizing features within the operating software in lieu of Tool Shortage Sheets, so long as they meet all the requirements described in 12.1.4.9.2.4.

(1) For tools on order:

(a) Annotate the nomenclature, drawer, panel, and item number of the tool.

(b) Annotate the number from the Missing Tool Report or Broken/Worn Tool Report on the Tool Container Shortage List. If the tool has never been in the container, annotate "INITIAL ISSUE".

(c) Annotate the tracking information of replacement tools as per local procedures.

(d) The Work Center Supervisor will initial the entry to certify the initiation of the proper report and ensure the tool is removed and not available for use.

(e) Upon receipt of the replacement tool, the Work Center Supervisor or Work Center Tool Control Representative will verify replacement by stamping or signing the appropriate area of the tool shortage sheet.

(2) Tools in calibration:

(a) Annotate the nomenclature, drawer, panel, and item number of the calibrated tool.

(b) The artisan or Work Center tool control representative will annotate the turn-in date for calibration and initial or stamp the form.

(c) Upon receipt of a tool from calibration, the Work Center Supervisor must personally verify the tool is stored in the proper container, enter the date replaced, and initial or stamp the form. If tool received is rejected for calibration and the calibration is unable to be performed, the Work Center Supervisor must close out the calibration line entry on the shortage sheet and create a new entry following the Broken/Worn Tool protocol.

12.1.4.9.2.5 Tool Security and Checkout Procedures

a. Secure tools in the assigned container, wallboard, or locker when not in use. Tools not assigned to a Work Center must be stored in the tool room.

b. Use a tool log to check out portable tool containers, individual tools from the Tool Room, shop container, shop support box, and tool pouches. PPE and consumables will be checked out as per local procedures. As a minimum, tool logs must contain the following information:

(1) Name of person checking tool out

(2) Assigned container, locker, or wallboard number, and the inventory item number.

(3) Job Control Number (JCN), MAF Control Number (MCN), Job Order Number (JON) or Work Order Number for which the tool is being used

(4) Date and time checked out

(5) Date and time checked in

12.1.4.9.2.6 Tool Inventories

a. Inventory and verify FOD-free all assigned tool containers, equipment, and wallboards at the beginning and end of each shift or task.

b. Record each inventory in a log to include:

(1) Date and time inventoried or inspected.

(2) Sequence Numbers or BUNOs of all aircraft and SERNOs of all equipment worked on when applicable.

(3) Legibly printed name and signature or imprint certification stamp of the individual who performed the inventory or inspection.

c. Document Tool Control Inventories during maintenance task assignment, at work stoppage, prior to system check, upon job completion, or when a change of maintenance task occurs.

d. Work Center Supervisors will develop a quarterly inventory schedule, as stated in 12.1.4.9.3.5, to ensure all active tool containers are inventoried, at a minimum, once each quarter. The inventory will also include a review of the specifics stated below. This inventory will be completed by the Work Center Supervisor or a designated individual to which the tool container is not currently assigned. All documentation used to complete this requirement will be maintained for one full year. This may be in a digital format of scanned documents.

(1) Verify 100 percent accountability to include the accuracy of the shortage sheet.

(2) Verify the physical condition of all assigned tools as well as the integrity of the actual tool container.

(3) Verify etching or labeling is still legible and accurate.

(4) Verify the status of any items turned-in for Calibration.

e. The TCPC will conduct and document a Semi-Annual Review of all tool containers owned by each Work Center Supervisor. This will include a visual verification of all tool containers as well as a verification that all tool container inventories were complete for the year as required in 12.1.4.9.2.6.d. This inventory is for the actual tool containers and not an actual item-by-item tool inventory. The purpose is to ensure that the Central Tool room is tracking the ownership of all active tool containers.

f. Depot artisans assigned to I-level activities will comply with the tool control inventory and documentation procedures applicable to the I-level site.

NOTE: The artisans signing the ACCUM WORK HOURS field on the WO or MAF is certifying that he or she personally completed the tool inventory.

12.1.4.8.2.7 Broken/Worn Tool Procedures

a. Remove from service and replace broken or worn tools upon discovery. Make an entry on the applicable Tool Container Shortage List (Figure 12.1.4.9-1) for tools not immediately replaced.

b. Turn-in all broken or worn tools to the TCPC or representative along with a Broken/Worn Tool Report.

c. Do not issue replacement tools without a completed Broken/Worn Tool Report.

NOTE: Investigate all tools with missing pieces as a missing tool per 12.1.4.9.2.8.

d. All unserviceable tools will be disposed of as per local command policy. Retain disposal receipt for one year.

12.1.4.9.2.8 Missing Tool Procedures

a. The artisan discovering a tool is missing must immediately stop work and notify their Supervisor.

b. All work activity in the affected area of the aircraft or system must cease and a search for the item will begin immediately.

c. If the tool is not located after completing the search, the artisan must prepare and submit a Missing Tool Report (MTR) to their immediate Supervisor. In instances where MTR is unavailable, a locally prepared form may be used. At a minimum, the form must include:

(1) Date and time the tool was discovered missing.

(2) BUNOs of aircraft and SERNOs of equipment the tool was used on.

(3) BUNOs and SERNOs searched.

(4) Date and time the search was completed.

(5) Names and codes of key personnel notified or who participated in the search.

(6) Whether the tool was found or not found.

(7) Logbook entries made (if required).

d. The Supervisor must:

(1) Notify Production personnel and Quality Control Division immediately.

(2) Identify work areas, other possible locations and surrounding areas of where the tool may have gone missing.

(3) Stop work in affected areas and supervise a thorough search for the missing tool.

(4) After completion of the search and before any open areas are closed, advise Management and Quality Control personnel of whether or not the missing tool was found.

(5) Forward copies of the MTR as required by local directives.

(6) Missing tools not found during the same shift as discovery requires the Supervisor to inform the on-coming Shift Supervisors of actions taken to locate the tool.

e. Quality Control Division:

(1) Must assign a Quality Control individual to lead the quality investigation efforts and provide input to applicable process owner in order to determine the scope of risk to end products.

(2) Provide findings of investigation to Production and Quality Control.

(3) Conduct FOD searches when required.

12.1.4.9.2.9 Special Procedures for Aviation Life Support Systems (ALSS)

a. ALSS tools will be kept clean and free of oil and grease at all times.

b. Segregate ALSS tools used on oxygen components in a separate container marked "OXYGEN USE ONLY."

c. Do not etch ALSS long bars and para-cord stitching fids due to the potential of snagging parachute canopy material.

12.1.4.9.3 Responsibilities

12.1.4.9.3.1 Tool Control Program Manager (TCPM)

a. Perform a Program Manager audit within 90 days of designation as the Program Manager and annually thereafter.

b. Designate at least one TCPC to assist with managing the TCP. Designation will be in writing via the SME listing.

c. Review SERVMART, Open Purchase, and Supply system requisitions for purchasing tools, and verify only authorized tools and quantities are being ordered, and review lists at the completion of shopping to verify only authorized tools and quantities were purchased.

d. Maintain a program file to include:

(1) Completed Missing Tool Reports and Broken/Worn Tool Reports. Retain reports for a minimum of one year.

(2) Outstanding and completed change requests as long as they are in effect.

(3) The master copy of each individual tool container inventory, layout photograph or diagram, and copy of Controlled Equipage Custody Record (NAVSUP Form 306) or locally established form. One master copy may be maintained for multiple identical tool containers used by the same work center.

(4) Current Aviation Maintenance Advisories (AMA) for the TCP.

(5) Copy of the most current Program Manager's Audit and QA Audit.

12.1.4.9.3.2 Tool Control Program Coordinator (TCPC)

a. Supervise the operations of tool rooms and tool control centers.

b. Maintain an accurate tool inventory list per paragraph 12.1.4.9.2.4 of all replacement tools on hand. Requirements:

(1) The tool inventory list must include the NSN or PN, nomenclature, and current quantity on hand for each authorized replacement tool.

(2) Replacement tools that are unsuitable to be etched, contain multiple pieces, or have been peened, spot-welded, or have hardware secured with adhesive, will be identified on the replacement tool inventory per paragraph 12.1.4.9.2.4.b.

(3) Remove tools from packaging and immediately etch or mark each tool with the activity's ORG code as soon as received.

c. Upon receipt, peen or spot weld tool hardware that can come loose (for example, the lock nut on a hex key set or pliers) to eliminate the possibility of FOD. Use industrial adhesive when peening or spot welding would cause damage or affect calibration.

d. Prior to issue, mark replacement tools with the complete identification.

NOTE: A completed MTR or Broken/Worn Tool Report is required before issuing a replacement tool.

e. Issue tool containers by number to the Work Center Supervisor. Issue Tool containers on a Controlled Equipage Custody Record (NAVSUP Form 306) or locally prepared form.

f. Perform requirements as established in 12.1.4.9.2.6.e.

g. Dispose of broken/worn tools per the procedures of paragraph 12.1.4.9.2.7.d. Prior to disposal, broken/worn tools will be segregated from RFI tools by placing them in a locked container clearly marked "NRFI TOOLS".

12.1.4.9.3.3 QA TCP Monitor

Perform audits per the procedures of COMFRCINST 4790.4~~A~~.

12.1.4.9.3.4 Quality Control Inspector

a. Coordinate QA actions for missing tool investigations per paragraph 12.1.4.9.2.8.e.

b. Perform incoming brief for Contractor/Field Maintenance Teams on tool control and FOD prevention procedures upon initial arrival at the job site. Inspect and inventory all field team tools, equipment, PPE, and consumables prior to the field team initially beginning work and at the completion of the job. The in-brief, initial inventory, and final inventory will be documented on a Contractor/Field Maintenance Team Brief per locally established procedures.

c. Randomly monitor work center tool containers and work in progress to verify compliance with the TCP.

12.1.4.9.3.5 Work Center Supervisor

a. Sign for custody of work center tools per paragraph 12.1.4.9.3.2.e.

b. Train work center personnel on their TCP responsibilities.

c. Comply with random spot-check work in-progress to verify TCP procedures conformance.

d. Correct tool control discrepancies discovered during work center audits.

e. Supervise the work center's actions when tools are missing per paragraph 12.1.4.9.2.8.

f. Establish a documented quarterly schedule as stated in 12.1.4.9.2.6.d for the inventory of all tool containers assigned which ensures all inventories are completed prior to the end of each quarter.

g. Comply with missing tool responsibilities as stated in 12.1.4.9.2.8.d.

NOTE: The flight engineer, crew chief, or senior maintenance technician (in the absence of an assigned crew chief) assumes Work Center Supervisor TC responsibilities for in-flight maintenance.

TOOL CONTAINER SHORTAGE LIST

Tool Container No:

NOMENCLATURE DRAWER/PANEL/ITEM	TOOL REPORT NO.	DOC NO.	TOOL CONTROL REPRESENTATIVE INITIALS	DATE REPLACED	WC SUPERVISOR INITIALS

Figure 12.1.4.9-1: Tool Container Shortage List (Example)

12.1.4.10 Corrosion Prevention and Control Program

a. Each Depot FRC will place special emphasis on the importance of the Corrosion Prevention and Control Program and lend its full support to ensure that corrosion prevention and control receives a priority for timely accomplishment, along with other required maintenance. To prevent aircraft mishaps, excessive out-of-service time, serious damage to aircraft and equipment, and a resultant reduction in readiness, with increased costs, corrosion must be discovered and corrected by each level of maintenance in the very earliest stages of development. To accomplish this, responsibilities are assigned to all departments in each activity to ensure that sufficient expertise is available to perform all required inspections.

b. Detection of corrosion on the hidden surfaces of aircraft, equipment, and components is difficult because of inaccessibility, and generally can be accomplished only after disassembly. Accordingly, identifying and correcting corrosion in these areas requires special attention. In contrast, corrosion on the exterior of aircraft and equipment is easily detected through visual means, and the prescribed scheduled inspection requirements, when properly complied with, are adequate to inspect and detect external corrosion on a day-to-day basis.

c. Corrosion prevention and control is applicable to all Navy and Marine Corps aircraft and associated equipment.

d. Training:

(1) Use of a locally developed Depot FRC corrosion control training is recommended for all depot personnel involved in aircraft or equipment maintenance.

(2) A locally developed Depot FRC corrosion control course must be completed by depot personnel performing corrosion inspections, prevention, arrestment, and removal.

(3) A locally developed Depot FRC aircraft painting course must be completed by personnel performing aircraft painting.

(4) A locally developed Depot FRC avionics corrosion control course must be completed by depot personnel performing avionics corrosion maintenance and control.

e. The following publications contain information regarding corrosion prevention and control procedures including required corrective actions. Use the specific engine manual for preservation requirements on engines.

(1) NAVAIR 01-1A-509-1

(2) NAVAIR 01-1A-509-2

(3) NAVAIR 01-1A-509-3

(4) NAVAIR 01-1A-509-4

(5) NAVAIR 15-01-500

(6) NAVAIR 17-1-125

(7) COMNAVAIRSYSCOM maintenance publications peculiar to aircraft models and related equipment

f. SE Corrosion

(1) Since SE structures (frame and skin) are commonly made of ferrous metals, SE is not normally susceptible to inter-granular corrosion and catastrophic structural failure due to corrosion as are nonferrous metals on aircraft. However, SE end items are usually susceptible to surface/pitting corrosion and must be cleaned on a scheduled basis (as required) to preclude salt and stack gas residue/dirt and oil contaminant accumulation. Corrosion control is mandatory, and must be performed to maintain the protective envelope on SE, and not merely for cosmetic purposes. Shipboard SE requires cleaning and corrosion prevention/treatment more frequently than shore-based SE.

(2) SE, AWSE, and WHE preservation is designed to protect the material condition of equipment which is not expected to be used for extended periods of time. This equipment may be preserved at any time, regardless of material condition, when it is determined to be in the best interest of the equipment or activity. The FSTs have the responsibility to determine when this equipment is required to be placed in preservation. Equipment not placed in preservation must receive corrosion prevention/treatment per applicable MIMs/MRCs.

g. The Quality Organization will monitor the Corrosion Prevention and Control Program to determine if:

(1) A preventive maintenance program is in effect that ensures compliance with NAVAIR 01-1A-509-1, NAVAIR 01-1A-509-2, NAVAIR 01-1A-509-3, NAVAIR 01-1A-509-4, NAVAIR 15-01-500, NAVAIR 17-1-125, and other existing directives.

(2) Only authorized and current shelf life corrosion prevention and control materials are used.

(3) Maintenance personnel supervising or performing corrosion prevention, arrestment, and removal receive corrosion control training.

12.1.4.11 Emergency Reclamation

a. Depot FRCs must establish local command procedures per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions for the emergency reclamation of aircraft, engines, components, and SE involved in aircraft incidents or accidents involving exposure to vast amounts of salt water or fire extinguishing agents. Where applicable, procedures must include emergency reclamation requirements and decontamination procedures performed by the Depot FRC per NAVAIR 01-1A-509-1 and NAVAIR 01-1A-509-2 for aircraft, equipment, components, or SE exposed to nuclear, biological, and chemical (NBC) agents.

b. Where applicable, ensure availability of material and equipment per NAVAIR 01-1A-509-4 to enhance rapid processing and corrective action for reclaimed equipment.

c. When requested, Depot FRCs must assist supported O-level and I-level activities during reclamation actions by providing technical expertise and equipment not authorized for O-level and I-level maintenance activities.

12.1.4.12 Egress/Explosive Systems Checkout Program

12.1.4.12.1 Introduction

a. Due to the inherent dangers associated with egress/explosive systems, a checkout program is required. The Egress/Explosive Systems Checkout Program establishes policy, responsibilities, and requirements for egress/explosive systems checkout procedures. The requirements of the Egress/Explosive Systems Checkout Program are applicable to all Navy and Marine Corps activities, and commercial and other government activities that perform on and off aircraft or equipment maintenance or other support functions on naval aircraft or Unmanned Aircraft Systems (UAS) with egress/explosive systems.

b. Egress systems include ejection seats, canopy jettison systems, explosive hatches, and panels**.**

c. Explosive systems include explosive actuated components installed on the aircraft which are not de-armed after flight and/or before conducting maintenance, for example, fire bottle cartridge actuated devices (CAD), explosive fire suppression devices, and explosive interconnect systems. If deemed necessary, all other safety training involving explosive actuated devices, such as ejector rack assemblies, will be directed by the Commanding Officer.

d. The Fleet Support Team (FST) for CADs and PADs is COMMANDING OFFICER, NAVAL SURFACE WARFARE CENTER INDIAN HEAD DIVISION (Code E-22), 4393 BENSON ROAD, SUITE 120 INDIAN HEAD, MD 20640-5092, COMM (301) 744-2248/2236.

e. The FST for ejection seats is COMMANDING OFFICER, FLEET READINESS CENTER EAST, PSC BOX 8021, CHERRY POINT NC 28533-0021, DSN 451-8553 or COMM (252) 464-8553.

12.1.4.12.2 Requirements

a. If required, develop and publish local command procedures (LCP) per OPNAVINST 5215.17 and detail at a minimum the following:

(1) T/M/S-specific Egress/Explosive Systems Checkout Instructor Training Syllabus

(2) Egress/Explosive Systems Checkout Qualification

(3) Egress/Explosive Systems Checkout Instructor Designation

NOTE: Depot FRCs performing phased depot maintenance events may establish memorandums of agreement with local activities which meet the program requirements of 12.1.4.12.2.

b. Egress/Explosive Systems Checkout Program training must be conducted by qualified instructors designated in writing, and designation is only valid for the issuing command. When there are fundamental changes in egress/explosives systems (e.g. changing from the SJU-5 to SJU-17 ejection seat), activities must qualify instructors for the new system.

c. Prior to coming in contact with or performing aircraft maintenance, all maintenance personnel assigned to activities operating aircraft with egress/explosive systems must be indoctrinated on each T/M/S aircraft/equipment assigned. The indoctrination training will address, but not be limited to, procedures to safely operate the aircraft canopy system, entry into the cockpit, and general rules while working in or around the ejection seat, canopy areas, or any explosive device(s) associated with ALSS. This must include hazards and safety precautions associated with ejection seats, canopy jettison or fracturing systems, parachute deployment, fire extinguisher, Deployable Flight Incident Recorder System, Helicopter Emergency Floatation System, and cable cutting systems. Specific training requirements:

(1) Maintenance personnel working in the Flight Check/Flight Test/Testline Integrated Product Teams (IPT) or an area where installed and armed egress and canopy jettison systems are present must receive "on aircraft" training prior to coming into contact with or performing maintenance on aircraft/equipment. Egress/Explosive Systems Checkout Qualification will be annotated with "on aircraft".

NOTE: The existence of airframe mounted SMDC, FCDC, XSMDC and other confined detonating cords along with airframe mounted initiators not removed during the depot maintenance process will not be determining factor in requiring "on aircraft" seat checkouts. The primary determining factor for required "on aircraft" training will be the existence of armed and installed ejection seats and canopy jettison systems outside of airframe mounted detonating cords (i.e., ejection seats and their mounted CADS/PADS, installed canopies with armed jettison systems, and rocket motors installed, canopy gas generators, etc.). This guidance is intended to give commands the flexibility needed to manage the number of personnel requiring "on aircraft" training. Commands may deliver "on aircraft" training to all personnel they determine as required.

(2) Personnel working in an area where aircraft egress and canopy jettison system explosive devices are not installed may be trained using comprehensive mock-ups, lectures, or instructor led videos in lieu of "on aircraft" training. Egress/Explosive Systems Checkout Qualification will be annotated with "off aircraft".

(3) Completed training must be recorded in Advanced Skills Management (ASM), the Individual Qualification Record (IQR), or the local training management system.

d. Requalification training is required every 12 months, no later than the last day of the requalification month. For example, personnel initially qualified or last requalified on 10 January must complete requalification training no later than 31 January the following year.

Personnel assigned outside the activity for over 90 days must complete requalification training prior to resuming duties.

e. Prior to depot level maintenance personnel providing on-site assistance to Fleet activities, a current, T/M/S-specific Egress/Explosive Systems Checkout training qualification must be presented to the activity being assisted.

f. No visitors to an activity operating or maintaining aircraft, whether military, civilian, contractor, or general public, will be permitted to enter the cockpit area without prior approval from the Commanding Officer (CO).

12.1.4.13 Support Equipment (SE) Operator Training and Licensing Program

12.1.4.13.1 Introduction

a. This program emphasizes and formalizes the SE Operator Training and Licensing Program and publishes responsibilities and procedures. In recent years improper use of SE has resulted in excessive repairs and reduced operational readiness. Replacement costs amount to millions of dollars annually. Investigation shows an adequate training program and supervision will reduce the number of incidents. It is most important that the maintenance and operation of SE be considered from two separate but closely related aspects; personnel safety and equipment effectiveness. Training programs must be designed and administered to ensure safety is paramount. It is emphasized that, in addition to the many directives and instructions published by higher authority, the final responsibility for personnel safety and effectiveness of equipment is vested in the CO. Command attention to and supervision of necessary and efficient training can be of immeasurable help in substantially reducing the number of personnel injuries, equipment damages, and resultant dollar losses.

b. Figure 12.1.4.13-1 is a list of equipment requiring a USN Aviation Support Equipment Operator's License (OPNAV 4790/102). Paragraph 12.1.4.13.3 provides guidance on other equipment with operating characteristics that require an SE Operator's License.

c. Weight handling equipment (WHE) operators are licensed per the procedures of this NAMPSOP, but trained per the requirements of NAVAIR 00-80T-119. Proficiency tasks will be performed on fully operational WHE. However, if due to maintenance or non-availability status, non-available or non-operational WHE will impact performance of proficiency task, on equipment simulation will be performed and Program Manager will document and retain in program binder the reason for on equipment simulation. When WHE is returned to operational status, the subsequent proficiency cycle task will be performed on RFI WHE**.**

d. Material Handling Equipment (MHE), for example, forklifts are not SE. Refer to OPNAVINST 4460.1 and MCO P11240.106 for MHE training and licensing. Refer to NAVSEA SW023-AH-WHM-010 for training and certification requirements for using MHE to handle ammunition and explosives.

e. Vehicles (cars, buses, trucks, etc.) are not SE and do not fall under the SE Operator Training and Licensing Program.

12.1.4.13.2 SE Operator Training Requirements

SE Operator training consists of two phases. Phase I is initial training on basic procedures for operating, servicing, and inspecting the item of SE. Phase II is on-the-job training (OJT) and testing on specific maintenance tasks for which the operator will use the SE.

12.1.4.13.2.1 Phase I Training

a. Phase I training is conducted by Intermediate and Depot Fleet Readiness Centers (FRC). Phase I training for some models of SE can be completed on-line at My Navy Portal (MNP).

b. Phase I instructors must be designated in writing, trained in instructional techniques, and licensed on the SE for which they provide training.

c. Phase I training courses will be produced and distributed by Commander Naval Aviation Technical Training (CNATT) for those items of SE that NAVAIR (PMA-205) determines a Phase I course is needed. Phase I training courses contain outlines, lesson guides, and training aids and can be accessed in Catalog of Naval Training Courses (CANTRAC), NAVEDTRA 10500, Volume II. Refer to the catalog for course number, description, and implementation date. All revisions are listed in the special information section. If equipment requiring an SE Operator's License does not have a CNATT Phase I course, Depot FRCs will use the supporting Intermediate FRC's or Technical Representative's authorized training course, or develop their own locally prepared Phase I training course. Locally prepared Phase I training courses must be forwarded to PMA-205 via COMFRC and the NAVAIR Aircraft Controlling Custodian Office to determine if the SE needs to be added to the list of Equipment Requiring an SE Operator's License (Figure 12.1.4.13-1).

d. Phase I training is only required for initial licensing. Phase I training does not have to be repeated for license renewal or when obtaining the same SE license on a different T/M/S aircraft.

12.1.4.13.2.2 Phase II Training

a. Phase II training is the responsibility of the activity issuing the license.

b. A Phase II training syllabus is required for each item of SE and must be completed on the specific T/M/S aircraft or equipment on which the operator will use the SE. As a minimum, the Phase II training syllabus must contain required reading, a minimum of three OJT sessions, a practical examination, and a written examination. Personal Protective Equipment (PPE) training will be included in each OJT session where the use of PPE is applicable to the task. The written examination must be tailored to and contain enough questions to verify the individual has the basic knowledge needed to safely operate the item of SE. 85 percent is the minimum passing score for the written examination.

c. Phase II OJT and practical examinations must be conducted by personnel who are licensed on the SE. Personnel providing Phase II OJT will not sign off a training session unless the individual receives hands-on training and demonstrates satisfactory knowledge and skill.

d. Personnel who fail either the practical or the written examination must repeat the entire Phase II training syllabus.

e. Phase II training on one model of SE is sufficient to license an individual on all model variations of the same type SE taught in the same Phase I course of instruction (e.g. NC-10A/B/C Shore MEPP).

f. Phase II training on new models of SE for which the activity has no licensed personnel will be completed as follows:

(1) The activity will designate at least two personnel as Initial Qualifiers.

(2) The Initial Qualifiers will complete the Phase I training course for the new SE

(3) Phase II training for Initial Qualifiers can be provided by licensed personnel from other local activities, or by NATEC, NAVAIR or original equipment manufacturer (OEM) representatives. If none of these sources is available to provide Phase II training on the new SE, the Initial Qualifiers will coordinate with Depot Training Management and SE departments on developing a Phase II training and examination syllabus, and will cross-train, cross-test and document completion of all Phase II requirements.

NOTE: The Initial Qualifier Phase II Cross Training must be documented on paper, scanned, and attached to the Aviation Skills Management (ASM) accreditation of both individuals or attached to their paper SE License Certification.

(4) To certify Initial Qualifiers in ASM, the words "Initial Qualifier" will be annotated in the remarks section of the SE License Accreditation prior to digitally signing as the Approver. To certify Initial Qualifiers on hard copy SE License Certification forms, the words "Initial Qualifier" will be annotated under the endorsement signature.

12.1.4.13.3 SE Operator License Requirements

a. A USN Aviation Support Equipment Operator's License (OPNAV 4790/102) or ASM equivalent is required to operate SE listed in Figure 12.1.4.13-1. An SE Operator's License is also required for any SE not listed in Figure 12.1.4.13-1 with one or more of the following operating characteristics:

(1) Internal combustion engine (gasoline, diesel, or gas turbine)

(2) Input/output voltages greater than 115 volts of alternating current

(3) Input/output voltages greater than 28 volts of direct current

(4) Input/output pressures greater than 100 pounds per square inch (PSI)

(5) Output temperatures greater than 150 degrees Fahrenheit

(6) Hazardous in its operation and requires a specific, critical sequence of events to prevent injury to personnel or damage to aircraft and equipment

b. Personnel must complete all Phase I and Phase II training and testing requirements before being issued an SE Operator's License. The license must be fully documented and issued before personnel are permitted to operate SE without supervision by a licensed operator.

c. Personnel must have a valid U.S. Government, DOD agency, or state vehicle driver's license to be issued an SE Operator's License for self-propelled SE. An expired, revoked, or suspended vehicle driver's license cancels authorization to operate self-propelled SE.

d. SE Operator's Licenses are valid for type equipment and T/M/S aircraft for 5 years, or upon resignation from the issuing activity, whichever occurs first. License renewal for another five years requires passing the Phase II practical and written examinations again. Personnel who fail either the practical or the written examination must repeat the entire Phase II training syllabus.

e. The USN Aviation Support Equipment Operator's License (OPNAV 4790/102) will be annotated as follows:

NOTES: 1. Activities using Advanced Skill Management (ASM) for the Support Equipment (SE) Operator Training and Licensing Program will use it as the primary means of verifying SE authorized to operate. If activities using ASM must print SE Operator's License (OPNAV 4790/102) forms as an alternate means of verification, then they must be printed directly from ASM without modification.

2. Dates will be entered in alphanumeric DD/MMM/YY format, for example, 15MAY19.

3. Corrections to hardcopy licenses will be made by drawing a single line through each erroneous entry and inserting the correct entry above or below as space permits. Corrective tape and correction fluid are not authorized.

Block 1. (Name of Operator). Enter the legal name of operator.

Block 2 (Paygrade/Service). Enter the current paygrade and service.

Block 3. (Date Issued). Enter the date the OPNAV 4790/102 was issued.

Block 4. (U.S. Government, DOD agency, or State driver's license). If license has self-propelled SE, list the operator's State, U.S. Government, or DOD agency driver's license number, name of the issuing State or U.S. Government or DOD agency, and expiration date.

Block 5. (Issuing Activity). Enter name and location of issuing activity.

Block 6. (Signature of Licensee). Enter operator's signature.

Block 7. (Issued By). Enter authorizer's signature.

Block 8A. (Type Equipment). Entries must have specific equipment identification number, for example, A/S32A-31B. Licenses containing general entries, for example, "Mobile Electric Power Plants" or "Powered Bomb Hoists" are not valid. Only one item of SE will be listed per line, unless items are model variations of the same type equipment and taught in the same course of instruction, for example, NC-10A/B/C and A/M32A-108 Shore MEPP. Entries for engine test systems must contain the test system and type engine(s) the operator is designated to run.

Block 8B. (Expiration Date). List the expiration date for each item of SE. Expiration dates will be five years from the date of the Phase II written examination. For self-propelled SE, refer to Block 4 for the Expiration Date.

Block 8C. (Certified By). The certifier must initial this block.

NOTE: Certifier's initials are not required for OPNAV 4790/102 forms generated from ASM.

Block 9. (Restrictions). See Block 8A for licenses generated from ASM. Licenses printed from ASM list SE and T/M/S in Block 8A. For hard copy licenses, annotate restrictions as follows:

(1) If the license is being issued to operate the SE on aircraft, specify the T/M/S aircraft. Example: "For FA-18E aircraft only."

NOTE: 1. Due to their commonality, personnel trained on the SH-60B or MH-60R may annotate Block 9 "For SH-60B/MH-60R use only." Personnel trained on the SH-60F, HH-60H or MH-60S may annotate Block 9 "For SH-60F/HH-60H/MH-60S use only." Personnel trained on the E-2C or E-2D may annotate Block 9 "For E-2C/E-2D use only."

2. Accreditations and SE Licenses printed from ASM already combine some commonality on the T/M/S.

(2) If the license is not being issued to operate SE on aircraft, enter "Restricted to non-aircraft use."

NOTE: Personnel operating self-propelled mobile cranes for maintenance purposes only must have "For Maintenance Only."

12.1.4.13.4 Responsibilities

Depot FRCs must develop and publish local command procedures (LCP) as per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions and responsibilities for the Support Equipment Operator Training and Licensing Program. Procedures must include which personnel are authorized to certify, train, and revoke personnel to operate SE.

Equipment Requiring an SE Operator's License

EQUIPMENT

A/M24M-5A STATIC FREQUENCY CONVERTER

A/M24M-6 120 KVA LAND BASED MOBILE ELECTRIC POWER PLANT

A/M24T-17 ELECTRICAL DUMMY LOAD

A/M26M-3 AIRCRAFT LIQUID OXYGEN SYSTEM GAS PURGING SET

A/M26U-14 OXYGEN SERVICING COMPRESSED GAS TRAILER

A/M26U-4B NITROGEN SERVICING UNIT

A/M27T-14 ELECTRIC HYDRAULIC POWER SUPPLY

A/M27T-15 DIESEL HYDRAULIC POWER SUPPLY

A/M27T-6 AIRCRAFT HYDRAULIC SYSTEMS TEST STAND

A/M32A-108, NC-10A/B/C MOBILE ELECTRIC POWER PLANT

A/M32C-17 MOBILE AIR CONDITIONING UNIT

A/M32C-21 AIRCRAFT GROUND COOLING AIR CONDITIONER

A/M32C-23 AIR CONDITIONER

A/M32C-26 Land based Variant Air Conditioner (LVAC)

A/M32C-27 Shipboard Variant Air Conditioner (SVAC)

A/M32M-24 2,000LB HANGAR DECK CRANE

A/M32M-39 LARGE CORROSION CONTROL CART

A/M32M-40 SMALL CORROSION CONTROL CART

A/M32U-13B AIRBORNE ARMAMENT MAINTENANCE TRAILER

A/M32U-21 MAINTENANCE TRAILER

A/M37M-11 HYDRAULIC FLUID PURIFIER

A/M42M-2A PORTABLE FLOODLIGHT SET

A/M47A-1 TRAILER, VAN AND LAU-71A SERIES RECEIVER

A/M48M-4 HOT WATER ENGINE PRESSURE WASHER

Figure 12.1.4.13-1 (page 1): Equipment Requiring an SE Operator's License

A/S32A-32 AIRCRAFT TOWING TRACTOR

A/S32A-35A AIRCRAFT CRASH HANDLING AND SALVAGE CRANE

A/S32A-36A AIRCRAFT CRASH HANDLING AND SALVAGE CRANE

A/S32A-37 AIRCRAFT TOWING TRACTOR

A/S32A-44 AIRCRAFT UTILITY CRANE

A/S32A-45 MID-RANGE TOW TRACTOR

A/S32A-47 MANTIS SHH ELP-1

A/S32A-48 LARGE LANDBASED TOW TRACTOR

A/S32A-49 SHIPBOARD TOW TRACTOR

A/S32K-1E AIR LAUNCHED WEAPONS LOADER

A/S32M-14 AIRCRAFT MAINTENANCE CRANE WHEEL MOUNTED

A/S32M-17 8-1/2 TON HOIST MAINTENANCE CRANE WHEEL MOUNTED

A/S32M-19 25-TON WHEEL MOUNTED HEAVY MAINTENANCE CRANE

A/S32M-20 ENGINE INSTALLATION AND REMOVAL VEHICLE

A/S32P-25 FIRE FIGHTING VEHICLE

A/S32P-25A FIRE FIGHTING VEHICLE

A/S37A-3/3A SHIPBOARD MOBILE ELECTRIC POWER PLANT

A/S37A-4 SHIPBOARD MOBILE ELECTRIC POWER PLANT

A/S48M-2 DIESEL SELF-PROPELLED SERVICING PLATFORM

A/S48M-3 ELECTRIC SELF-PROPELLED SERVICING PLATFORM

A/U47A-5 MSU-200NAV MOBILE AIR START UNIT

ACU-20/M PORTABLE AIR COMPRESSOR

ACU-24/M PORTABLE AIR COMPRESSOR

BT-400-46 PRE-HEATER

DA-675/MSM ELECTRICAL DUMMY LOAD

HALON 1211 RECHARGER/RECOVERY SYSTEM

HLU-196D/E BOMB HOISTING UNIT

Figure 12.1.4.13-1 (page 2): Equipment Requiring an SE Operator's License

V90-4SC REFRIGERANT RECLAIM SYSTEM

MEP-006A TACTICAL DIESEL DRIVEN GENERATOR SET

MEP-807A/MEP-809A TACTICAL QUIET GENERATOR SET

MMG-1A MOBILE ELECTRIC POWER PLANT

NAN 2/2A/3 NITROGEN SERVICING UNIT

ST-100/A, ST-1000 REFRIGERANT RECOVERY-RECYCLE SYSTEM

TM1800 TRUCK MOUNTED DEICER

TMU-27/M LIQUID OXYGEN STORAGE TANK

TMU-70/M CLOSED LOOP LOW LOSS LIQUID OXYGEN SERVICING TRAILER

NOTE: Operation of like SE installed in naval aircraft does not require an SE Operator's License. Equipment installed in aircraft will be operated per aircraft publications.

Figure 12.1.4.13-1 (page 3): Equipment Requiring an SE Operator's License

12.1.4.14 Support Equipment (SE) Planned Maintenance System (PMS)

a. The Support Equipment Planned Maintenance System (SE PMS) establishes requirements for the maintenance of SE. SE is defined as all IMRL and non-IMRL equipment required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. This includes all equipment required to install, launch, arrest (except Navy shipboard and shore-based launching and arresting equipment), guide, control, direct, inspect, test, adjust, calibrate, gauge, measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain or operate the system, subsystem, end item, or component. This definition applies regardless of the method of development, funding, or procurement. SE may be categorized as common (general purpose) and peculiar (special purpose).

NOTE: The following equipment is excluded from the definition of SE: powered and non-powered hand tools, housekeeping items, office furniture, and equipment common to all activities defined in applicable allowance lists that are required as indirect support. For example, mills, presses, lathes, grinders, maintenance benches, or shop aids, including storage dollies, items used only by the contractor, and personal equipment, such as headsets and microphones.

b. This program must be monitored per local command procedures. Depot FRCs will ensure:

(1) Scheduled maintenance (preoperational inspection, periodic inspection, acceptance inspection, and transfer inspection), periodic load testing, and NDI are accomplished using applicable prescribed procedures.

NOTES: 1. A one-time deviation for scheduled maintenance in excess of the high (+) limits described per Chapter 5, paragraph 5.3.10.5, may be granted due to its interruption and delay to rework workload and schedule. Deviation requests, at a minimum, will contain the following information: SE serial number, part number, nomenclature, inspection(s) overdue, technical manual reference(s), and justification. Production Officers or civilian equivalents must submit the initial deviation request to their Commanding Officer (CO) for approval. COs may grant up to one additional (+) limit interval. Authorizations for additional deviations must be approved by the NAVAIR ACC.

2. While the SE remains in use, monthly static and/or visual inspections will be performed. The overdue periodic maintenance (PM) status, monthly static, and/or visual inspections will be annotated on the SE Preoperational Record (OPNAV 4790/52). The SE will be inducted for PM as it becomes available and will not be reissued until all deferred maintenance is complete.

(2) Unscheduled maintenance (repair, corrosion control, touch-up painting, preservation, and fluid handling), periodic load testing, and NDI is accomplished using applicable prescribed procedures.

(3) Records and forms, including SE Custody and Maintenance History Record (OPNAV4790/51) and SE Preoperational Record (OPNAV 4790/52) are properly maintained.

c. Supervisors will ensure:

(1) All SE is maintained per appropriate Periodic Maintenance Requirement Manuals.

(2) Records and forms, including SE Custody and Maintenance History Record (OPNAV4790/51) and SE Preoperational Record (OPNAV 4790/52), are properly maintained to document both scheduled maintenance and unscheduled maintenance.

NOTE: Stamp certified depot artisan performing the pre-operational inspection are authorized to fill in and sign the Date, Inspector, and Supervisor blocks of OPNAV 4790/52 Preoperational Record.

12.1.4.15 Metrology and Calibration (METCAL) Program

12.1.4.15.1 Introduction

All Depot FRC Navy Calibration Laboratories (NCLs) perform calibration of Test, Measurement, and Diagnostic Equipment (TMDE)/Calibration Standards (CALSTDS) of fleet, Depot, Navy Test & Evaluation, commercial and other DoD/Government agencies. Per OPNAVINST 3960.16, NAVAIRINST 13640.1, and NAVAIR 17-35POP-01, NAVAIR METCAL Integrated Program Team (IPT) is responsible for promulgating policy, budgeting and allocating funds, establishing procedures, ensuring pre-engineered parametric capabilities, and managing operations. Additionally, some Depot FRC NCLs are staffed with metrology engineers to ensure the laboratory's calibration workload is correctly calibrated per specified requirements. Activities performing calibration or repair of naval aviation TMDE must be certified per NAVAIR 17-35QAC-01. Calibration Technicians, whether military, civilian, or contractor, must be qualified to perform the assigned calibration functions per NAVAIR 17-35POP-01. NCL Metrology Technical Managers may be delegated limited metrology engineering technical authority by the NAVAIR Metrology Technical Warrant Holder (TWH) (AA14000) per NAVAIRINST 5400.162.

12.1.4.15.2 Calibration Laboratory Responsibilities

a. Perform calibration of TMDE per NAVAIR METCAL Program policies and procedures. Per NAVAIRINST 13640.1, Depot FRC NCLs will support fleet TMDE and CALSTD calibration workload as authorized by the NAVAIR METCAL IPT.

b. Perform repairs to TMDE per Customer-Sponsor's policies and funding.

c. Document all calibration actions in Metrology Automated System for Uniform Recall and Reporting (MEASURE).

d. Per NAVAIRINST 13640.1, maintain accurate accountability of D-level laboratory calibration equipment through a complete and current inventory of standards via the Calibration Standards Asset Management System (CSAMS).

e. Identify CALSTD allowance changes to NAVAIR METCAL via CSAMS change request process. Addition of capability must identify the PMA responsible for the requirement.

f. Align on hand CALSTD inventory including substitute model numbers to the allowanced quantity.

g. Participate in and assist with Navy Calibration Quality programs including Joint Navy Audit Certification Program, Proficiency Testing programs or as directed by the NAVAIR METCAL IPT.

h. Report loss of capability to NAVAIR METCAL Service Desk and other customers as required.

i. Coordinate pickup and delivery service of TMDE for local customers. TMDE will be adequately protected to prevent damage during transport i.e., padding on floor and or shelves as well as tie downs to prevent damage to equipment from shifting and shock. Equipment must be adequately protected from the elements (i.e., moisture, extreme temperature, and contamination from dirt and dust).

j. Reconcile all non-CSAMS standards with the NAVAIR METCAL program to achieve a complete CALSTDs inventory in CSAMS.

k. Provide routine calibration and repair production reporting to the NAVAIR METCAL Program in accordance with program guidelines, utilizing workload norms established for this purpose, for any and all efforts expending program budgets.

l. Develop and execute a metrology personnel training process.

m. Provide specialized calibration training on the theory and use of TMDE and CALSTDS to calibration laboratory personnel.

n. Keep accurate training records for metrology personnel.

12.1.4.15.3 Metrology Engineering Responsibilities

Laboratories with metrology engineers empowered by the NAVAIR Metrology TWH are responsible for the following:

a. Adhere to calibration guidance and interval set forth in 17-35MTL-1 and Calibration Problem Assistance Request (CPAR) Live, by Model Number and CAGE match.

b. Calibration logistic requirements for weapons platforms and supporting equipment or systems must be determined early in design and acquisition process. This includes procedural guidance for calibration laboratory technicians, and is generally planned and managed by the METCAL Program Acquisition Logistics Team via coordination with PMAs responsible for initial outfitting. For any requirements for development of calibration support, FRCs with an authorized Metrology Deputy Technical Warrant Holder can engineer metrology calibration support within the following three scenarios:

(1) In collaboration with the METCAL Program Acquisition Logistics Team, serve as a metrology engineering resource for developing calibration logistic support for a PMA led acquisition.

(2) For Depot unique assets requiring emergent support, and not under Acquisition Logistics Team management, and not a Model Number and Cage Match in NAVAIR 17-35MTL-1 (i.e. unsupported), FRC metrology engineering may develop local calibration support as an interim stopgap measure. This interim technical guidance to support the asset must be in the form of a temporary engineering instruction (TEI). The TEI is authorized for one time use by the calibration laboratory to calibrate the asset. The TEI must not be duplicated or reused for recurring calibrations of the same model number and serial number by the laboratory unless authorized by NAVAIR METCAL Chief Engineer. For all subsequent calibrations of the asset by the calibration laboratory, the asset must use calibration guidance listed in NAVAIR 17-35MTL-1 or CPAR Live.

(3) For FRC Industrial Complex assets with no weapon platform requirements, FRC metrology engineering may develop calibration support following all NAVAIR METCAL Program engineering standards.

c. Convert all TEI guidance provided to the calibration laboratory into a CPAR support package IAW SWP 41L40-004. The support package must be submitted to CPAR Live within four months of initial submission of TEI to laboratory, to enable establishment of METCAL Program calibration guidance that is streamlined for calibration laboratory operations.

d. Approve non-Navy Calibration Equipment (NCE) CALSTD substitutions for non-fleet related customers (example: reimbursable).

e. Perform Calibration Requirements Analysis (CRA) and Measurement Uncertainty Analysis (MUA) as required in the development of organic calibration support per NAVAIR 17-35ES-003 and SWP41L40-003.

f. Develop ICPs or local calibration procedures (LCP) per established NAVAIR 17-35ES-002, SWP 41L40-002 and NAVAIR 17-35TR-50.

g. Ensure all measurements are traceable through an unbroken chain of measurements to a national standard or natural physical constant.

12.1.4.15.4 Calibration Workload Management

NOTE: Non-aviation (non IMRL) TMDE forwarded to D-Level calibration laboratories for calibration or rework must be clearly identified as non-aviation TMDE. Calibration of non-aviation SE is not funded by NAVAIR and must be submitted under separate shipping documents from aviation TMDE or CALSTDS.

a. Per OPNAVINST 3960.16 and NAVAIRINST 13640.1, periodic calibration of TMDE and CALSTDS confirms an acceptable level of measurement reliability. TMDE performance is compared against CALSTDS for a higher level of accuracy. This often occurs in upper-level calibration laboratories, including Depot FRC NCLs, with traceability to the International System of Units (SI) through recognized national metrology institute (e.g. NIST), ratiometric techniques, or natural physical constants. The following will be adhered to:

(1) Any TMDE or CALSTDS used to make quantitative measurements or to provide a reference quantity of known value must be calibrated. Each item of calibrated TMDE or CALSTDS must have a unique serial number affixed to enable tracking. If the manufacturer affixed no serial number to the equipment, the calibrating activity will assign a serial number per OP43P6B.

(2) Per OPNAVINST 3960.16, NSWC Corona Division is responsible for establishing and adjusting calibration intervals for all DON TMDE. Per NAVAIRINST 13640.1, the NAVAIR METCAL IPT is responsible for the management oversight of NAVAIR METCAL functions, including the establishment and adjustment of calibration recall intervals for NAVAIR TMDE/CALSTDs. Any TMDE or CALSTDS used to make quantitative measurements or to provide a reference quantity of known value must be calibrated. Each item of calibrated TMDE or CALSTDS must have a unique serial number affixed to enable tracking. If the manufacturer affixed no serial number to the equipment, the calibrating activity will assign a serial number per OP43P6B.

(3) TMDE or CALSTDS will be calibrated and repaired at the most effective maintenance level in consideration of applicable laws, urgency, priority, crew impact, capability, capacity, and total ownership cost per OPNAVINST 3960.16.

b. Per NAVAIRINST 13640.1, Metrology Automated System for Uniform Recall & Reporting (MEASURE) is the approved Automated Information System (AIS) for the NAVAIR METCAL Program and facilitated per OP43P6B. The MEASURE Operational Control Center (MOCC) in San Diego, CA publishes equipment recall schedules and provides data used for reliability and engineering technical analysis in support of the METCAL Program. MEASURE provides recall, inventory, and calibration history data. The COMNAVAIRSYSCOM METCAL Program uses this data to fund calibration laboratory man-hour expenditures in support calibration of TMDE/CALSTDS assigned to organizational and intermediate maintenance activities that are part of the Naval Aviation Enterprise.

c. Calibration services will be provided as follows, and is not all inclusive:

(1) Calibration and incidental repair of TMDE/CALSTDS received from NAVAIR FCA laboratories and activities.

(2) Repair and Calibration of CALSTDs as authorized by the NAVAIR METCAL program.

(3) Performing incidental repair and calibration services for:

(a) COMNAVSEASYSCOM, SSP, and NAVWAR.

(b) Other DOD and government agencies.

(c) Commercial entities working under government contracts.

(d) In-house equipment (that requires calibration) within the laboratory's capability (not scheduled by NAVAIR METCAL IPT).

(4) Performing additional tasks assigned by NAVAIR METCAL IPT.

(5) Contacting the cognizant TYCOM for disposition guidance for CALSTDS that fail calibration.

(6) Including workload generated by in-house calibratable assets in requirements projections.

(7) Accepting non-aviation TMDE for calibration or repair, only if funding has been provided.

(8) Maintaining a file of METCAL Program directives and AIG messages. Retain METCAL AIG messages for a minimum of 1 year.

(9) Reviewing NSWC MSD Corona, CA monthly METBULs for pertinent METCAL Program information. See paragraph 10.18.3.4 for interval change information.

(10) Initiating SE Misuse and Abuse Reports per Chapter 7, when negligence is suspected to have caused damage to TMDE/CALSTDs.

(11) Executing calibration procedures per NAVAIR 17-35MTL-1 and affixing labels and tags per NAVAIR 17-35TR-8.

d. Calibration Workload Scheduling

(1) Per NAVAIRINST 13640.1 the recall of equipment for calibration, at established intervals, is facilitated by MEASURE. Per OP43P6B, MEASURE provides management information and data required to make recall schedules. NAVAIR METCAL IPT will publish and monitor equipment recall schedules to allocate resources required to execute the schedules. These schedules determine workload composition, authorizing MEASURE customers to forward specific equipment to the laboratories indicated for calibration.

(2) Depot FRC NCLs provide calibration and repair of the TMDE and FCA standard CALSTD workloads. NPSL workload will be more oriented towards engineering support and traceability.

(3) Most equipment is calibrated in the laboratory, but some must be done on-site by field teams (normally from D-Level laboratories). A determination must be made as to the number and the extent of on-site servicing required, as well as the hours required for lab servicing. The accomplishment of these requirements is subject to funding constraints and availability of laboratory man-hours to perform the work. The availability of laboratory man-hours is determined during periodic fleet readiness support meetings.

(4) Equipment scheduled into a laboratory for calibration and servicing is based on calibration intervals established by:

(a) NAVAIR 17-35MTL-1

(b) Authorized Commercial Service Provider list

(c) CPAR Live

e. Metrology and Calibration General Processes applicable in the following five general areas and have direct application to D-Level laboratories, including NPSL:

(1) CALSTDS and equipment used to perform measurements must bear evidence of a current calibration and all measurements are traceable to the International System of Units (SI) through recognized national metrology institute (e.g. NIST), ratiometric techniques, or natural physical constants.

(a) Inventory of all CALSTDS and Equipment issued by NAVAIR METCAL IPT must be maintained in CSAMS. CSAMS will be used to control these inventory assets and as the repository for respective inventory listings. A CSAMS controlled asset will be identified in MEASURE as a CSAMS CALSTD in MEASWEB block 65. NAVAIR Assets must be inventoried annually and when the assigned custodian changes. Completed inventories will be submitted through CSAMS to the COMNAVAIRSYSCOM METCAL Program.

(b) Inventory of CALSTDS not issued by NAVAIR METCAL IPT must be maintained in MEASURE. The MEASURE system will be used to control these inventory assets and as the repository for respective inventory listings.

(c) The inventory of laboratory standards CALSTDS and equipment used to perform calibration functions must be adjusted as new TMDE are brought into operational environments.

Requirements for new or additional standards must be identified and requested per NAVAIR METCAL IPT established processes.

(d) CALSTDS that cannot be supported locally will be forwarded to an Authorized Commercial Service Provider or Calibration Service Provider approved by the NAVAIR METCAL IPT.

(2) Calibration laboratory operations must be technically adequate to provide the quality required by COMNAVAIRSYSCOM customers. NAVAIR 17-35QAC-01, Navy and Marine Corps Calibration Laboratory Audit and Certification Manual, is the quality standard for ensuring the technical adequacy of COMNAVAIRSYSCOM calibration laboratories; along with the proper use of existing COMNAVAIRSYSCOM metrology and calibration engineering and support elements.

(3) Technicians must be qualified to perform the calibration functions expected of them and for which the laboratory has responsibility to perform.

(4) Calibration Procedures. Approved calibration procedures for CALSTDS and TMDE are specified in the Metrology Requirements List (NAVAIR 17-35MTL-1 and NAVAIR 17-35NCE-1) or CPAR Live. Other publications, such as maintenance manuals, local instruction sheets, Air Force, Army, and NASA calibration procedures, ordnance procedures, ordnance directives, and MRCs that may contain calibration data are not authorized for METCAL Program use unless otherwise approved for use through CPAR Live or NAVAIR METCAL Chief Engineer.

(5) Per NAVAIRINST 13640.1, calibration of oxygen TMDE must only be calibrated by depot-level NCLs. Other NAVAIR METCAL IPT-approved calibration activities are authorized to calibrate oxygen TMDE and reference CALSTDs, per NAVAIR 17-35POP-01, MILSTD-1330D, and NAVAIR 17-35QAL-11.

NOTES: 1. Oxygen TMDE will only be calibrated and repaired by specified D-Level activities certified to perform Oxygen calibration.

2. Select FCAs have been augmented with D-Level personnel to perform specified D-Level calibrations approved by NAVAIR METCAL, including Oxygen TMDE. Contactor Engineering and Technical Services (CETS) personnel assigned to expanded capabilities laboratories must comply with the Quality Assurance (QA) policies of the host I-Level.

12.1.4.16 Hazardous Material Control and Management (HMC&M) Program

a. All activities involved in the rework of aircraft, support equipment or components are responsible for maintaining a HMC&M Program to properly retrieve, handle, store, and dispose of hazardous material (HAZMAT) and hazardous waste (HAZWASTE) per applicable state, DOD, and federal laws. HMC&M focuses on preventing, minimizing, or eliminating the introduction of HAZMAT into the Navy, substituting less hazardous HAZMAT for HAZMAT already in the Navy, safely using HAZMAT in the workplace, and safely handling and disposing of HAZWASTE. HMC&M incorporates the requirements of the following references:

(1) Title 29 CFR Part 1910, Occupational Safety and Health Standards

(2) DODINST 6050.05, DoD Hazard Communication (HAZCOM) Program

(3) BUMEDINST 6270.8, Occupational Health Hazard Assessments

(4) OPNAVINST 5100.23, Safety and Occupational Health Program

(5) OPNAV M-5100.23, Navy Safety and Occupational Health Manual

(6) OPNAVINST 5090.1, Environmental Readiness Program

(7) OPNAV M-5090.1, Environmental Readiness Program Manual

b. Commands must establish local command procedures per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions to include at a minimum:

(1) Develop contingency plans delineating the proper cleanup of HAZMAT/HAZWASTE spills, annual emergency spill drill procedures, as well as ensuring proper PPE is provided and used by all personnel working with HAZMAT/HAZWASTE.

(2) Establish requirements for maintaining and publishing Safety Data Sheets (SDS) for all HAZMAT acquired, issued, received, or brought into the command, unit, activity or facility except those substances or materials excluded from the HAZCOM Standard by Section b of 29 CFR 1910.1200.

(3) Develop, implement, and revise as necessary a command, unit, or activity level HAZMAT inventory that includes, at a minimum, the identity and quantity (by building) of HAZMAT present at the facility.

(4) Establish the management procedures for HAZMAT/HAZWASTE disposal, identify HAZMAT/HAZWASTE roles and responsibilities, and training certification.

(5) Develop procedures for conducting weekly and quarterly inspections to ensure HAZMAT/HAZWASTE containers are correctly inventoried, labeled, shelf-life expiration date, segregated, and free of corrosion and leakage.

c. Training. All personnel who are exposed to chemical hazards must receive either HAZCOM for Supervisors or HAZCOM for Non-Supervisors depending on position. Training prior to initial exposure to HAZMAT and annually thereafter and must be documented. OPNAV M-5090.1 and OPNAV M-5100.23 outline the job specific training requirements and Title 29 CFR 1910.1200 outlines topics and subject matter that must be addressed during HAZCOM training. Position specific required training:

(1) HMC&M Program Manager (within 60 days of assignment):

(a) Introduction to Hazardous Materials Ashore Global Online course (Course A-493-0331) or Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(b) (CONUS activities) Introduction to Hazardous Waste Generation and Handling course (Course A-493-0080) as applicable to their CONUS duty location.

(c) (OCONUS activities) Overseas Hazardous Waste Facility Operations course (Course A-493-0093) as applicable to their OCONUS duty location.

(d) (OCONUS activities) Overseas Hazardous Waste Generator (Course A-493-0094) annual refresher training only.

(e) Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081) initially and annually thereafter.

NOTE: Activities may separate HMC&M Program Manager duties between the HMC&M and the Hazardous Waste (HW) Program Managers. Both are required to take the above training or equivalent.

(2) HMC&M Program Supervisor (within 120 days of assignment, if assigned):

(a) Introduction to Hazardous Materials (Ashore) Global Online course (Course A-493-0331) or the Defense Hazardous Material/Hazardous Waste Handling course (Course 9E-F50/322-F34 (MT)).

(b) (CONUS activities) Introduction to Hazardous Waste Generation and Handling course (Course A-493-0080) as applicable to their CONUS duty location.

(c) (OCONUS activities) Overseas Hazardous Waste Facility Operations course (Course A-493-0093) as applicable to their OCONUS duty location.

(d) (OCONUS activities) Overseas Hazardous Waste Generator (Course A-493-0094) annual refresher training only.

(e) Complete the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Review course (Course A-493-0081) initially and annually thereafter.

(3) Work Center Supervisors must complete HMC&M training provided by the Command or station safety or environmental offices within 30 days of assignment. Training must be supported by a written syllabus that covers HAZCOM and local environmental, HAZMAT and HAZWASTE laws, rules, regulations and procedures pertaining to the activity.

12.1.4.17 Electrostatic Discharge (ESD) Protection and Electromagnetic Interference (EMI) Reporting Program

a. Per ANSI/ESD S20.20, improper handling of Electrostatic Discharge Sensitive (ESDS) devices can cause components to fail. Per NAVAIRINST 2400.1, EMI can cause degraded performance of mission critical systems. To minimize the risk of ESD and EMI damage, the ESD Protection and EMI Reporting Program establishes policy for the necessary training and proper handling, protecting, storing, and transporting of ESDS devices and components, and for the reporting and mitigation of EMI incidents. Naval Air Warfare Center Aircraft Division E3 Engineering Division is the technical lead for this program and for the Air Systems Electromagnetic Interference Corrective Action Program (ASEMICAP). The ASEMICAP Web application (https://asemicap.navair.navy.mil) contains all ANSI/ESD standards under license from the ESD Association (ESDA) to COMNAVAIRSYSCOM.

b. OPNAVINST 2400.20 and NAVAIRINST 2400.1 provide guidance for implementing an EMI control program. ANSI/ESD S20.20 and ANSI/ESD TR20.20 provide the requirements

necessary to establish, implement, and maintain an ESD Control Program. NAVAIR 01-1A-23 defines ESD control and protection requirements for 2M Electronic Assembly Repair. OPNAVINST 3750.6 provides policy for reporting hazards related to EMI. NAVSUP Publication 723 contains Supply Discrepancy Report (SDR) information. NAVAIR 17-600-193-6-2 and NAVAIR 17-600-193ESD-6-1 address PM requirements for ESD protected areas. MIL-HDBK-773A contains instructions for packaging Electrostatic Discharge Sensitive (ESDS) circuit cards and modules for shipment and storage.

c. Each Depot Fleet Readiness Center (FRC) will establish and maintain an effective ESD Protection and EMI Reporting Program that is planned, integrated, and developed in conjunction with production, maintenance, test, supply, safety, and quality verification functions. Commands must establish local command procedures (LCP) per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions by ensuring ESD Protection standards are maintained at all times.

d. Training. An effective ESD Protection and EMI Reporting Program depends on the quality of training provided for its success. All personnel that handle, inspect, package, transport, or maintain ESDS items must receive job-specific ESD/EMI initial training prior to being permitted to handle or independently perform maintenance on ESDS items without supervision of a trained individual. Personnel will be shown how their job relates to the program. Training must include an explanation of what ESD/EMI is, how and where it occurs, how to handle, inspect, package, and transport of ESDS items; and what problems are associated with ESD/EMI. Personnel will complete refresher training every 18 months.

NOTES: 1. The ASEMICAP Web application (https://asemicap.navair.navy.mil) contains EMI or and ESD training materials located in the Fleet Community section of the website.

2. Training from ASEMICAP Fleet Support Specialists (FSS) can be requested through the ASEMICAP Web application under the 'Request Training' tab located in the Fleet Community section of the website or directly from the local ASEMICAP FSS. FSS contact information is provided under the 'Contacts' tab in the Fleet Community.

e. A QA ESD monitoring program will be established to verify the proper operation and use of ESD protective equipment and materials on a periodic basis for personnel and equipment safety.

f. All electronic Weapons Replaceable Assembly (WRAs), Shop Replaceable Assembly (SRAs), and individual solid state electronic components will be considered ESDS items while handled, packaged, repaired and transported. Any ESDS item believed to be exposed to ESD or handled without protective equipment will be considered not-ready for issue (NRFI) and must be tested prior to being certified ready for issue (RFI).

NOTE: All printed circuit assemblies and microcomponents must be considered to be ESDS while being stored, handled, packaged, repaired, and transported. This includes SRAs or components removed or replaced within WRAs. Approved ESD protective

materials and ESD labels are listed on the ASEMICAP website (https://asemicap.navair.navy.mil).

g. All areas where ESDS items are handled, will have an ESD protected area (EPA), for example, supply, production control, maintenance shops. At a minimum, EPAs must be identified, as a properly configured workstation, and be grounded per NAVAIR 01-1A-23, WP 004 00. In some instances, an EPA or workstation may have to be configured in such a way as to require direct grounding to the power ground (aircraft tie down) located within a hangar. No prime generators, as defined in NAVAIR 01-1A-23, WP 004 00, will be closer than 24 inches to an EPA. Preoperational checks for EPAs must be performed per NAVAIR 17-600-193ESD-6-1 and must be documented on an OPNAV 4790/52 Preoperational Inspection Record.

WARNING: FOR PERSONNEL SAFETY, EQUIPMENT MUST BE DE-ENERGIZED WHEN WRIST STRAPS ARE IN USE.

NOTE: The use of the ESD Earth Ground Checker (EGC), which utilizes the third wire equipment ground present in almost all AC outlets is an approved ground source, per ASEMICAP web application at https://asemicap.navair.navy.mil.

h. When practical, a portable ESD Field Service Kit will be used when removing or replacing individual SRAs, WRAs or components onboard aircraft in-flight or prior to ground maintenance. Personnel, work mats, and wrist straps must be grounded against the aircraft frame during maintenance on ESDS items.

NOTE: When an ESD Field Service Kit is not practical while performing maintenance on aircraft, the technician will use a wrist strap connected to the aircraft structure or achieve an equipotential grounding status by contacting aircraft structure.

i. Component protection cannot be over stressed. ESDS items not rendered ESD safe will be handled at EPAs that comply with the requirements identified in NAVAIR 01-1A-23, WP 004 04-4.6.

(1) ESDS items must be placed in ESD safe condition immediately after removal from the aircraft or equipment, and must remain in ESD safe configuration until the time of repair or re-installation.

(2) Uninstalled WRAs must have external cannon plugs and connector pins covered with the provided connector cap or an ESD cap. If authorized covers are not available, ESD finger cots or ESD tape can be applied. WRAs and discrete components will be protected by an inner layer of anti-static pink poly material and an outer layer of static shielding material, or a bag with both characteristics.

(3) Affix an ESD caution label to the outside of the static shielding material. If ESD caution labels are not available, mark the outside of the shielding material in such a way as to identify that an ESDS item is enclosed.

(4) Uninstalled SRAs must be protected by an inner layer of anti-static pink poly material that is the enclosed in an outer layer of static shielding material. Per ANSI/ESD TR20.20, Ch. 20.6,

a closed or sealed ESD shielding bag possessing both shield and anti-static characteristics is preferred.

(5) The practice of removing SRAs with power applied is prohibited unless specifically directed by maintenance repair and troubleshooting procedures.

j. Personnel safety is also extremely important. Equipment must be de-energized when wrist straps are in use at a properly configured EPA. In the past, technicians have always been isolated from electrical shock by nonconductive rubber mats. In EPAs, these nonconductive mats have been replaced with conductive material and devices through which the technician is tied to a soft ground (a connection to ground through an impedance sufficiently high to limit current flow to safe levels for personnel (normally 5 milliamperes)). Impedance needed for soft ground is dependent upon the voltage levels which could be contacted by personnel near the ground.

12.2 Depot Special Process Certification

12.2.1 General

a. Various skills or processes performed at Depot FRCs are not readily verifiable or are of such a critical nature as to preclude the use of normal certification requirements. For these reasons, special certification is required to ensure that artisans performing these processes meet acceptable levels of competence. The Compliance and Quality Department establishes the local program requirements with engineering, production, and career development assistance and determines those operations and processes which require special certification.

b. Depot FRCs must ensure a comprehensive special certification/licensing program is developed, implemented, and administered. These requirements will be used as minimum guidelines for the establishment of a special certification program. To that end, Compliance and Quality is designated as the final approving authority in all areas concerning special certification. Special Process certification/qualification training requirements are contained in COMFRC M-4855.6, Advanced Skills Management (ASM)/Job Qualification Requirements (JQR), and national local process specifications/local engineering specifications (LPS/LES).

c. Critical processes performed at Depot FRCs must be controlled by the special process certification program. The following are engineering special processes mandated by other governing authority:

(1) Miniature/Microminiature (2M) and Basic Solder

(2) Nondestructive Testing and Inspection (NDT/I)

(3) Aeronautical Equipment Welding

(4) Composites

(5) Hole Quality

(6) Bearings, General and Instrument

(7) Heat Treat

(8) Shot Peening & Rotary Peening

(9) Low Observable (LO) Coatings (MAG RAM)

(10) Plastic Media Blasting (PMB)

(11) Electroplating and Surface Finishing

(12) Thermal Spray

d. These operations or functions are designated as non-engineering special processes due to requiring special licensing or certification:

(1) Aircraft Taxi

(2) Aircraft Turn-up

(3) Aviation Life Support Systems (ALSS)

(4) Engine Test Cell

(5) Plane Captain

e. Additional special process certification programs may be identified based on the following criteria:

(1) Processes which cannot readily be verified.

(2) Processes which jeopardize personal safety.

(3) Processes critical to end use, safety of flight, or critical safety items.

(4) Processes which require special training.

(5) Processes which have state-of-the-art technology and operator proficiency requirements.

12.2.2 Responsibilities

a. Compliance and Quality must:

(1) Coordinate local special process program requirements. Any changes in processes or functions will be forwarded to the model manager for that special process certification or licensing program. Model manager will finalize and implement those procedures by changing ASM/JQR to ensure effectiveness of the program. Model managers for each special process are defined in the COMFRC M-4855.6.

(2) Ensure all elements necessary for qualifying an individual are established and complied with.

(3) Maintain and provide to management and other departments (as appropriate) records and statistics which indicate effectiveness.

b. MRO Production must:

(1) Assist in the development and implementation of a comprehensive special process certification and licensing program and provide instructors, facilities, and equipment for training. Additionally, determine skill competency (as appropriate).

(2) Ensure requirements for qualifying or requalifying in the program are met and all supportive documentation, for example, individual qualification records, results of training, medical evaluations (if applicable) written and practical examinations, are appropriately recorded in the training management system of record (e.g., ASM, ESAMS) prior to the qualification or requalification.

(3) Assist in providing corrective and preventive action in cases of questionable performance. Assists in suspension or revocation actions when requested by MRO Production, Compliance and Quality or Engineering. In each case of suspension or revocation, stamps (if applicable) must be immediately delivered to Compliance and Quality. When special process or special licensing certificates are revoked they must be immediately documented in the appropriate system of record.

(4) Notify Compliance and Quality of any changes in certifier status, for example, retirement, promotion, transfer (permanent or temporary) or other conditions that would preclude the continuation of special skill certification.

(5) Maintain qualification records and ensure timely renewal of qualifications. Ensure the upkeep and accuracy of training, task and special process certification, licensing requirements, and ASM for artisans assigned to all FRC sites.

c. Engineering must:

(1) Provide specification requirements and other technical expertise required for training, examinations, and criteria for development of qualification criteria.

(2) Provide laboratory analysis support, evaluation of practical and written examination, and their respective results. Additionally, determine skill category when appropriate.

d. Career Development Division or applicable office must:

(1) Provide trained, qualified personnel to support MRO Production’s special processes.

(2) Coordinate input for developing training and examination requirements.

(3) Maintain training record database (ASM).

e. Occupational Safety and Health Office must:

(1) Administer and monitor the occupational medical surveillance program for special process certification.

(2) Perform audits and surveillance on safety programs in accordance with OPNAVINST 5100.23.

f. Management Controls must provide information resources support.

g. All departments must provide assistance in the development and implementation of program requirements per this chapter to include providing for training, instructors, facilities, and examinations.

12.2.3 Requirements

12.2.3.1 Miniature/Microminiature (2M) and Basic Solder

a. The complexity of electronic assemblies and the sensitivity of their components to physical and electrical overstress requires repairs to be performed by formally trained and certified 2M Repair Technicians at designated 2M activities. NAVAIR SE-004-PQS-000 contains the 2M certification and recertification requirements and provides guidance for managing and monitoring 2M repair facilities and technicians. NAVAIR 01-1A-23 contains technical requirements for maintaining 2M repair facilities and workstations. Depot FRC's must establish local command procedures per OPNAVINST 5215.17 to direct geographic, T/M/S-specific, or command-directed actions, if applicable.

b. 2M Personnel Certification. Initial certification will be conducted by certified 2M Instructors per NAVAIR SE-004-PQS-000. The following are the 2M certification courses offered for technicians at Depot FRCs:

(1) Miniature repair certification requires completion of the Miniature Electronics Repair Course (CIN A-100-0072) or (CIN S-100-7200).

(2) Microminiature repair certification requires completion of the Miniature Electronics Repair Course (CIN A-100-0072) or (CIN S-100-7200) and the Microminiature Electronics Repair Course (CIN A-100-0073) or (CIN S-100-7300).

(3) Recertification will be conducted every 18 months by a certified 2M Instructor or Recertifier per NAVAIR SE-004-PQS-000..

c. Site Certification. Depot FRC site certification will be conducted as follows:

(1) The Depot FRC's 2M Inspector or Program Manager will perform site (re)certification, record and report their findings per NAVAIR SE-004-PQS-000 and NAVAIR 01-1A-23 2M program requirements. NAVAIR AMMT will validate 2M/MTR sites during AMI.

(2) Site recertification is required if a 2M workstation is relocated to a different room, building, or Mobile Facility. The Industrial Hygiene Survey will be conducted on the new facility prior to moving the equipment, to verify the new site meets the requirements of NAVAIR 01-1A-23.

(3) 2M training site recertifications will be conducted per NAVAIR SE-004-PQS-000.

d. Basic Solder training is not covered by NAVAIR SE-004-PQS-000 and will be covered under ASM. Basic Solder Technicians are only authorized to work on wiring, soldering of terminals, and connectors with wires AWG 26 and larger that are not enclosed in electronic assemblies.

e. The following are Basic Solder certification requirements:

(1) Completion of Basic Solder, Wires to Terminals for A/C and A/C Components Course, (COMFRC-70000-0013).

NOTE: Basic solder will be entered into ASM or equivalent database upon completion of the initial course and upon completion of each recertification.

(2) Basic Solder technicians must recertify every 18 months.

(3) Basic Solder Technicians must be recertified with Basic Solder Proficiency Test provided by a Depot 2M Instructor or a certified 2M Technician Recertifier.

f. Use of specialized 2M Equipment. Due to the complex nature of certain electronic systems and the advancement of new technologies, specialized 2M equipment will be used, if the following requirements are met:

(1) All manual or automated soldering equipment must meet the guidelines of J-STD-001, Appendix C, Guidelines for Soldering Tools and Equipment. This guideline sets limits for leakage current, tip to ground resistance, temperature control, and equipment maintenance. The equipment should also be ESD safe to equipment and personnel. Hand-held hot air tools will not be used to remove SMT or through-hole components unless specifically designed to do so and supported by an approved process.

(2) All automated soldering equipment will have process control capability and the ability to duplicate the reflow process used in manufacturing. Specifically, automated equipment must have the ability to control the ramp rates of preheat, soak, dwell and cool-down cycles of the rework profile. Equipment must have the ability to store known good reflow profiles. Engineering will develop and approve profiles for each circuit card to be reworked. All rework equipment will be used in accordance with the documented and approved processes.

(3) Initial equipment training for automated systems may be provided by the Original Equipment Manufacturer (OEM) with follow-on training conducted by qualified depot personnel. Safety, Quality & Regulatory Compliance should be involved to the extent necessary to ensure training, process and profile development, equipment maintenance requirements and personnel equipment qualifications are properly conducted, documented and maintained.

12.2.3.2 Nondestructive Testing and Inspection (NDT/I)

a. Minimum qualifications for an instructor to provide training qualification or requalification for NDI personnel are:

(1) Two years of experience as an industrial NDI inspector Level II (or equivalent) working in the methods being taught.

(2) A thorough understanding of the applications and limitations of all five basic NDI methods.

(3) NDI instructor certification per local directives.

(4) For classroom instruction the individual must be a graduate of instructor training school.

b. Depot FRCs must ensure all candidates for the Navy NDI school at NATTC Pensacola, FL are thoroughly screened and capable of meeting the equivalent requirements per the CANTRAC. Special attention must be given to English comprehension and mathematical abilities.

c. Each Depot FRC must follow the COMFRC M-4855.6, ASM/NDI JQR and local LPS defining qualification requirements and certification procedures for establishing NDI personnel as levels I, II, III, and instructor. This procedure must be consistent with the framework of NAS 410.

12.2.3.3 Aeronautical Equipment Welding

a. Depot FRCs must provide welding training, examinations, and qualifications for civilian welders per NAVAIR 01-1A-34 and the process defined by local written requirements. Welding certification or recertification training is provided by qualified, certified instructors. Examination will be performed by designated personnel. Each Depot FRC must have local written welding qualification procedures consistent with NAVAIR 01-1A-34 defining the qualification process, documentation and acceptance criteria. Group(s) of metal(s) that require separate and distinct certification are specified in NAVAIR 01-1A-34. Separate certification is also required for oxy-fuel silver brazing process. Welder training is documented by the Welding Certification JQR. Upon completion of welding qualification training:

(1) Shop supervisor recommends special skills certification.

(2) Safety, Quality & Regulatory Compliance approves special skills certification.

b. Minimum qualification for a welding instructor to provide training qualification or requalification for welding personnel are:

(1) Must maintain certification to instruct, perform, and meet recertification requirements in welding processes and positions for which instruction is provided, on metal groups specified in NAVAIR 01-1A-34. The welding instructor qualification is processed and documented with the COMFRC Welding Certification JQR in ASM and recertify every two years.

(2) Must be fully qualified in all elements of the welding trade, including experience as an aeronautical welder in excess of the minimum required of a journey level welder.

(3) Must have a thorough knowledge of aircraft and maintenance welding skills and processes.

c. D-level welders must requalify every two years and documented per ASM/JQR. If applicable, D-level welders may complete equivalent non-Navy training per NAVAIR 01-1A-34, satisfactory completion of recertification testing, and documented by JQR. Fulfilling this requirement must have local Materials Engineer approval.

d. Contractor (I or D-level) aeronautical welder's certification, recertification periodicity must comply with NAVAIR 01-1A-34. Contractor welder's certification processes, materials, position, and periodicity are per contract.

e. All certified aeronautical welders must weld on equipment, components, and items manufactured from the group(s) of metal(s) for which they are currently certified and which weld

repairs are authorized by applicable maintenance technical manuals or directives. Work record documentation for civilian aeronautical welders will be managed per NAVAIR 01-1A-34.

f. NAVAIR 01-1A-34 contains additional information and guidance relative to qualification, certification, recertification, periodicity, and employment of aeronautical welders. However, it is a general series technical manual intended to be used with this instruction and with specific maintenance, repair, overhaul manuals, and engineering documents. In cases of conflict between certification or recertification policy of this instruction and NAVAIR 01-1A-34, this instruction will take precedence.

12.2.3.4 Aircraft Taxi

a. Only personnel licensed and designated in writing by the CO may perform aircraft taxi. COs must issue Aircraft Taxi License (OPNAV 4790/191) or ASM equivalent to civilian maintenance personnel. Designated personnel must be thoroughly knowledgeable and proficient in:

(1) Applicable portions of the Naval Air Training and Operating Procedures Standardization (NATOPS) Manual.

(2) Capabilities, limitations, and safety precautions of the system requiring the ground functional check and authorization to perform and certify those tasks.

b. Initial certification and periodic recertification must require a visual screening, medical examination, written, and practical examinations that include turnaround, start, turn-up, shut down, and emergency procedures.

c. Prior to initial certification, and annually thereafter, each candidate must pass a written and operational test developed by a T/M/S NATOPS Officer and administered by a T/M/S Pilot NATOPS instructor. QAS may administer written examinations.

d. Licensed Aircraft Taxi personnel must perform a taxi evolution every 180 days for the T/M/S aircraft for which they are certified. Personnel that exceed 180 days without completing a taxi evolution will not be allowed to taxi aircraft until they have completed an operational test per 12.2.3.4 c.

WARNING: DUE TO THE INHERENT DANGERS ASSOCIATED WITH TAXIING OPERATIONS, AIRCRAFT SHOULD ONLY BE TAXIED TO FACILITATE MAINTENANCE, IF NO OTHER MEANS ARE AVAILABLE TO POSITION AIRCRAFT.

NOTES: 1. The CO may not delegate the authority to sign an Aircraft Taxi License.

2. Only individuals authorized to fly helicopters may be permitted to taxi helicopters (CNAF M-3710.7).

3. Only individuals authorized to fly tilt rotor aircraft may be permitted to taxi tilt rotor aircraft (CNAF M-3710.7).

12.2.3.5 Aircraft Turn-up

a. Only personnel licensed and designated in writing by the CO may perform aircraft turn-up. COs must issue Aircraft Engine or APU Turn-up License (OPNAV 4790/192) or ASM equivalent to civilian maintenance personnel. Designated personnel must be thoroughly knowledgeable and proficient in:

(1) Applicable portions of the Naval Air Training and Operating Procedures Standardization (NATOPS) Manual.

(2) Capabilities, limitations, and safety precautions of the system requiring the ground functional check and authorization to perform and certify those tasks.

b. Initial certification and periodic recertification must require a visual screening, medical examination, written, and practical examinations that include start, turn-up, shut down, and emergency procedures.

c. Prior to initial certification, and annually thereafter, each candidate must pass a written and operational test developed by a T/M/S NATOPS Officer and administered by a T/M/S Pilot NATOPS instructor or qualified functional check flight (FCF) pilot. QASs may administer written examinations. For activities that have flight engineers or crew chiefs, the flight engineer or crew chief NATOPS evaluator or instructor, under the direction of the NATOPS Officer, may administer the written and operational examinations. NATOPS qualified flight engineers and crew chiefs must complete the written and operational examination to be certified by the CO to turn-up aircraft.

WARNINGS: 1. ALL T/M/S AIRCRAFT MUST BE PROPERLY SECURED PER T/M/S MAINTENANCE TECHNICAL MANUALS/NATOPS PRIOR TO ANY MAINTENANCE TURNS.

2. ONLY NATOPS QUALIFIED NAVAL AVIATORS AND DEPOT FRC CO AUTHORIZED PERSONNEL ARE AUTHORIZED TO ENGAGE HELICOPTER ROTORS DURING ENGINE TURNS.

NOTES: 1. Depot FRC COs may designate qualified Aircraft Systems Inspector (ASI) in T/M/S to administer specific written and operational examinations to engine/APU turn-up nominees. Prior to designation, ASIs must satisfactorily pass T/M/S specific written and operational examinations administered by a T/M/S Pilot NATOPS instructor or qualified Functional Check Flight (FCF) pilot. Only one ASI per T/M/S will be recommended for designation as ASI Engine/APU turn-up instructor and allowed to administer the written and operational examinations.

2. ASI Engine/APU turn-up licenses are valid only for engine/APU operation at the issuing FRC activity.

3. Depot FRC COs may authorize personnel to start engines and engage rotors or props for ground system checks (CNAF M-3710.7).

4. The CO may not delegate the authority to sign an Aircraft Engine/APU Turn-up License.

5. Activities operating Aircraft Mounted Gas Turbine Starters must comply with APU turn-up qualification and licensing requirements.

12.2.3.6 Engine Test Cell Operators

a. Accessories, components, and engines reworked, repaired, or overhauled normally require an operational test or functional check in a test cell to determine performance parameters and characteristics. Only qualified and licensed test cell operators must be authorized to perform test cell operations.

b. Employees certifying test cell operations that determine performance after rework, repair, modification, or overhaul and those employees certifying the Serviceable Tag-Material (DD-1574), must be thoroughly familiar with and demonstrate a practical proficiency of the test cell capabilities, limitations, safety precautions, and the procedure to adequately measure or determine performance parameters and characteristics of the item being evaluated.

c. The initial certification and subsequent recertification(s) will require a written and practical examination that includes test cell pre-start, start, turn-up, shutdown, and emergency procedures.

12.2.3.7 Aviation Life Support Systems (ALSS)

a. The ALSS Program establishes the policy and requirements for determining acceptable civilian personnel certification qualifications for maintaining personnel parachute assemblies, ejection seat drogues, and related egress equipment.

b. Only qualified, certified personnel must be permitted to pack, repair, and/or inspect personnel parachutes, drogue chutes (excluding drogue chutes with non-removable head boxes), inflatable survival equipment, and seat survival kits. Personnel must be graduates of Navy Aircrew Survival Equipmentman (PR) Class A School (or equivalent school from other service).

(1) Initial examination, certification requires completion of local classroom instruction or OJT, and a written and a practical examination for specific ALSS equipment.

(2) Recertification is required annually and will be accomplished through a proficiency examination per T/M/S specific JQR. Proficiency examinations will be administered by either a quality assurance specialist or senior artisan that is certified in the examination being administered.

c. Only qualified personnel who are certified by PMA-202/AECS FST are permitted to sign-off the corrected by or inspected by blocks in OOMA for Flight Test/PR work center.

(1) Once a qualified artisan receives their certification stamp, they will receive the necessary SMQs in OOMA to sign-off the corrected by block or the inspected by block.

(2) Qualified artisans are not authorized to sign-off any documents which require verification by QAS.

d. Personnel must be qualified and certified to maintain, service, and/or inspect egress systems. Qualified personnel must be graduates of Navy Aviation Structural Mechanic – E (Safety Equipment) (AME) Class A School (or equivalent school from other service) and complete all of the

T/M/S-specific Job Qualification Requirements (JQR). In addition, if the T/M/S specific training is not included in the JQR, then one of the following curricula is required: CNATTU for specific T/M/S egress systems, original equipment manufacturer (OEM) training, or approved Depot FRC training curriculum. Depot FRCs must submit their training curriculums and JQRs to COMNAVAIRSYSCOM (PMA-202 or AECS FST) via COMFLTREADCEN for initial approval and subsequent approval every 2 years.

(1) Initial certification will require completion of local classroom or OJT, and a written and a practical examination.

(2) Recertification is required annually and will be accomplished through a proficiency and a practical examination per T/M/S specific JQR. Proficiency examinations will be administered by either a quality assurance specialist or senior artisan that is certified in the examination being administered.

NOTES: 1. AME or civilian personnel who have completed the CNATTU course for the F/A-18E/F aircraft SJU-17 Navy Aircrew Common Ejection Seat (NACES) are also qualified to perform work on SJU-17 NACES installed in F/A-18A-D and E/A-18G aircraft. Completion of the CNATTU F/A-18E/F SJU-17 NACES course does not qualify personnel to perform work on SJU-5A/6A ejection seat(s) installed in the F/A-18A-D.

2. Personnel certified under the Depot FRC's Personnel Explosives Handling Qualification and Certification Program in accordance with OPNAVINST 8023.24, may perform stand-alone work involving airframe fire bottle cartridges not physically attached to ejection seats or their components.

12.2.3.8 Plane Captain Basic Duties and Qualifications

a. Modern naval aircraft are inherently complex. This complexity usually prohibits an individual from having sufficient technical knowledge of all systems. Therefore, other technicians must perform those portions of the daily and turnaround inspections which are beyond the plane captain's technical qualifications. However, this assistance does not relieve the plane captains of their overall responsibilities. Because this assignment carries a high degree of responsibility, care must be exercised in the selection of plane captains to ensure they possess the mechanical aptitude, personal integrity, and motivation to accept this responsibility. The individual must possess the technical competence and sense of responsibility to ensure the aircraft is properly inspected and serviced before flight. Comprehensive formal and OJT programs are necessary to ensure only the most qualified individuals are designated as plane captains.

b. To highlight the technical training required and to standardize the degree of excellence desired, the minimum duties and basic qualifications for formal designation and assignment follow. The Plane Captain must meet the following requirements:

(1) Possess the qualities of personal integrity, maturity, judgment, and aptitude which are vital to the success of assigned tasks.

(2) Be familiar with and demonstrate practical knowledge of the particular type of aircraft and its systems.

(3) Perform daily and turnaround inspections in conjunction with assisting personnel.

(4) Assist pilots in flight preparation and be capable of advising them of the material condition of the aircraft.

(5) Be responsible for the cleanliness and prevention of corrosion on the aircraft, by pursuing an effective and continual preventive maintenance program.

(6) Be thoroughly familiar with and demonstrate knowledge of the aircraft cockpit, ejection seats, controls, and systems, as well as starting and ground turn-up procedures.

NOTE: Perform starting and ground turn-up functions only when authorized in writing by higher authority. Refer to paragraph 12.2.3.5 for additional details.

(7) Demonstrate knowledge of the ordnance and aircraft armament systems (AAS) installed in or on the aircraft to the extent necessary to ensure during daily and turnaround inspections, ordnance (to include CADs), AAS, and, ejection seat are in a safe and ready condition.

(8) Be thoroughly familiar with fueling and defueling procedures, have a complete knowledge of applicable safety instructions, and demonstrate the ability to understand and comply with them.

(9) Show knowledge of the content and be able to use the technical publications necessary for proper servicing and maintenance of the aircraft. All personnel taking oil samples, servicing, and performing maintenance on engine/gearbox systems must be fully aware of the importance of correctly documenting oil consumption and procedures to be followed when high oil consumption is suspected.

(10) Know how and when to use the methods of aircraft security required for various weather conditions and demonstrate such knowledge. Particular attention should be given to the security of control surfaces and the correct points for attaching aircraft tie-downs.

(11) Demonstrate, in writing or by practical examination, a complete knowledge of the procedure for riding brakes and any peculiarities of the braking system of the assigned aircraft.

(12) Demonstrate, in writing and by practical application, a complete knowledge of the standard hand and wand signals, including those signals used for controlling aircraft ashore.

NOTE: A certified plane captain, or a flight engineer or crew chief qualified to perform plane captain functions, will be present and supervise all launches and recoveries of aircraft.

c. Plane Captain, Crew Chief, and Flight Engineer Qualification. To ensure personnel designated as plane captains, crew chiefs, and flight engineers are fully qualified, COs will initiate comprehensive instructions and establish indoctrination and training programs. Upon initial qualification each candidate must receive a thorough written and practical examination. For the

written examination, 90% is the minimum passing score. Although requalification is not required, semi-annual proficiency monitoring by a QAS is required to verify competency.

(1) A Plane Captain Selection and Examining Board will be established by each activity. During their training cycle, trainees must not be given full or final responsibility for inspection of the aircraft. This responsibility rests with designated plane captains. When trainees have demonstrated their knowledge of the aircraft to the extent that they can satisfactorily complete the plane captain's examination and are approved by the Plane Captain Selection Board, they should be so designated. The Plane Captain Designation (OPNAV 4790/158) must be signed by the CO or Production Officer. The form must be completed when the individual is initially qualified. Documentation of the initial plane captain designation must be entered in the individual's training record. Personnel qualified in aircraft T/M/S by one command must be screened, qualified, and designated by the new command. Plane captains must be designated using OPNAV 4790/158 or ASM.

(2) In commands where flight engineers or crew chiefs perform the functions of a plane captain, completion of the training curriculum and the designation as a flight engineer or crew chief by the CO must qualify the aircrewmen for plane captain duties. In such cases, the flight engineer or the crew chief training syllabus must include all plane captain qualifications/requirements. Flight engineers and crew chiefs, qualified as plane captains per this paragraph, are not required to take a separate plane captain examination or appear before the Plane Captain Selection and Examining Board. In those commands where the flight engineer or crew chief training syllabus does not include plane captain qualification requirements, personnel must qualify as plane captains per the paragraph above.

NOTE: The designation of plane captain in no way nullifies the requirement for designating aircrewmen under current NATOPS instructions.

d. Plane captains that have not performed plane captain duties for over 90 days (e.g., TAD, convalescent leave, or other special assignment away from the activity) or fail their semi-annual proficiency monitor must be restricted from plane captain duties. Prior to resuming plane captain duties, plane captains must complete the refresher training syllabus and be interviewed by the Plane Captain Qualification Program Manager.

e. Plane captains who display a disregard for safety, aircraft maintenance or handling procedures will have their designations revoked. Designations must only be reinstated after the individual completes the entire training syllabus, passes the practical and written examinations, and is interviewed and recommended by the Plane Captain Selection Board. Requalification must be documented on the Plane Captain Designation form (OPNAV 4790/158) or ASM.

12.3 Naval Air Technical Data and Engineering Service Center (NATEC) Engineering Technical Services (ETS)

a. NATEC ETS representatives provide advanced fault isolation and troubleshooting support; technical information research and advice; assistance in resolving complex problems; and training (on-the-job) in conjunction with the installation, operation, maintenance, modification, and repair of applicable aircraft weapon systems. This includes both ashore and afloat activities. Services are

planned, managed, and provided by NATEC, San Diego, CA. NATEC can provide formal training in the absence of available alternatives, e.g. courses offered by Center for Naval Aviation Technical Training detachments and mobile training teams. ETS are comprised of both organic Navy ETS (NETS) and Contractor ETS (CETS). NETS personnel are federal government civilian employees, and CETS personnel are commercial or industrial contractor employees, who perform ETS under a contract managed by NATEC. NATEC ETS personnel have the authority to provide on-site training and technical advice but do not inherently possess the technical authority to make engineering judgments that affect the safety or flight worthiness of a weapon system. Those decisions must be deferred to the designated FST or other appropriate technical authority for the weapons system, unless NATEC ETS personnel are granted this authority by name and position.

b. ETS is a logistics element required to:

(1) Assist Naval Air Systems Command in performing the initial transfer of knowledge from equipment manufacturer to organic Navy during equipment introduction.

(2) Provide OJT and technical assistance to Navy and Marine Corps technicians for the sustainment of weapons systems and associated support equipment.

(3) Provide assistance for resolution of unusual or difficult maintenance problems.

(4) Maintain technical information channels and liaison between the FST and the Navy.

c. When required, ETS will be used to complement CENNAVAVNTECHTRAU and CNATTMARU shore-based turnaround training through mentoring, advanced troubleshooting, and on-the-job training. They are not intended to be a corrective measure for inadequate ILS planning, funding, or execution. ETS will not be used to augment maintenance manning. Use of ETS aboard ship during routine CV and CVN work-up training periods and short term assists is an ACC and TYCOM management option. Normally, ETS will not be embarked for extended deployment.

d. In those instances where actual, unavoidable logistics or personnel training deficiencies exist, ACCs/TYCOMs may continue to deploy ETS on a limited basis. Such support will be handled on a case by case basis where that option is the most logical cost effective alternative. Use will be closely controlled, limited to finite periods, and kept to an absolute and justifiable minimum. In each case, the logistic deficiency or training objective necessitating the use of embarked ETS must be identified to the ACC/TYCOM and NATEC by the requesting activity.

e. NETS are the primary source of ETS for equipment operators and maintainers. CETS are authorized only when the required support is not available from NETS resources.

f. NETS duties and responsibilities include but are not limited to:

(1) Provide technical advice, assistance, and training on the installation, maintenance, repair, and operation of weapon systems and equipment.

(2) Evaluate and advise on technical deficiencies in the maintenance and operation of weapon systems or equipment and recommend methods to eliminate these deficiencies.

(3) When requested by proper authority, provide subject matter expertise inputs to investigation team on accidents and incidents due to system or equipment failures.

(4) Maintain close liaison with FSTs, COMNAVAIRSYSCOM, and contractor personnel and provide technical advice and assistance to resolve maintenance problems/design deficiencies.

(5) Provide technical advice and training to maintenance personnel in resolving difficult maintenance problems.

(6) Relay training and equipment deficiencies to the MO and propose solutions for correction.

(7) Prepare and submit technical reports as required.

(8) Assist in the installation of aircraft equipment, shipboard and ashore, and provide OJT to appropriate military and civilian personnel.

(9) Perform emergency maintenance (direct assistance) on equipment to resolve technically difficult problems when temporary skill or manning shortages prevent accomplishment by assigned personnel. NETS will not perform routine maintenance except under unusual circumstances and never for prolonged periods of time.

(10) Provide technical advice and assistance in connection with operational evaluation/technical evaluation.

(11) Participate in technical publication reviews, ILS Management Teams, MTRRs, and NTSP conferences.

g. NETS personnel will not routinely be used for:

(1) Inspections, installation of engineering changes, evaluation of new equipment performance, or arranging for shipment of defective ACC/units.

(2) Performance of tasks considered organic to the user activity, for example, nonspecialized training, standing duties, and performing military administrative functions.

h. Civilian NETS positions are designated as Emergency-Essential per 10 U.S.C. § 1580.

i. CETS scope of duties is identified or outlined in the terms and conditions of the contract.

(1) CETS contracts are developed by NATEC based on the requirement. CETS are provided to augment the NETS staffing and are intended to be completely interchangeable.

(2) Point of contact for CETS is the Contracting Officer Representative, who is assigned to the NATEC ETS Business Operations Division.

(3) Perform emergency maintenance (direct assistance) on equipment to resolve technically difficult problems when temporary skill or manning shortages prevent accomplishment by assigned personnel. CETS will not perform routine maintenance except under unusual circumstances and never for prolonged periods of time.

j. CETS personnel will not:

(1) Be appointed, employed, or placed under the supervision or direction of Navy personnel.

(2) Be placed in a policy making position.

(3) Be placed in a position of command, supervision, administration, or control over military or civilian personnel or personnel of another contractor.

(4) Be used to avoid manpower ceilings or other personnel rules and regulations of OPM, DOD, or DON.

(5) Become a part of the government organization or use government facilities for normal day-to-day CETS activities with the exception of shipboard deployments and field sites.

(6) Represent any government activity at meetings or conferences. (This does not prevent CETS from serving as a technical advisor to the activity representative, but NETS will be used for this function when available.)

(7) Perform tasks that are considered organic to the user activity, for example, nonspecialized training, standing duties, and performing military administrative functions.

k. Initial ETS requirements will be included in appropriate ILS and phased support plans. From these, long-term programmatic ETS support plans will be developed by NATEC in conjunction with individual Fleet customers, ACCs, TYCOMs, and APMLs. These programmatic plans will document requirements by site/billet and will be used to justify budget requests and allocate available resources. Additional ETS guidance and information is in NATECINST 5400.1 and other ACC or TYCOM directives (as applicable).

NOTE: For ETS support of airborne weapons release and control, stores management systems, expendable targets, UAS Groups 1 and 2 not governed by this instruction, and related equipment refer to OPNAVINST 8000.16.

l. Contractor maintenance services, including logistic support representative services, are procured through Logistics and Management Department but do not fall under the definition of ETS. Policies and responsibilities concerning other contractor maintenance are in Chapter 11.

CHAPTER 13

Naval Aviation Logistics Command Management Information System (NALCOMIS)

Table of Contents

13.1 INTRODUCTION 1
13.1.1 General Information 1
13.1.2 Program Responsibilities 3
13.1.2.1 Chief of Naval Operations (CNO) 3
13.1.2.2 COMNAVAIRSYSCOM 3
13.1.2.3 Naval Information Warfare Center (NIWC) (PMW-150) 4
13.1.3 NALCOMIS Baseline Management 4
13.1.4 Optimized Organizational Maintenance Activity (OOMA) 7
13.1.5 Optimized Intermediate Maintenance Activity (OIMA) 8
13.2 OOMA AND OIMA SYSTEM ADMINISTRATION 8
13.2.1 Introduction 8
13.2.2 System Administrator (SA) 8
13.2.2.1 SA Qualifications 8
13.2.2.2 Responsibilities 9
13.2.3 Database Administrator (DBA) 10
13.2.3.1 Qualifications 10
13.2.3.2 Responsibilities 10
13.2.3.3 I-level Maintenance Activity (IMA) Database Administrators 11
13.2.4 Marine Corps Aviation Logistics Information Management and Support (ALIMS) Department 12
13.3 DETACHMENT PROCESSING 12
13.3.1 Introduction 12
13.3.2 Same Organization Code Detachments 12
13.3.3 Different Organization Detachments 12
13.3.3.1 Established Different Organization Detachments 12
13.3.3.2 Activated Different Organization Detachments 13
Figure 13-1: NTCSS Optimized OMA NALCOMIS Replication 14

Figure 13-2: Program Responsibilities Flow Chart 15

CHAPTER 13

Naval Aviation Logistics Command Management Information System (NALCOMIS)

13.1 Introduction

13.1.1 General Information

13.1.1.1 The Naval Aviation Logistics Command Management Information System (NALCOMIS) is the primary management information system (MIS) program for naval aviation maintenance and supply. The three objectives of NALCOMIS are: 1) Increase aircraft readiness by providing timely and accurate information required to manage maintenance and supply operations; 2) Reduce administrative burden; and 3) Improve the quality of maintenance and supply data.

13.1.1.2 The NALCOMIS data collection system provides data to the aviation data warehouse (ADW). The ADW is used by all levels of management for data related to:

a. Equipment maintainability and reliability.

b. Equipment configuration, including alteration and TD status.

c. Equipment mission capability and use.

d. Material usage.

e. Material non-availability.

f. Maintenance and material processing times.

g. Weapon system and maintenance material cost

NOTE: F-35 activities use the Automated Logistics Information System (ALIS) as their primary maintenance and supply Management Information System (MIS).

13.1.1.3 The NALCOMIS data collection system consists of the Foundation Tier, Mid-Tier, Top-Tier, and Wholesale Foundation Tier, as illustrated in Figure 13-1.

13.1.1.3.1 The Foundation Tier is located at O-level, I-level, and D-level maintenance activities and consists of the following modules:

a. Maintenance Subsystem. The Maintenance Subsystem enables maintenance personnel to document scheduled and unscheduled maintenance against aircraft and other end items assigned to the activity. The maintenance subsystem provides a list of parts and enables personnel to issue Work Orders (WO) and Maintenance Action Forms (MAF) to fix discrepancies. It provides the capability to track tools and personnel. It also enables personnel to update or query WOs/MAFs, to requisition parts, and to sign off scheduled and unscheduled maintenance and material requirements.

b. Material Subsystem. This subsystem enables maintenance personnel to track components on order against an activity's aircraft or other end items. It provides material control processing interface between Optimized Organizational Maintenance Activity (OOMA) NALCOMIS and Optimized Intermediate Maintenance Activity (OIMA) NALCOMIS.

c. Flight Subsystem. This subsystem enables users to collect and process flight-related data. The flight hours annotated on a flight document directly affect the Maintenance Subsystem and the Configuration Management Subsystem.

d. Platform software interface (Self-Monitoring Analysis and Reporting Technology (SMART) Aircraft Module). This module permits transfer of information from systems onboard SMART aircraft directly into OOMA. It has the capability to strip data from SMART aircraft and separate it by flight. The Flight Module processes this information before up-line submission. This data includes structure fatigue information, strain gauge data, engine LUI and diagnostics data, engine management system data, flight control system data, position data, avionics system data, fault codes, and component life time or cycle data. The module provides a debrief capability with fully integrated interactive electronic technical manual (IETM), an engine and aircraft diagnostics or prognostics capability, portable electronic display device (PEDD) support, and automatic identification technologies.

e. CM/Logs and Records Subsystem. This subsystem enables users to maintain configuration profiles for aircraft, engines, propellers, modules, and components assigned to the maintenance activity. Configuration profiles are found in the following explorers or catalogs:

(1) WAN Explorer

(2) Group Explorer

(3) Inventory Explorer

(4) Log-set Retrieval

(5) Assembly Catalog and Assembly Explorer (accessed from the Assembly Catalog)

(6) Parts Catalog

(7) DODIC Catalog

(8) Reference Term Editor

(9) Maintenance Plan Catalog

(10) Configuration Management Report Generator

(11) XRAY Explorer

f. AD HOC Subsystem. This subsystem enables users to create customized queries from the application database tables. The user can establish criteria for the data elements, perform calculations, sort and group items, manually create graphs, specify print formats, and perform analysis on data currently maintained in the database.

NOTE: Data retrieved only reflects information applicable to aircraft and equipment in the reporting custodian's database.

g. Personnel Subsystem. This subsystem enables authorized users to access personnel information, special maintenance qualifications (SMQ) and task tables. Users can add or remove

personnel, assign or remove SMQs, and make work center personnel assignments. It also provides the capability to view aircrew data.

13.1.1.3.2 The Mid-Tier provides the link for passing data from the Foundation Tier to the Top-Tier and receives data from baseline servers. It also provides temporary storage for data when connectivity to the Top Tier is lost.

NOTE: When an activity is required to shift from one Mid-Tier to another, the relocating activity will change their Internet Protocol address. The Optimized OMA System and Database Administration Guide provides detailed instructions.

13.1.1.3.3 The Top Tier provides intermediate storage for data and the up-line link to the ADW repository.

13.1.1.3.4 The Wholesale Foundation Tier (OMAWHOLE WHO, PAXRIVER) provides a storage database and query capability to support movement of components from I-level to D-level or to vendors and their return to the retail system. It also provides data storage for stricken aircraft and NALCOMIS aircraft transferred to non-NALCOMIS activities.

13.1.2 Program Responsibilities

13.1.2.1 Chief of Naval Operations (CNO)

Chief of Naval Operations (CNO) (Code N98) is the NALCOMIS functional sponsor and CNO (Code N43) is the NALCOMIS resource sponsor.

13.1.2.2 COMNAVAIRSYSCOM

COMNAVAIRSYCOM (Digital Group) Responsibilities include:

a. Maintain the Aviation Data Warehouse (ADW).

b. Maintain control of the NALCOMIS baseline through the application of configuration management.

c. Validate system and subsystem specifications for OOMA and OIMA.

d. Coordinate conferences and meetings between the Functional Guidance Team and user communities to ensure full and active user participation in the definition, review, and certification of functional requirements in all aspects of module development and maintenance.

e. Prepare test plans and test analysis reports to support the functional certification of software modules and certify functional adequacy of cognizant modules in acceptance tests.

f. Ensure NALCOMIS maintenance systems requirement documents are kept current and reflect proper justification for changes to policies or business procedures, and track changes.

g. Coordinate with the Office of the Commandant of the Marine Corps (CMC) to ensure Marine Corps peculiar expeditionary or operational functional requirements are met.

h. Act as voting member of the NALCOMIS requirements integrated product team.

i. Standardize NALCOMIS functionality for O-level, I-level, and D-level FRC maintenance activities.

j. Establish criteria to ensure data validity is achieved at initial data entry and maintained throughout the system.

k. Serve on the NAMP Policy Committee to review proposed NAMP changes for impact to NALCOMIS hardware and software.

l. Manage the NALCOMIS baseline per 13.1.3.

13.1.2.3 Naval Information Warfare Center (NIWC) (PMW-150)

NIWC (PMW-150) is the Naval Tactical Command Support System (NTCSS) NALCOMIS Program Manager and Central Design Agency (CDA). Responsibilities include:

a. Designing, developing, testing, implementing, and providing life cycle support of NALCOMIS software.

b. Generating NALCOMIS source and object programs and Quality Assurance (QA) testing of programs prior to fleet release.

c. Issuing NALCOMIS programs and operating instructions, tailored to the capabilities of the individual hardware suites, to the NIWC Atlantic, squadrons, Intermediate Maintenance Activities (IMA) and Depot FRCs.

d. Maintaining all NALCOMIS applications software.

e. Providing user guides and manuals.

f. Providing assistance to activities in resolving NALCOMIS OOMA and OIMA system and application software problems that cannot be resolved by operating site personnel.

g. Coordinating with the Functional Manager COMNAVAIRSYSCOM (Digital Group) to ensure aviation functional requirements are incorporated into the NTCSS system requirements. PMW-150 responsibilities include:

(1) Reviewing functional course curricula for incorporation in NTCSS technical training and prepare a functional annex inclusion in the NTCSS Navy Training Systems Plan (NTSP).

(2) Developing detailed functional descriptions and solutions to requirements with the assistance of user groups or Fleet Design Team.

(3) Coordinating with TYCOMs for submission of change proposals to the NTCSS Requirements Integrated Product Team. Figure 13-2 illustrates the change process.

13.1.3 NALCOMIS Baseline Management

13.1.3.1 The baseline is the foundation of information within NALCOMIS. The baseline allows users to manage the digital logbook aircraft and end item's configuration functionality to track the life of an aircraft and end items within NALCOMIS. The baseline consists of the following components:

a. Equipment Configuration Baseline. The Equipment Configuration Baseline must accurately track the actual configuration of the equipment.

b. Usage Baseline. The Usage Baseline must track and accumulate usage data against the equipment, such as Life Usage Index, fatigue cycles, and thermal cycles.

c. Maintenance Baseline. The Maintenance Baseline is integrally linked with the configuration Baseline and Usage Baseline and must contain scheduled preventive maintenance, maintenance technical manuals, TDs, and other service bulletins as well as the potential corrective repairs that are anticipated such as conditional and unscheduled maintenance. Database changes, new PM task requirements, and task interval changes must be provided to the Baseline Manager. Baseline data changes will be electronically transmitted to data users at all maintenance activities.

13.1.3.2 COMNAVAIRSYSCOM (Digital Group) is responsible for managing NALCOMIS baseline information. COMNAVAIRSYSCOM (Digital Group) will assign Baseline Managers for each aircraft T/M/S and aeronautical system that uses NALCOMIS OOMA or OIMA for maintenance management. COMNAVAIRSYSCOM Program Managers are responsible for assisting the Baseline Manager in determining the scope of the baseline for their individual platform. NAWCAD (Digital Group) is responsible for the validation and functional testing of all PMA NALCOMIS baselines throughout the build and sustainment phases. NAWCAD Baseline QA is responsible for monitoring baseline managers and PMA databases and ensuring baseline data meets the requirements listed in this instruction and applicable platform publications. Baseline Managers will:

a. Coordinate with the Program Manager to determine the scope of the baseline.

b. Maintain the accuracy and currency of the baseline at all levels of maintenance.

c. Build the OOMA baseline on the work unit code (WUC) structure for each end item identified by a TEC. After creating the WUC structure:

(1) Assign inventory classes to the WUC items.

(2) Assign inventory subclasses to the WUC items.

(3) Assign part numbers to the WUC.

(4) Identify multiple part numbers per WUC.

(5) Identify incompatibilities between parts.

(6) Identify usage data source(s) for each end item and assemblies.

(7) Create data definitions corresponding to the data sources.

(8) Assign usage parameters to each usage definition.

(9) Verify usage parameters received from automated interfaces are named in the CM module by the same terms used by the providers of that data.

(10) Identify task class and subclass of CM module.

(11) Set task recurring and auto-create attributes.

(12) Complete contents of baseline task definition tab pages.

(13) Set all baseline tasks to active.

(14) Set up task plans.

d. At a minimum, build the following components and records into the baseline:

(1) Life limited components

(2) Structural life limited components

(3) Scheduled removal components

(4) Aeronautical Equipment Service Records (AESR)

(5) Assembly Service Records (ASR)

(6) Module Service Records (MSR)

(7) Equipment History Records (EHR)

(8) Scheduled Removal Component Card (SRC)

(9) Tracked Component Record (TCR)

e. Coordinate with the respective platform FST to verify all changes and revisions to MRC decks, TDs, part numbers, assemblies, PMICs, life limited repairs (LLR), and WUC structure are built into the baseline and replicated to their respective foundation tiers when approved copies are issued.

f. Review and maintain currency in the following references:

(1) Aircraft logbook, AESRs, and associated records

(2) NA500C

(3) NAT-04

(4) TDRS reports

(5) Engineering Change Proposals (ECP)

(6) IRAC trackers and weekly summary of issued TDs

(7) NAVICP Publication 2003

(8) AWSE Maintenance Requirement Cards (MRC)

(9) Periodic Maintenance Identification Card (PMIC)

(10) Maintenance Instruction Manuals (MIM)

(11) WUC manual.

(12) MRCs

(13) Quick Engine Change Assembly (QECA) MRCs

(14) OPNAVINST 3110.11, OPNAVINST 8000.16, NAVAIR 01-1A-509 (series), and COMNAVAIRFORINST 4790.2.

13.1.4 Optimized Organizational Maintenance Activity (OOMA)

13.1.4.1 Optimized Organizational Maintenance Activity (OOMA) is used by organizational level and intermediate level Navy and Marine Corps activities. OOMA interfaces with Optimized Intermediate Maintenance Activity (OIMA) for requisition requirements, requisition status, requisition queries, turn-in Work Order (WO) data, and ALS (Automated Logset) data. This integration of O-level and I-level maintenance and supply data into a common database reduces redundancy, improves communication, and improves response time between the O-level, I-level, and supporting supply activities. IMAs use OOMA to perform Configuration Status Accounting for aircraft engines, O-level peculiar SE, personnel management baselines, and TD documentation.

13.1.4.2 The OOMA application is grouped into seven subsystems and an ad hoc query utility:

a. Flight Subsystem. This subsystem captures and tracks the type and amount of flight time against aircrew and aircraft, and keeps track of training for the flight crews.

b. Configuration Management and Logs & Records Subsystem. This subsystem offers tools to manage aircraft and component configuration. It provides an accurate listing of all components on the aircraft, maintains the history record of configuration items, forecast upcoming scheduled maintenance for an organization's end items, and tracks all changes and technical directives incorporated into a component. It also has the capability to track aircraft material condition through XRAY Reporting.

c. Maintenance Subsystem. This subsystem enables personnel to document scheduled and unscheduled maintenance against aircraft and end items. It lists parts and maintenance actions required to fix discrepancies, track tools and personnel accountability.

d. Material Control Subsystem. This subsystem enables Material Control personnel to add, delete and update information in the Material Control Register. The Material Control Register appears in situations that place material requisitions on order, update status, to reject or transmit these requisitions to OIMA.

e. Personnel Subsystem. This subsystem enables authorized personnel to add or remove personnel, to assign or remove roles and permissions, and to assign work centers for personnel. It also allows authorized users to view and update crew data, as well as time and landing history for aircrew personnel.

f. Platform Software Interface Subsystem. This subsystem permits transfer of information from systems onboard "smart" aircraft directly into OOMA.

g. Technical Publications Subsystem. Reserved for future use.

h. Ad Hoc Query Utility. This utility provides the ability to create reports for specific needs. Ad Hoc Query reports may be compiled from data resident in various databases, for example, aviation 3M reports, flight reports, trend analysis, manpower utilization, user login ID and special maintenance qualification (SMQ) assignments, and specific workload reports.

13.1.5 Optimized Intermediate Maintenance Activity (OIMA)

13.1.5.1 OIMA is the primary management information system used by intermediate level Navy and Marine Corps aviation activities. OIMA provides the capability to enter, collect, process, store, review, and report maintenance and supply information related to engine and SE repair, material requisition, repairable management, awaiting parts (AWP) management, personnel assignment and deployment, subcustody of equipment, use of resources, and additional miscellaneous functions required by the IMA and supply department Aviation Support Division (ASD). These functions are integrated into one system sharing a common database of IMA and ASD maintenance and supply data, which reduces redundancy, improves communication, and improves response time. Internal communications among users in the IMA and ASD are accomplished through on-line mailbox and hard copy report notices.

13.1.5.2 OIMA interfaces with OOMA to establish a link between the IMA and the O-level Material Control and the supporting ASD, and to exchange maintenance data used to process work requests. This OIMA-OOMA interface provides the O-level with the ability to query supply related functions. OIMA also interfaces with Navy supply information management systems to exchange maintenance and supply data via real time electronic data exchange or batch processing.

13.2 OOMA and OIMA System Administration

13.2.1 Introduction

Maintaining properly functioning OOMA and OIMA relies on two distinct actions at the user level: System administration to maintaining the functional integrity of system hardware and software; and Database administration to maintain the accuracy of system data. These functions are performed by System Administrators (SA) and Database Administrators (DBA). Based on the organization, size, and workload of the activity, the SA and DBA may be the same individual.

13.2.2 System Administrator (SA)

The SA is overall responsible for proper maintenance of the system. OOMA and OIMA activities will assign a Primary SA and at least one Assistant SA. Additional personnel may be assigned as Assistant SAs to cover multiple work shifts or detachments. In O-level activities, the SA normally also performs the DBA duties described in **13.2.3.**

NOTES: 1. Squadrons that deploy detachments away from home base for 90 days or longer must have one SA per detachment.

2. SAs normally also perform Data Analyst duties and are referred to as System Administrator/Analysts (SA/A). Refer to Chapter 14 for Data Analyst duties.

13.2.2.1 SA Qualifications

a. (Primary SA, only) Must be E-5 or above paygrade and a graduate of the NALCOMIS Aviation Maintenance Data Base Pipeline (C-555-2016 for OOMA, C-555-2015 OIMA.). NALCOMIS Aviation Maintenance System Administrator/Analyst Optimize course (C-555-2018 NEC F02A for OOMA, C-555-2017 NEC F03A for OIMA and Marine MOS 6049), as applicable to

the system(s) operated by the activity. Primary SA must complete the NALCOMIS OOMA System Refresher course C-555-0055 within 60 days upon billet assignment in writing via ASM.

b. (Primary SA, only) SAs who have not performed SA duties for longer than 24 months must attend the NALCOMIS OOMA System and Database Administration Guide course (C-555-0049) and NALCOMIS System Refresher course (C-555-0055).

c. (Assistant SA, only) Must complete NALCOMIS OOMA System and Database Administration Guide course (C-555-0049) and NALCOMIS OOMA System Refresher course (C-555-0055) prior to being assigned to detachment SA duties.

NOTE: SAs primary or assistant that obtain the required NEC F02A, F03A or MOS 6049 are not required to attend NALCOMIS OOMA System and Database Admiration Guide course (C-555-0049).

13.2.2.2 Responsibilities

SAs are responsible for actions specified in the NALCOMIS OOMA System and Database Administration Guide. Additional responsibilities include:

a. Provide in-service training to maintenance personnel on NALCOMIS operations, MIS security, and aviation 3M documentation.

b. For hardware warranty and non-warranty concerns refer to the User's Logistics Support Summary (ULSS) technical manual for detailed information.

c. Maintain an accurate inventory of all NALCOMIS hardware assigned, ensure hardware is functioning correctly, and coordinate all scheduled and unscheduled maintenance.

d. Coordinate software releases, software changes, and hardware upgrades.

e. Ensure operating system utilities are executed to verify full functionality. Refer to the System and Data Base Administration Guide on the SAILOR website (https://sailor.navy.mil) for additional information on utilities.

f. Perform system and database backups, database restores, and detachment processing functions (as required).

g. Coordinate and schedule all system non-availability periods such as aircraft transfers and detachment set-up.

h. Monitor security subsystems to ensure NALCOMIS security and accreditation. Virus protections will be kept current at all times.

i. Maintain a logbook to record system down time, hardware failures, database saves, Information Assurance Vulnerability Alert (IAVA) and (DAP) updates, and all other system requirements established in the OMA System Administration Guide (OMA-SAG).

j. Maintain awareness of NALCOMIS issues posted on the NIWC customer support site (https://sailor.navy.mil). Ensure Maintenance/Production Control and the DBA are aware of NALCOMIS Technical Advisories (TA), and maintain TAs on file electronically or in hardcopy until canceled.

k. Submit NALCOMIS Trouble Reports (TR) and Change Proposals (CP) via the using the Information Technology Service Management System or to NIWC Atlantic, per OMA-SAG and TYCOM directives.

l. Oversee and coordinate with DBAs (if assigned) to ensure database integrity and validity is maintained, including informing the DBA when database saves, system security checks, baseline updates are performed.

m. Assign user SMQs for qualifications held and that are consistent with all duties performed.

n. Coordinate all WO or MAF delete actions with Maintenance/Production Control and all related actions are accomplished, for example, "Duplicate WO, refer to MCN SWP4826."

o. Coordinate data transfer requirements between activities, for example, when transferring an aircraft to another activity, ensure all data stored on electronic media is transferred with the aircraft.

p. Coordinate system recovery and contingency processes to include back fit processes, per the procedures of the OMA-SAG and contact the Naval Information Warfare Center Fleet Support Center at DSN 646-0534 or COMM (757) 443-0534 for a data recovery push.

NOTE: Refer to 8.6.5 for contingency logs and records documentation procedures. Refer to 15.4 for contingency OOMA WO documentation procedures. Refer to 16.1.2.2 for contingency OIMA MAF documentation procedures.

q. Ensure NALCOMIS consumables (paper, printer ribbons, etc.) are available.

13.2.3 Database Administrator (DBA)

The DBA is the principal advisors on NALCOMIS matters. The DBA has overall responsibility for maintaining the accuracy of the activity's NALCOMIS database. Each activity must have at least one individual assigned as primary DBA and at least one individual assigned as Assistant DBA. Additional assistant DBAs will be assigned as needed to ensure adequate oversight of the database. In most activities, the DBA is also responsible for performing the duties of Data Analyst per Chapter 14.

13.2.3.1 Qualifications

DBAs must have the same qualifications as an SA, per 13.2.2.1. Additionally, DBAs should have extensive experience in maintaining aircraft and equipment logbooks and records.

13.2.3.2 Responsibilities

The DBA is responsible for overall database accuracy in regards to:

a. Assets; includes ALSS, SE, IMRL, aeronautical equipment, for example, drop tanks, aerial refueling stores, pods, and all related inspections.

b. Maintenance; includes all WO types and job control number (JCN) or maintenance action form control number (MCN) assignments, aircraft related inspections, and maintenance data processing system (MDPS) interfaces.

c. Material Control; includes all material related functions and NALCOMIS OIMA interfaces.

d. Configuration Management; includes technical directives (TD), explosive devices, and all aircraft, engine, and equipment logbook related databases, for example, Aircraft Inventory and Readiness Reporting System (AIRRS), Decision Knowledge Programming for Logistics Analysis and Technical Evaluations (DECKPLATE), and equipment records.

e. Flight; includes all flight documents and associated aircrew records, for example, qualification data, aircrew personnel; approval, deletion and upline reporting of all flight documents.

f. Database System; includes all system specific items, for example, time zones, organization code, unit identification code, personnel access, assigned SMQs, and task control.

g. Data Analyst; includes all aviation 3M data collection, approval, deletions, upline submissions; MAF audit procedures.

NOTE: Activities may further define and subdivide databases areas as required to best accomplish their responsibilities.

13.2.3.3 I-level Maintenance Activity (IMA) Database Administrators

IMA DBAs work in the IMA Production Control. Supply Department DBAs work in the Aviation Support Division (ASD). Responsibilities include, but are not limited to, the following:

a. Ensure database integrity, system security, and that access granted to each user is consistent with their duties:

(1) Assign, modify, or delete user access privileges, passwords and SMQs.

(2) Add, modify, and delete SMQ requirements to the transaction security file. Ensure all Inquiry Functions are not SMQ restricted.

(3) Ensure SMQs are controlled for distinct segregation of duty (SOD) between requestor, approver, and receiver. Each user may only have SMQs to perform one duty at a time.

(4) Validation of user roles and SMQ verification will be conducted no later than the 15th of February, May, August and November respectively. All documentation will be retained for 10 years to support Financial Improvement and Audit Readiness (FIAR) audits.

b. Ensure the validity and reliability of the database files:

(1) Run NTCSS Optimized IMA NALCOMIS (OIMA) database alignment batched processes and system table reports to check the maintenance database.

(2) Maintain table data by system table addition, update or deletion.

c. Update table files to redirect hard copy notice (HCNs) to a different printer if hardware problems occur.

d. Monitor and control the use of on-line batch reports, and release user requested on-line batch reports (as required).

e. Troubleshoot user problems and submit TRs or CPs (as required).

f. Keep the system users and assistant DBAs informed of the status and processing requirements for their functional area.

g. Have a working knowledge of the software configurations and capabilities for their functional area.

h. Maintain familiarity with the NTCSS Optimized IMA NALCOMIS equipment assigned in their functional area.

i. Ensure utility programs that pertain to both functional areas are coordinated to confirm the utilities are executed in both maintenance and supply areas.

j. Periodically hold formal in-service and informal training on NTCSS Optimized IMA NALCOMIS for functional users.

k. Monitor supply interface processing to ensure the accuracy of the NTCSS Optimized IMA database as reflected against the local supply systems, for example, R-supply. Perform utility programs (as required).

l. Implement the contingency procedures of the NIWC Contingency Manual in the event of a system failure or down time.

13.2.4 Marine Corps Aviation Logistics Information Management and Support (ALIMS) Department

ALIMS specialist duties include installing, implementing, managing, monitoring, and sustaining aviation information systems (AIS). The ALIMS Department will support deployed network installations and configuration in direct support of NALCOMIS and associated systems. MCO 2020.1 provides the standardized policy and procedures for ALIMS operations.

13.3 Detachment Processing

13.3.1 Introduction

Detachment processing consist of two types, same organization detachment and different organization detachment. Both type of detachments consist of assets and personnel that will operate independently away from the parent organization. Though each type of detachment will not be in replication, both same organization detachments and different organization detachments will perform actual data sweeps periodically, but not to exceed 7 days, back to the parent organization. The data sweeps will update the parent organization and replicate changes to the top tier. Refer to NTCSS Nalcomis OOMA system and database administration guide for detachment processing set up.

13.3.2 Same Organization Code Detachments

For same organization detachments, all detachments assets and personnel will be maintained in the parent organization server. The same organization detachment will maintain the parent organization code.

13.3.3 Different Organization Detachments

13.3.3.1 Established Different Organization Detachments

For established different organization detachments, detachment personnel and assets are transferred from the parent organization server to the detachment organization. All different organization detachments are recognized as their own reporting custodian with their own organization code and PUC.

13.3.3.2 Activated Different Organization Detachments

Activated different organization detachments will report under their own ORG and PUC. Work center assignments, for example, WC 110, 120, 210 do not change while operating as a different organization detachment. Detachment work center codes will follow the standard maintenance organization work center codes given in Appendix E. Processing of AIRRS, DECKPLATE, Aviation 3M, and NAVFLIRS documentation is the responsibility of the activated detachment.

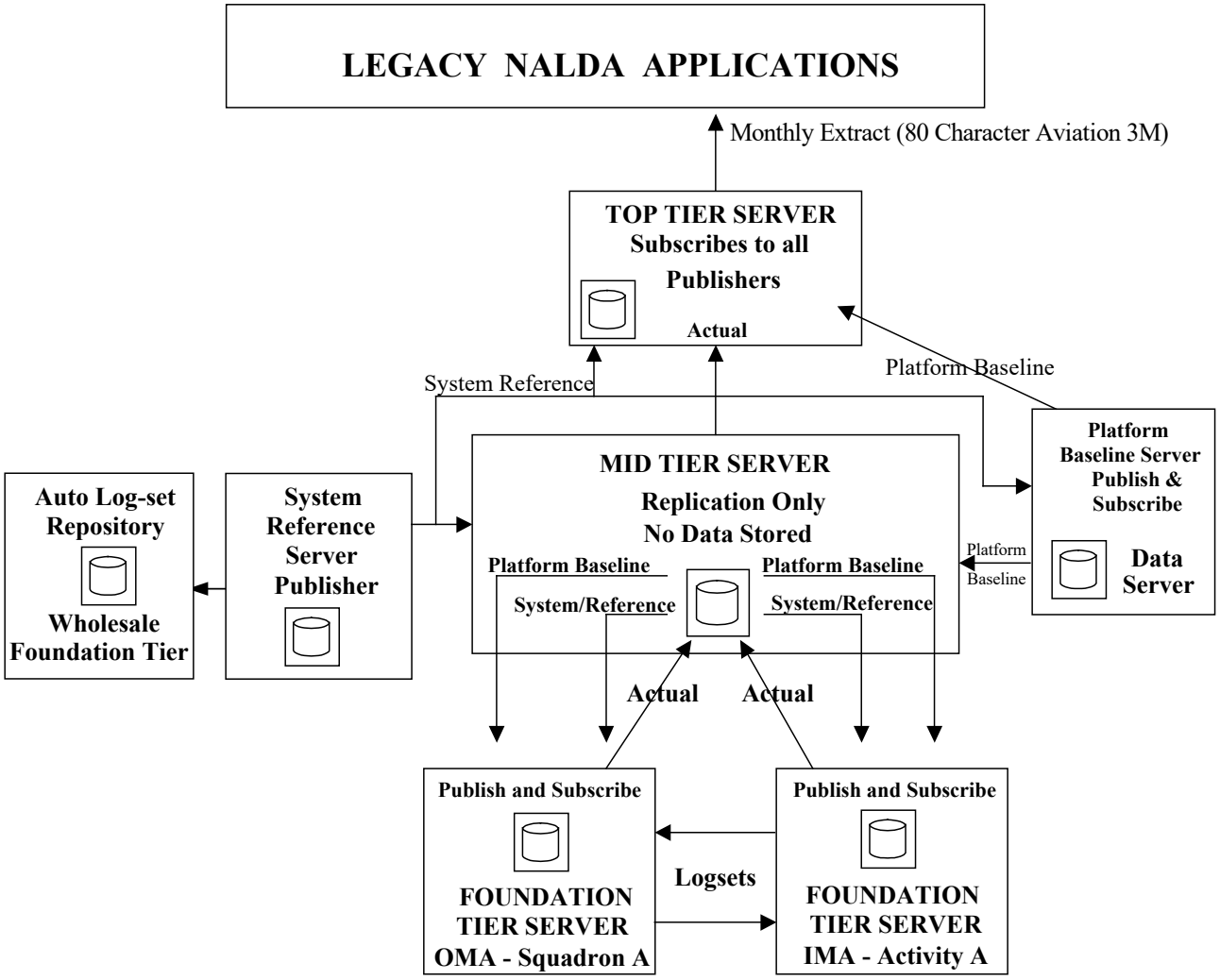


Figure 13-1: NTCSS Optimized OMA NALCOMIS Replication

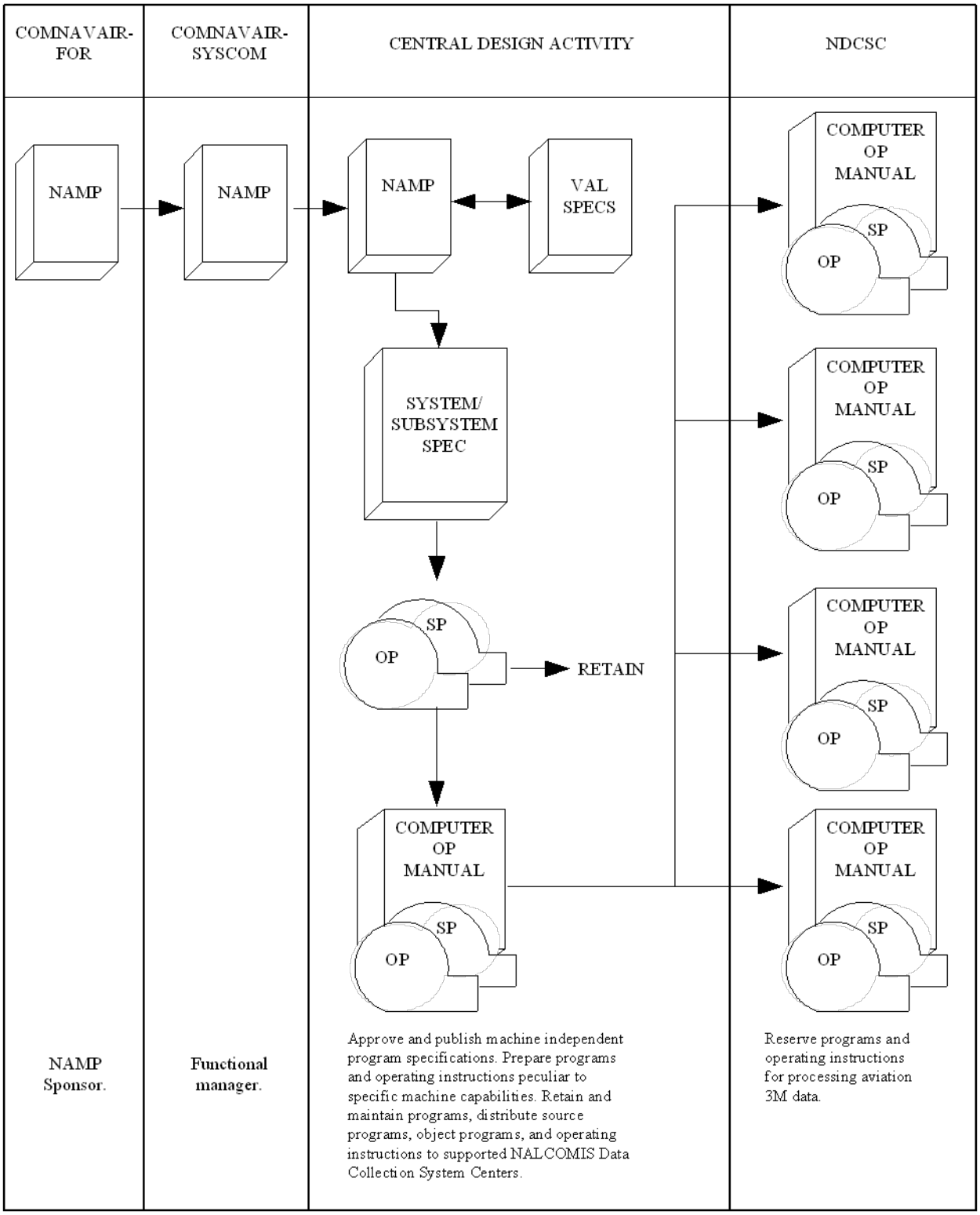


Figure 13-2: Program Responsibilities Flow Chart

CHAPTER 14

Naval Aviation Maintenance Data System (MDS); Maintenance Data Reports (MDR); Data Analysis; Aviation Maintenance Metrics

Table of Contents

14.1 NAVAL AVIATION MAINTENANCE DATA SYSTEM (MDS) 1

14.1.1 Purpose 1

14.1.2 Scope 2

14.1.3 Data Sources 2

14.1.4 Codes 3

14.1.5 Quantitative Data 3

14.1.6 Data Accuracy 4

14.1.7 Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) 5

14.2 MAINTENANCE DATA REPORTS (MDR) 6

14.2.1 Purpose 6

14.2.2 Standard Reports 6

14.2.2.1 Consolidated Performance Metrics (MAINT-1 Report) 6

14.2.2.2 Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) 10

14.2.2.3 Subsystem Capability Impact Reporting (SCIR) by WUC/UNS (MAINT-3 Report) 10

14.2.2.4 Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report) 11

14.2.2.5 Maintenance Man-hour (MAINT-5 Report) 12

14.2.2.6 Detailed Data Extract (MAINT-6 Report) 14

14.2.3 DECKPLATE Flight, Maintenance, Supply, and Miscellaneous Ad Hoc Reports 15

14.2.3.1 Command Production Report (DP-0004) 15

14.2.3.2 Items Processed by Bureau/Serial Number (DP-0009) 15

14.2.3.3 Man-Hours by TEC, Work Unit Code, and Transaction Code (DP-0010) 15

14.2.3.4 Maintenance Level 1 Man-Hours by Work Unit Code and ORG Code (DP-0011).....15
14.2.3.5 Maintenance Level 1 Repairs (DP-0012).....15
14.2.3.6 Flight Hours by Operation Code (DP-0014).....15
14.2.3.7 Detailed Failed Parts H – Z (DP-0016).....16
14.2.3.8 Detailed Flight and Inventory (DP-0017).....16
14.2.3.9 Org Maintenance Actions/Verified Failures (DP-0020).....16
14.2.3.10 NMC/PMC by Part Number or WUC (DP0021/26).....16
14.2.3.11 Org Removals/IMA Actions (DP-0022).....16
14.2.3.12 IMA Component Action Summary (DP-0023).....16
14.2.3.13 Top Degrader by TEC (DP-0024).....16
14.2.3.14 Serial Number Tracking (DP-0025).....16
14.2.3.15 Degrader Snapshot by HOF NIIN (DP-0027).....17
14.2.3.16 Degrader Snapshot by HOF NIIN, Org and IMA (DP-0028).....17
14.2.3.17 Org Verified Failure/Non-Failure Analysis by TEC/WUC (DP-0029).....17
14.2.3.18 Aircraft Readiness/Tracker Indicator Rates (DP-0032).....17
14.2.3.19 NMC/PMC Reliability by Part Number (DP-0033).....17
14.2.3.20 NMC/PMC Reliability by WUC (DP-0034).....17
14.2.3.21 Part Number NIIN WUC Cross Reference (DP-0035).....17
14.2.3.22 Aircraft Readiness/Tracking Indicators Hours Report (DP-0036).....17
14.2.3.23 Org Verified Failures/Non-Failures Analysis by Part (DP-0037).....17
14.2.3.24 Part Number NIIN Cross Reference (DP-0040).....18
14.2.3.25 Type Mission Requirements Report (DP-0041).....18
14.2.3.26 Technical Directives Report (DP-0042).....18
14.2.3.27 Detailed Consumables Report (DP-0043).....18
14.2.3.28 Top Degrader by Type/Model (DP-0044).....18
14.2.3.29 AV3M AIMD Chronicle Repairable Item Disposition Summary (DP-7096-02).....18
14.2.3.30 AV3M AIMD Chronicle Repairable Item Turn Around Time Summary (DP-7096-03).....18

14.2.3.31 AV3M AIMD Chronicle Repairable Item Turn Around Time Recap (DP-7096-04) 18
14.2.3.32 AV3M AIMD Chronicle Productivity (DP-7096-05) 19
14.3 MDS ANALYSIS PRODUCTS 19
14.3.1 Introduction 19
14.3.2 Job average (Direct Maintenance Man Hours (DMMH) per job) 19
14.3.3 High Man-hour, Maintenance Action, and Failure Rate Items 19
14.3.4 Component Reliability Trends 20
14.3.5 Cannibalization Trend 20
14.3.6 Abort Malfunctions 21
14.3.7 Maintenance Man-hours by Bureau Number 22
14.3.8 Maintenance Man-hours Per Flying Hour and Sortie Chart 22
14.3.9 Awaiting Maintenance (AWM) Reason Code Summary 24
14.3.10 Mission Capability Degradation Summary 24
14.3.11 Mission Capability Trend 24
14.3.12 Repair of Removed Components 24
14.3.13 High-Five EOC Degradation by Mission Capability Category Chart 25
14.4 O-LEVEL AND I-LEVEL DATA ANALYSIS 25
14.4.1 Introduction 25
14.4.2 Data Analyst 25
14.4.3 O-level AV3M Summary 25
14.4.4 I-level AV3M Summary 28
Figure 14-1: Elements of the Naval Aviation Maintenance Data System 30
Figure 14-2: MDS Code List 32
Figure 14-3: DECKPLATE Flow Process 33
Figure 14-4: Consolidated Performance Metrics (MAINT-1 Report) (Sample) 34
Figure 14-5: Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) (Sample) 35
Figure 14-6: Subsystem Capability and Impact Reporting by WUC/UNS (MAINT-3 Report) (Sample) 36

Figure 14-7: Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report) (Sample) 37
Figure 14-8: Maintenance Manhour (MAINT-5 Report) (Sample)..... 38
Figure 14-9: Detailed Data Extract (MAINT-6 Report) (Sample) 39

CHAPTER 14

Naval Aviation Maintenance Data System (MDS); Maintenance Data Reports (MDR); Data Analysis; Aviation Maintenance Metrics

14.1 Naval Aviation Maintenance Data System (MDS)

14.1.1 Purpose

14.1.1.1 The Maintenance Data System (MDS) is the principal means of collecting naval aviation maintenance and material management (AV-3M) source data. The MDS is sponsored by the Chief of Naval Operations (CNO). Technical support for the MDS is provided by NAVWARINFOCEN (NIWC) Norfolk, VA, and COMNAVAIRSYSCOM Enterprise Services Division, as described in 13.1.2.3.

14.1.1.2 The MDS provides data products and management tools to enable management decisions.

a. COMNAVAIRSYSCOM Program Offices use MDS data to:

(1) Analyze high system failures and high man-hour consuming maintenance actions by specific weapon system.

(2) Identify needed product improvements.

(3) Analyze inspection results as a basis for adjusting inspection criteria and intervals.

(4) Adjust component scheduled removal intervals.

(5) Improve I-level repair capabilities.

(6) Identify and analyze failed items under warranty.

(7) Establish realistic manning factors.

(8) Determine and justify the need for modifications and engineering changes.

(9) Establish equipment reliability factors.

(10) Determine tooling and equipment requirements.

(11) Predict probable failures through trend analysis.

(12) Determine the status of compliance with Technical Directives (TD).

(13) Determine material cost and availability.

(14) Analyze aircraft and equipment mission capability and utilization.

(15) Determine maintenance and material processing times.

(16) Determine and justify funding requirements.

b. TYCOM, Type Wing, Marine Air Wing (MAW), operational staffs, and maintenance activities use MDS data to identify:

(1) High man-hour per operating hour equipment (by SERNO or type equipment).

(2) Man-hours lost to cannibalization and removal of items to facilitate other maintenance (FOM).

(3) Areas with skill or training deficiencies.

(4) Efficient or inefficient use of manpower.

(5) Items with high failure rates.

(6) Inadequate troubleshooting.

(7) Reasons for ground and in-flight aborts.

(8) High usage and high cost items.

(9) TD compliance status.

14.1.2 Scope

Compliance with MDS reporting is mandatory for all Navy and Marine Corps O and I level aviation maintenance activities unless specifically exempted by CNO or Commander Naval Air Forces (CNAF). Compliance with MDS also includes activities operating or maintaining Cognizance Symbol 2O aviation training equipment, as described in NAVSUP Publication 485 Volume II. Subordinate operating or systems commands are not authorized to impose additional maintenance data collection requirements on fleet activities or to modify the procedures contained in this chapter without the prior approval of CNAF.

14.1.3 Data Sources

14.1.3.1 As illustrated in Figure 14-1, the MDS receives data from four interrelated sources: Maintenance Data Reports (MDR), Subsystem Capability Impact Reporting (SCIR), Material Reports (MR), and Naval Flight Record Subsystem (NAVFLIRS).

14.1.3.2 The data for Maintenance Data Reports (MDR) is derived from Work Orders (WO) and Maintenance Action Forms (MAF). Refer to 14.3 for detailed information on various MDRs.

14.1.3.3 Subsystem Capability Impact Reporting (SCIR) provides information on aircraft and aircraft subsystem performance per the procedures of 9.2. The degradation of equipment mission capability is reported by recording EOC codes in the Repair Cycle and Maintenance or Supply Record sections of the WO. EOC codes are documented when a specific system or subsystem impacts the mission capability of that equipment.

14.1.3.4 Material Reports (MR) derive information on repairable component usage data extracted from DD 1348 Material Requisitions. MRs merge data elements of maintenance and supply and are provided to supply activities and intermediate maintenance activities (IMA) when requested. MR information permits management to relate material usage to weapon systems and

components, by activity and by maintenance level, and to determine material expenditures, by level of maintenance.

14.1.3.5 Naval Flight Record Subsystem (NAVFLIRS) provides aircraft utilization data, such as flight hours, landings, and catapults, and aircrew information. NAVFLIRS data is obtained from Naval Flight Records (OPNAV Form 3710/4) (commonly referred to as NAVFLIRs) which are completed by the pilot or aircraft mission commander at the end of a flight, series of flights, cancellation of a flight, or aircraft simulator training.

14.1.4 Codes

14.1.4.1 MDS codes may consist of one or more letters, numbers, or a combination of both. Codes composed entirely of letters are referred to as alpha codes. Codes composed entirely of numbers are referred to as numeric codes. Codes composed a combination of letters and numbers are referred to as alphanumeric codes. Codes in which the letters or numbers are arranged in a systematic pattern are referred to as structured codes.

14.1.4.2 Some codes, such as work center codes, have the flexibility of allowing for additional structuring to meet local management needs. Some codes are used in combination with other information identifiers for control and other purposes, for example, a Job Control Number (JCN) is a combination of the organization code, the Julian calendar date, and a sequence number. A list of the various codes peculiar to this system is in Figure 14-2.

14.1.4.3 Codes may not be altered locally. COMNAVAIRFOR (N422D) controls the codes used in this system, with the exception of aircraft status codes, Total Mission Requirements (TMR) codes, Work Unit Codes (WUC), Type Equipment Codes (TEC), Assembly Codes (Assy CD), and Equipment Operational Capability (EOC) codes. Aircraft status codes are listed in Appendix E, TMR codes are listed in OPNAVINST 3710.7, WUCs, TECs, and Assy CDs are managed by COMFRC FST HQ Technical Data Department, EOC codes are listed in the applicable T/M/S aircraft MESM.

14.1.5 Quantitative Data

14.1.5.1 Quantitative data is collected to the nearest tenth unless otherwise specified. When the final result of the data calculation must be displayed to the nearest whole number, the data points will be in one decimal place during calculation and the result will be rounded up or down. Results ending in .5 or greater will be rounded up, and results ending in .4 or less will be rounded down. Example of a calculation using data collected to the nearest tenth with final result displayed to the nearest whole number: 2.6 + 2.6 = 5.2, which is then rounded down to = 5. (Incorrect: 2.6 + 2.6 = 3 + 3 = 6.)

14.1.5.2 Calculations for units occurring in whole numbers only (aircraft, engines, personnel, etc.) will be carried to the nearest whole number. Example of calculating the average number of aircraft assigned over a 5 day period: (10 + 9 + 9 + 9 + 10)/5 = 47/5 = 9.4, which is then rounded down to = 9.

14.1.6 Data Accuracy

14.1.6.1 The integrity of the MDS depends on accurate documentation. The importance of accurate and complete documentation cannot be overstated in consideration of the Navy wide use of MDS. Each instance of erroneous documentation results in a loss of the effectiveness of the MDS as a management tool for the purposes described in 14.1.1.2.

14.1.6.2 Accurate MDS data must be a command-wide concern. All personnel in the Maintenance Department must strive for absolute accuracy.

a. Commanding Officers must foster a sense of personal responsibility for data accuracy in every member of the command, including emphasis on the responsibility of aircrew to accurately document NAVFLIR flight information and provide detailed WO information of discrepancies they note before, during, or after flight.

b. Maintenance Officers must routinely review MDRs and direct corrective actions when data errors are noted.

c. Maintenance Material Control Officers and Production Control Officers are directly responsible for the accuracy of WO/MAF data and all other MDS source documents generated by the maintenance department.

d. QARs, CDQARs, and CDIs are responsible for ensuring the data is accurate at the time they certify inspection on the WO/MAF.

e. Work Center Supervisors are responsible for the accuracy of WOs/MAFs generated by their work center.

f. System Administrator/Analysts (SA/A) have a critical role in data integrity. Responsibilities include:

(1) Verifying their activity's system is connected to the network and MDS source documents are replicating to the NALCOMIS top-tier and DECKPLATE.

(2) Validating the accuracy of all maintenance reports prior to submission to DECKPLATE and ensuring maintenance reports are submitted on time.

(3) Reviewing MDRs and other data products produced by the MDS for accuracy.

(4) Improving data accuracy by identifying error trends and providing training on deficient areas to maintenance department personnel.

14.1.6.3 Each NAVAIR program office has a Reliability Control Board (RCB) which performs analysis of aircraft readiness degraders based on data accuracy of WO documentation. The RCB collects data from WOs at the four and five digit Work Unit Code (WUC) level and then assigns an impact score to rank the systems(s) impacting aircraft to be Non-Mission Capable (NMC). RCB degrader analysis reflecting continuous negative data trends will prompt naval message(s) disseminated to decreased readiness performance applicable activities. Upon receipt of naval messages, timely responses (normally five business days) are required from Type Wing or MAG

Maintenance Officers to TYCOM/HQMC ASB for corrective actions and mitigation "Get Well" plans for improved readiness performance from cognizant activities.

14.1.7 Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE)

14.1.7.1 COMFRC FST HQ Technical Data Department maintains DECKPLATE, which is the authoritative aviation data warehouse (ADW) for the MDS. Assistance with DECKPLATE is available from the COMNAVAIRSYSCOM National Help Desk via email (nav_helpdesk.fct@navy.mil) or phone (888-292-5919 or 301-342-3104). All activities submitting MDS data must provide COMFRC FST HQ Technical Data Department with a point of contact for problems with data exchange. Contact information must include activity, code or position, telephone number and extension, and, if desired, the individual's name.

14.1.7.2 Figure 14-3 illustrates the process for collecting DECKPLATE data from the following systems:

a. Aircraft Inventory and Readiness Reporting System (AIRRS) (Chapter 9). DECKPLATE receives a quarterly data extract from AIRRS histories and a daily extract of XRAY and flight summary data (RT-79).

b. Configuration Management Information System (CMIS). DECKPLATE receives CMIS data by WUC structures.

c. Federal Logistics Information System (FLIS). DECKPLATE receives FLIS part number cross reference and cost data for consumables and SMICs for NAVAIR modification kits.

d. Naval Supply Weapons System Support (NAVSUP WSS). DECKPLATE receives Uniform Inventory Control Point (UICP) Tier II direct connect for part number cross reference and cost repairable assets are performed monthly. Also performed daily for UICP NAVAIR modification kit requisition sales orders, stock point transactions, and managed inventory.

e. NALCOMIS Optimized Organizational Maintenance Activity (OOMA) and Optimized Intermediate Maintenance Activity (OIMA) maintenance and flight data is submitted to DECKPLATE each day. Up-line submission to DECKPLATE is accomplished by data replication. DECKPLATE receives the data in the form of reproduced (replicated) OOMA Work Orders (WO) and OIMA Maintenance Action Forms (MAF) generated by maintenance activities and processed through their supporting NIWC ATLANTIC site.

f. Engine Management. DECKPLATE is the primary information source for engine management. DECKPLATE enables inventory tracking and management of aircraft engines and engine modules, and provides timely data on Engine/Propulsion Systems Module (EPSM) status, location, and condition. DECKPLATE replicates engine/module data twice each day.

g. Technical Directive Reporting System (TDRS). TDRS provides TD information via the TD/KIT Management Module. Users access the TD Management section to add, change, and update TDs. Kit Item Managers use the Kit Management section to manage kit issuance, receipt, and tracking.

NOTE: In the event of machine or software failure at NIWC Atlantic, transactions will be backlogged until service is restored. Accordingly, no special consideration, such as backup modes, is necessary. Programs should contain adequate safeguards against accidental file destruction because no redundant or backup base is employed.

14.1.7.3 DECKPLATE stores MDS data indefinitely. Data can be retrieved by using Ad Hoc (when necessary or needed) capability on the local system and by downloading the standardized reports described in paragraphs 14.2.3.1 through 14.2.3.32.

14.2 Maintenance Data Reports (MDR)

14.2.1 Purpose

MDRs provide standardized reports of information collected in the MDS. MDR data is derived from active and completed WOs, MAFs, and Naval Aircraft Flight Record (OPNAV 3710/4). MAINT-1 through MAINT-6 MDRs are prepared at the end of each month and posted to DECKPLATE (https://deckplate.navair.navy.mil/#/). Ad hoc reports (14.2.3) may be run from DECKPLATE at any time.

14.2.2 Standard Reports

NOTES: 1. When report examples are for both O-level and I-level, the work center codes in the example report starts with an "X". The report downloaded from DECKPLATE will contain the actual work center codes.

2. NALCOMIS OOMA and OIMA activities can use ad hoc capabilities on their local system or the standardized reports available in DECKPLATE.

3. MAINT-1 through MAINT-6 Reports may not match Foundation Tier reports due to detachment data or inventory corrections incorporated in up-line reporting.

4. METCAL data is not collected in MDS. METCAL data can be accessed using MEASURE software on the TMDE Lab's MEASURE terminal. A list of METCAL reports is available in the MEASURE Software User's Manual.

14.2.2.1 Consolidated Performance Metrics (MAINT-1 Report)

a. The MAINT-1 report (Figure 14-4) is produced for each Assembly Cd when more than one aircraft type/model/series (T/M/S) is assigned to provide separation among type aircraft maintained during the reporting period. An overall organizational report is produced to reveal aggregated squadron metrics. Data for the MAINT-1 is extracted from WOs and Naval Aircraft Flight Records (OPNAV 3710/4) and flight documents submitted during the reporting period.

NOTE: WOs with Transaction Code (TRCODE) 30, 31, 32, or 39 and all Type Maintenance (TM) codes that are equal to F, but not equal to TRCODE 72 are not used in MAINT-1.

b. The MAINT-1 report contains the following data:

(1) Total number of hours aircraft were In Service (Total EIS)

(2) Average number of aircraft in service.

(3) Average aircraft readiness (MC/FMC).

(4) Impact of maintenance and supply on aircraft readiness (NMCS/M and PMCS/M).

(5) Total flight hours.

(6) Total number of flights.

(7) Average number of flight hours per aircraft (Average Utilization).

(8) Average flight hours per flight (Average flight duration).

(9) Total number of cannibalization actions.

(10) Total man hours documented for cannibalizations.

(11) Average cannibalization actions per 100 flight hours.

(12) Total number of A-799 (No Defect) maintenance actions.

(13) Total man hours used for A-799 (No Defect) maintenance actions.

(14) Total number of discrepant items received from Supply (Discovered Code Y).

(15) Total Direct Maintenance Man Hours (DMMH).

(16) Average DMMH per aircraft.

(17) Total man hours used for corrosion prevention.

(18) Total man hours used for corrosion treatment.

(19) Total flight hours performed from a ship.

(20) Total number of flights from a ship.

(21) Total number of flights aborted before flight.

(22) Total number of flights aborted during flight.

c. MAINT-1 report fields:

(1) TOTAL EIS: Sum total EIS hours for each aircraft maintained. For the purpose of this calculation the count begins on the date and time an aircraft is gained and the count ends at 2400 on the last day of each report or on the date and time an aircraft is transferred or lost.

(2) AVG Aircraft: The average number of aircraft available, based on total accumulated EIS hours. Formula:

$$\text{AVG Aircraft} = \frac{\text{TOTAL EIS HRS}}{\text{\# DAYS IN MONTH X 24}}$$

NOTE: The following readiness percentages are computed using total accumulated EIS hours during the reporting period. Hours while in an Out of Reporting (OOR) status are not used.

(3) MC%: The percentage of all aircraft that were capable of performing at least one, but not all missions. Formula:

$$MC\% = \frac{\text{TOTAL EIS HRS - (NMCS + NMCM + NMCD) HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(4) FMC%: The percentage of all aircraft that were capable of performing all missions. Formula:

$$FMC\% = \frac{\text{TOTAL EIS HRS - (NMCS + NMCM + PMC + NMCD) HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(5) NMCM%, NMCS%, NMCD% PMCM%, PMCS%: Aircraft system degradation, as a percentage of time impacted in any of the listed categories. Formula:

$$\text{SELECTED CATEGORY \%} = \frac{\text{TOTAL (SELECTED CATEGORY) HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(6) FLTHRS: Total number of flight hours accumulated from Naval Aircraft Flight Record (OPNAV 3710/4) and flight documents.

(7) FLTS: Total number of flights accumulated from Naval Aircraft Flight Record (OPNAV 3710/4) and flight documents.

(8) AVG UTIL: Average number of flight hours expended, per aircraft. Formula:

$$\text{AVG UTIL} = \frac{\text{TOTAL FLTHRS}}{\text{AVG Aircraft}}$$

(9) AVG FLT DURATION: Total flight hours divided by total flights.

(10) TOTAL CANN Items/P and TOTAL CANN MHRS: Total number of cannibalization actions and related man-hours. Data is based on maintenance level one WOs with:

(a) Assembly Cd beginning with A.

(b) TRANS Code 18 or 19.

(c) AT Code T.

(d) MAL Codes 812 through 820.

(e) TM Code B.

(11) CANNS/100 FLTHRS: The number of cannibalization actions per 100 flight hours. The use of 100 flight hours as a standard divisor enables normalized comparisons and statistical consistency. Formula:

$$\text{CANNS / 100 FLTHRS} = \frac{\text{TOTAL CANN ITEMS}}{\text{(TOTAL FLTHRS / 100)}}$$

(12) A-799 Items/P and A-799 MHRS: Total No Defect (A-799) items processed and related man-hours. Data is based on maintenance level one WOs with:

(a) Assembly Cd beginning with A.

(b) AT Code A.

(c) MAL Code 799.

(13) TOTAL W/D 'Y'. Total number of parts, components, or assemblies received or withdrawn from supply and found to be discrepant upon installation.

(14) TOTAL Aircraft DMMH: Total man-hours directly attributed to maintenance of aircraft during the selected reporting period. Data is based on maintenance level one WOs/MAFs with an Assembly Cd beginning with A.

(15) Aircraft DMMH/FLTHR: Total Aircraft DMMH divided by Total FLTHRS.

(16) TOT MAINT MHRS: Total man-hours attributed to the maintenance of the aircraft.

(17) CORR Prevention HRS: Total man-hours expended in the prevention of aircraft corrosion. Data is based on maintenance level one WOs/MAFs with:

(a) Assembly Cd beginning with A.

(b) WUC equals 04.

(c) AT Code 0.

(d) MAL Code 000.

(18) Corrosion (CORR) Treatment HRS: Total man-hours expended in the treatment of aircraft corrosion. Data is based on maintenance level one WOs/MAFs with:

(a) Assembly Cd beginning with A.

(b) WUC not beginning with 04.

(c) AT Code Z.

(d) MAL Code (See Appendix E for appropriate MAL Code).

(19) FLTHRS - SHIP: Lists total number of shipboard flight hours accumulated from Naval Aircraft Flight Record (OPNAV 3710/4) or flight documents submitted during the selected reporting period. Selection criteria is based on Naval Aircraft Flight Record (OPNAV 3710/4) or flight documents with an Operations Code of A, B, or C.

(20) FLTS - SHIP: Lists total number of shipboard flights accumulated from Naval Aircraft Flight Record (OPNAV 3710/4) and flight documents submitted during the selected reporting period. Selection criteria is based on Naval Aircraft Flight Record (OPNAV 3710/4) and flight documents with an Operations Code of A, B, or C.

(21) BEFORE FLT ABORTS Items/P: Reflects the number of flights that were aborted before flight during the selected reporting period. Selections for this data element is based on maintenance level one WOs/MAFs with When Discovered (WD) Code A.

(22) IN-FLT ABORTS Items/P: Reflects the number of flights that were aborted in-flight during the selected reporting period. Selections for this data element is based on maintenance level one WOs/MAFs with WD Code C.

14.2.2.2 Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report)

a. The MAINT-2 report (Figure 14-5) lists, by aircraft BUNO, the total number of discrepancy hours limiting the aircraft from performing its mission or function during the reporting period. The MAINT-2 report also lists equipment utilization. All TRCODEs are used except TRCODEs 30, 31, 32, or 39, and all TM codes that are equal to F, but not equal to TRCODE 72. The MAINT-2 shows the impact to mission capability while performing scheduled and unscheduled maintenance and while awaiting parts. EIS hours, flight hours, and number of flights are also listed. Total SCIR hours are the accumulation of all SCIR related gripe life hours extracted from WOs/MAFs by aircraft BUNO.

b. The MAINT-2 is sorted by:

(1) ORG code.

(2) Assembly Cd (Type Equipment Code).

(3) Aircraft BUNO.

c. All lines are a summation of aircraft BUNO within Assembly Cd and ORG.

d. An Assembly Cd TOTAL is entered upon a change in Assembly Cd.

e. An ORG TOTAL is entered upon a change in ORG code.

14.2.2.3 Subsystem Capability Impact Reporting (SCIR) by WUC/UNS (MAINT-3 Report)

a. The MAINT-3 report (Figure 14-6) lists SCIR hours by mission category and AWM hours by reason codes, summarized for a given EOC code and associated WUC. The MAINT-3 is prepared from WOs/MAFs that have an EOC code. All TRCODEs are used except TRCODEs 00, 02, 03, 30, 31, 32, or 39 and all TM codes that are equal to F, but not equal to TRCODE 72.

b. The MAINT-3 is sorted by:

(1) ORG code (major sort).

(2) Assembly Cd.

(3) EOC code.

(4) WUC or UNS.

c. All lines represent summations of maintenance actions by WUC to a specific EOC code within an Assembly Cd and ORG code. The MAINT-3 shows total SCIR hours and distribution of SCIR hours by the degradation PMCM, PMCS, NMCMS, NMCMU, NMCS, and total AWM hours. A decimal is assumed on all entries on detail lines.

d. A CAT TOTAL line is printed upon change of EOC code mission capability category (PMC and NMC). Total SCIR hours and AWM hours are depicted as 100.0 percent for mission capability category (PMCM, PMCS, NMCMS, NMCMU, NMCS, and Assembly Cd). Total SCIR hours, PMC, and NMC hours are a summation of the SCIR category totals. Total AWM hours and individual reason code totals are a summation of the SCIR category totals. Percentages are based on total SCIR hours and AWM hours for the individual Assembly Codes. A decimal is assumed on all entries except percentages.

e. An ORG TOTAL is printed upon change of ORG code. Total SCIR, PMC, and NMC hours are a summation of the Assembly Cd TOTAL. Total AWM hours and individual reason code totals are a summation of (Assembly Cd TOTAL) totals. Percentages are based on total SCIR hours and AWM hours for Assembly Cd within the ORG. A decimal is assumed on all entries except percentages.

14.2.2.4 Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report)

a. The MAINT-4 report (Figure 14-7) lists mission capability and maintenance data for each WO/MAF submitted for a given EOC code and associated WUC by aircraft BUNO within Assembly Cd and ORG code. All TRCODEs are used except TRCODEs 00, 02, 03, 30, 31, 32, or 39 and all TM codes that are equal to F, but not equal to TRCODE 72.

b. The MAINT-4 is sorted by:

(1) ORG code (major sort).

(2) Assembly Cd.

(3) Aircraft BUNO.

(4) EOC code.

(5) WUC or UNS.

(6) MCN.

c. All lines show total SCIR hours and distribution of hours by type degradation (PMCM, PMCS, NMCMS, NMCMU, NMCS) and JCN, WC, TR, WD, TM, AT, MAL, IP, MHRS, EMT, and MCN documented on the WOs/MAFs. A decimal is assumed on mission capability data entries.

d. A CAT TOTAL is printed upon change of EOC code mission capability category (PMC and, NMC). Total SCIR hours are depicted as 100.0 percent for mission capability category (PMCM, PMCS, NMCMS, NMCMU, NMCS, and aircraft BUNO). Total aircraft BUNO TOTAL SCIR hours are a summation of the CAT TOTAL for PMC, and NMC. Percentages are

based on total SCIR hours for that aircraft BUNO. A decimal is assumed on mission capability data entries except percentages.

e. An Assembly Cd TOTAL is printed upon change of Assembly Cd. A decimal is assumed on mission capability data entries except percentages.

f. An ORG TOTAL is printed upon change of ORG code. A decimal is assumed on mission capability data entries except percentages.

14.2.2.5 Maintenance Man-hour (MAINT-5 Report)

a. The MAINT-5 Report (Figure 14-8) lists DMMH per FLTHR for aircraft assigned during the report period. All TRCODEs are used except TRCODEs 30, 31, 32, or 39, and all TM codes that are equal to F, but not equal to TRCODE 72. Data is based on WOs/MAFs submitted during the report period.

b. The DMMH/FLTHR figure is an index of the man-hour cost of supporting an hour of aircraft flight (the lower the DMMH/FLTHR, the lower the man-hour cost).

c. The MAINT-5 report is used to determine:

(1) Which aircraft required a large amount of direct maintenance man-hours, and what type of maintenance was performed during the report period.

(2) The maintenance man-hours spent per aircraft as opposed to the number of hours flown.

(3) The ratio of look phase man-hours to fix phase man-hours per type of inspection.

(4) The ratio of unscheduled to scheduled man-hours.

(5) When MAINT-5 data is trended, the results assist in determining which aircraft are high man-hour consumers compared to other aircraft.

d. Typical factors that cause fluctuations in DMMH/FLTHR:

(1) A reduction of flying hours will not always result in an immediate and corresponding drop in maintenance (a high index may result).

(2) Shortening the sortie length can materially reduce the total hours flown while maintenance remains stable (a high index may result).

(3) Lengthy maintenance actions, such as major Phase inspections and in-depth modifications, ground the aircraft and may consume a substantial number of man-hours (a high index may result).

(4) Decreased maintenance may occur as the result of reduced inspection requirements, improvements in work methods or facilities, etc., while flying hours remain stable (a lower index may result).

(5) An increase in total flying hours will not always result in additional maintenance (a lower index may result).

e. All lines are sorted by:

(1) ORG code (major sort).

(2) Assembly Cd.

(3) Aircraft BUNO.

f. When more than one T/M/S is assigned, a MAINT-5 report is produced for each Assembly Cd to provide separation among type aircraft maintained.

g. An overall organizational report is produced to provide aggregated metrics.

h. Field calculations:

(1) UNSCH MAINT: Unscheduled aircraft maintenance man-hours reported on level one WOs/MAFs where the Assembly Cd begins with A and TM is equal to B.

(2) PHASE or PDM LOOK: Total man-hours expended in performing the look portion of phase or PDM, or IMC/P inspections. Data is based on level one WOs/MAFs with a TM Code of G and a WUC beginning with 03.

(3) PHASE/PDM FIX: Total man-hours expended in repairing discrepancies discovered during the look portion of phase, PDM, or IMC/P inspections. Data is based on level one WOs/MAFs with a WD Code of M, TM Code of G, and a WUC not beginning with 03.

(4) ACPT/XFER INSP: Total man-hours consumed in performing acceptance or transfer inspections. Data is based on look and fix man-hours from level one WOs/MAFs, where TM Code equals E.

(5) COND INSP: Total man-hours consumed in performing conditional inspections. Data is based on combined look and fix man-hours from level one WOs/MAFs, where TM Code equals S.

(6) SPECIAL INSP LOOK: By aircraft BUNO, total man-hours expended in performing look portion of special inspections. Data is based on level one WOs/MAFs with a W/D Code of 0, TM Code containing D, K, M, or N, and a WUC beginning with 03, 04, or 05.

(7) SPECIAL INSP FIX: Total man-hours expended in repairing discrepancies that were discovered during look portion of special inspections. Data is based on level one WOs/MAFs with a TM Code containing D, K, M, or N and a WUC not beginning with 03 or 04.

(8) TDC: Technical Directive Compliance. Total man-hours expended complying with Technical Directives. Data is based on total man-hours documented on level one WOs/MAFs where TRCODE is 41 or 47.

(9) TOT MHRS: The sum of all man-hours from previous fields on the MAINT-5 report.

(10) Aircraft FLTHRS: Total flight hours documented on Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the reporting period.

(11) DMMH/FLTHR: Average number of man-hours expended per flight hour. Formula:

$$\text{DMMH / FLTHR} = \frac{\text{TOTAL MHRS}}{\text{Aircraft FLTHRS}}$$

14.2.2.6 Detailed Data Extract (MAINT-6 Report)

a. The MAINT-6 report (Figure 14-9) provides key detailed data in electronic format to enable statistical analysis equipment capability, reliability, and maintainability. Data is based on all maintenance level one documents for all Assembly Codes assigned.

b. All lines are sorted by:

(1) ORG code (major sort).

(2) Assembly Cd.

(3) Aircraft BUNO.

(4) Work Center.

(5) WUC/UNS.

c. The MAINT-6 report is used to:

(1) Identify systems or subsystems that require disproportionate maintenance actions or man-hours. (Example: Total man-hours by WUC, Assembly Cd, aircraft BUNO, MAL code, etc.)

(2) Determine recurring problems in a particular system or subsystem as indicated by a large number of repeat discrepancies. Selection of repeat failure items can be used to establish the cause of the failures, for example, structural design or improper maintenance.

(3) Compare and determine the man-hour cost of maintaining a specific type of equipment, system, or subsystem, or of isolating components that might be causing the entire system to consume high man-hours.

(4) Rank maintenance actions by any category. (Example: High man-hour consumers or high failure items, by WUC, Assembly Cd, aircraft BUNO, etc.)

(5) Measure the maintenance impact of FOD.

(6) Measure maintenance attributable to the prevention and treatment of corrosion, and determine whether any specific section of an aircraft needs additional attention.

(7) Track removal and replacement of items and the P/Ns of repairable parts and assemblies.

(8) Determine the amount of time expended on maintenance where there is no malfunction or alleged malfunction. Examples: Cannibalization actions, matched set removals, FOM actions, or items removed/installed due to forced removal or scheduled maintenance.

(9) Determine possible training or deficient test equipment problems, as indicated by No Defects (A-799) actions.

(10) Identify TD actions for a particular WUC, Assembly Cd, aircraft BUNO, etc.

(11) Determine the number of flight aborts caused by mechanical failures, what caused them, when the malfunctions occurred (before flight or while in flight).

(12) Identify the number of items processed and man-hours expended for discrepancies discovered during acceptance inspections.

(13) Identify the number of malfunctions discovered during functional check flights (FCF), indicating possible poor quality maintenance or need for training.

14.2.3 DECKPLATE Flight, Maintenance, Supply, and Miscellaneous Ad Hoc Reports

DECKPLATE and On-Line Analytical Processing Cubes facilitates the creation, storage and sharing of reports. DECKPLATE reports can be substituted for MDR, SCIR, NAVFLIRS and MR Reports.

14.2.3.1 Command Production Report (DP-0004)

The DP-0004 report lists all completed maintenance data for a selected period.

14.2.3.2 Items Processed by Bureau/Serial Number (DP-0009)

The DP-0009 report lists, by aircraft BUNO, the total number of items processed, and the corresponding MAL Code limiting the equipment from performing its assigned mission or function during the reporting period.

14.2.3.3 Man-Hours by TEC, Work Unit Code, and Transaction Code (DP-0010)

The DP-0010 report lists Man-Hours in relationship to the ORG Code, TEC, WUC, and Transaction Code.

14.2.3.4 Maintenance Level 1 Man-Hours by Work Unit Code and ORG Code (DP-0011)

The DP-0011 report lists Maintenance Level 1 Man-Hours by WUC, then by ORG Code from the JCN.

14.2.3.5 Maintenance Level 1 Repairs (DP-0012)

The DP-0012 report lists Maintenance Level 1 maintenance actions, by WUC, that required repairs to be done on an aircraft.

14.2.3.6 Flight Hours by Operation Code (DP-0014)

The DP-0014 report lists total number of flight hours by Operation Code, grouped by Owner ORG Code, depart date, and TEC.

14.2.3.7 Detailed Failed Parts H – Z (DP-0016)

The DP-0016 report lists total failures by WUC and P/N from the failed material section (blocks H through Z) of the MAF or WO. Further details are provided by MAL Description and AT codes.

14.2.3.8 Detailed Flight and Inventory (DP-0017)

The DP-0017 report lists totals of aircraft inventory, aircraft utilization activity levels, aircraft flight hours, and readiness information. Report data comes from RT79 data with the exception of Landings, Arrested Landings, and Catapult/JATO counts, which come from individual flight records.

14.2.3.9 Org Maintenance Actions/Verified Failures (DP-0020)

The DP-0020 report identifies equipment problems defined in terms of verified failures, total man-hours, total elapsed Maintenance time, NMC hours, PMC hours, and aborts at the O-level.

14.2.3.10 NMC/PMC by Part Number or WUC (DP0021/26)

The DP-0021/26 report identifies equipment problems defined in terms of total NMC hours, NMCM hours, Component NMCS hours, total Component PMC hours, Component PMCM hours and Component PMCS hours by P/N or WUC.

14.2.3.11 Org Removals/IMA Actions (DP-0022)

The DP-0022 report lists the removed P/N from the O-level, and the AT and MAL Code done at the I-level. MAL Description and AT codes from the I-level provide information on component repair actions and component failure history.

14.2.3.12 IMA Component Action Summary (DP-0023)

The DP-0023 report provides information by Action Org and head of family (HOF) national item identification number (NIIN) of all IMA ATs to enable comparison of all organizations for a particular TEC/HOF NIIN.

14.2.3.13 Top Degrader by TEC (DP-0024)

The DP-0024 report is a ranked and weighted report based on Total Degradation. The report assigns a weighted value to aviation depot level repairable (AVDLR) Cost, Component NMC Hours, and Total Maintenance Man-Hours, and then adds up the weighted values to assign an overall total Degradation Value. The report is based on the user-selected HOF NIIN. Each line of the report will reflect information for a single CAGE/P/N.

14.2.3.14 Serial Number Tracking (DP-0025)

The DP-0025 report lists the Removed/Installed Serial Number for both O-level and I-level, and the P/N from the O-level and what AT and MAL Description Code was done at the I-level. The report provides a close look at component repair actions taken on removed items and facilitates examination of component failure history.

14.2.3.15 Degrader Snapshot by HOF NIIN (DP-0027)

The DP-0027 report provides information on component failures by HOF NIIN. Combined with the DP-0028 report, the DP-0027 provides a detailed snapshot of one item from the Top Degrader Report (DP-0044, paragraph 14.2.3.28).

14.2.3.16 Degrader Snapshot by HOF NIIN, Org and IMA (DP-0028)

The DP-0028 report combines component failures by HOF NIIN, specific ORG and IMA information. Combined with the DP-0027 report, the DP-0028 provides a detailed snapshot of one item from the Top Degrader Report (DP-0044, paragraph 14.2.3.28).

14.2.3.17 Org Verified Failure/Non-Failure Analysis by TEC/WUC (DP-0029)

The DP-0029 report separates each maintenance action and NMC action by selected TEC/WUC, with an AT/MAL Description Code combination, to enable analysis by "verified failures" and "non-failures".

14.2.3.18 Aircraft Readiness/Tracker Indicator Rates (DP-0032)

The DP-0032 report provides monthly aircraft inventory and readiness levels in terms of flight hours, average number of aircraft in the reporting inventory, and percentages of EIS hours reported. Also displayed are utilization rate, organizational direct maintenance man-hours, and I-level RFI and BCM rates.

14.2.3.19 NMC/PMC Reliability by Part Number (DP-0033)

The DP-0033 report provides information on NMC and PMC maintenance actions, man-hours, and EMT for equipment, by P/N.

14.2.3.20 NMC/PMC Reliability by WUC (DP-0034)

The DP-0034 report provides information on NMC and PMC maintenance actions, man-hours, and EMT for equipment, by WUC.

14.2.3.21 Part Number NIIN WUC Cross Reference (DP-0035)

The DP-0035 report associates NIIN to P/N/CAGE to WUC combinations that have reported maintenance actions. Each line represents a single combination and the number of times it occurs within the filtered parameters.

14.2.3.22 Aircraft Readiness/Tracking Indicators Hours Report (DP-0036)

The DP-0036 report provides monthly aircraft inventory and readiness levels in terms of flight hours, average number of aircraft, and EIS hours report for: NMCM, NMCS, MC, PMC, PMCS, FMC. Also displayed are utilization rate, organizational Direct Maintenance Man-hours, and I-level RFI and BCM.

14.2.3.23 Org Verified Failures/Non-Failures Analysis by Part (DP-0037)

The DP-0037 report lists each OOMA Maintenance action and NMC action by selected Part in an AT, MAL Code combination to enable analysis of verified failures and non-failures.

14.2.3.24 Part Number NIIN Cross Reference (DP-0040)

The DP-0040 report is a cross-reference from a P/N to a NIIN for Removed Parts reported in Maintenance Tasks having TEC beginning with A, B, K, or N and lists the HOF NIIN, FGC, COG, and related cost information.

14.2.3.25 Type Mission Requirements Report (DP-0041)

The DP-0041 report lists number of flights, flight hours, number of ship flights, and ship flight hours, and the Type Mission Requirements (TMR) codes and associated TMR flight hours by date, owner ORG code, TEC, and BUNO for a specified time frame. Catapult shots, arrested landings, and ship operations data are drawn from the raw flight data. The DP-0041 report should not be used for periods prior to 1985.

14.2.3.26 Technical Directives Report (DP-0042)

The DP-0042 report lists all TDs completed by a unit during the selected reporting period.

14.2.3.27 Detailed Consumables Report (DP-0043)

The DP-0043 report lists all H - Z consumable data during the selected reporting period.

14.2.3.28 Top Degrader by Type/Model (DP-0044)

The DP-0044 report is a ranked and weighted report based on Total Degradation. The report assigns weighted value to AVDLR Cost, Component NMC Hours, Total Maintenance Man-Hours and then adds up the weighted values to assign an overall total Degradation Value. The report is based on the user selected HOF NIIN. Each line of the report reflects information for a single CAGE/P/N.

14.2.3.29 AV3M AIMD Chronicle Repairable Item Disposition Summary (DP-7096-02)

The DP-7096-02 report lists 12 months of summarized information on an IMA's production. Its purpose is to highlight areas requiring additional investigation or corrective action and to provide a measurement of IMA production.

14.2.3.30 AV3M AIMD Chronicle Repairable Item Turn Around Time Summary (DP-7096-03)

The DP-7096-03 report lists 12 months of summarized information on an IMA's TAT. Its purpose is to highlight areas requiring additional investigation or corrective action and to provide a measurement of IMA production.

14.2.3.31 AV3M AIMD Chronicle Repairable Item Turn Around Time Recap (DP-7096-04)

The DP-7096-04 report lists summarized information on an IMA's productivity. Its purpose is to highlight areas requiring additional investigation or corrective action and to provide a measurement of IMA production.

14.2.3.32 AV3M AIMD Chronicle Productivity (DP-7096-05)

The DP-7096-05 report lists 12 months of summarized information on an IMA's productivity by Action Taken B/C/Z/1/2/3/4/5/6/7/8 and 9 item process. Its purpose is to highlight areas requiring additional investigation or corrective action and to provide a measurement of IMA production.

14.3 MDS Analysis Products

14.3.1 Introduction

The MDS provides the ability to analyze the performance of a single activity, aircraft, or system, and the aggregated performance of the entire population. This section discusses typical analysis products.

14.3.2 Job average (Direct Maintenance Man Hours (DMMH) per job)

a. Purpose: Analysis of the job average (the average number of man-hours required to accomplish a specific job) is often used in conjunction with manning studies, workload scheduling, and similar managerial applications. Job averages may be limited to the man-hours contributed by a single work center or include the man-hours documented by all work centers.

b. Sources of Data: DP-0033/DP-0034.

c. The following describes a typical method of computing a job average when only one work center and one maintenance action are involved:

(1) The WUC, AT code, and MAL code defining the job will be determined locally.

(2) Using the DP-0033/DP-0034, extract the items processed and man-hours shown on all lines listed for the specific job (Columns WUC, AT, MAL, IP, and MHRS).

(3) To compute job average, divide the total man-hours by the total items processed. To ensure best results, data for an extended period should be used.

14.3.3 High Man-hour, Maintenance Action, and Failure Rate Items

a. Purpose: Analysis of items that consume the most man-hours, require the highest number of maintenance actions (items processed), or have a high failure rate may reveal material deficiencies, improper maintenance practices or lack of personnel proficiency.

b. Sources of Data: DP-0033/DP-0034.

c. Extraction of Data.

(1) High Man-hour Consumers. Select the five systems that consumed the highest number of man-hours. To do this, compare each total for subsystem line on the DP-0033/DP-0034. The DP-0034 report sorts by WUC in rank order from highest man-hours to lowest man-hours.

(2) High Maintenance Action Items. Select the five systems with the highest number of items processed. From each of these systems, select the five WUCs with the highest number of IP.

(3) High Failure Rate Items. To identify high failure rate items, it is first necessary to eliminate data on non-failure entries as indicated by the AT and MAL codes listed below. After eliminating non-failure items, select the five high systems by comparing system totals. From these five systems, select the five high WUCs (items) by comparing the items processed totals obtained for each WUC (Columns WUC, AT, MAL, and IP). The DP-0033 report sorts by part number in rank order from highest NMC and PMC impact to lowest NMC and PMC impact.

d. Special Instructions:

(1) The actual number of systems and items to be extracted will be governed by the needs of management. The high-five selection outlined in this manual is only one of the many combinations that may be used.

(2) All duplicate entries for the same failure must be lined out.

(3) A list of non-failure codes is as follows (Appendix E) contains the complete code lists):

(a) AT Code A, D, J, L, N, P, Q, S, T, and Y.

(b) MAL Code 799, 800, 801, 804, 805, 806, 807, 811, 812, 813, 814, 815, 816, 817, and 818.

(4) Extracted data are normally provided to management in a tabular format. Items may be sequenced by magnitude of man-hours or items processed within their respective system. Descriptive terminology, part numbers or CAGE may be used in lieu of the WUC.

14.3.4 Component Reliability Trends

a. Purpose: Analysis of The reliability of components and parts of components can be determined by the use of DECKPLATE reports. Using the reports and analyzing the data contained within, it is possible to compare the number of failures documented for a specific component or its parts to a computed control limit and thus identify items having an excessive rate of failure. Corrective measures to lower the failure rate for these items should then be started by management.

b. Sources of Data. DP-0033/DP-0034.

c. Further purification of data contained in the DP-0033 or DP-0034 should not be required. Items Processed is used in the report and includes verified failure information by either P/N or WUC respectively.

14.3.5 Cannibalization Trend

a. Cannibalization Trending provides information on the extent of cannibalization, identifies the aircraft or equipment or parts involved, and provides detail on man-hours expended for cannibalization actions. The cannibalization man-hours per flight hour figure, when compared to

the direct maintenance man-hour per flight hour figure, indicates the additional cost in man-hours attributed to cannibalization.

b. Sources of Data: MAINT-6/DP-0017/DP-0041

(1) Cannibalization Trend:

(a) To obtain the total items cannibalized, select the total items processed for AT Code T or select MAL Codes 812, 813, 814, 815, 816, 817 and 818 (MAINT-6).

(b) To obtain the total man-hours spent in cannibalization, select total man-hours listed for AT Code T (Columns AT and MHRS, on MAINT-6).

(c) To obtain cannibalization man-hours per flight hour divide total man-hours expended due to cannibalization by TOTAL FLIGHT HOUR (BUNO total hours on DP-0017/DP-0041).

c. Cannibalization Summary. To identify items cannibalized, extract WUC, TEC, BU/SERNO, items processed, man-hours, CAGE, and part number for all lines containing AT Code T (Columns WUC, TEC, BU/SERNO, AT, Items/P, MHRS, MFG, and part on the DP-0017/DP-0041).

d. Examination of Data.

(1) A review of trend chart will show overall status of cannibalization within activity.

(2) Data in the summary are used to identify specific items cannibalized, quantity of each type item involved, which type items are repeats, and equipment from which items were removed.

(3) Any increase in rate of cannibalization should be of immediate concern to management. Those items that are frequently cannibalized merit special investigation to determine the cause.

(4) Special Instructions.

(a) The cannibalization summary may be modified to include additional data.

(b) Include comments on significant problem areas discovered during analysis.

14.3.6 Abort Malfunctions

a. This chart is designed to show which aircraft failed to fulfill their scheduled mission (abort) because of malfunctioning equipment. It identifies, for management, aircraft systems/components causing aborts, number of items involved, and when abort malfunctions occurred (before or in flight).

b. Sources of Data: MAINT-6.

c. Extraction of Data.

(1) Select WD Codes A and C from the MAINT-6 query menu.

(2) Use only those lines containing the applicable TEC.

(3) Section I - When Malfunctions Occurred:

(a) Total abort malfunctions. Sum of items processed with WD Codes A and C.

(b) Before flight-abort. The sum of IP with WD Code A.

(c) In flight-abort. The sum of IP with WD Code C.

(4) Section II - Malfunction by System. To obtain these figures, determine number of IP with WD Codes A and C within each system. The system is identified by first two positions of the WUC.

(5) Section III - Maintenance Required.

(a) Required maintenance. The sum of IP with WD Codes A and C except those listed in conjunction with AT Code A.

(b) Required no maintenance. The sum of IP with WD Codes A and C listed in conjunction with AT Code A.

d. Examination of Data.

(1) This summary does not identify the number of aircraft aborts occurring during the reporting period. The figures represent only the reported number of items (or malfunctions) involved in aborts. In some cases, more than one item or malfunction will be attributed to the same abort. Weather and other factors may also cause aborts, hence, the apparent inconsistency.

(2) Possible trouble areas may be revealed by study of the data. For example, a high number of malfunctions discovered before flight may indicate inadequate turnaround inspections; numerous defects in a certain system may point out a need for engineering changes; and a substantial number of reported malfunctions that require no maintenance may be an indication of poor troubleshooting or improper equipment operation.

14.3.7 Maintenance Man-hours by Bureau Number

a. This information enables maintenance managers to determine which aircraft required a large amount of direct maintenance man-hours, and what type of maintenance was performed.

b. Source of Data: MAINT-5.

c. Extraction of Data. Further data extraction is not required when using the MAINT-5 report. This report computes DMMH per flight hour automatically by BUNO.

14.3.8 Maintenance Man-hours Per Flying Hour and Sortie Chart

a. In this paragraph are guidelines for computing the number of maintenance man-hours required to produce a single flying hour or sortie for a given type of aircraft. These man-hour figures, or factors, may be developed for individual work centers or an entire squadron maintenance department. The same method of computation will apply to each.

b. Sources of Data: MAINT-5 or MAINT-6

(1) Total hours flown. Total flight hours listed for the selected type aircraft from the FH column on the MAINT-5.

(2) Total sorties flown. Total flights listed for the selected type aircraft from the FLT column on the MAINT-5.

(3) Maintenance Man-Hours Expended.

(a) For a work center, the sum of production man-hours listed for the TEC identifying the selected type of aircraft. The MAINT-6 report can be run for a single work center (if required).

(b) For a squadron maintenance department, the total production man-hours listed for the TEC identifying the selected type of aircraft.

(4) Computation of maintenance man-hours per flying hour and sortie. To obtain the maintenance man-hours per flying hour and sortie, use the following formulas:

$$\frac{\text{Total Maintenance Man-hours}}{\text{Total Hours Flown}} = \text{Maintenance Man-hours Per Flying Hour}$$

$$\frac{\text{Total Maintenance Man-hours}}{\text{Total Sorties Flown}} = \text{Maintenance Man-hours Per Sortie}$$

c. Examination of Data.

(1) Maintenance man-hour per flying hour figure is generally employed as an index of cost, in terms of maintenance, of supporting an hour of aircraft flight (the lower the index, the lower the man-hour cost).

(2) Typical factors that may cause fluctuations in the maintenance man-hour per flying hour figure are:

(a) A reduction in flying hours (a high index may result due to fewer flight hours to disperse the man hours expended on special inspections, and fewer flight-hour based inspections).

(b) An increase in flying hours (a lower index may result due to more flight hours to disperse the man hours expended on special inspections, or a higher index could occur due to increased hourly-based inspections).

(c) Shortening the sortie length can materially reduce the total hours flown while maintenance remains stable (a high index may result).

(d) Unforeseen maintenance, such as airframe or engine modification, can ground the aircraft and at the same time cause increased maintenance (a high index may result).

(e) Decreased maintenance may occur as the result of reduced inspection requirements, improvements in work methods or facilities, etc., while flying hours remain stable (a lower index may result).

(f) An increase in total flying hours will not always necessitate additional maintenance (a lower index may result).

(3) The maintenance man-hours per sortie can be used essentially in the same manner as described for flying hours. Fluctuations in this man-hour figure can result from increases or decreases in sorties flown, changes in sortie length, unforeseen maintenance, and similar factors.

14.3.9 Awaiting Maintenance (AWM) Reason Code Summary

a. An AWM Reason Code Summary is designed to show the various AWM codes by reason. It provides the manager with an overall picture of where and how much time was consumed awaiting maintenance.

b. Source of Data: MAINT-3.

c. Extraction of Data. The MAINT-3 report provides EOC Code, WUC and all associated man-hours including a break-down of each AWM Code and associated man-hours.

d. Special Instructions. The MAINT-3 report lists total hours AWM by EOC and associated WUC, and total number of hours for each AWM Code is displayed.

14.3.10 Mission Capability Degradation Summary

a. The Mission Capability Degradation Summary reflects the degradation of mission capability by maintenance condition. This data will provide managers of equipment the reasons equipment was NMC, that is, NMCMS, NMCMU, or NMCS.

b. Sources of Data: MAINT-2 and MAINT-3.

(1) The MAINT-3 shows the maintenance conditions that impaired the mission capability of the equipment for that reporting period, based on the EIS hours.

(2) Total SCIR hours column denotes the total hours documented to a valid EOC by WUC. The SCIR system has the capability to include all discrepancies that impact the mission capability of equipment; therefore, the total SCIR hours column may be greater than the aircraft in service hours column which shows the total EIS hours. Enter appropriate comments, as required, to explain the data.

14.3.11 Mission Capability Trend

a. The Mission Capability Trend may be used to portray equipment mission capabilities.

b. Source of Data: MAINT-4.

14.3.12 Repair of Removed Components

a. This report provides a detailed look at component repair actions taken on removed items and facilitates examination of component failure history and a snapshot by Action Org and Head

of Family NIIN of all IMA ATs. A comparison may also be made of all organizations for a particular TEC or Head of Family NIIN.

b. Sources of Data: DP-0022 and DP-0023.

14.3.13 High-Five EOC Degradation by Mission Capability Category Chart

a. The High-Five EOC Degradation by Mission Capability Category Chart may be used to present the high-five EOC degradation by mission capability category (FMC, PMC, NMC).

b. Source of Data. MAINT-3.

14.4 O-level and I-level Data Analysis

14.4.1 Introduction

The primary purpose of O-level and I-level data analysis is to identify unsatisfactory trends in performance and provide information to support management actions to improve performance. This section directs minimum data analysis requirements. Commanding Officers and Maintenance Officers should direct additional requirements as deemed necessary to fully monitor maintenance performance.

14.4.2 Data Analyst

Activities will assign at least one individual qualified as a System Administrator/Analyst (13.2.2.1) as their Data Analyst. Duties:

a. Produce the Aviation Maintenance and Material Management (AV3M) Summary (14.4.3 or 14.4.4).

b. Review MDRs (14.3) for accuracy and conduct training to reduce the error rate.

c. (O-level) Review NAVFLIR data and validate flight hours and landings weekly.

d. (O-level) Screen and validate the CGPN Exceptions.

e. Conduct training in documentation procedures and the use of MDS reports.

f. Maintain files (electronic or hardcopy) of any MDRs (14.2), analysis products (14.3) the activity has reviewed, and the Monthly Maintenance Summaries for, at a minimum, the last 24 months.

g. Ensure data is reported up-line to the top-tier and DECKPLATE central repository.

h. Stay current with MDS issues by reviewing information on the NIWC Atlantic customer support site (https://sailor.navy.mil).

i. Provide a NALCOMIS MAINT-2 report for each aircraft transfer.

14.4.3 O-level AV3M Summary

14.4.3.1 No later than the 10th working day of each month, O-level activities utilize OOMA Ad Hoc capabilities on the local system, MAINT 1-6 reports, or standardize reports available in

DECKPLATE and produce a monthly AV3M Summary and trend charts with a minimum of 6-months of data. The summary will contain:

a. Aircraft Readiness and Utilization Metrics

(1) MC%

(2) FMC%

(3) Total Flights

(4) Total Flight Hours

(5) Average Utilization

b. Mission Capability Impact Metrics

(1) Equipment In Service Hours

(2) Equipment Out of Service Hours

(3) Total SCIR Hours

(4) NMCM Hours

(5) NMCS Hours

(6) NMCD Hours

(7) PMCS Hours

(8) PMCM Hours

c. Manpower Utilization Metrics

(1) Total DMMH

(2) DMMH per Flight Hour

(3) NMC Scheduled Man Hours

(4) NMC Unscheduled Man Hours

(5) PMC Unscheduled Man Hours

(6) Corrosion Prevention Man Hours

(7) Corrosion Treatment Man Hours

(8) PDM/IMC Man Hours

(9) Conditional Inspection Man Hours

(10) Technical Directive Compliance Man Hours

(11) Total AWM Hours

(12) AWM M1/M2/M3/M4/M5/M6/M7/M8 Hours

(13) Total Cannibalization Man Hours per 100 Sorties

d. Material Support Metrics

(1) NMC Supply Hours

(2) Top Five NMCS WUCs

(3) PMC Supply Hours

(4) Top Five PMCS WUCs

(5) Total Cannibalizations

(6) Cannibalization Rate per 100 Sorties

(7) Top Five Cannibalization WUCs

(8) Number of A799 (no defect) items processed and WUC

e. Data Integrity Metrics

(1) NMC Hours documented on WUC 1000000

(2) NMC Hours documented on Special Inspections

(3) NMC Hours documented on System Level WUCs (XX000)

(4) NMC Hours documented on OOR aircraft

(5) NMC Hours documented on TDs

14.4.3.2 The AV3M Summary charts will contain a timeline with information on events that influenced operations during the period, such as deployments, training detachments, and holiday stand down periods.

14.4.3.3 The MMCO and MMCPO will brief the AV3M Summary to the MO and AMO. The brief will include:

a. Analysis of the causes of increased or decreased performance.

b. Recommendations for actions to improve performance.

c. Forecast of future performance based on upcoming events and actions required to prevent unsatisfactory readiness.

14.4.3.4 Activities will provide a copy of their AV3M to their Type Wing or MAG. The Type Wing/MAG will compile an aggregate AV3M Summary and perform statistical analysis of average rates and standard deviation ranges, by T/M/S aircraft. The data will be provided to squadrons to enable them to compare their performance against the Wing/MAG average.

14.4.3.5 To further assist in evaluating performance, COMNAVAIRSYSCOM will perform statistical analysis of the average rates and standard deviation ranges for the metrics for the entire T/M/S population.

14.4.4 I-level AV3M Summary

14.4.4.1 No later than the 10th working day of each month, I-level activities will utilize OIMA Ad Hoc capabilities on their local system, standardize reports available in DECKPLATE, or Buffer Management Tool (BMT) data to produce a monthly AV3M Summary and trend charts with a minimum of 6-months of data. The summary will contain:

a. Productivity Metrics

(1) Total Inductions

(2) Overall RFI Rates

(3) Total Inductions Per Division

(4) Division RFI Rate

(5) Total Inductions by Work Center

(6) Work Center RFI Rate

b. Customer Support Metrics

(1) Total EXREPs Processed

(2) Top Five (5) EXREP WUCs

(3) Total EXREPs Per Division

(4) Top Five EXREP WUCs Per Division

(5) Number of When Discovered Y code (Defective Upon Receipt) items processed, by WUC

c. Manpower Utilization Metrics

(1) Total DMMH

(2) DMMH Per Division and Work Center

(3) Technical Directive Compliance Man Hours

(4) Total AWM Hours

(5) AWM M1/M2/M3/M4/M5/M6/M7/M8 Hours

(6) Total Cannibalization Man Hours

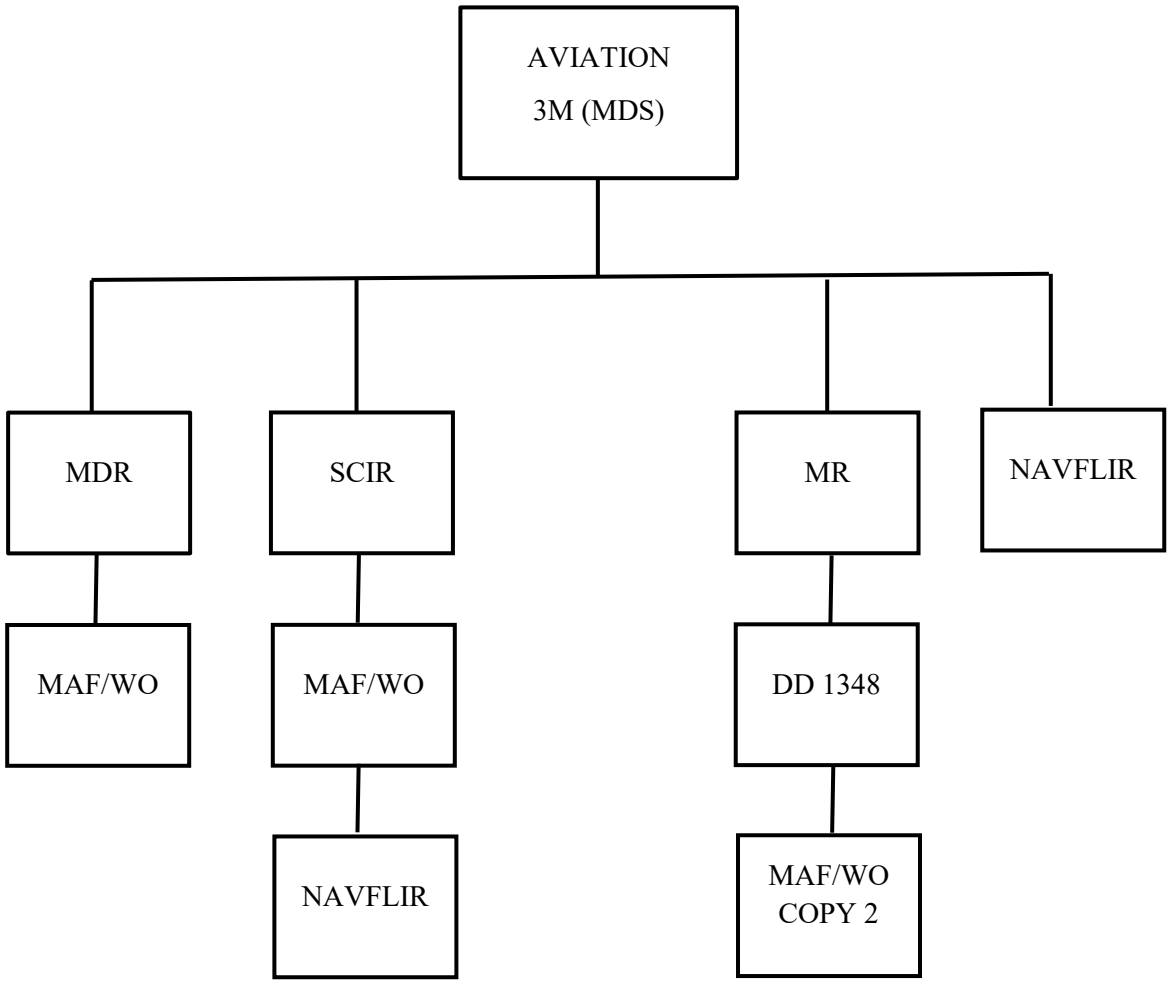
14.4.4.2 The AV3M Summary charts will contain a timeline with information on events that influenced operations during the period, such as deployments and holiday stand down periods.

14.4.4.3 The MMCO and MMCPO will brief the AV3M Summary to the MO and AMO. The brief will include:

a. Analysis of the causes of increased or decreased performance.

b. Recommendations for actions to improve production.

c. Forecast of future production based on upcoming events, and actions required to prevent unsatisfactory production.



SOURCE DOCUMENTS

MDR: Maintenance Data Report

MAF: Maintenance Action Form/WO: Work Order

MR: Material Report

NAVFLIR: Naval Aircraft Flight Record

DD 1348: DOD Single Line Item Request System Document

Figure 14-1: Elements of the Naval Aviation Maintenance Data System

CODE	NO. OF CHAR	ALPA NUMERIC OR ALPHA/ NUMERIC	SOURCE DOCUMENTS USED ON	WHERE LISTED	RESPONSIBLE FOR ASSIGNMENT AND CONTROL
Action Taken Code	1	A/N	MAF or WO	Appendix E WUC Manual	COMNAVAIRFOR (N422D)
Technical Directive Code	2	N	MAF or WO	Appendix E	COMNAVAIRFOR (N422D)
Malfunction Description Code	3	A/N	MAF or WO	Appendix E WUC Manual	COMNAVAIRFOR (N422D)
Organization Code	3	A/N	All	Appendix E	COMNAVAIRFOR (N422D)
Permanent Unit Code	6	N	MAF or WO	OPNAV Notice	CNO
System Code	2	N	MAF or WO DD 1348	WUC Notice	COMFRC FST HQ Tech Data Dept
TD Status Code	1	A	MAF or WO	Appendix E	COMNAVAIRFOR (N422D)
Type Equipment Code	4	A/N	All	Appendix E	COMNAVAIRFOR (N422D)
Type Maintenance Code	1	A/N	MAF or WO	Appendix E WUC Manual	COMNAVAIRFOR (N422D)
When Discovered Code	1	A	MAF or WO	Appendix E WUC Manual	COMNAVAIRFOR (N422D)
Work Center Code	3	A/N	MAF or WO	Appendix E	COMNAVAIRFOR (N422D)
Work Unit Code	1, 3, 5, or 7, 8 thru 32	A/N	MAF or WO DD 1348	Appendix E WUC Manual	COMFRC FST HQ Tech Data Dept

Time/Cycle Prefix Code	1	A	MAF or WO	Appendix E	COMNAVAIR FOR (N422D)
AWM Reason Code	1	N	MAF or WO	Appendix E WUC Manual	COMNAVAIR FOR (N422D)
Transaction Code	2	N	MAF or WO	Appendix E WUC Manual	COMNAVAIR FOR (N422D)
Total Mission Requirement	3	A/N	Naval Aircraft Flight Record	OPNAVINST 3710.7	CNO
Inventory Code	1	A/N	MAF or WO	Appendix E	COMNAVAIR FOR (N422D)
Position Sensitive Indicator	2	A/N	MAF or WO	WUC Manual	COMFRC FST HQ Tech Data Dept
EOC Code	3 (NOTE 1)	A/N	MAF or WO	MESM (NOTE 2)	CNO
Assembly Code (OOMA NALCOMIS application use only)	4	A/N	WO	OOMA Assembly Catalog	COMFRC FST HQ Tech Data Dept

NOTES: 1. The first character (alpha) is recorded on the MAF or WO. The second and third characters (numeric) are computer generated from the WUC documented on the MAF or WO.

2. T/M/S MESMs are provided on CNAP Share Point website https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/ under Quick Links, MESMs.

Figure 14-2: MDS Code List

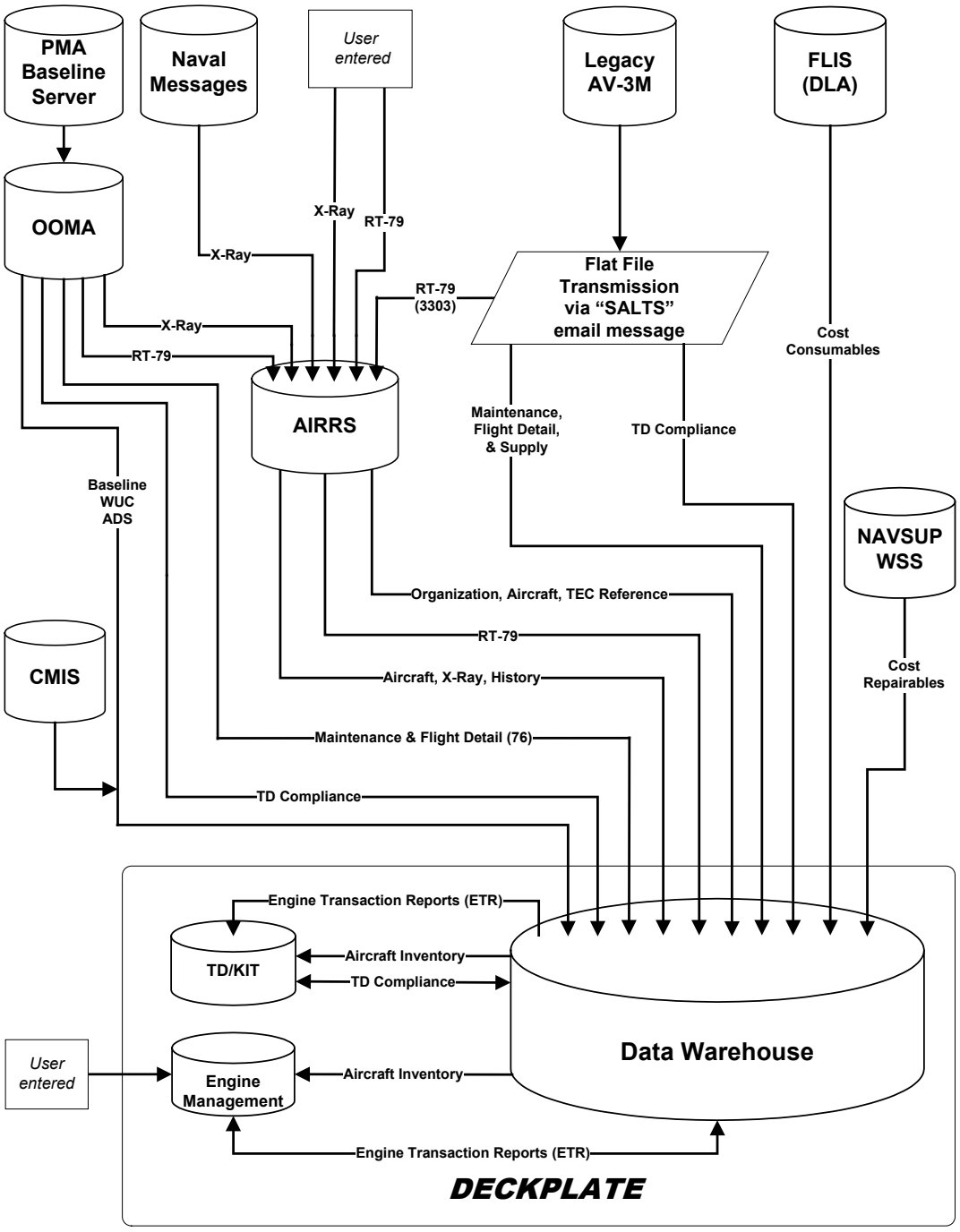


Figure 14-3: DECKPLATE Flow Process

ORG : AP2
ORG Name : VS-24
Assy Cd : AEBC
TMS : E_2C
Modex : 812
BUNO : 165812

NALCOMIS OMA
MAINT-1 REPORT
(CONSOLIDATED PERFORMANCE METRICS)
01 JAN 2007 0000 – 31 JAN 2007 2359

DATE : 28 FEB 2007
TIME : 1807
REQ BY : CIV F DOOLEY
PAGE : 1 of 10

NOTE: THIS REPORT ONLY REFLECTS DATA THAT IS CURRENTLY RESIDENT ON YOUR ACTIVITY'S FOUNDATION TIER DATABASE. IT WILL NOT REFLECT ANY DATA ASSOCIATED WITH ASSETS THAT ONCE RESIDED BUT ARE NOW TRANSFERRED FROM YOUR ACTIVITY. FOR A MORE COMPREHENSIVE REPORT THAT WILL INCLUDE ADDITIONAL DATA THAT IS NOT AVAILABLE DURING TIME OF REPORT EXECUTION, PLEASE UTILIZE THE 'OFFICIAL' REPORTS THAT ARE AVAILABLE AT THE NAVAIR LOGISTICS WEB SITE.

BUNO Detailed Information

TOTAL EIS:	744	FLTHRS:	0.0	TOTAL W/D "Y"	0
AVG ACFT:	1.0	FLTS:	0	TOTAL ACFT DMMH:	0.0
MC%:	100.0	AVG UTIL:	0.0	ACFT DMMH/FLTHR:	0.0
FMC%:	100.0	AVG FLT DURATION:	0.0	CORR PREV MHRS:	0.0
NMCS%:	0.0	TOTAL CANN I/P:	0	CORR TREAT MHRS:	0.0
NMCM%:	0.0	TOTA L CANN MHRS:	0.0	FLTHRS – SHIP:	0.0
PMCS%:	0.0	CANNS/100 FLTHRS:	0.0	FLTS – SHIP:	0
PMCM%:	0.0	A-799 I/P:	0	BEFORE FLT ABORTS I/P:	0
		A-799 MHRS:	0.0	IN- FLT ABORTS I/P:	0

Figure 14-4: Consolidated Performance Metrics (MAINT-1 Report) (Sample)

ORG : KC7
ORG Name : VAW-78
PUC : 001151

NALCOMIS OMA
MAINT-2 REPORT
(AIRCRAFT READINESS DEGRADATION AND UTILIZATION SUMMARY)
01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
TIME : 0716
REQ BY : CIV A DBADMIN
PAGE : 1 of 1

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

Assy Code	MODEX	BUNO	NMC Scheduled	NMC Unscheduled	NMC Supply	NMCD	PMC Maintenance	PMC Supply	FMC	EIS	EOS	Aircraft Status Code	Total Flight Hours	Total Number Flights	Ship Flight Hours	Operation Number Flights	Total SCIR Hours
AEBC	600	161229	14	346	45	0	291	24	0	720	0	A	31.5	9	0	0	8548
	601	162619	44	159	137	0	253	127	0	720	0	A	46.9	16	0	0	3769
	602	162802	14	108	17	0	504	3	74	720	0	A	78.3	25	0	0	1744
	604	163028	115	239	9	0	334	23	0	720	0	A	30.9	10	0	0	7422
	*** TOTALS**		187	852	208	0	1382	177	74	2880	0		187.6	60	0	0	21483
	**** TOTALS**		187	852	208	0	1382	177	74	2880	0		187.6	60	0	0	21483

Figure 14-5: Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) (Sample)

ORG : WA6
ORG Name : VX-20
Assy Cd : AEBC
TMS E-2C

NALCOMIS OMA
MAINT-3 REPORT
(SUBSYSTEM CAPABILITY IMPACT REPORTING BY WUC/UNS)
09 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 09 JUL 2003
TIME : 0937
REQ BY : AZ1 R SMITH
PAGE : 4 of 4

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

EOC	WUC/UNS	Total SCIR Hours	PMC Maint Hours	PMC Supply Hours	NMC Schd Hours	NMC Unschd Hours	NMC Supply Hours	NMCD Hours	M1 Hours	M2 Hours	M3 Hours	M4 Hours	M5 Hours	M6 Hours	M7 Hours	M8 Hours	Total AWM Hours
C	56251	528	528								528						528
C	67X2D00	19	19								18						18
D	6361700	528	528								528						528
D	67X2D00	27	27								25						25
E	726DL00	101	1	100													0
E	726E400	109	9	100							5						5
J	4191260	528	528								528						528
L	631U0	71	70	1							68						68
L	734H500	13	13								11						11
*	TOTALS	1924	1723	201	0	0	0	0	0	0	1711	0	0	0	0	0	1711
			89.55%	10.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Z	030 Conditional Insp	10				10					2						2
Z	030000A	392			392						383						383
Z	030000B	52			52						48						48
Z	030000E	340			340						326						326
Z	03A0000	304			304						301						301
Z	12220	5				5					4						4
Z	13G1400	16				15	1				11						11
Z	51E2100	17				14	3				7						7
Z	63610	17				17					16						16
Z	6361300	10				10					8						8
Z	6361700	49				49					28						28
*	TOTALS	8076	0	0	1088	5808	1180	0	0	0	6652	0	0	0	0	0	6652
			0.00%	0.00%	13.47%	71.92%	14.61%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
**	TOTALS	10000	1723	201	1088	5808	1180	0	0	0	8363	0	0	0	0	02	8363
			17.23%	2.01%	10.88%	58.08%	11.80%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
***	TOTALS	15186	5237	1711	1088	5958	1192	0	0	0	11968	0	0	0	0	02	11968
			34.49%	11.27%	7.16%	39.23%	7.85%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

Figure 14-6: Subsystem Capability and Impact Reporting by WUC/UNS (MAINT-3 Report) (Sample)

ORG : KC7
ORG Name : VAW-78
Assy Cd : AEBC
TMS : E-2C
BUNO : 163028

NALCOMIS OMA
MAINT - 4 REPORT
(DETAIL MISSION AND MAINTENANCE DATA BY AIRCRAFT)
01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
TIME : 0718
REQ BY : CIV A DBADMIN
PAGE : 13 of 13

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

EOC	WUC/UNS	Total SCIR Hours	PMC Maint Hours	PMC Supply Hours	NMC Sched Hours	NMC Unsched Hours	N MC Supply Hours	NMCD Hours	JCN	Work Center	TRANS CD	When DISCVD	Type MAINT	Action Taken	MAL CD	Items Prcsd	MHRS	EMT	MCN
C	94192	44	37	7					KC7162181	210	23	B	B	R	374	1	2.3	2.3	0G4VFWN
C	94192	121	118	3					KC7164208	210	23	Y	B	R	374	1	1.5	1.5	0G4VFXT
D	728E0	720	720						KC7061496	210	12	H	B	B	160	1	22.6	22.6	0G4VCZJ
E	65320	4	4						KC7167257	210	11	D	B	C	127	1	0.8	0.4	0G4VG0D
E	65Y2700	37	31	6					KC7157067	210	18	O	B	T	815	1	1.0	1.0	0G4VFS1
E	65Y2700	21	21						KC7159103	210	23	Y	B	R	374	1	1.2	1.2	0G4VFTF
E	726D0	36	7	29					KC7168288	210	12	H	B	B	160	1	3.8	3.8	0G4VG11
L	734H500	3	3						KC7167254	220	11	D	B	C	160	1	1.2	1.2	0G4VGDB
L	734H600	34	34						KC7114485	220	11	O	B	S	800	0	2.0	2.0	0G4VEIS
L	734H600	28	27	1					KC7156036	220	18	O	B	T	815	1	0.5	0.5	0G4VFQG
* TOTALS		4607	4006	601	0	0	0	0											
			86.95%	13.05%	0.00%	0.00%	0.00%	0.00%											
Z	030	0							KC7161127	210	11	O	S	0	000	1	0.4	0.4	0G4VFUB
Z	030	1				1			KC7163187	120	11	O	S	0	000	1	0.7	0.7	0G4VFWU
Z	030000A	8			8				KC7138307	120	11	O	D	0	000	0	0.6	0.6	0G4VF4F
Z	1111D00	138				102	36		KC7107341	120	12	H	B	B	381	1	3.5	3.5	0G4VFAZ
Z	12146	223				223			KC7128134	110	23	H	B	R	127	1	0.3	0.3	0G4VEV4
Z	14F2300	1				1			KC7161129	220	12	A	B	B	374	1	2.4	1.2	0G4VFUL
Z	22300	181				181			KC7133D01	110	23	M	G	R	190	1	78.3	62.8	0G4VF10
Z	223D0	39				39			KC7148A02	110	11	M	G	C	127	1	2.8	2.8	0G4VF01
Z	223D1B0	72				72			KC7156023	110	23	H	B	R	314	1	20.2	16.7	0G4VFP1
Z	223D1J0	70				70			KC7155011	110	23	H	B	R	900	1	11.2	11.2	0G4VFV0
Z	223D330	43				43			KC7159102	110	12	H	B	B	127	1	12.9	12.9	0G4VFT1
Z	42518	27				27			KC7175452	220	12	H	B	B	070	1	0.4	0.4	0G4VFG8
Z	45E232A	24				24			KC7163199	120	12	H	B	B	381	1	2.5	2.5	0G4VFXL
Z	49110	19				19			KC7152553	220	11	H	B	C	105	1	0.7	0.7	0G4VFGM
Z	6418K00	54				51	3		KC7164207	210	18	O	B	T	815	1	0.1	0.1	0G4VFYZ
Z	726G300	3				3			KC7170341	210	23	D	B	R	374	1	0.8	0.8	0G4VG3K
* TOTALS		2815	0	0	1377	1369	69	0											
			0.00%	0.00%	48.92%	48.63%	2.45%	0.00%											
** TOTALS		7422	4006	601	1377	1369	69	0											
			53.97%	8.10%	18.55%	18.45%	0.93%	0.00%											
*** TOTALS		21506	12183	3947	2013	2875	488	0											
			56.65%	18.35%	9.36%	13.37%	2.27%	0.00%											

Figure 14-7: Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report) (Sample)

ORG : KC7
ORG Name : VAW-78

NALCOMIS OMA
MAINT-5 REPORT
(MAINTENANCE MANHOURS)
01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
TIME : 0721
REQ BY : CIV A DBADMIN
PAGE : 1 of 1

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

Assy Cd	BUNO	UNSCH MAINT	PHASE/PDM/IMC LOOK	PHASE/PDM/IMC FIX	ACPD/XFER INSP	COND INSP	SPECIAL INSP LOOK	SPECIAL INSP FIX	TDC	TOTAL MHRS	ACFT FLTHRS	DMMH/ FLTHRS
AEBC	161229	206.9	0	0	0	6.4	52.9	28.4	3.6	298.2	31.5	9.5
	162619	120.6	65.9	1.8	0	11.3	90.1	21.1	27.0	337.8	46.9	7.2
	162802	127.1	0	0	0	1.3	34.3	7.6	1.0	171.3	78.3	2.2
	163028	183.3	9.6	22.5	0	5.6	87.3	10.5	1.0	319.8	30.9	10.3
	*** TOTALS**	637.9	75.5	24.3	0	24.6	264.6	67.6	32.6	1127.1	187.6	6
	**** TOTALS**	637.9	75.5	24.3	0	24.6	264.6	67.6	32.6	1127.1	187.6	6

Figure 14-8: Maintenance Manhour (MAINT-5 Report) (Sample)

ORG : KC7
ORG Name : VAW-78

NALCOMIS OMA
MAINT- 6 REPORT
(DETAILED DATA EXTRACT)
01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
TIME : 0722
REQ BY : CIV A DBADMIN
PAGE : 26 of 26

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING .

Completed Date	WC	Assy Cd	BUNO	WUC/UNS	ML	TR	AT	MAL	IP	MHRS	EMT	WD	TM	REMOVED CAGE	REMOVED Part Number	REMOVED Serno	INSTALLED CAGE	INSTALLED Part Number	INSTALLED Serno	MCN
24 JUN2003	220	AEBC	163028	44210	1	11	C	105	1	0.2	0.2	J	D							0G4VG86
24 JUN 2003	220	AEBC	163028	44210	1	11	C	105	1	0.3	0.3	D	B							0G4VG7Z
20 JUN 2003	220	AEBC	163028	4422B	1	12	B	080	1	3.6	3.6	J	D							0G4VG46
24 JUN 2003	220	AEBC	163028	4422K	1	12	B	080	1	0.5	0.5	D	B							0G4VG7Y
16 JUN 2003	220	AEBC	163028	47A1140	1	11	C	160	1	0.3	0.3	C	B							0G4VGOF
02 JUN 2003	220	AEBC	163028	49110	1	11	C	105	1	0.7	0.7	H	B							0G4VFG3
11 JUN 2003	220	AEBC	163028	56250	1	11	A	799	1	0.3	0.3	D	B							0G4VFUH
22 JUN 2003	220	AEBC	163028	734H100	1	23	R	374	1	1.0	1.0	H	B	06481	68010020	HHX282	06481	68010020	GUG091	0G4VG3T
13 JUN 2003	220	AEBC	163028	734H100	1	18	T	815	1	4.9	4.9	O	B	06481	68010020	PQB074	06481	68010020	HHX282	0G4VFXG
07 JUN 2003	220	AEBC	163028	734H300	1	18	T	812	1	0.8	0.8	O	B	06481	68050012	SDT005	06481	68050012	SDT005	0G4VFPH
16 JUN 2003	220	AEBC	163028	734H500	1	11	C	160	1	1.2	1.2	D	B							0G4VG0B
02 JUN 2003	220	AEBC	163028	734H600	1	11	S	800	0	2.0	2.0	O	B							0G4VE18
07 JUN 2003	220	AEBC	163028	734H600	1	18	T	815	1	0.5	0.5	O	B	06481	680400-6	MHB004	06481	680400-6	LNE025	0G4VFQG
08 JUN 2003	310	AEBC	163028	030000A	1	11	0	000	0	2.5	2.5	O	D							0G4VFT1
07 JUN 2003	310	AEBC	163028	030000A	1	11	0	000	0	26.1	2.9	O	D							0G4VFEP
01 JUN 2003	310	AEBC	163028	030000A	1	11	0	000	0	0.3	0.3	O	D							0G4VF41
22 JUN 2003	310	AEBC	163028	030000A	1	11	0	000	0	18.0	3.0	O	D							0G4VG6X
03 JUN 2003	310	AEBC	163028	03A0000	1	11	0	000	0	0.5	0.5	O	G							0G4VEY6

Figure 14-9: Detailed Data Extract (MAINT-6 Report) (Sample)

CHAPTER 15

Organizational Level (O-Level) Maintenance Documentation Procedures

Table of Contents

15.1 INTRODUCTION 1
15.2 GENERAL WO PROCEDURES 2
15.2.1 Data Entry 2
15.2.2 Maintenance Control 2
15.2.3 Work Center Supervisors 3
15.2.4 WO Initiation 3
15.2.5 WO Completion 4
15.2.6 Work Order History 4
15.3 WORK ORDER DATA FIELDS 4
15.3.1 Work Order Identification 5
15.3.2 Removed/Old Item 7
15.3.3 Installed/New Item 8
15.3.4 Maintenance Information 8
15.3.5 Failed/Required Material Data (H-Z) 9
15.3.6 Discrepancy and Corrective Action 10
15.3.7 Names/Signatures 11
15.3.8 Miscellaneous Entries 11
15.3.8.1 Accumulated Work Hours 11
15.3.8.2 WO Update Job Status/Worker Hours: 11
15.3.8.3 OMA/IOU Turn-in notice 12
15.3.8.4 Local Use 12
15.3.8.5 Logset 12
15.4 CONTINGENCY PROCEDURES 12
15.4.1 Manual Documentation 12
15.4.2 Pre-recovery procedures: 13
15.4.3 Procedures: 14
15.4.4 Post Recovery Procedures: 15
15.5 SPECIFIC WORK ORDERS 16
15.5.1 Aircraft Repair 16

15.5.1.1 Troubleshooting 16
15.5.1.2 On Equipment Repair (Repairable Component Replacement) 16
15.5.1.3 Turn-In of Repairables and Locally Repaired Consumables 16
15.5.1.4 Receipt of Unsatisfactory Material from Supply 16
15.5.1.5 Cannibalization 17
15.5.1.6 Matched System Documentation 17
15.5.1.7 Assisting Work Center Documentation 17
15.5.1.8 Facilitate Other Maintenance (FOM) Action 18
15.5.1.9 Aircraft Tire and Wheel Documentation 18
15.5.1.10 Hosting Activity/Transient Maintenance 18
15.5.1.11 In-Flight Maintenance 19
15.5.1.12 Away From Home Maintenance 19
15.5.1.13 Induction into Standard Rework 19
15.5.1.14 Aircraft CARTs, CADs, and PADs 19
15.5.1.15 Corrosion Prevention and Treatment 19
15.5.1.16 Reconfiguration 20
15.5.1.17 Predictive Maintenance 20
15.5.2 Inspections 20
15.5.2.1 Major Scheduled Inspections 20
15.5.2.2 Conditional Inspections 23
15.5.2.3 Acceptance Inspection 23
15.5.2.4 Transfer Inspection 23
15.5.2.5 Daily, Turnaround, Preflight and Post Flight Inspections 24
15.5.3 Aircraft Preservation 24
15.5.4 Work Order (WO) Work Request 25
15.5.5 Technical Directive (TD) Compliance 25
15.5.6 Aircraft Engine and Auxiliary Power Unit (APU) Maintenance Documentation 26
15.5.6.1 General Information 26
15.5.6.2 Modular Engine TD Compliance 26
15.5.7 Engine Cannibalization 27
15.5.8 Engine Inspections 27

15.5.9 Support Equipment Maintenance Documentation 27
15.5.10 Standard Rework Documentation 27
15.5.11 In-Service Repair (ISR) Documentation 29
15.5.12 Modification Documentation 30
15.5.13 Excessive Troubleshooting Documentation 31
15.5.14 On-Equipment Repair Documentation 32
15.5.15 On-Equipment Repair (Repairable Component Replacement) Documentation 33
15.5.16 Turn-In Document 34
15.5.17 Component Received Missing SRC Card 35
15.5.18 Component Received Non-RFI and Installed Documentation 36
15.5.19 Cannibalization Action WO Documentation 37
15.5.20 Matched System (Component 1) Documentation 38
15.5.21 Matched System (Component 2) Documentation 39
15.5.22 Assisting Work Center Documentation. 40
15.5.23 Facilitate Other Maintenance (FOM) Action Documentation 41
15.5.24 Tire and Wheel Documentation 42
15.5.25 Hosting Activity Repair Documentation 43
15.5.26 Transient Maintenance SCIR Data Documentation 44
15.5.27 Removal and Replacement of Cartridges (CART), Cartridge Activated Devices (CAD), and Propellant Actuated Devices (PAD) (O-Level Maintenance) Documentation 45
15.5.28 Aircraft Mission or SE Reconfiguration Documentation 46
15.5.29 Acceptance Inspection Control and Look Phase Documentation 47
15.5.30 Acceptance Inspection (Fix Phase Discrepancy) Documentation 48
15.5.31 Acceptance Inspection (Repairable Required) Documentation 48
15.5.32 Transfer Inspection Control and Look Phase Documentation 49
15.5.33 Aircraft Phase Inspection (Check Crew Not Integrated) Control Document Documentation 50
15.5.34 Aircraft Phase Inspection Man-Hours (Control and Look Phase) Documentation 51
15.5.35 Aircraft Phase Inspection Fix Phase Documentation 52
15.5.36 Special Inspection Control and Look Phase Documentation 53
15.5.37 Aircraft Special Inspection (Fix Phase) Documentation 54

15.5.38 Aircraft Conditional Inspection Control and Look Phase Documentation 55
15.5.39 Aircraft Conditional Inspection (Fix Phase) Documentation.....56
15.5.40 Aircraft Preservation Control Documentation 57
15.5.41 Aircraft Depreservation Control Documentation.....58
15.5.42 Removal and Replacement for Scheduled Maintenance/High-time Documentation.....59
15.5.43 WO Work Request Documentation.....60
15.5.44 Standard Rework Control Documentation 61
15.5.45 Standard Rework Look Phase Documentation.....61
15.5.46 Standard Rework Fix Phase Documentation.....62
15.5.47 Unscheduled Maintenance (Installed APU/Engine) Repairable Replacement Documentation 63
15.5.48 Unscheduled Maintenance (Installed APU/Engine) Repair Documentation 64
15.5.49 Installation Action (Nondefective Repairable Engine Component) Documentation.....65
15.5.50 Removal Action (Nondefective Repairable Engine Component) Documentation 66
15.5.51 Engine Component Cannibalization Documentation.....67
15.5.52 TD Removals Documentation.....68
15.5.53 Engine TD Compliance Documentation 68
15.5.54 TD Compliance Documentation.....69
15.5.55 TD Assist Compliance Documentation.....70
15.5.56 Reinstallation After Check, Test, and Service Documentation.....71
15.5.57 Predictive Maintenance Documentation 73
Figure 15-1: OOMA Work Order Form (Example) 74
Figure 15-2: OPNAV 4790/60 VIDS/MAF Form (Example)..... 75
Figure 15-3: NALCOMIS Contingency JCN Log 76
Figure 15-4: In-Service Repair (ISR) (Example) 77
Figure 15-5: Modification (Example)..... 78
Figure 15-6: Excessive Troubleshooting (Example)..... 79
Figure 15-7: On-Equipment Repair (Example)..... 80
Figure 15-8: On-Equipment Repair (Repairable Component Replacement) (Example) 81
Figure 15-9: Turn –In Document (Example)..... 82
Figure 15-10: Component Received Missing SRC Card (Example)..... 83

Figure 15-11: Component Received Non-RFI and Installed (Example) 84
Figure 15-12: Cannibalization Action (Example) 85
Figure 15-13: Matched System (Component 1) (Example) 86
Figure 15-14: Matched System (Component 2) (Example) 87
Figure 15-15: Assisting Work Center (Example) 88
Figure 15-16: Facilitate Other Maintenance Action (Example) 89
Figure 15-17: Tire and Wheel Documentation (Example) 90
Figure 15-18: Tire and Wheel Turn-In (Example) 91
Figure 15-19 Hosting Activity Repair (Example) 92
Figure 15-20: Transient Maintenance (Example)Figure 15-21: Removal and Replacement of Cartridges, Cartridge Activated Devices, and Propellant Actuated Devices (Organizational Maintenance) (Example) 93
Figure 15-22: Aircraft Mission Configuration (Example 95
Figure 15-23: Aircraft Acceptance Inspection (Example) 96
Figure 15-24: Acceptance Inspection (Fix Phase) (Example) 97
Figure 15-25: Acceptance Inspection (Fix Phase Repairable Required) (Example) 98
Figure 15-26: Aircraft Transfer Inspection (Example) 99
Figure 15-27: Aircraft Phase Inspection (Check Crew Not Integrated) Control Document (Example) 100
Figure 15-28: Aircraft Phase Inspection Man-Hours (Look Phase) (Example) 101
Figure 15-29: Aircraft Phase (Fix Phase) (Example) 102
Figure 15-30: Aircraft Special Inspection Control Document (Example) 103
Figure 15-31: Aircraft Special Inspection (Fix Phase) (Example) 104
Figure 15-32: Aircraft Conditional Inspection Control Document (Example) 105
Figure 15-33: Aircraft Conditional Inspection (Fix Phase) (Example) 106
Figure 15-34: Aircraft Preservation Control Document (Example) 107
Figure 15-35: Aircraft Depreservation Control Document (Example) 108
Figure 15-36: Removal and Replacement for Scheduled Maintenance/Hi-Time (Example) 109
Figure 15-37: Work Request (Example) 110
Figure 15-38: Standard Rework Control (Example) 111
Figure 15-39: Standard Rework Look Phase (Example) 112

Figure 15-40: Standard Rework Fix Phase (Example) 113
Figure 15-41: Unscheduled Maintenance (Engine Installed) Repairable Replacement (Example) 114
Figure 15-42: Unscheduled Maintenance (Engine Installed) Repair (Example) 115
Figure 15-43: Installation of Nondefective Engine Component (Example) 116
Figure 15-44: Removal of Nondefective Engine Component (Example) 117
Figure 15-45: Engine Component Cannibalization (Example) 118
Figure 15-46: TD Removal (Example) 119
Figure 15-47: Engine TD Incorporation (Example) 120
Figure 15-48: TD Incorporation (Example) 121
Figure 15-49 TD Assist (Example) 122
Figure 15-50: Reinstallation After Test and Check (Example) 123

CHAPTER 15
Organizational Level (O-Level) Maintenance Documentation Procedures

15.1 Introduction

15.1.1 This chapter provides detailed documentation procedures applicable to Naval Aviation Logistics Command Management Information System Optimized Organizational Maintenance Activity (NALCOMIS OOMA) Work Orders (Figure 15-1). NALCOMIS OOMA is a management tool that provides essential, real time information on a continuing basis through online visual electronic display (VED) and reports. The system correlates aircraft status information, particularly NMC or PMC, flyable discrepancies, non-aircraft-related discrepancies, for example, ALSS status, SE status, mission mounted equipment (MME) status, and assigns a relative importance to each item. The ability to review the overall situation and determine the resources available enables maintenance managers to carry out their duties more effectively and efficiently.

NOTE: To be concise, NALCOMIS OOMA is referred to as OOMA, and OOMA Work Orders are referred to as Work Orders or WO throughout this chapter.

15.1.2 Work Orders (WO) are used to document the following maintenance actions performed by organizational level (O-level) activities:

a. Scheduled maintenance and modifications required to keep aircraft, serial numbered equipment, and components in operable condition.

b. Inspections, including special (scheduled) inspections and unscheduled (on-condition) inspections (acceptance, transfer, conditional, etc.). The performance of the inspection is commonly referred to as the "look" phase of the inspection, and the repair actions related to the findings of the inspection are commonly referred to as the "fix" phase of the inspection.

c. Unscheduled maintenance requirements (discrepancies), including when and how the discrepancy was discovered.

d. Corrective actions taken to resolve the maintenance requirements, including determined malfunctions.

e. Parts and material requirements used to perform maintenance and correct discrepancies.

f. Status of the maintenance action (In work, Awaiting Maintenance, Awaiting Parts, Complete).

g. Accumulated man hours and elapsed maintenance time to complete maintenance, including inspection and troubleshooting time.

h. Who performed and who inspected the maintenance.

i. Readiness (up, down, partial mission capable) and inventory status of aircraft, including data used for Subsystem Capability Impact Reporting (SCIR) and Aircraft Inventory Readiness Reporting System (AIRRS) per Chapter 9.

j. Removal and replacement of installed components for any reason, including cannibalization.

k. On-equipment work not involving removal of defective or suspected defective repairables.

l. Maintenance performed by an assisting work center in support of a primary work center.

m. Incorporation of Technical Directives (TD) and associated maintenance actions.

n. Removal or installation of system components for mission configuration changes.

o. Parts ordered and issued.

p. Preservation and Depreservation.

q. O-level maintenance in support of D-level maintenance actions.

r. Weapons support functions.

s. Assistance from an I-level maintenance activity for actions that do not involve repair. Examples:

(1) I-level non-destructive inspection (NDI) performed either on-site or at the I-level activity, when a TD is not involved.

(2) Check, test, service, local manufacture, or fabrication of items removed from aircraft, equipment, or SE for scheduled maintenance when the requirement is beyond the capability of the requesting O-level activity.

NOTE: Work requests for check, test, service, and local manufacture or fabrication must be approved and signed by the requesting activity's Maintenance Control and the supporting activity's Production Control.

(3) Induction of Aviation Life Support Systems (ALSS) equipment for I-level check, test, and service, for example, aviator personal equipment, oxygen masks, life preservers, and parachutes.

(4) Induction of items stocked by the Supply Department for I-level check, test, service or buildup, such as engines, Quick Engine Change Kits (QECK), and tire and wheel assemblies.

(5) Induction of items for check, test, and ready for issue certification prior to reinstallation in aircraft returned from standard rework.

(6) Induction of items for incorporation of I-level Technical Directives (TD).

15.2 General WO Procedures

15.2.1 Data Entry

a. WO data entry will be made only by personnel that have been granted OOMA Special Maintenance Qualification (SMQ) privileges. Personnel with SMQ privileges will only perform the WO functions they are authorized and currently designated to perform.

NOTE: Maintenance personnel with inspector SMQs in their profile such as CDI or QAR will only have the designated work centers listed on their qualifications via ASM.

b. Data will be entered per the procedures of this instruction and the OOMA Users Guide (OMA-UG).

15.2.2 Maintenance Control

a. Maintenance Control will review the WO for correct and complete annotation prior to approving the WO for automatic population in the Aircraft Automated Discrepancy Book (AADB) and Work Center Workload Report.

NOTE: Maintenance Control has the option to modify all fields of the WO except BUNO, Assembly Cd, and TM. Per 9.5, Maintenance Control must validate the correct EOC

code and U/P/D status has been applied per the T/M/S Mission Essential Subsystem Matrix (MESM).

b. When corrective action has been completed, Maintenance Control must review and approve or reject the WO corrective action block. Upon approval of the completed WO, OOMA automatically updates the AADB, where it will remain for 10 subsequent flights following the completion date. Once the WO is approved by Maintenance Control and waiting in the ALS Queue, the Data Analyst must screen the WO and correct any errors, per the following steps:

(1) Click Online Processing.

(2) Select ALS Queue from the dropdown options.

(3) Double click on each Work Order one at a time.

(4) Screen each Work Order for accuracy, specifically WUC, WD, TM, MAL, SCIR documentation, and logbook documentation requirements. Correct available fields as required.

(5) Once all data elements of the Work Order are verified for accuracy, click the Approve button on the bottom right side of the Work Order.

NOTES: 1. All data elements not grayed out can be corrected at the Data Analyst level

2. The Configuration Management Auto Log-set (CM ALS) administrator will review completed WOs and ensure CM ALS entries are complete per 8.6.

c. When parts or materials are required, Maintenance Control will assign the appropriate project code and priority designator on the WO using the project or priority assignment online process. The Material Request is electronically forwarded to Material Control's online DDSN assignment process. The DOD 4140.1-R provides proper application of priority designators and NAVSUP Publication 485 project codes.

15.2.3 Work Center Supervisors

Each time a change of job status occurs, the Work Center Supervisor must immediately update the WO.

15.2.4 WO Initiation

15.2.4.1 OOMA prompts the user to complete required data fields during WO initiation. The JCN is automatically assigned when the WO is approved by Maintenance Control. The Type WO Code, Assembly Cd, BUNO, T/M, MODEX, received date, and received time are prefilled. The received date and time can be changed. Work center, discrepancy, initiator, WD code, and up, partial, or down status field will be filled in prior to saving to the database.

15.2.4.2 WOs for scheduled maintenance will be initiated by Maintenance Control.

15.2.4.3 WOs for unscheduled maintenance will be initiated as soon as possible after the need for maintenance is discovered.

a. WOs for unscheduled inspections (acceptance, transfer, conditional) will be initiated by Maintenance Control.

b. WOs to correct defects or damage will be initiated by the technician, pilot, or aircrew that discovered the discrepancy.

c. WOs for discrepancies discovered by aircrew during pre-flight, in-flight, post-flight, between flights, functional check-flight, and inspection (When Discovered code A, B, C, D, E, F, and P) will normally be initiated by the aircrew that discovered the discrepancy. The pilot or aircrew will initiate a WO for each discrepancy, and annotate the following blocks:

(1) DISCREPANCY.

(2) PILOT/INITIATOR. The name and rank or rate of who wrote the WO.

(3) RECEIVED-DATE-TIME. The date and time the WO was written.

(4) BUNO.

(5) U/D/P. Select Up, Down, Partial status as appropriate to the end item status.

(6) DISCOVERED CODE. A, B, C, D, E, F, P as appropriate per Appendix E.

(7) EOC. Maintenance Control will assign the appropriate Equipment Operational Capability (EOC) code per the T/M/S aircraft Mission Essential Subsystem Matrix (MESM), 9.4.

d. Upon completion of a flight, the pilot or aircrew initiates a WO for each discrepancy. For discrepancies discovered by other than pilot or aircrew, the person who discovered the discrepancy will initiate the WO. In the case of when discovered (WD) Code O, Maintenance Control will initiate the WO. Corrosion Prevention WOs may be initiated by any pilot, aircrew, or maintenance personnel.

15.2.5 WO Completion

a. Received. System automatically defaults to system date and time upon initiation. The initiator has the capability to modify prefilled date and time prior to Maintenance Control approval.

b. In Work. System assigns prefilled date and time upon assignment of worker. This field is modifiable.

c. Awaiting parts. AWP status requires an open supply requisition and the absence of In Work status. Once a part is received, the default job status will be M3.

d. Completed. The job status code of JC and date and time are automatically applied when the CDI/QA signs the Inspected by block. This field is modifiable. The computer displays the current system time as the completion date and time, but also provides a pop-up window that advises the CDI as to the earliest completion date and time that the WO can be modified to. The date and time will not be able to be backdated prior to the last job status on the WO or the date and time on the Removed/Installed records, whichever is later.

15.2.6 Work Order History

Completed WOs are stored in the local database for 12 months from the date of completion, and can be viewed in the DECKPLATE Aviation Data Warehouse (ADW) indefinitely. Historical WOs are associated to the aircraft by BUNO and to equipment by SERNO and are automatically transferred with the aircraft and equipment database.

15.3 Work Order Data Fields

This section provides descriptions of the data entered in a WO. The paragraphs in this section list the data fields on the WO Form (Figure 15-1) in sequence from left to right, top to bottom.

15.3.1 Work Order Identification

The following data fields identify the WO, the organization initiating the WO, the specific aircraft, engine, or equipment that is the subject of the WO, the Work Center performing the maintenance, check flight requirements, and QA requirements.

a. MCN. The Maintenance Action Form Code Number (MCN) is a seven-character alphanumeric identification number to enable tracking of the WO through the maintenance process and to research the NALCOMIS database. The MCN is automatically assigned by the OOMA system.

b. JCN. The Job Control Number (JCN) is the 9-character alphanumeric code that serves as a base for maintenance data retrieval and Maintenance Control procedures. The JCN allows for separate identification of each maintenance action, and provides a link with the maintenance actions performed by the IMA in support of an O-level maintenance discrepancy. The JCN is auto filled in OOMA and is composed of three parts:

(1) ORG CODE. The Organization Code is a 3-character code that identifies the organization that originally assigned the JCN to a maintenance action. Except in the case of transient aircraft maintenance, the JCN will contain the ORG code of the aircraft-reporting custodian. When an activity is assigned more than one ORG code, for example, separate codes assigned to operations department and IMA, the ORG code of the department directly responsible for O-level maintenance will be used in the JCN.

NOTE: For sub custody SE that requires I-level repair, the JCN will be assigned by the IMA Production Control, reflecting the IMA's organization code.

(2) DAY. The three-character Julian calendar day of the year. Example: 010 indicates the 10th day of the year (10 January) and 031 indicates the 31st day of the year (31 January). This is the day the JCN was assigned to the maintenance action and does not necessarily reflect the date on which work was actually started.

(3) SER. The JCN serial number. The JCN serial number is either a three-character number that runs sequentially from 001 to 999, or a three-character alphanumeric number. This number is normally assigned in sequence as new jobs are initiated, for example, 001, 002, 003. When 999 has been assigned, the next number in sequence will be 001. Alphanumeric serial numbers are used only when documenting inspections other than turnaround, daily, special, conditional, corrosion, and acceptance/transfer.

c. TYPE WO. The two-character Type Work Order code corresponding to the type of maintenance action for which the WO is initiated. Type WO codes are in Appendix E.

d. ORG CODE. The three-character alphanumeric Organization Code that identifies the organization that is initiating the WO. ORG codes are listed in the DECKPLATE website (https://deckplate.navair.navy.mil//)

e. MODEX. The locally assigned side number of the aircraft or leave blank for non-aircraft discrepancies i.e. SE or ALSS.

f. BUNO/SERNO. The 6-digit Bureau Number of the aircraft or the Serial Number of the equipment or end item on which work is being performed. If the serial number is more than six digits, enter the last six; if less than six digits, prefix with sufficient zeros to total six characters.

This block must not be blank. For ALSS equipment, enter the initials of the member's first and last name and the last four digits of their DOD ID Number (as listed on the member's ID card).

g. ASSY CD. The Assembly Code (Type Equipment Code (TEC)) that identifies a specific end item on which work is being performed. Assembly/TEC structuring is explained in Appendix E, and specific Assembly/TECs are found at https://deckplate.navair.navy.mil//.

h. WORK CENTER. The code of the work center performing the maintenance action described on the WO. Work Center codes are in Appendix E.

i. CF REQ. Indicates the maintenance performed requires a Functional Check Flight (FCF).

j. QA REQ. Indicates a Quality Assurance Representative (QAR) or Collateral Duty Quality Assurance Representative (CDQAR) is required to inspect the work.

k. Technical Directive Information. This section of the WO documents Technical Directive (TD) information related to the work performed. All TD information is inserted by the Baseline Manager and upon initiation of a TD WO; all TD information is auto-filled from the CM/Baseline tables.

(1) INTRM CD. Indicates the WO is for an Interim TD, otherwise blank.

(2) CODE. Two-character Technical Directive code that denotes the type of TD being incorporated. TD codes are in Appendix E.

(3) BASIC NO. The Basic Number listed on the TD, preceded by zero(s) to complete the four-digit data field.

(4) REV LTR. The one-alpha character Revision Letter of the basic TD. Leave blank if not applicable.

(5) AMEND. The one-numeric number of the TD Amendment. Leave blank if not applicable.

(6) PART. The two-character numeric part number as listed on the TD. Leave blank if not applicable.

(7) KIT NO. The two-character alphanumeric TD Kit Number. If no kit is required, enter 00 in this section.

l. TURN-IN DOC . The turn-in document (requisition number) for the replacement item for failed/required material required to complete the maintenance action. The turn-in document number is automatically assigned in OOMA.

m. WUC/UNS. The Work Unit Code (WUC)/Unified Numbering System (UNS) that identifies the system, subsystem, or component on which work is being performed. All repairable items must have a WUC assigned, which can be found by querying the NALCOMIS OOMA or the DECKPLATE WUC Baseline Report.

NOTES: 1. General WUCs 030 (inspection) and 049 (preservation and depreservation) are used for conditional, acceptance, or transfer inspections and preservation or depreservation WOs. Appendix E contains a complete list of these codes.

2. If a WUC cannot be found for a repairable item, submit a Baseline Trouble Report (BTR) via Joint Deficiency Reporting System (JDRS) to the NAVAIR TEC or WUC Manager.

3. For consumables not identified by a specific WUC, use the Next Higher Assembly (NHA) WUC.

n. TRANS. The two-character numeric Transaction Code used to identify the type of data being reported. Transaction Codes are in Appendix E.

o. M/L – MAINTENANCE LEVEL. The level of maintenance (1 – O-level, 2 – I-level, or 3 – D-level) performed (not necessarily the level assigned to the activity).

p. ITEM PRC - ITEMS PROCESSED. The number of times that an action, indicated by an AT code, is applied to the item identified by the WUC recorded on a WO. For example, since the fuel nozzle of a jet engine has a WUC, replacement of five fuel nozzles would be documented as five items processed. In contrast, replacement of several transistors in an electronic assembly would be documented as one item processed, with the WUC identifying the electronic assembly being repaired and the Action Taken (AT) code indicating repair. Items processed will be 0 for any look phase inspection WO.

q. ACTION TAKEN. The one-character alphanumeric Action Taken (AT) code which describes the action taken against the discrepancy. AT codes and rules for use of specific codes are listed in Appendix E.

r. MAL CODE. The three-character alphanumeric malfunction (MAL) code that best describes the malfunction which caused the maintenance action on the item described by the WUC. MAL codes and rules are listed in Appendix E. For engine identification, enter 000. MAL code will be blank for TD documentation.

s. DISC CODE. The one-character alphanumeric Discovered code that identifies when the need for maintenance was discovered. Discovered code definitions and explanations are in Appendix E.

t. TYPE MAINT. The one-character alphanumeric Type Maintenance (TM) code used to describe the type of work being accomplished, for example, scheduled, unscheduled, supply support. Definitions and explanations of TM codes are in Appendix E.

15.3.2 Removed/Old Item

The Removed/Old Item section documents data on components/items removed from the aircraft. This data field is also entered when identifying serialized components on a TD WO, not necessarily removing the component. The CDI must verify the accuracy of the fields prior to signing. Data fields:

a. CAGE. The five-position Commercial and Government Entity (CAGE) code assigned to the manufacturer or commercial supplier of the item.

b. SERIAL NUMBER. The serial number of the removed item. If the serial number is more than 15 characters, enter the last 15.

NOTE: If serial number displays system default XXX, the CDI must ensure Auto-Logset (ALS) Serial Number is updated in Configuration Management by Logs and Records personnel prior to CDI signature. Manual Entry in this field by the CDI does not auto-populate CM ALS.

c. PART NUMBER. The part number of the removed item. If the part number is more than 32 characters, enter the last 32. Use the lot number for CARTs, CADs, or PADs.

d. DATE REMOVED. Date removed is automatically filled in OOMA once the CDI completes signature.

15.3.3 Installed/New Item

This section documents data on components/items installed on the aircraft. This section documents data on components/items installed on the aircraft. This data field is also entered when identifying serialized components on a TD WO, not necessarily installing/replacing the component. CDI verifies the accuracy of the fields prior to signing. Data fields:

a. CAGE. The five-position code assigned to the manufacturer or commercial supplier of the item.

b. SERIAL NUMBER. The serial number of the replacement item. If the serial number is more than 15 characters, enter the last 15.

NOTE: If serial number displays system default XXX, the CDI must ensure Auto-Logset (ALS) Serial Number is updated in Configuration Management by Logs and Records personnel prior to CDI signature. Manual entry in this field does not auto-populate CM ALS.

c. PART NUMBER. The part number of the replacement item. If the part number is more than 32 characters, enter the last 32. Use the lot number for CARTs, CADs, or PADs.

d. DATE INSTALLED. Date installed is automatically filled in OOMA once CDI completes signature.

15.3.4 Maintenance Information

This section identifies the entire time cycle of the WO from initiation to completion, mission impact and man-hours to correct the discrepancy.

a. MAN HRS. The number of man-hours auto calculated in the WO that were expended to correct the discrepancy (in hours and tenths).

b. ELAPSED HRS. The elapsed maintenance time (EMT) in clock hours involved in making the repair (in hours and tenths) is auto calculated in the WO. EMT does not include cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although EMT is directly related to job man-hours, it is not to be confused with total man-hours required to complete a job, for example, if three persons worked together for 2.5 hours to make a repair, the total man-hours would be 7.5 and the EMT would be 2.5 hours.

c. RECEIVED. Enter the date (DD MMM YYYY) and time (TTTT) the WO was initiated.

d. EOC. Assign appropriate Equipment Operational Capability (EOC) code as identified by the applicable TMS aircraft MESM that defines current operational capability and material condition. Refer to Chapter 9.

NOTES: 1. When aircraft mission capability is degraded during a maintenance action, a new EOC code is assigned to reflect the change in the capability. A change of mission capability is documented by using the SCIR change option in the Basic Work Order Update in OOMA by selecting the appropriate aircraft status from U (up) to D (down) or P (partial) and entering the revised EOC code in the EOC field.

2. If the MESM identifies an EOC code, but the code is not assigned to a WUC, submit a BTR via JDRS to the OOMA Baseline Manager (BLM).

e. IN WORK. The date and time is automatically entered once a worker is added and the WO was first placed In Work (IW).

f. EOC. The EOC code as applicable at the time an aircraft system or subsystem is degraded impairs the aircraft capability to perform assigned mission.

g. COMPLETED. The date (DD MMM YYYY) and time (TTTT) WO was completed.

h. WO STATUS CD. The alpha character that identifies the aircraft status U (up), D (down) or P (partial).

i. METER. The number of accumulated hours on equipment as shown on the hour meter. (Enter whole hours only.) The meter time is preceded by the applicable Time or Cycle Prefix Code in Appendix E. Mandatory when the TEC for on-equipment work is G, H, or S, and maintenance level is 1.

j. IN PROCESS INSPEC. Documented in-process inspections are indicated with a Y. Otherwise this field is auto filled with a N.

k. SAFETY/EI. Enter the locally assigned four-digit Report Control Number (RCN) per paragraph 10.9.3.2 if the WO documents a discrepancy reported per the Naval Aviation Maintenance Discrepancy Program (NAMDRP).

l. POSIT. Auto-filled based on the WUC/UNS selected.

m. FID. The Fixed Induction Date (Leave blank, reserved for future use.)

n. TECH. Enter an N for all maintenance actions involving Engineering Technical Services (ETS) support.

o. SYSTEM REASON. Enter a short description of the discrepancy. Example: FOM PORT ENGINE

15.3.5 Failed/Required Material Data (H-Z)

This WO section is used to document: 1) A failed part without an AWP situation, 2) A supply request only, with no failed part or AWP situation. For each failed part, enter the following data:

a. INDEX. Letters H - Z. The letters represent a specific record type to be extracted from the WO for failed parts, AWP, and engine identification reporting. Index letters H - Z must be assigned automatically in alphabetical order. This allows the 19 most significant failed parts to be reported against a specific maintenance action, for example, assignment of index H indicates the first failed part record, Z indicates the last and 19th failed parts record against the maintenance action. The purpose of this block is to flag engineering data items only, not supply usage data. Therefore, only significant failed parts will be annotated in this block, such as those items, which are known or suspected to have contributed to the discrepancy reported in the discrepancy block of the WO. There is no limit to requisitioning parts. This section will also be used for engine identification and subsequent failed parts reported against the identified engine, for example, repairable components that are an integral part of the basic engine (excluding propellers but including the T56 or T76 gearbox) or receive their primary source of power from the basic engine.

b. Failed/Part. Enter a Yes (Y) or No (N) to denote a failed part if the failed material or parts replaced during the repair are piece parts that have failed in a major component. Common hardware, nuts, screws, safety wire, seals, gaskets, washers, fittings, etc., routinely replaced during a maintenance action will be documented only if their failure is known or suspected to have contributed to the discrepancy.

NOTES: 1. Pre-expended bin (PEB) items, such as common hardware, nuts, bolts, screws, safety wire, seals, gaskets, fittings, and washers, that are routinely replaced during a maintenance actions that do not contribute to the discrepancy, will be listed for material ordering purposes only. Data fields Index, Failed Part AT Code, and MAL Code will be left blank. Do not document items available in the PEB (only those items that are not in stock for material ordering purposes) unless PEB items caused the failure or were suspected of contributing to the discrepancy. The Supply request only will not have a letter in Index field.

2. This section will also be used for engine identification and subsequent failed parts reporting against the identified engine, for example, repairable components that are integral part of the basic engine (excluding propellers, but including the T56 gearbox) or receive their primary source of power from the basic engine.

c. A/T. Enter the Action Taken code that applies to the FAILED part.

d. MAL. Enter the Malfunction Code that applies to the FAILED part.

e. CAGE. Enter the CAGE of the REQUIRED part.

f. PART NUMBER. Enter the Part Number of the REQUIRED part.

g. QTY. Enter the quantity required. For engine identification, enter 0.

h. PROJ. Enter the applicable Project Code per NAVSUP Publication 485.

i. PRI. Enter the applicable Priority Code per DOD 4140.1-R.

j. DATE ORD. The Day (DD) Month (MMM) Year (YYYY) Time (TTTT) the material was requisitioned. This is auto-filled upon Material Control approval.

k. DDSN. MILSTRIP requisition number of the material required completing the maintenance action. This is auto-filled upon Material Control approval.

l. DATE RCVD. The Day (DD) Month (MMM) Year (YYYY) and Time (TTTT) that requisitioned material is received.

m. NOMEN. The Nomenclature of the material is auto-filled upon selection of part number.

15.3.6 Discrepancy and Corrective Action

a. DISCREPANCY. Discrepancies for unscheduled maintenance will include a full description of the problem and related information that could assist in troubleshooting the fault. Example: "Engine oil pressure fluctuating approximately 50 PSI while in afterburner. No problems noted in other operating conditions." Discrepancies for calendar inspections will include current due date and next due date. Discrepancies for hourly inspections will include current aircraft time, expired time and next due time.

b. CORRECTIVE ACTION. The corrective action will include discrepancy found, a full summary of actions taken to correct the discrepancy, publication used, the statement

"FOD/corrosion free", the statement "operational check or leak check performed", and PEMA serno (if used). Example: "Found oil pressure sensor not reading on #2 engine during high power ground turn. Replaced oil sensor in accordance with (publication used) operation check with in limits during ground turns. Area FOD/Corrosion free. PEMA Serial #162."

15.3.7 Names/Signatures

a. INITIATED BY: The rank and name of the individual initiating the discrepancy.

b. CORRECTED BY. Corrected By will be signed by the trained and certified worker assigned to the maintenance action. Signature indicates the individual performed the work, and the WO documentation is correct.

c. INSPECTED BY. Inspected By will be signed by the QAR, CDQAR, and CDI (as applicable) certifying all required tasks were performed IAW applicable maintenance publications, and all data entered in the WO is correct.

NOTE: No further WO modification is allowed after CDI signature is applied to the inspected by field.

d. MAINT CONTROL. Maintenance Control will be signed by designated Maintenance Control personnel authorized to certify WOs.

15.3.8 Miscellaneous Entries

NOTE: The following WO data is entered or automatically calculated in an OOMA Work Order, but is not shown on a hardcopy WO.

15.3.8.1 Accumulated Work Hours

This section documents who is performing work, total man hours performed, and verification of the inventory of the tools used to perform the work. The calculation of AWM hours is automated.

a. NAME. The SMQ electronic signature name of the technician(s) performing work.

b. TOOL BOX (tool container inventory verification). The tool box number and SMQ electronic signature of the technician that performed the tool container inventory.

NOTE: OOMA allows deletion of the tool box number and SMQ signature after the CDI has initialed the appropriate data fields. This permits personnel with a QAR, CDQAR, CDI, or work center supervisor SMQ to delete and reenter the corrected data in the tool box number and initials data fields. Work center supervisors, QARs, CDQARs and CDIs must strictly control changes to the Tool Box data field.

15.3.8.2 WO Update Job Status/Worker Hours:

a. ACCUMULATED AWM HOURS. OOMA automatically calculates the AWM hours accumulated during SCIR related time of the discrepancy. OOMA records the beginning date and time of the AWM period associated with the applicable AWM reason code. AWM codes are listed in Appendix E.

NOTE: AWM is only accounted for during the time an end item's mission capability is impaired. AWM time is not accumulated on maintenance actions when an EOC code is not documented.

b. Job Status History. JS history of the WO from start to finish. STATUS – A two-character code used to determine the status of a specific task. DATE (DD) MONTH (MMM) YEAR (YYYY) TIME (TTTT).

c. Worker Hours. Enter last name of worker and tool box assigned to the task. Upon return to the work center the CDI, Supervisor, or QA will conduct a sight inventory of the tool container(s) and verify Tool Control Program requirements have been complied with. If no tools are required enter "NTR". CDI initials are entered here. Start date and time - enter the beginning of the worker start date and time. Day (DD) Month (MMM) Year (YYYY) Time (TTTT) and end date and time - enter the end date time of the worker end task Day (DD) Month (MMM) Year (YYYY) Time (TTTT).

NOTES: 1. A worker, CDI, QAR, or Supervisor cannot be in work on more than one WO at a time.

2. CDQARs and CDIs assigned to their respective production work center will account for their expended man-hours on the WO while performing mandatory QA inspections; or in the research and ordering of parts specified in maintenance technical manuals and other directives. For inspections that do not require tools, their hours will be accounted for on the work order by selecting their name, entering "NTR" in the tool box and initialing. The above process is not considered signing for your own tools, as no tools were required.

3. Work center Supervisors may also account for man-hour expenditure involving research and ordering parts using the same procedures as above.

d. Current Job Status – Displays the current job status of the WO in the following format: status, date, time, and EOC code.

15.3.8.3 OMA/IOU Turn-in notice

An OMA/IOU Turn-in notice is auto generated in OOMA of a removed item being inducted into the IMA for repair. (Figure 15-9)

15.3.8.4 Local Use

This field is used to note serial numbers with type WO FO.

15.3.8.5 Logset

Maintenance Control may select Logset block required. The entry is automated for items that have tasks in CM.

15.4 Contingency Procedures

15.4.1 Manual Documentation

If OOMA is unavailable or is malfunctioning, activities will use either blank hardcopy OOMA WO forms (Figure 15-1) or 5-part OPNAV 4790/60 VIDS/MAF forms (Figure 15-2) (https://forms.documentservices.dla.mil/order/) to manually document maintenance.

NOTE: In the event the system is unrecoverable, refer to the System Administrator Guide for Disaster Recovery Procedures. Contact Naval Information Warfare Center Fleet Support Center at DSN 647-6373 / COMM 1-833-637-3669 or by submission of a trouble ticket via: https://nesd-dwp.onbmc.mil for a data recovery push.

a. All applicable data fields (15.3) will be legibly printed in ink.

b. The JCN must be entered by Maintenance Control when a WO (hard copy or electronic) or VIDS/MAF is initiated. The JCN is a 9, 10, or 11 character number that serves as a base for Monthly Maintenance Reports and Maintenance Control procedures. The JCN allows for separate identification of each maintenance action, and provides a link with maintenance actions performed by the IMA in support of an organization. The JCN is composed of four parts:

(1) Organization (ORG) Code. This is a three-character alphanumeric code that identifies an organization. It is used in the JCN to identify the organization that originally assigns a JCN to a maintenance action. In the case of transient aircraft maintenance, the JCN will contain the ORG code of the aircraft reporting custodian. When an activity is assigned more than one ORG code, for example, separate codes assigned to an air station Operations Department and Aircraft Intermediate Maintenance Department or Detachment (AIMD), the ORG code of the department directly responsible for O-level maintenance will be used in the JCN on all source documents for aircraft and equipment assigned to the activity. The general format structure of ORG codes is in Appendix E.

NOTE: All supported organization codes must reside in the OOMA database.

(2) Day. This is a three-character numeric code specifying the day of the year, for example 01 January is day 001 and 15 January is day 015. This is the date the JCN was assigned to a maintenance action and does not necessarily reflect the date on which the work was actually started.

(3) Serial Number. The serial number is either a three character number that runs sequentially from 001 to 999, or a three character alphanumeric number. This number is normally assigned in sequence as new jobs are initiated, for example, 001, 002, and 003. When 999 has been assigned, the next number in sequence will be 001. Alphanumeric serial numbers are used only when documenting inspections other than turnaround, daily, special, conditional, corrosion, acceptance, and transfer.

c. Where signatures are required, the individual will print their rank followed by their first initial and last name in the bottom of the signature block, and sign in the top of the signature block.

d. When additional space is required on the hardcopy WO or VIDS/MAF to document information on multiple entries in a data field, such as in the Failed Parts section, attach a second blank hardcopy WO or MAF, label “page 2”, “page 3”, etc., and continue to document in the affected field.

e. If using OOMA WO forms (Figure 15-1), WO forms will be retained in a hardcopy Aircraft Discrepancy Book (ADB).

f. If using 5-part OPNAV 4790/60 VIDS/MAF forms, Maintenance Control will send copies 1 and 5 to the appropriate work center. Copy 2 is sent to QA for trend analysis. Copy 3 and 4 are retained in Maintenance Control in a hardcopy ADB.

15.4.2 Pre-recovery procedures:

a. Work Center 020 must print or save Aircraft Equipment Workload and Inspections by Assembly reports daily. At a minimum, the Automated Aircraft Discrepancy Book (AADB) Summary page backups must be performed prior to each flight, after the aircrew signs the Aircrew Inspection and Acceptance Record, and at the end of each shift.

b. All Work Centers will print Work Center Work Load Reports at the beginning of every shift and update as changes occur throughout the work shift.

15.4.3 Procedures:

a. Maintenance Control:

(1) Coordinate and decide when to implement the following contingency procedures.

(2) Hold a meeting with key personnel (e.g., System Administrator, Operations, Quality Assurance, and Work Center Supervisors) to coordinate documentation tracking for future back fitting.

(3) All maintenance data will be documented using the OPNAV 4790/60 (VIDS/MAF) form or equivalent. All flight data will be documented using the OPNAV 3710/4 (NAVFLIR) form or equivalent.

b. If using OOMA WO forms (Figure 15-1), WO forms will be retained in a hardcopy Aircraft Discrepancy Book (ADB).

c. If using 5-part OPNAV 4790/60 VIDS/MAF forms, Maintenance Control will send copies 1 and 5 to the appropriate work center. Copy 2 is sent to QA for trend analysis. Copy 3 and 4 are retained in Maintenance Control in a hardcopy ADB.

(1) Figure 15-3 will be used during contingency operations to document and track maintenance actions. Job Control Number (JCN) assignment will consist of "ORG-Three Digit Julian Date-Sequence number" (e.g. KH1-091-600). Sequence number must be numbered from 900 through 999 regardless of Julian date. Once 999 is reached the sequence will start back over at 900.

NOTE: All supported organization codes must reside in the OOMA database.

(2) The Aircraft and Work Center Workload Reports in conjunction with the Scheduled Inspections, Component Removal Due Reports, rough flight log, and Support Equipment reports will be utilized to track all aircraft and non-aircraft maintenance requirements.

(3) When NALCOMIS generated discrepancies are corrected, hand write the corrective action and signatures on the outstanding VIDS/MAF in the Aircraft Discrepancy Book (ADB) and move the VIDS/MAF to the left side of the ADB. Do not purge these documents until the NALCOMIS OOMA system is repaired and the backfit process is complete.

NOTE: Where signatures are required, the individual will print their rank followed by their first initial and last name in the bottom of the signature block, and sign in the top of the signature block.

(4) CM ALS for assemblies and parts received during contingency operations will be obtained and added to the Primary folder in CM Inventory Explorer prior to commencing the back fit of electronic A sheets, WOs and flight documents.

NOTE: Activities receiving CM ALS from the OMAWHOLE (WHO, PAXRIVER) are responsible for back fitting all logbook historical data not previously entered into the CM ALS module while the aircraft/asset was in the custody of a non-NTCSS Optimized OMA NALCOMIS activity.

(5) Once OOMA is available, data on the hardcopy forms must be back fitted into OOMA. Hardcopy forms for conditional inspections will be kept on file for 6 months. Hardcopy forms for special inspections will be kept on file until the next like inspection is completed in OOMA.

NOTE: Special attention must be made when back fitting hardcopy WOs and VIDS/MAFs into OOMA to ensure correct data is entered in the correct sequence with flight record data being applied to the correct logsets.

(6) Upon completion of the back fitting process, a verification of the Flight module, the Maintenance module and the ALS CM Inventory Explorer must be performed for the affected aircraft, assemblies or tracked assets.

15.4.4 Post Recovery Procedures:

a. Maintenance Control

(1) Coordinate the backfitting of the Maintenance Action Forms (MAF), validate the Workload Reports, both aircraft and non-aircraft, and completed documents against the ADB and SE Records.

(2) Review all outstanding VIDS/MAFS to ensure validity.

(3) Review VIDS/MAFs that were signed off during the system failure and ensure completion.

(4)Validate the Aircraft Material Status Report against all Awaiting Parts (AWP) VIDS/MAFs.

b. Work Center Supervisor

(1) Validate the new Work Center Workload Report with the old Work Center Workload Report. Notify Maintenance Control of all completed VIDS/MAFs to be backfitted into NALCOMIS OOMA.

(2) Ensure all VIDS/MAFs have parts on order, as required. The Work Center will ensure that VIDS/MAFs with repairable parts on order have removed/installed blocks filled out, as required, job status is reflected in proper sequence, and any in-process inspections are documented.

(3) Notify Maintenance Control with all changes annotated on the Work Center Workload Report.

(4) Material Control will validate the electronic Material Control Register Report against the Material Control VIDS board. Document numbers that are not on the VIDS board should be removed and held until after all MAFs are backfitted/re-initiated.

c. Logs and Records

(1) Validate all NALCOMIS OOMA Reports affected during the period of contingency to include the Scheduled Inspections Report (Aircraft and Assets), Flight Summary Report, Component Removal Near Due Report, etc., for correctness.

(2) Validate the database flight data against the Flight Summary Report. Any outstanding NAVFLIRS will be entered in NALCOMIS OOMA.

(3) Upon completion of the back fitting process, a verification of the Auto Log-Set (ALS) Queue must be performed for applicable logs and records entries.

(4) After all the above steps have been completed, resume all normal NALCOMIS OOMA processing.

15.5 Specific Work Orders

Aircraft Maintenance Documentation. The following paragraphs provide details for documenting of various maintenance actions. Each maintenance action described below is initiated using a specific type WO code. Type WO codes are designed to auto-fill WO data fields with the correct information per NAMP policy and aviation 3M MDS VALSPEC Guide in Appendix F. If an improper code is selected for a field not auto-filled, the on-line validation specifications pop-up window appears with the proper code(s) for that data field or reference to the appropriate Appendix.

15.5.1 Aircraft Repair

15.5.1.1 Troubleshooting

Type WO code: TS – Troubleshooting. The troubleshooting time will be documented separately when the time expended in locating a discrepancy is considered to be great enough to warrant separating the troubleshooting time from the repair time. Separating troubleshooting time requires completion of two WOs, one for troubleshooting and one for the repair phase. When recording the troubleshooting time separately from the repair time, the total time taken to isolate the primary cause of the discrepancy is recorded on a separate WO using the system, subsystem, or assembly WUC, as appropriate (paragraphs 15.5.14 and 15.5.13).

15.5.1.2 On Equipment Repair (Repairable Component Replacement)

Type WO code: DM – Discrepancy Maintenance. A WO is used to document the removal and replacement of repairable components while performing on equipment repair. Refer to paragraph 15.5.15 for documentation procedures.

15.5.1.3 Turn-In of Repairables and Locally Repaired Consumables

No Type WO code assigned. A Turn-In Notice is used to document the removal and subsequent I-level activity processing of a repairable component. These procedures will also apply to consumable components that are inducted into an IMA for repair. Turn-in is auto generated in OOMA when item is turned into local supply or IMA for repair.

NOTES: 1. If an item is still under warranty at the time of failure, ensure that CM ALS records indicate removal of a warranty item and the contract number.

2. All ALSS turn-ins will be delivered directly to the ALSS pool. Requisition and turn-in procedures for ALSS assemblies and repair parts must be as established in this instruction, the OMA-UG, or Online Help.

15.5.1.4 Receipt of Unsatisfactory Material from Supply

When components received from supply prove unsatisfactory, the following procedures will be followed:

a. Type WO code: DM – Discrepancy Maintenance with discovered code Y.

b. Component Received NRFI and Not Installed or Improper Replacement Received. If NRFI before installation or an improper replacement is received, notify Material Control. The original WO remains outstanding and the NRFI component will be turned in on a DOD Single Line Item Release Receipt Document (DD 1348-1) prepared by Material Control. Ensure all accompanying

documentation, for example, RFI tag, SRC card, and WO are returned with all items. CM ALS records will be returned to Supply via the CM Group Explorer in OOMA.

c. Component Received NRFI and Installed. Complete the original WO per paragraph 15.5.16. Initiate a new WO Type WO DM with a new JCN and discovered code Y. Figure 15-11 is an example of a WO documented when a component is received non-RFI and installed. A replacement component is requisitioned using the new WO and a new WO turn-in document will be automatically created to accompany the NRFI component to the IMA.

d. Component Received Missing SRC Card, ASR, MSR, EHR or AESR. Components, assemblies, or equipment received from supply missing SRC cards, ASRs, MSRs, EHRs or AESRs must be considered as NRFI and turned in on a DOD Single Line Item Release Receipt Document (DD 1348-1) prepared by Material Control. If the component is installed and cannot be determined to be new, it must be considered faulty. Figure 15-10 is an example of a WO documented for turn-in of a component that is missing the SRC card. Items missing ASRs, MSRs, or AESRs are documented in a similar manner.

NOTE: Refer to Chapter 8 for missing records procedures.

15.5.1.5 Cannibalization

Only Maintenance Control will issue cannibalization WOs. Maintenance Control will use the automated cannibalization wizard in OOMA for the removal and replacement of the component being cannibalized. The procedures listed in this paragraph apply to all cannibalizations from end items, for example, aircraft and SE. Egress system related cartridges, CADs, or PADs will not be cannibalized without prior cognizant wing (ashore) or CVW (afloat) approval. Personnel and drogue parachutes and SSKs are excluded from this policy (paragraph 15.5.19). Cannibalization of consumable parts using the Consumable Cannibalization Wizard does not require documentation in the removal and installation blocks.

15.5.1.6 Matched System Documentation

Type WO code: DM – Discrepancy Maintenance. Documentation of maintenance actions on components removed as a matched system, for processing at the IMA, for example, ASA-13A and APN-22/117, is performed as follows. Each component is removed on a separate WO using procedures in paragraphs 15.5.12 and 15.5.13. Each component must have a separate JCN assigned by Maintenance Control. Each component within a matched system that must be removed during a maintenance action will be assigned the same MAL code that describes the system defect. In addition to the brief narrative, a statement will be added to the Discrepancy block, such as, "Matched Set, See JCN_____". An additional WO turn-in control document is initiated for each component. The turn-in document accompanies the component for processing and has all maintenance actions documented per (Figure 15-8).

15.5.1.7 Assisting Work Center Documentation

Type WO code: AD – Assist Maintenance. When it becomes necessary for another work center to assist the work center primarily assigned to a maintenance action, an assist WO will be prepared by Maintenance Control and processed per paragraph 15.5.22 with the following except as noted in Figure 15-15. These procedures do not apply to look phase inspections, the removal and reinstallation to FOM, or cannibalization.

15.5.1.8 Facilitate Other Maintenance (FOM) Action

Type WO code: FO – Facilitate Other Maintenance. A FOM action is the removal and subsequent reinstallation of an RFI engine or component from an end item in support of, or to permit access to, another maintenance action on the same end item. The component removed is not identified in the REMOVED/OLD ITEM or INSTALLED/NEW ITEM field of the FO WO. When a component has been removed, note its serial number (if any) in the "local use" field for reference when the item is reinstalled. This notation will provide positive accountability of serialized RFI components removed to FOM. If the component that is removed and reinstalled does not have a serial number place “0” in the local use block. This will demonstrate a non serialized component was removed and reinstalled. (paragraph 15.5.23).

NOTE: FOM WOs will be assigned U (Up) status if removal of the component does not affect aircraft mission capability (MC). Once the removal of the component is the single driver degrading mission capability to P (Partial) or D (Down), the proper EOC code must be entered to update mission capability.

15.5.1.9 Aircraft Tire and Wheel Documentation

Aircraft tire documentation is unique in that the required information varies throughout the life cycle of the tire carcass. A structured part number, indicating the cycle the tire is presently in and the serial number and manufacturer's code of the original tire carcass, is required for continuity. Built-up tire/wheel assemblies are documented treating the assembly as a major repairable component, and the tire itself and the wheel as separate repairable subassemblies of the tire/wheel assembly (paragraph 15.5.24).

15.5.1.10 Hosting Activity/Transient Maintenance

a. Type WO codes: HA – Hosting Activity and TM – Transient Maintenance. Maintenance actions completed on transient aircraft (Navy/Marine Corps or non-Navy/Marine Corps) are documented using the hosting activity WO code by the activity actually performing the transient maintenance. The activity performing transient maintenance must provide the aircraft reporting custodian with documentation necessary to report all maintenance actions and to update CM ALS records.

b. The reporting custodian of an aircraft receiving transient maintenance must, upon receipt of applicable records, update CM ALS records, report maintenance actions, and submit the completed maintenance action using the Transient Maintenance WO code. See 7.5.2.5

NOTES: 1. In the absence of designated QA expertise during transient maintenance, the pilot in command is authorized to either sign as inspector or designate a qualified member of the aircrew to function in this capacity. See 7.5.2.3.

2. The activity performing transient maintenance must provide the aircraft-reporting custodian with documentation necessary to report SCIR and to update aircraft logbooks and records. This documentation must include, but is not limited to, copies of the WO for each maintenance action performed, SRC Cards, AESRs, etc. These documents must be forwarded to the reporting custodian via the most expeditious means to ensure timely reporting of aviation data. To supply the transient aircraft parent organization with necessary records of aircraft and engine repair or TD that may have been initiated or completed, ensure the WO, with all transactions completed, are sent with the transient aircraft when it departs.

15.5.1.11 In-Flight Maintenance

Type WO code: DM – Discrepancy Maintenance. All in-flight maintenance will be documented on a VIDS/MAF or blank WO and back fitted in OOMA upon return from flight. In the absence of designated QA personnel during in-flight maintenance, the senior aircrew maintenance person is authorized to sign as the inspector. The work performed must be inspected from a technical standpoint to ensure sound maintenance procedures and practices were followed, and areas where maintenance was performed are free of foreign objects (paragraph 15.5.14) except work center must be X20.

15.5.1.12 Away From Home Maintenance

Multi-Type WO codes can apply. Most organizations occasionally deploy single aircraft or small units away from the parent organization for short periods of time, for example, hurricane evacuation, cross-country flight, and rocket and gunnery training. If maintenance personnel are deployed with the aircraft, all maintenance actions accomplished while they are deployed are documented against work center X30 or the parent work center.

15.5.1.13 Induction into Standard Rework

Components authorized to be removed from an aircraft prior to induction into standard rework and retained by the squadron will be documented on a WO, issued by Maintenance Control, using Type WO code: DM – Discrepancy Maintenance, Transaction code 16, Malfunction Code 805 and AT code P. Prior to reinstallation, those components should be inducted into IMA for check, test, or service, using a WO work request. Components authorized to be removed from aircraft for pool stock will be processed to the IMA using AT code P and Malfunction Code 805. Components, when reinstalled, will be documented on a WO using TR Code 17, Malfunction Code 805, and AT Code Q.

15.5.1.14 Aircraft CARTs, CADs, and PADs

Type WO code: DM – Discrepancy Maintenance. Replacement of aircraft installed explosive devices requires an individual WO for removal and replacement of each device. For scheduled removals, use Transaction Code 18, AT Code R, and Malfunction Code 804. The WUC block must reflect the assigned WUC that is in OOMA NALCOMIS baseline. The Part Number in the remove and install blocks must reflect the lot number of the devices being removed and installed. Time/Cycle blocks in the remove and install blocks and must have an entry using Time/Cycle Prefix Code H and the container open date for CARTs or CADs and the propellant manufacture date for PADs (paragraph 15.5.27).

15.5.1.15 Corrosion Prevention and Treatment

Corrosion prevention and treatment is performed as part of a scheduled maintenance requirement, or when the need for prevention or treatment is discovered while performing unscheduled maintenance. Corrosion prevention and treatment must be documented as directed in the following paragraphs:

a. Scheduled corrosion prevention performed per direction in MRCs will be documented on the inspection Look Phase WO or on the Daily/Turnaround maintenance record. This includes aircraft washing, cleaning, and application of Corrosion Preventative Compounds (CPC) performed as part of a scheduled inspection. Any additional corrosion prevention tasks not listed on the MRCs, but discovered while complying with the MRCs, will be documented as discrepancies on Fix Phase WOs (SF, PF, CF) or as Daily/Turnaround (DF) WOs if discovered while performing a Daily or

Turnaround Inspection. The temporary touch-up of bare metal surfaces with no visible corrosion is included in this category. Use the item's specific WUC, AT code C, applicable MAL code, and TM code per Appendix E. For bare metal without visible corrosion use MAL code 425 (Nicked/Chipped/Bare Metal).

b. Unscheduled corrosion prevention performed when the need for prevention is discovered while performing unscheduled maintenance is documented on a Corrosion Prevention (CP) WO. Unscheduled aircraft cleaning, and the temporary touch-up of bare metal surfaces with no visible corrosion are included in this category. Multiple items processed may be documented on a single CP type WO. Use WUC 040, AT code 0, MAL code 000, DISC code O, and TM code per Appendix E.

c. Treatment of corrosion found during the look phase of an inspection will be documented as discrepancies on fix phase WOs (e.g., SF, PF, CF) or as Daily/Turnaround (DF) WOs if discovered while performing a Daily or Turnaround Inspection. The treatment of bare metal with visible corrosion is included in the category. Use Action Taken (AT) code Z and the applicable MAL code identified in Appendix E.

d. Treatment of corrosion found during unscheduled maintenance will be documented as a discrepancy on a Corrosion Treatment (CT) WO. The treatment of bare metal with visible corrosion is included in this category. Use AT code Z and applicable MAL code identified in Appendix E.

15.5.1.16 Reconfiguration

Reconfiguration is the installation or removal of equipment to reconfigure an aircraft or item of SE to perform a new or different mission tasking than last performed using Type WO code: DM – Discrepancy Maintenance. It includes, but is not limited to, equipment identified as mission mounted equipment in T/M/S MESM. It does not include materials, which are consumed, expanded, or undergo changes in their physical properties during use. MME may exhibit one or more of the following characteristics: (1) installation or removal generally takes longer than a typical turnaround cycle; (2) installation required electrical, electronic, hydraulic, or mechanical checks to ensure functionality; (3) classified as repairable or contains repairable components; (4) requires CM ALS; (5) periodic maintenance intervals have been established; or (6) once installed, equipment is likely to remain installed for extended periods of time, for example, longer than one day (paragraph 15.5.28).

15.5.1.17 Predictive Maintenance

Predictive Maintenance is conducted based on aircraft data-identified need. This could be discovered by: On-Board (Aircraft) Health Monitoring System (HMS), Off-Board (Ground Station) HMS, Quality Assurance (QA) trend analysis or, NAE data analytics. Predictive maintenance is executed prior to component functional failure. Refer to paragraph 15.5.57 for documentation procedures.

15.5.2 Inspections

15.5.2.1 Major Scheduled Inspections

All aircraft scheduled inspections (except repetitive inspections, such as daily and turnaround) are documented on a WO. Control, look phase, and fix phase documents (as necessary) are the principal WO documents for major scheduled inspections.

a. Major scheduled inspections use a unique coding system to identify the total effort expended as a continuous maintenance event, as explained in the following:

(1) The JCN is constructed by using the activity's organization code, the Julian date on which the aircraft was inducted for inspection, and an alphanumeric serial number. The first aircraft or engine inspection, on any given day, will be assigned the JCN serial number A00. When this serial number is assigned to an aircraft major inspection each engine major inspection will be assigned the next alphanumeric serial number in sequence, for example, if A00 is assigned to the first aircraft inspection of the day, B00 is assigned to the first (or only) engine due for inspection, C00 is assigned to the second engine. The second aircraft inspection on that day will be assigned D00. The first (or only) engine from that aircraft would be assigned E00, etc.

(2) WUC. OOMA will auto-assign the seven position WUC of the inspection WO issued by Maintenance Control. This WUC will be used for both control and look phase WOs related to the inspection, and is constructed as follows:

(a) The first two positions will be "03." The third through seventh positions will be constructed to identify the specific type of inspection(s) being performed.

(b) Position 3. For aircraft under phase maintenance, indicate with the appropriate alpha character the aircraft inspection phase being performed, as listed in the applicable MRC deck, for example, 03A0000 (Phase A Inspection). All conditional and special inspections will be 0.

(c) Positions 4 through 6. The fourth, fifth, and sixth positions will reflect the hour level of the major engine inspection (divided by 10) being performed. Engine and aircraft inspections may be documented concurrently or separately as required. On multiple engine aircraft, if more than one engine is due an inspection concurrently with the aircraft inspection, the WUC for the aircraft control document for all concurrent inspections will reflect the highest hour level engine inspection required.

(d) Position 7. Special inspections will be documented utilizing an appropriate alpha character to indicate the level of special inspection being performed. A WUC seventh position matrix is contained in Appendix E.

(3) TRANS (TRCODE). Enter 11 for control and look phase inspections on aircraft. Enter 12 on power plants WOs of combined aircraft and engine documentation with zero items processed.

(4) ITEM PROCESS. Enter 1 at the completion of the inspection(s) on the control document and 0 item processed on the look phase documents.

(5) MAN HRS. Auto calculated on the WO, the number of man-hours that were expended to correct the discrepancy (in hours and tenths).

(6) ELAPSED HRS. Auto calculated on the WO, the number of clock hours involved in making the repair (in hours and tenths).

(7) DISCREPANCY. Narrative will be system generated by OOMA.

(8) CORRECTIVE ACTION. At completion of the inspection, enter "inspection completed."

b. Control Document WO. Type WO codes: AC – Acceptance Inspection Control, TC – Transfer Inspection Control, PC – Phase Control, SC – Special Inspection Control, CC – Conditional Inspection Control, OC – One-time Inspection Control, FC – Preservation Control, BC – Depreservation Control. Maintenance Control issues a WO control document and supporting look phase documents to the work centers involved. A separate WO is issued by Maintenance Control for each aircraft inspection indicating all requirements. These control documents must be held open

until the inspection is completed and the aircraft is ready for FCF (if required). The same numeric JCN will be assigned to all control and look phase documents. Applicable work centers will complete the look phase WOs using 0 in the items process field. Maintenance Control completes the control document using 1 item process field per paragraphs 15.5.29 and 15.5.31. Aircraft Phase Inspection (Check Crew Not Integrated) Control Document will be completed per paragraph 15.5.33 except work center code must be 020 (Appendix E).

NOTES: 1. Phase, special, and hourly aircraft or engine inspections cannot be combined into one Control WO. They must be issued separately to satisfy CM requirements.

2. When phase inspections are combined, for example, a combined phase A and B inspection, each phase requires a separate control document. Look/fix phase elements that are peculiar to a certain phase inspection are documented under that control document. Those items common to both of the phase inspections will be documented to the phase inspection concurrently due. Combining phases is permitted only during phase implementation.

3. When multiple inspections are being performed at the same time, one control WO (aircraft) will be written for all inspections with a control WO for each individual engine or special inspection. For example, an aircraft that is due a Phase B Inspection, with #1 engine due a 300-hour major inspection, #2 engine due a 600-hour major inspection, and a 7, 14, 28, and 56-day special inspection would have control documents with WUCs as follows:

7 & 14 special controlling document	**030000A**
28 Day special controlling document	**030000B**
56 Day special controlling document	**030000E**

c. Look Phase WO. Type WO codes: AL – Acceptance Inspection Look Phase, TL – Transfer Inspection Look Phase, PL – Phase Look Phase, SL – Special Inspection Look Phase, CL – Conditional Inspection Look Phase, OL – One-time Inspection Look Phase. This type of document is used when personnel are permanently or temporarily assigned to the check crew. A work center assisting in the inspection must be identified in the work center field. Look phase man-hours are documented on WOs by work centers participating in the inspection. Look phase documents will be identical to the control document, except as shown in paragraph 15.5.32. SCIR is automatically documented on look phase documents for those inspections that the aircraft has been put into a down status due to the inspection. This is done so that accurate AWM can be accounted for by use of the WO job status. SCIR will not be documented on controlling WOs.

d. Fix Phase WO. Type WO codes: AF – Acceptance Inspection Fix Phase, TF – Transfer Inspection Fix Phase, PF – Phase Fix Phase, SF – Special Inspection Fix Phase, CF – Conditional Inspection Fix Phase, OF – One-time Inspection Fix Phase, FF – Preservation Fix Phase, BF – Depreservation Fix Phase. Fix phase actions, for example, fix in place maintenance actions or discrepancies, which cannot be corrected during the time allotted for, look phase on the MRC, are documented on separate WOs. If the fix phase discrepancy affects the mission capability of the aircraft, it is SCIR related and must be documented per paragraph 15.5.35. Fix phase discrepancies are not affected by control document procedures and are documented in the normal manner as described in the preceding paragraphs.

e. Special Inspections. These inspections are documented using control, look, and fix phase WOs. Refer to paragraphs 15.5.35 and 15.5.36.

15.5.2.2 Conditional Inspections

Maintenance Control will issue all conditional inspections. If more than one work center is involved in the inspection, a controlling WO will automatically be issued. A controlling WO will be issued similarly to special inspection documentation procedures. Document SCIR only if:

a. An over-limit condition exists, for example, hard landing, bolter, over-speed, or over-temp, which restricts the aircraft from further flight until the inspection is completed; or

b. Higher authority directs a one-time inspection, not ordered in a TD, that restricts the aircraft from flight; or

c. If damage sustained as result of an Aircraft Ground Mishap (AGM) restricts the aircraft for flight or being released safe-for-flight.

NOTES: 1. Conditional inspections to determine aircraft condition, for example, pre-carrier, pre-deployment, aircraft ferry, acceptance, transfer, and routine inspections that do not exceed an over-limit condition, for example, inspections caused by flying various mission sets in harsh or salt laden environments, will remain in MC status during the complete inspection unless panels and equipment removed to conduct the inspection cannot be replaced within a 2-hour period.

2. Conditional inspections to determine cost and repair due to sustained AGM will remain in applicable MESM system or sub-system NMC or PMC SCIR code for the affected system or sub-system until repair is complete. AGM control, look, and fix phase WOs will be issued per para 15.5.38 and 15.5.39.

3. Hosting activity TD documentation for transient aircraft will be documented as a one-time inspection.

15.5.2.3 Acceptance Inspection

Maintenance Control will issue acceptance inspections using the special inspection procedures in paragraph 15.5.29. Look phase WOs are automatically issued to each work center participating in the inspection and will be completed per paragraph 15.5.29. A separate WO will be issued for any discrepancies discovered and must be reported to Maintenance Control and assigned alphanumeric serial number JCNs using the control document per paragraphs 15.5.30 and 15.5.31. After inspection completion, the control document must be submitted to Maintenance Control.

15.5.2.4 Transfer Inspection

Maintenance Control will issue transfer inspections using the special inspection procedures in paragraph 15.5.32. Look phase documents are issued to each work center participating in the inspection and must be completed per paragraph 15.5.32. If only one work center is involved in the inspection, look phase man-hours may be accounted for on the control document WO. Any discrepancies discovered are reported to Maintenance Control and assigned alphanumeric JCNs using the control document. Fix phase documentation must be the same as used for special inspections except use the DISC code G and TM code E. The document will be identical to a special/conditional inspection control document except as noted in paragraph 15.5.35. After

inspection completion, the control document must be submitted to Maintenance Control with 1 item process field.

15.5.2.5 Daily, Turnaround, Preflight and Post Flight Inspections

Daily, Turnaround, Preflight and Post flight Inspections. Type WO code: DF – Daily/Turnaround/Pre/Post Flight Discrepancy. The look phase and required servicing actions are not documented. Discrepancies which require work center repair actions will be reported to Maintenance Control. Each reported discrepancy is assigned an alphanumeric JCN and is documented on a WO. If the discrepancy is SCIR related, the EOC Code must be documented. The following codes will be used in documenting these discrepancies:

a. For discrepancies discovered during turnaround inspections, use DISC code K and TM code D.

b. For discrepancies discovered during daily inspections, use DISC code J and TM code D.

c. For discrepancies discovered during preflight or post flight inspections, use most appropriate DISC code in Appendix E and TM code D.

15.5.3 Aircraft Preservation

The following instructions provide additional information on the aircraft preservation process. Maintenance Control will issue all preservation, represervation and depreservation WOs. If more than one work center is involved in the preservation, represervation or depreservation, a controlling WO will be issued automatically. The applicable publications used in support of the aircraft preservation process include the NAVAIR 15-01-500 and the daily, special, preservation, conditional, and ASPA MRCs. Not all aircraft have MRCs revised to include preservation requirements. For those aircraft, NAVAIR 15-01-500 procedures will be followed.

15.5.3.1 WOs for the aircraft preservation look process fall into four general categories:

a. Initial Preservation. Type WO Code: FC – Preservation Control. Initial preservation is applied within the time frames listed in NAVAIR 15-01-500 or the applicable MRCs. It includes requirements that are intended to prevent deterioration of the aircraft while in a non-operating status. They will be assigned an alphanumeric JCN with DISC Code L and TM Code D.

b. Maintenance While Preserved. Type WO Code: Select most appropriate code for maintenance being performed refer to Appendix E Type WO/MAF Codes. Maintenance while preserved includes periodic maintenance requirements that are done after initial preservation is applied. It includes time sensitive requirements that must be done to maintain the initial preservation. Specific intervals are in NAVAIR 15-01-500 or applicable MRCs. They will be assigned an alphanumeric JCN, DISC and TM Codes select the most appropriate code refer to Appendix E.

c. Represervation. Type WO Code: FC – Preservation Control. Represervation is a complete renewal of the initial preservation and is done when a specified length of time has elapsed from the initial preservation date. They will be assigned an alphanumeric JCN with DISC Code L and TM Code D.

d. Depreservation. Type WO Code: BC – Depreservation Control. Depreservation is done at the time an aircraft is returned to operating status. It includes removal of protective materials and equipment and servicing of the aircraft systems. They will be assigned an alphanumeric JCN with DISC Code L and TM Code D.

15.5.3.2 WO procedures for all fix preservation processes are:

a. Discrepancies. Type WO Codes: FF – Preservation Fix Phase or BF – Depreservation Fix Phase. Discrepancies discovered during the preservation process look phase will be documented on separate WOs. They will be assigned an alphanumeric JCN with DISC Code L and TM Code D.

b. When the preservation process is determined to be SCIR related, only the control document will be used to document SCIR. Any fix phase discrepancies will be SCIR related if they impact the mission capability of the aircraft.

15.5.4 Work Order (WO) Work Request

a. Type WO code: WR - Work Request. The WO work request will be documented per paragraph 15.5.43 and is used for, but not limited, to the following paragraphs:

(1) To request check, test, and service of items removed from an aircraft, equipment, or SE for scheduled maintenance when requested work is beyond the capability of the requesting activity.

NOTE: Work requests for items removed for check, test, service, and local manufacture or fabrication must be approved and signed by the requesting activity's Maintenance Control and the supporting activity's Production Control.

(2) To induct items not part of aircraft or SE, for example, pilot's personal equipment, oxygen masks, and life preservers that require check, test, and service.

(3) To induct items from Supply for check, test, and service.

(4) To induct items from Supply for build-up, for example, engine, quick engine change kit, and wheel and tire assembly.

(5) To induct items not having a WUC or not identifiable to a specific type of equipment for check, test, and service or for local manufacture or fabrication.

(6) To request NDIs, either on-site or at the I-level activity, as required by supported maintenance activities, when a TD is not involved.

(7) To induct items for RFI certification prior to installation in aircraft upon the return from standard rework. See 15.1.2.s.(5).

b. Work Request work orders must be deleted via the Work Request Que once the work request is complete.

15.5.5 Technical Directive (TD) Compliance

a. WO Technical Directive Compliance Procedures (On-Equipment). Type WO codes: TD - Technical Directive, AT - Technical Directive Assist, ET - Technical Directive (Engine) SCIR, QT - TD removal. The WO is used to document all TD compliances. The TD compliance WO is also used by Reporting custodians for planning workloads and material requirements, and for configuration accounting. Data obtained from the WO allows identification of all direct man-hours expended complying with directives. Maintenance Control originates the TD compliance WO. If more than one work center is involved, Maintenance Control must designate one work center to be responsible for completing the TD compliance WO, and will initiate a separate WO for each work center to document their portion of the TD. The primary work center will be issued a Technical Directive (TD) type WO per paragraph 15.5.54 and the other work centers will be issued a TD assist (AT) type WO per paragraph 15.5.55. TD removals will be documented in the same manner as TD

incorporations except for MAL code. Use TD status codes listed on Appendix E for the Action Taken Field on the WO.

b. Technical Directive Compliance Procedures (Off-Equipment). Type WO code: WR – Work Request. TDs will frequently require off-equipment work, specifying accomplishment at I-level. In these cases, the activity will use the one-character code, which describes the maintenance level that was performed in M/L of the TD compliance WO. Refer to paragraph 15.5.4 for Work Request documentation procedures.

(1) If the TD compliance is directly applicable to a component, the removal and replacement of the component and the associated man-hours must be documented on a WO. Once the removal is completed, the maintenance action remains outstanding until reinstallation of the component. A separate WR WO will be generated for turn-in to the IMA.

(2) If the I-level activity informs the O-level activity that the component requires repair, the O-level activity must initiate another WO for turn-in and requisitioning purposes using the original JCN.

15.5.6 Aircraft Engine and Auxiliary Power Unit (APU) Maintenance Documentation

15.5.6.1 General Information

The aircraft is considered to be the end item when work is performed on engines, except for TD compliance at the O-level maintenance activity. Engines sent to IMA or depot for any reason will be considered the end item and the turn-in document will list the engine Assembly Cd and the engine propulsion system serial number (PSSN) or the module SERNO. When documentation requires an engine or APU to be identified in the Removed or Installed Item, the CAGE will reflect the engine or APU Assembly Cd and position number, for example, JHD1. The Part Number will be left blank when Assembly Cd are used in the CAGE to identify engines/APUs. Documentation procedures for an aircraft engine or airborne APU are the same with the following exceptions:

a. CAGE for Material Required. When identifying an APU, enter numeric 1 for engine position; for example, PHA1.

b. CAGE for Removed or Installed Item. When identifying an APU, enter numeric 1 for engine position; for example, PHA1.

c. When documenting APU enter the engine hour meter or start counter reading (as applicable) in CM Current Usage Records.

15.5.6.2 Modular Engine TD Compliance

a. Type WO code: TD – Technical Directive.

b. Maintenance Control will generate the TD compliance WO.

c. If more than one work center is involved, Maintenance Control must initiate a separate TD compliance WO for assist work center to document their portion of the TD.

d. If the TD has multiple parts, a separate WO must be initiated for each part.

e. TDs for modular engines will be issued against the module.

f. The WUC/UNS will be that of the module or component of the module, never the engine.

g. The Assembly Cd will reflect the equipment category and model/series of the engine.

h. If the TD applies to more than one module, a separate WO with a unique JCN will be issued for each module.

i. TRANS code 47 will be used for a module regardless of a P/N change or a TD incorporation on a component.

j. The JCN will be that of the activity requesting the TD incorporation.

k. When a complete engine is being turned in for TD compliance, the PSSN will be entered in the Discrepancy block.

15.5.7 Engine Cannibalization

a. Type WO code: CM (Cannibalization).

b. Documentation procedures will be per paragraph 15.5.51 using cannibalization wizard in OOMA.

15.5.8 Engine Inspections

a. Major Inspections. O-level activities do not perform independent major inspections on nonreciprocating engines. This task is included in the aircraft phase inspections for installed engines. All major inspections, for example, Handbook of Service Instructions, Hourly Engine Maintenance Program are done at the I-level per applicable MRCs.

b. Special Inspections. All engine special inspections are documented using control, look, and fix phase WO per major inspections of aircraft and engines (paragraphs 15.5.36 and 15.5.37). JCN is auto generated in OOMA. Inspection WUCs have a special matrix in Appendix E to construct the code. When reporting special inspections that apply to engines, the engine must be identified in the (H-Z) Failed/Required Material field of the WO.

15.5.9 Support Equipment Maintenance Documentation

a. SE TD Compliance. Type WO code: TD - Technical Directive. TD compliance is documented using the TD compliance WO per paragraph 15.5.54. Maintenance Control schedules all TD compliance actions and initiates all TD compliance WOs. The O-level activity originates the TD compliance WO for each end item sent to the I-level activity for TD compliance.

b. SE Inspections/Periodic Maintenance. All inspections (except preoperational and postoperational) and periodic maintenance actions are documented on a special inspection WO per paragraph 15.5.36. The O-level activity will issue a WR type WO for each end item forwarded to the I-level activity for inspections. Refer to paragraph 15.5.43 for Work Request documentation procedures.

c. SE Repair. SE repair actions are documented on a WO per paragraph 15.5.14. The O-level activity issues a WR WO for each end item sent to the I-level activity for repair.

15.5.10 Standard Rework Documentation

NOTE: Refer to 9.1.3 for AIRRS XRAY requirements.

a. Rework performed on aircraft (on-site) by naval aircraft industrial establishments, contractor's plants, and other industrial organizations designated by COMNAVAIRSYSCOM will be documented using control, look, and fix phase documents.

b. Communication between the D-level and the squadron is crucial since the squadron is responsible for all aircraft readiness status changes for the depot.

c. D-level activities will notify the reporting custodian upon arrival of the aircraft to be inducted into rework. At that time, the squadron will initiate the rework control document and XRAY to place the aircraft in rework status, per 9.1.3.

d. When the D-level activity is ready to change the status of the aircraft, the depot will notify the squadron, which will complete the control document WO to terminate the aircraft standard rework status.

e. Rework hours commence accumulation at standard rework control document initiation. Rework hours stop accumulation when the CDI entry is entered on the last outstanding look phase document.

NOTE: The rework process encompasses the look phase only for rework purpose.

f. An individual with administrative certification authority may complete and sign the control document.

g. Detailed documentation:

(1) Type WO codes: IC - PDM, IMC/P, or EPM Control and MC - SDLM (MCI/ASPA) Control. The control document will be initiated by the reporting activity (paragraph 15.5.44).

(2) Type WO codes: IL - PDM, IMC/P, or EPM Look Phase and ML - SDLM (MCI/ASPA) Look Phase. Look phase documents will be issued to applicable maintenance work centers upon initiation of the IC work order to record all O-level support of standard rework (paragraph 15.5.45) during aircraft induction.

(3) WUC assigned to PDM or IMC/P standard rework are sequential 030IMC1, 030IMC2, etc. WUC assigned to SDLM (MCI/ASPA) is 030SDLM. WUCs assigned to EPM are matched to LES Specification Numbers 03TKxxx, 03TSxxx, and 03TZxxx.

h. Look phase documents will be issued for I-level support of standard rework (paragraph 15.5.45). While functioning in this effort, I-level personnel will comply with O-level QA, tool control, and documentation requirements.

NOTE: Look phase documents are not issued for D-level. Therefore, Work Center X43 is not currently used and is reserved for future use.

i. Type WO codes: IF – PDM, IMC/P, or EPM Fix phase documents must be issued for repair of discrepancies discovered during the on-site standard rework process per paragraph 15.5.46.

(1) O-Level (level 1) discrepancies will be completed by the squadron.

NOTE: To provide accurate man-hour accounting by rate, corrective maintenance actions must be documented against the host work center whenever practical (110, 120, etc.).

(2) I-Level (level 2) discrepancies will be completed using the Work Request (paragraph 15.5.43).

(3) D-Level (level 3) discrepancies must be accomplished by a D-Level activity using assist work center procedures per paragraphs 15.5.22. If during the repair process a repairable is required, the repairable item must be ordered on the O-level primary WO.

NOTES: 1. I-Level personnel will comply with O-Level QA, tool control, and documentation requirements.

2. Look phase documents are not issued for D-level.

3. The rework process encompasses the look phase only.

15.5.11 In-Service Repair (ISR) Documentation

ISR is unscheduled D-level repair of operational aircraft damaged beyond the capability of O-level and I-level activities. ISR is performed by depot field teams at the aircraft operational site. Reporting custody and Material Condition Reporting Status (MCRS) of the aircraft remain unchanged during ISR, unless directed otherwise by the ACC. In-Service Repair will be documented using assist work center. Figure 15-4 is an example of a completed in-service repair document. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be AD

ORG CODE

MODEX of aircraft

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E) - Must be X44

CF REQ (if applicable)

QA REQ

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E) - Must be 11

M/L- Must be 3

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE - Must be V.

TYPE MAINT - Must be B

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED.

EOC – Must be R

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (if applicable)

DISCREPANCY - Enter the narrative description of the discrepancy as submitted in the P&E request, followed by the Report Control Number (RCN).

CORRECTIVE ACTION - Enter the narrative description of the corrective action (as provided by P&E), the name of the servicing depot, the P&E Request Report Control Number, the depot Field Team number, Job Order Number, and Work Order Number.

INITIATOR, CORRECTED BY, INSPECTED BY (MUST BE SQUADRON QAR or CDQAR) AND MAINT CONTROL SIGNATURES.

NOTE: Squadron QAR or CDQAR sign-off signifies the repaired item has been visually inspected per O-level inspection requirements; it does not certify the depot correctly repaired the item per depot specifications.

15.5.12 Modification Documentation

Modification includes only the incorporation of changes and bulletins and the correction of discrepancies as required in the directive authorizing the work to be performed. Figure 15-5 is an example of a completed D-level modification document. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be TD

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E) - Must be X45

INTRM CD (if applicable)

CODE of TD (Appendix E).

BASIC NO of TD.

REV LTR of TD (if applicable)

AMEND of TD (if applicable)

PART of TD (if applicable)

KIT NO of TD (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E), 41 or 47

M/L- Must be 3

ITEM PROCESS

ACTION TAKEN – See TD Status Codes (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED.

EOC – Must be M

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY (SQUADRON QAR or CDQAR) AND MAINT CONTROL SIGNATURES

NOTE: Squadron QAR or CDQAR sign-off signifies the modified item has been visually inspected per O-level inspection requirements; it does not certify the depot correctly modified the item per TD specifications.

15.5.13 Excessive Troubleshooting Documentation

Figure 15-6 is an example of a WO documented for excessive troubleshooting with the following required data fields:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - must be 1

ITEM PROCESS

ACTION TAKEN; must be Y (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.14 On-Equipment Repair Documentation

Figure 15-7 is an example of a WO documented for on equipment repair with the following required data fields:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.15 On-Equipment Repair (Repairable Component Replacement) Documentation

Figure 15-8 is an example of a WO documented for on-equipment repair involving replacement of a repairable component. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.16 Turn-In Document

Figure 15-9 is an example of a WO documented for turn-in and subsequent I-level activity processing of a repairable and locally repaired consumable component. The WO must be completed per 15.2 and submitted for processing even though the removal, repair, and reinstallation of a component occur within a single work center. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

NOTES: 1. If an item is still under warranty at the time of failure, ensure that blocks E47 and E52 are completed.

2. Requisition and turn-in procedures for ALSS assemblies and repair parts must be per NALCOMIS guidelines where applicable or established in this instruction. All ALSS turn-ins will be delivered directly to the ALSS pool.

15.5.17 Component Received Missing SRC Card

Figure 15-10is an example of a WO documented when a component is received missing SRC card. Items missing ASRs, MSRs, or AESRs should be documented in a similar manner. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE 140 (Appendix E)

DISC CODE (Appendix E) - Must be Y

TYPE MAINT B (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

NOTE: If the determination can be made that the component is in fact new, an SRC Card, ASR, MSR, or AESR will then be initiated by the requisitioning activity.

15.5.18 Component Received Non-RFI and Installed Documentation

Figure 15-11 is an example of a WO documented when a component is received non-RFI and installed. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E) - Must be Y

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.19 Cannibalization Action WO Documentation

Figure 15-12 is an example of a WO documented for cannibalization action. The removal and installation of items for cannibalization must be documented on one WO using the cannibalization wizard in OOMA. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be CM

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS, enter 18 on all end items except engine components (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) – Must be T

MAL CODE (Appendix E) - Must be 812, 813, 814, 815, 816, 817, or 818

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.20 Matched System (Component 1) Documentation

Figure 15-13 is an example of documentation for the Matched System (Component 1) WO. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E), the malfunction code must be the same for all components of a matched system at the O-Level

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.21 Matched System (Component 2) Documentation

Figure 15-14 is an example of documentation for the Matched System (Component 2) WO. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E), the malfunction code must be the same for all components of a matched system at the O-Level

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.22 Assisting Work Center Documentation.

Figure 15-15 is an example of a WO documented by an assisting work center. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be AD

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E) - Must be 11

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E) - Must be V

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.23 Facilitate Other Maintenance (FOM) Action Documentation

Figure 15-16 is an example of a WO documented for a FOM action. The FOM action is documented per paragraph 15.3, except as noted below:

MCN

JCN

TYPE WO (Appendix E) - Must be FO

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS.

TRANS (Appendix E) - Must be 11 or must be 12 if for engine/engine components

M/L- Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be S

MAL CODE (Appendix E) - Must be 800 or 802 if required for corrosion repairs to adjacent areas

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable). See 15.5.1.8 NOTE

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

LOCAL USE - When a component has been removed to FOM, note its serial number (if any) in this block for reference when the item is reinstalled. If no serial number exists place "0."

15.5.24 Tire and Wheel Documentation

Figure 15-17 is an example of a WO for a tire or wheel. Figure 15-18 is an example of turn-in documentation. The tire/wheel assembly will be documented as the major repairable component in the WO removed item and installed item blocks. Squadrons must order tire/wheel assemblies using an assigned assembly NIIN. A Local Item Control (LICN) for the tire/wheel assembly will be used if the TMS aircraft does not have an assigned tire/wheel assembly NIIN. LICN will be LL-TMS-last four numbers of wheel NIIN, for example LL-AV8-9209. If the wheel is the slip rim type use valve core half NIIN. If a part number is not available for the wheel assembly use the last four of the LICN for the part number. Documentation procedures will be per paragraph 15.3, except as noted below:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.25 Hosting Activity Repair Documentation

Figure 15-19 is an example of a WO documented for repair action by the hosting activity. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be F

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.26 Transient Maintenance SCIR Data Documentation

Figure 15-20 is an example of a WO documented for transient maintenance indicating SCIR data. All data blocks must be completed per paragraph 15.3, except as noted below.

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E) - Must be 72

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be F

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.27 Removal and Replacement of Cartridges (CART), Cartridge Activated Devices (CAD), and Propellant Actuated Devices (PAD) (O-Level Maintenance) Documentation

Figure 15-21 is an example of a WO documented for the removal and replacement of aircraft installed explosive devices. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.28 Aircraft Mission or SE Reconfiguration Documentation

Figure 15-22 is an example of a WO documented for a change in aircraft mission reconfiguration. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

WUC/UNS

TRANS (Appendix E) - Must be 16 for removal and 17 for installation

M/L- Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be P for removal and Q for installation

MAL CODE (Appendix E) - Must be 801

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (not applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.29 Acceptance Inspection Control and Look Phase Documentation

Figure 15-23 is an example of a control WO documented for an acceptance inspection. The following explains documentation:

(1) MCN

(2) JCN

(3) TYPE WO (Appendix E) - Must be AC for Control and AL for Look Phase

(4) ORG CODE

(5) MODEX of aircraft, blank for others

(6) BUNO/SERNO

(7) ASSY CD

(8) WORK CENTER (Appendix E)

(9) CF REQ (if applicable)

(10) QA REQ (if applicable)

(11) WUC/UNS- Must be 030

(12) TRANS (Appendix E)

(13) M/L

(14) ITEM PROCESS- Must be 1 for Control and 0 for Look Phase

(15) ACTION TAKEN (Appendix E) - Must be 0

(16) MAL CODE (Appendix E) - Must be 000

(17) DISC CODE (Appendix E) - Must be O

(18) TYPE MAINT (Appendix E) - Must be E

(19) DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

(20) EOC (if applicable)

(21) POSIT (if applicable)

(22) DISCREPANCY

(23) CORRECTIVE ACTION

(24) INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES (if applicable)

NOTE: Corrected by signature is not applicable on control work orders. Maintenance Control signatures is not applicable on look phase work orders.

15.5.30 Acceptance Inspection (Fix Phase Discrepancy) Documentation

Figure 15-24 is an example of a WO documented for a fix phase acceptance inspection. Fix phase discrepancies discovered during the look phase of an acceptance inspection will be documented per paragraph 15.3, except as noted below:

MCN

JCN

TYPE WO (Appendix E) - Must be AF

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be E

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.31 Acceptance Inspection (Repairable Required) Documentation

Figure 15-25 is an example of a WO documented for an acceptance inspection which requires the removal/replacement of a repairable component. Repairable required must be documented per paragraph 15.3, except as noted below:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be E

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.32 Transfer Inspection Control and Look Phase Documentation

Figure 15-26 is an example of a control WO documented for a transfer inspection. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be TC for Control and TL for Look Phase

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS- Must be 030

TRANS (Appendix E)

M/L

ITEM PROCESS- Must be 1 for Control and 0 for Look Phase

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be E

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES (if applicable)

NOTE: Corrected by signature is not applicable on control work orders. Maintenance Control signatures is not applicable on look phase work orders.

15.5.33 Aircraft Phase Inspection (Check Crew Not Integrated) Control Document Documentation

Figure 15-27 is an example of a WO documented for an aircraft phase inspection control document when the check crew is not integrated. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be PC

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E) - Must be 020

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be G

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, INSPECTED BY, AND MAINT CONTROL SIGNATURES

15.5.34 Aircraft Phase Inspection Man-Hours (Control and Look Phase) Documentation

Figure 15-28 is an example of a WO documented for man-hours against the look phase of a phase inspection. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be PC for Phase Control and PL for Phase Look Phase

ORG CODE

MODEX of aircraft

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS- Must be 1 for Control Phase and 0 for Look Phase

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be G

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED.

EOC (if applicable).

POSIT (if applicable).

DISCREPANCY.

CORRECTIVE ACTION.

INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES (if applicable).

NOTE: Corrected by signature is not applicable on control work orders. Maintenance Control signatures is not applicable on look phase work orders.

15.5.35 Aircraft Phase Inspection Fix Phase Documentation

Figure 15-29 is an example of a WO documented for a fix phase discrepancy. Fix phase WOs are completed per paragraph 15.3, except as noted below:

MCN

JCN. This is auto generated in OOMA. The JCN serial number will contain the same data elements entered on the control document, but with sequential numbering from 01 to 99 in the second and third positions of the serial number, for example, A01, A02, A03. If more than 99, use alpha characters in the second and third position, for example, AA1 through AA9, AB1.

TYPE WO (Appendix E) - Must be PF

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.36 Special Inspection Control and Look Phase Documentation

Figure 15-30 is an example of a WO documented for a special inspection control document. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be SC for Control and SL for Look Phase

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS- Must be 1 for Control and 0 for Look Phase

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be D, M, or N

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL-Enter appropriate data to identify engine (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES (if applicable)

NOTE: Corrected by signature is not applicable on control work orders. Maintenance Control signatures are not applicable on look phase work orders.

15.5.37 Aircraft Special Inspection (Fix Phase) Documentation

Figure 15-31 is an example of a WO documented for a special inspection fix phase. Fix phase discrepancies affecting aircraft mission capability would require SCIR documentation. The following explains documentation:

MCN

JCN. This is auto generated in OOMA. The JCN serial number will contain the same data elements entered on the control document, but with sequential numbering from 01 to 99 in the second and third positions of the serial number, for example, A01, A02, A03. If more than 99, use alpha characters in the second and third position, for example, AA1 through AA9, AB1.

TYPE WO (Appendix E) - Must be SF

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.38 Aircraft Conditional Inspection Control and Look Phase Documentation

Figure 15-32 is an example of a WO documented for a conditional inspection control document and the following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be CC for Control and CL for Look Phase

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

NOTES: 1. For AGM conditional inspections, all work centers, to include QA, will have a WO issued.

2. For those work centers which report no damage, the corrective action will be, "Inspected areas _____ with no damage.".

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS - Must be 030

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN - Must be 0

MAL CODE Must be 000

DISC CODE - Must be O

TYPE MAINT - Must be S

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES (if applicable)

NOTE: Corrected by signature is not applicable on control work orders. Maintenance Control signatures are not applicable on look phase work orders.

15.5.39 Aircraft Conditional Inspection (Fix Phase) Documentation

Figure 15-33 is an example of a WO documented for an aircraft conditional inspection fix phase action. The following explains documentation:

MCN

JCN. This is auto generated in OOMA. Enter the assigned JCN. The JCN serial number will contain the same data elements entered on the control document, but with sequential numbering from 01 to 99 in the second and third positions of the serial number, for example, A01, A02, A03. If more than 99, use alpha characters in the second and third position, for example, AA1 through AA9, AB1.

TYPE WO - Must be CF

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L - Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT - Must be S

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.40 Aircraft Preservation Control Documentation

Figure 15-34 is an example of a WO documented for a preservation control document. The following explains documentation:

MCN

JCN

TYPE WO - Must be FC

ORG CODE

MODEX of aircraft, blank for others.

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS - Must be 049

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be D

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, INSPECTED BY, AND MAINT CONTROL SIGNATURES

15.5.41 Aircraft Depreservation Control Documentation

Figure 15-35 is an example of a WO documented for a depreservation work center action. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be DC

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS- Must be 049

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be D

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, INSPECTED BY, AND MAINT CONTROL SIGNATURES

15.5.42 Removal and Replacement for Scheduled Maintenance/High-time Documentation

Figure 15-36 is an example of a WO documented for the removal and replacement of an item for high-time inspection. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E) - Must be 18, 19, or 23

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be R

MAL CODE (Appendix E) - Must be 804

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable).

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED.

EOC (if applicable).

POSIT (if applicable).

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate).

DISCREPANCY.

CORRECTIVE ACTION.

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES.

15.5.43 WO Work Request Documentation

Figure 15-37 is an example of a WO documented for a WO work request turn-in. The WO work request is delivered, with the component(s), to Production Control. The following blocks will be completed:

MCN

JCN

TYPE WO (Appendix E) - Must be WR

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

WUC/UNS

TRANS (Appendix E)

M/L- Must be 2

ITEM PROCESS

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED

POSIT (if applicable)

DISCREPANCY

INITIATOR

15.5.44 Standard Rework Control Documentation

Figure 15-38 is an example of a completed IMC/P control WO. No SCIR EOC code will be documented on IMC/P or enhanced phase maintenance (EPM) control WOs. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be IC or MC

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS - PDM or IMC/P is sequential 030IMC1, 030IMC2, etc. Rework (MCI) is 030REWK. EPM is related to a specific LES Task WUC (03TKxxx)

TRANS (Appendix E)

M/L- Must be 3

ITEM PROCESS- Must be 1

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be G

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (not applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, INSPECTED BY, AND MAINT CONTROL SIGNATURES

15.5.45 Standard Rework Look Phase Documentation

Figure 15-39 is an example of a completed rework look phase document. Look phase documents are issued to each work center participating in the IMC/P or EPM inspection. No SCIR EOC code will be documented on look phase documents. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be IL or ML

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS - PDM or IMC/P is sequential 030IMC1, 030IMC2, etc. Rework (MCI) is 030REWK. EPM is related to a specific LES Task WUC (03TKxxx)

TRANS (Appendix E)

M/L- Must be 1 or 2

ITEM PROCESS- Must be 1

ACTION TAKEN (Appendix E) - Must be 0

MAL CODE (Appendix E) - Must be 000

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be G

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, AND INSPECTED BY SIGNATURES

15.5.46 Standard Rework Fix Phase Documentation

Figure 15-40 is standard rework fix phase documentation is similar to procedures for documenting depot In Service Repairs (ISR), paragraph 15.5.11. Documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be IF or MF

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L- Must be 1

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E) - Must be M

TYPE MAINT (Appendix E) - Must be G

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (not applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY, AND MAINT CONTROL SIGNATURES

15.5.47 Unscheduled Maintenance (Installed APU/Engine) Repairable Replacement Documentation

Figure 15-41 is an example of a WO documented for a repairable replacement during unscheduled on-equipment maintenance on an installed engine. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E) - Must be 25

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be R

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the engine, in the case of an APU, always enter numeric 1 for engine position in CAGE, field, for example, PHAB1; record supply requisitions.

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.48 Unscheduled Maintenance (Installed APU/Engine) Repair Documentation

Figure 15-42 is an example of a WO documented for the repair of unscheduled on-equipment maintenance of installed engines. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the engine, in the case of an APU, always enter numeric 1 for engine position in Cage field, for example, PHAB1; enter the failed part(s)/record supply requisition(s) (if applicable).

DISCREPANCY.

CORRECTIVE ACTION.

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES.

15.5.49 Installation Action (Nondefective Repairable Engine Component) Documentation

Figure 15-43 is an example of a WO documented for the installation of a nondefective repairable engine component. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS- Must be 15 (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be Q

MAL CODE (Appendix E) - Must be 801

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the engine and the requisition information for the part that is being cannibalized.

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.50 Removal Action (Nondefective Repairable Engine Component) Documentation

Figure 15-44 is an example of the WO documented for the removal of a nondefective repairable engine component. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS- Must be 14 (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be P

MAL CODE (Appendix E) - Must be 801

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the engine and the requisition information for the part that is being cannibalized.

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.51 Engine Component Cannibalization Documentation

Figure 15-45 is an example of a WO documented for the cannibalization of an engine component. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be CM

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS- Must be 19 (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E) - Must be T

MAL CODE (Appendix E) - Must be 812, 813, or 814

DISC CODE (Appendix E) - Must be O

TYPE MAINT (Appendix E) - Must be B

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the engine and the requisition information for the part that is being cannibalized.

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.52 TD Removals Documentation

Figure 15-46 is an example of a WO documented for a TD removal. TD removals will be documented in the same manner as TD compliances (Figures 15-45 and 15-46) except Action Taken- Must be TD Status Code Q.

15.5.53 Engine TD Compliance Documentation

Figure 15-47 is an example of a WO documented for TD engine compliance. The following explains documentation:

MCN

JCN

TYPE WO (Appendix E) - Must be TD

ORG CODE

MODEX of aircraft or blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

INTRM CD (if applicable)

CODE of TD (Appendix E)

BASIC NO of TD

REV LTR of TD (if applicable)

AMEND of TD (if applicable)

PART of TD (if applicable)

KIT NO of TD (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E), 41 or 47

M/L

ITEM PROCESS

ACTION TAKEN – See TD Status Codes (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.54 TD Compliance Documentation

Figure 15-48 is an example of a WO documented for incorporation of a TD. TD documentation will be as follows:

MCN

JCN

TYPE WO (Appendix E) - Must be TD

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

INTRM CD (if applicable)

CODE of TD (Appendix E)

BASIC NO of TD.

REV LTR of TD (if applicable)

AMEND of TD (if applicable)

PART of TD (if applicable)

KIT NO of TD (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E), 41 or 47

M/L

ITEM PROCESS

ACTION TAKEN – See TD Status Codes (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.55 TD Assist Compliance Documentation

Figure 15-49 is an example of a WO documented for incorporation of a TD assist. TD assist documentation will be as follows:

MCN

JCN

TYPE WO (Appendix E) - Must be AT

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

INTRM CD (if applicable)

CODE of TD (Appendix E)

BASIC NO of TD

REV LTR of TD (if applicable)

AMEND of TD (if applicable)

PART of TD (if applicable)

KIT NO of TD (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E), 41 or 47

M/L

ITEM PROCESS

ACTION TAKEN – A

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.56 Reinstallation After Check, Test, and Service Documentation

Figure 15-50 is an example of a WO documented for reinstallation of the items that were tested, inspected, or serviced. The requesting activity will complete the WO that has been held in suspense as follows:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft, blank for others

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E)

TYPE MAINT (Appendix E)

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

15.5.57 Predictive Maintenance Documentation

The following explains documentation for Predictive Maintenance:

MCN

JCN

TYPE WO (Appendix E)

ORG CODE

MODEX of aircraft

BUNO/SERNO

ASSY CD

WORK CENTER (Appendix E)

CF REQ (if applicable)

QA REQ (if applicable)

TURN-IN DOC (if applicable)

WUC/UNS

TRANS (Appendix E)

M/L

ITEM PROCESS

ACTION TAKEN (Appendix E)

MAL CODE (Appendix E)

DISC CODE (Appendix E) - Must be I if HMS Generated, N if PO/FST Analysis, R if QA Trend Analysis

TYPE MAINT (Appendix E) Must be C

REMOVED/OLD ITEM (if applicable)

INSTALLED/NEW ITEM (if applicable)

DATES (DD MMM YYYY) AND TIMES (TTTT) FOR RECEIVED, IN WORK AND COMPLETED

EOC (if applicable)

POSIT (if applicable)

(H-Z) FAILED/REQUIRED MATERIAL (as appropriate)

DISCREPANCY

CORRECTIVE ACTION

INITIATOR, CORRECTED BY, INSPECTED BY AND MAINT CONTROL SIGNATURES

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY	INITIATOR

CORRECTIVE ACTION

CORRECTED BY	INSPECTED BY	MAINT CONTROL

Figure 15-1: OOMA Work Order Form (Example)

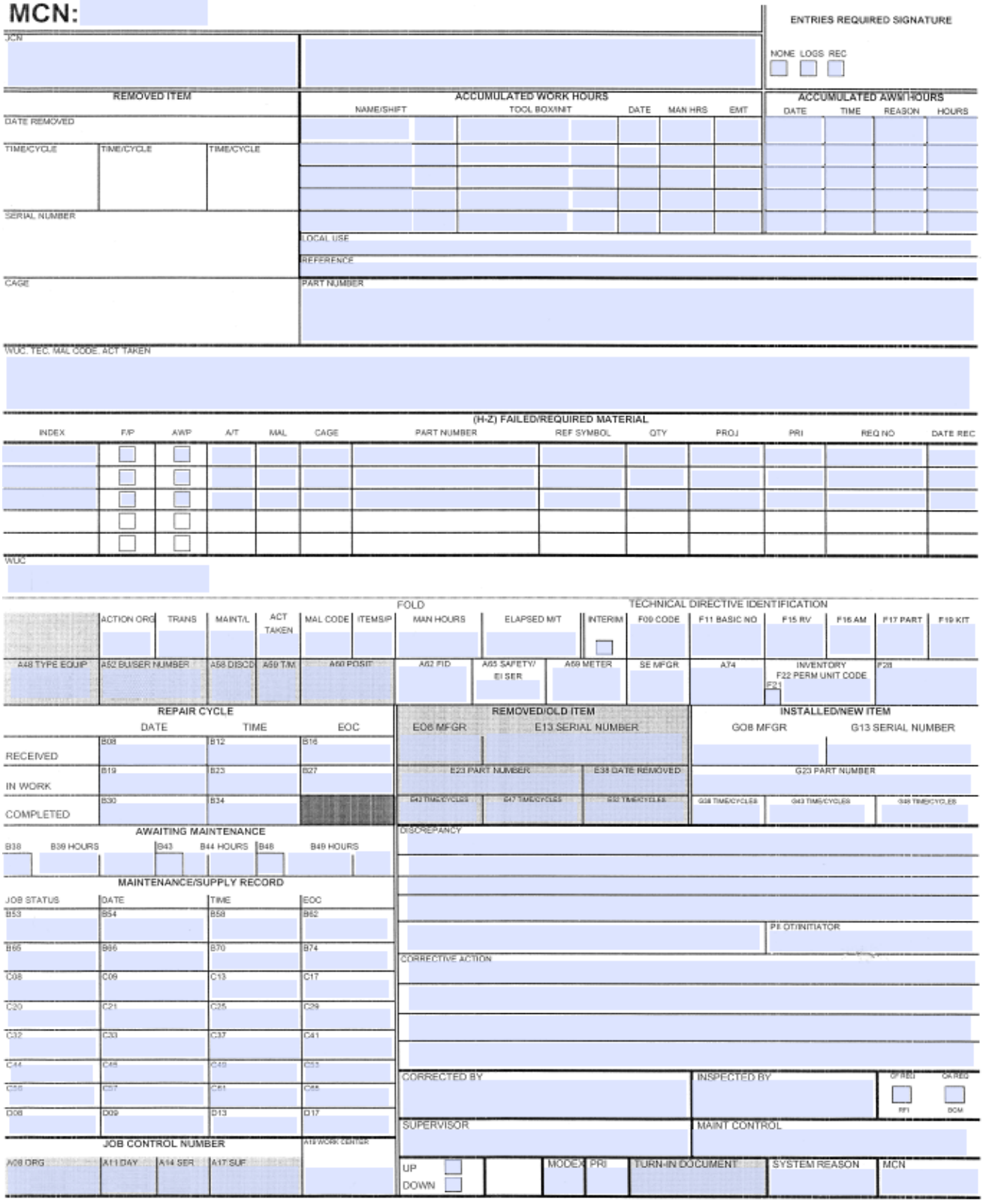


Figure 15-2: OPNAV 4790/60 VIDS/MAF Form (Example)

NALCOMIS CONTINGENCY JCN LOG

JCN	JULIAN DATE	MODEX	W/C	DISCREPANCY	INITIATOR

Figure 15-3: NALCOMIS Contingency JCN Log

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
2QMSNEZ	KD5116027	AD	KD5	303	166350	AHZN	X44	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	111KF10	11	3	0	C	000	V	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	Cage	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.7	0.7	27 APR 2022 1001	R	24 MAY 2022 1000	R	07 JUN 2022 1306	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					P&E APU FIREWALL CRACK

(H-Z) Failed/Required Material

Index	F/P A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AS2 M PARSONS

CRACK ON APU FIREWALL PANEL. STA 440,WL 290, BL-5. RCN: N09061-22-0019

CORRECTIVE ACTION

REFER TO TEAM NUMBER: N-2570-22, NETWORK ACTIVITY NUMBER (NWA) 100001800153.0039, WORK ORDER NUMBER: 55089743 FOR IN-SERVICE REPAIR OF APU SHROUD. COMPLETION DATE 24MAY22, PAPERWORK RECIEVED 24MAY22.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AD1 C BREINER	AT1 C HIGGINS	AOC T DAVIS

Page 1 of 1

FOR OFFICIAL USE ONLY

Figure 15-4: In-Service Repair (ISR) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU8CTR	PA2003512	TD	PJ3	200	165781	AMAH	X45	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No
	61	1504				A2

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	14B1300	47	3	1	C			

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
76301	A44-0211	76301	A44-0211
Part Number	Date Removed	Part Number	Date Installed
74A172004-1006	01 MAR 2019 1546	74A172004-1006	01 MAR 2019 1546

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.0	0.0	12 NOV 2019 0856	M	12 NOV 2019 0921	M	13 NOV 2019 0945	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					AYC-1504 NXT MOD LINE

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC R BREAUX

COMPLY WITH INTRM: CODE: 61 BASIC NO: 1504 REV LTR: AMEND: PART: KIT NO: A2 INCORPORATION OF FT77/78 AILERON ASSEMBLY RETROFIT. DEPOT OR CONTRACTOR LEVEL MAINTENANCE IN ALL AFFECTED UNITS AS DIRECTED BY TYCOM/NAVAIR. [SER#: A44-0211].

CORRECTIVE ACTION

AYC-1504 COMPLETED DURING PMI/MOD BY FRC WEST LEMOORE. CA UNDER WORK ORDER #: 49353149, JO#: XT88414.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AZ1 A EUGENE	AD1 A MORAN	AZCM A GANT

Figure 15-5: Modification (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
1IIEFHT	QL0029123	DM	QL0	25	165776	AHZN	220	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	2619370	11	1	1	Y	185	C	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
11.0	3.0	29 JAN 2019 1131		29 JAN 2019 1139		29 JAN 2019 1612	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					CHIP LIGHT

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
LCDR J YOUNG

IGB CHIP LIGHT CAME ON DURING FLIGHT.

CORRECTIVE ACTION

INSPECTED IGB CHIP DETECTOR AND A SINGLE STEEL (MAGNETIC) CHIP WAS FOUND. CHIP IS WITHIN LIMITS. PERFORMED FULL DRAIN AND FLUSH IN ACCORDANCE WITH A1-H60SA-GAI-000. PERFORMED ONE HOUR PENALTY TURN. NO FUTHER CHIPS FOUND. PEMA S/N 6CKSA67580. AREA SECURED AND FOD FREE AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
ADAN K SETTING	AT1 M MUSE	AZC J PARSONS

Figure 15-6: Excessive Troubleshooting (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU85RW	PA2326099	DM	PA2	224	168905	AMAH	210	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	631T700	11	1	1	C	956	D	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
4.1	0.9	22 NOV 2019 1925	L	22 NOV 2019 2030	L	23 NOV 2019 1340	P

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					214 DEGD

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
CDR E HOOD

JAMMER DEGD AFTER BIT AIRBORNE. MSP 410, LOW BAND RECEIVER FAIL.

CORRECTIVE ACTION

RESEATED ALQ-214(V)4 JAMMER RECEIVER AND MODULATOR AND SYSTEM CHECKS GOOD ON DECK IAW IETM. AREA SECURE AND FOD FREE. ATAF PEMA 6IKSA88466.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AT3 B MCDONALD	AT1 T PEREZ	AZCS C YOUNG

Figure 15-7: On-Equipment Repair (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3BU1FL8	PE3324445	DM	PE3	100	165802	AMAJ	110	N	Y

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27DC200	25	1	1	R	177	A	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
99207	BECR1542	99207	BECR0984
Part Number	Date Removed	Part Number	Date Installed
5106T87P07	20 NOV 2019 1511	5106T87P06	07 DEC 2019 2022

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
34.3	13.5	20 NOV 2019 0946	Z	20 NOV 2019 1230	Z	10 DEC 2019 1116	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		01			PORT MAIN FUEL CONTROL

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00	T4AB1	E869126 E2170	0		00	00 0000 0000			
				07482	J221P136	1	AK0	02	20 NOV 2019 1724	8324GF77	20 NOV 2019 1726	O-RING/ITEMS
				07482	1154M18P23	1	AK0	02	20 NOV 2019 1725	8324GF78	20 NOV 2019 1727	GASKET/IETMS
				81349	M25988/1-016	1	AK0	02	20 NOV 2019 1726	8324GF79	20 NOV 2019 1728	O-RING/ITEMS
				07482	J228P123	1	AK0	02	20 NOV 2019 1727	8324GF80	20 NOV 2019 1729	O-RING/ITEMS
				99207	2666850-12	1	AK0	02	20 NOV 2019 1728	8324GF81	20 NOV 2019 1730	O-RING/ITEMS
				06848	2666850-14	1	AK0	02	20 NOV 2019 1729	8324GF82	20 NOV 2019 1731	O-RING/ITEMS
				06848	2666850-10	1	AK0	02	20 NOV 2019 1730	8324GF83	20 NOV 2019 1732	O-RING/ITEMS
				07482	1154M18P26	1	AK0	02	20 NOV 2019 1731	8324GF84	20 NOV 2019 1733	GASKET/IETMS
				07482	J228P127	1	AK0	02	20 NOV 2019 1732	8324GF85	20 NOV 2019 1734	O-RING/ITEMS

DISCREPANCY

INITIATOR
LCDR HARTMAN

FADEC ADVISORY ON DECK THAT WOULD NOT CLEAR. ATTEMPTED FULL JET SHUTDOWN AND LEFT ENGINE SHUTDOWN WITH ATTEMPTED CHANNEL SWAP ON LEFT ENGINE FADEC CHANNEL. CHANNEL B FAULT CODES 009 078 304.

CORRECTIVE ACTION

REMOVED AND REPLACED THE PORT ENGINE FUEL CONTROL IAW IETM PEMA COPY 21. OPERATIONAL AND LEAK CHECKS GOOD AT LOW AND HIGH POWER OPERATION. THE AREA IS SECURE AND FOD FREE

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AD1 S KAIGHN	AD1 L STOKES	AZCM L STOCKDALE

Figure 15-8: On-Equipment Repair (Repairable Component Replacement) (Example)

OMA/IOU TURN-IN NOTICE

ACTIVITY	ORG CODE
VFA22	PA3

TURN-IN MCN	WUC/UNS
3UF4H6L	75HA100

TEC	BUNO/SERNO	WD	TM	POSIT	EI	
AMAJ	166975	D	B			

REMOVED ITEM

CAGE	PART NUMBER
76301	10052687
Serno: SWB008	DATE REMOVED: 04 NOV 2019

TIME/CYCLES TIME/CYCLES TIME/CYCLES

SRC	INITIATED BY
	AOC WALKER

JCN	INSP JCN	TI DDSN
PA3322600		9308GD80

DISCREPANCY

PERFORM 7500 ROUND INSPECTION.

Figure 15-9: Turn –In Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD4B8V	PE7226012	DM	PE7	110	168489	AMAJ	13B	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	41J11	23	1	1	R	140	Y	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
64547	69-2997	64547	116-795
Part Number	Date Removed	Part Number	Date Installed
102202-13-1	14 AUG 2019 1805	102202-13-1	16 AUG 2019 1816

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
3.3	3.3	14 AUG 2019 1600	Z	14 AUG 2019 1615	Z	16 AUG 2019 1820	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					REJECTED CPR/MISSING SRC

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AME3 C BRANN

REJECTED FOR MISSING SRC FOR CABIN PRESSURE REGULATOR.

CORRECTIVE ACTION

REMOVED AND REPLACED CABIN PRESSURE REGULATOR PART NO: 103130-535-3; SN: 116-795 IAW IETMS. AREA FOD FREE AND SECURE. ATAF.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AME3 H ALBANEZ URIBE	AME2 U KAMGANG MOU	AZ1 R AMMAY

Figure 15-10: Component Received Missing SRC Card (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
06T97T2	PQ3176308	DM	PQ3	09	166367	AHZN	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
06T97T4	14711C0	23	1	1	R	020	Y	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	Cage	Serial Number
78286	B365-03655	78286	B365-03561
Part Number	Date Removed	Part Number	Date Installed
70400-08163-043	25 JUN 2019 1904	70400-08613-043	26 JUN 2019 1021

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.00	1.5	25 JUN 2019 1856	Z	25 JUN 2019 1857	Z	11 JUL 2019 1637	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					AFT BRIDGE BAD FM SUPPLY

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

UPON INITIAL INSPECTION OF AFT BRIDGE WAS REJECTED FOR PITTING IN THE BUSHINGS, CA 1000 AROUND BUSHING AND THE CORNERS DAMAGED WITH VARIOUS BARE METAL AREAS.

INITIATOR
AMCS T MOUDRY

CORRECTIVE ACTION

REMOVED AND REPLACED AFT BRIDGE IAW 150-300. AREA SECURE AND FOD FREE AT TIME OF INSPECTION. PEMA SN: 0957.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AM2 D URIARTEMAGALL	AM1 R WORLEY	AZC T TATUM

Figure 15-11: Component Received Non-RFI and Installed (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU8VHS	PA2055058	CM	PA2	224	168908	AMAH	210	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
3FU8OX6	729H1	18	1	1	T	814	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
8X691	TXJ00174	8X691	TXJ00041
Part Number	Date Removed	Part Number	Date Installed
00411300-01	19 APR 2019 1045	00411300-01	05 MAY 2019 1010

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
5.7	1.8	19 APR 2019 0739	K	19 APR 2019 0822	K	05 MAY 2019 2324	P

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					CANN BEACON RCVR

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				8X691	00411300-01	1	757	02	09 JAN 2019 0621	9009G114	23 APR 2019 1549	IETM/RADAR NA

DISCREPANCY

INITIATOR
ADC B TOURVILLE

Cannibalized item: R2632/APN245 BEACON RECEIVER ASSY (DDSN: 9009G114) for Modex 212 Original MCN: 3FU8TZA

CORRECTIVE ACTION

REMOVED AND REPALCED BEACON RECEIVER WITH SN: TXJ00041. BEACON RECEIVER BIT GO IAW IETM. PEMA COPY 18 UTILIZED. ALL SECURE. AREA FOD FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AT2 K FOILES	AT2 R ANDRE	ATC B AYALA

Figure 15-12: Cannibalization Action (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3A8A	PD7275123	DM	PD7	105	166806	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	7236100	23	1	1	R	383	D	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
82598	68	82598	92
Part Number	Date Removed	Part Number	Date Installed
1268	10 OCT 2019 1109	1268	29 OCT 2019 1531

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
7.8	4.2	02 OCT 2019 1542	Z	08 OCT 2019 0800	Z	29 OCT 2019 1534	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					RADAR ALT

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				82598	1268	1	AK0	03	10 OCT 2019 1200	9044G562	29 OCT 2019 1430	RT 1601/APN 141

DISCREPANCY

INITIATOR
SGT D MCNEIL

RADAR ALTIMETER READS ABOVE PRESSURE ALTIMETER BY 150
MATCHED SET SEE JCN PD7275124

CORRECTIVE ACTION

REMOVED AND REPLACED RT 1601/APN 141. CHECKS GOOD. AREA FOD FREE AND SECURED.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AMC M HASKINS	AMCS J LAIRD	AZCS J SOUZA

Figure 15-13: Matched System (Component 1) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3A8B	PD7044124	DM	PD7	105	166806	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	7236400	23	1	1	R	383	D	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
82598	1063	82598	2693
Part Number	Date Removed	Part Number	Date Installed
1267	10 OCT 2019 1109	1267	29 OCT 2019 1531

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.0	2.0	02 OCT 2019 1542	Z	08 OCT 2019 0800	Z	29 OCT 2019 1534	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					RDR ALT MATCH SET

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				82598	1268	1	AK0	03	10 OCT 2019 1200	9044G562	29 OCT 2019 1430	SA7911/APN141

DISCREPANCY

INITIATOR
AZCM M VANOVER

RADAR ALTIMETER READS ABOVE PRESSURE ALTIMETER BY 150
MATCHED SET SEE JCN PD7275123

CORRECTIVE ACTION

REMOVED AND REPLACED SA7911/APN 141. CHECKS GOOD. AREA SECURED AND FOD FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AMEC A YOUNG	AVCM R VELTE	AZCM S MALDONADO

Figure 15-14: Matched System (Component 2) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
06T93JD	PQ3106573	AD	PQ3	05	166367	AHZN	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	2613100	11	1	0	C	525	V	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.0	1.0	16 APR 2019 1200	Y	16 APR 2019 2200	Y	17 APR 2019 0008	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					BLEED&SERVICE ROTOR BRAKE

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 J ABUEG

ASSIST WORK CENTER 120 ON PERFORMING ROTOR BRAKE BLEED AND SERVICE.

CORRECTIVE ACTION

BLED AND SERVICED ROTOR BRAKE IAW: 260-300. ROTOR BRAKE CHECKS GOOD AT 540 PSI. AREA SECURE AND FOD FREE AT TIME OF INSPECTION. PEMA 9805.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AM3 E PULIS	AM2 J TORRES	AZCS J DELOSREYES

Figure 15-15: Assisting Work Center (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
2BXAX3J	AH3200456	FO	AH3	**103**	165866	AMAH	210	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	72Y1F40	11	1	0	S	800	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	Cage	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.5	1.5	03 SEP 2019 1251		03 SEP 2019 1252		04 SEP 2019 1357	**U**

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					FOM RDR ANTENNA

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

FOM RADAR ANTENNA

INITIATOR
ATCS S ZAHORNACKY

CORRECTIVE ACTION

REMOVED AND REINSTALLED RADAR ANTENNA IAW IETMS PEMA 033. REFER TO MCN: 2BXATXO FOR OPCHECK. AREA IS SECURE AND FOD FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
ATAN B PARKER	AT2 D HUNT	AMEC J ALI

Figure 15-16: Facilitate Other Maintenance Action (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
06T9A3E	PQ3235093	SF	PQ3	09	166367	AHZN	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
06T9A3T	1316140	23	1	1	R	070	L	D

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
78286	1287M	78286	1204
Part Number	Date Removed	Part Number	Date Installed
96250-13100-042	23 AUG 2019 1107	96250-13100-042	23 AUG 2019 1344

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.6	1.4	23 AUG 2019 0918	Z	23 AUG 2019 1003	Z	23 AUG 2019 1344	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					TLG TIRE CUT OOL

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				78286	96250-13100-042	1	AK0	02	23 AUG 2019 1106	9235GG03	23 AUG 2019 1158	WHEEL AND TIRE

DISCREPANCY

INITIATOR
AM2 M LOPEZ

TLG TIRE CUT OOL

CORRECTIVE ACTION

REMOVED AND REPLACED TLG TIRE, SERVICED TO 110 PSI IAW 110-300. AREA SECURE AND FOD FREE AT TIME OF INSPECTION.
PEMA 0979; TIK: AMD004; NAN-CART; PZN736; 12-TON: 092056

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AM2 K CRUMP	AM2 M LOPEZ	AMCS F PETERS

Figure 15-17: Tire and Wheel Documentation (Example)

OMA/IOU TURN-IN NOTICE						
ACTIVITY VFA2			ORG CODE PE7			
TURN-IN MCN 3PD4JVA		WUC/UNS 13F1200				
TEC AMAJ	BUNO 166804	WD D	TM B	POSIT LH	EI	
REMOVED ITEM						
CAGE 76301		PART NUMBER 2611991-2				
SERNO 1492		DATE REMOVED 12 DEC 2019				
TIME/CYCLES C 0000		TIME/CYCLES		TIME/CYCLES		
SRC	INITITATED BY AM2 WEILAND					
JCN PE7346223		INSP JCN		TI DDSN 9346AH99		
DISCREPANCY WORN TIRE.						

FOR OFFICIAL USE ONLY

Figure 15-18: Tire and Wheel Turn-In (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
4MG88TM	AW1299398	DM	AW1	300	165221	AMAF	210		

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	722C100	23	1	1	R	383	D	F

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
82598	68	82958	92
Part Number	Date Removed	Part Number	Date Installed
1268	15 JAN 2016 1140	1268	15 JAN 2016 1300

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.0	2.0	15 JAN 2016 1130		15 JAN 2016 1130		15 JAN 2016 1430	D

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
M0245						

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
LT TURNER

RADAR ALT READS 150' ABOVE PRESSURE ALT. (MATCHED SET)

(SEE JCN AW1-015-154)

CORRECTIVE ACTION

R & R RT 601/APN-141. CHECKS GOOD ON DECK.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AT2 SMITH	ATC BROWN	AMCS FIGEL

Figure 15-19 Hosting Activity Repair (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3ZIO	PA2326099	DM	PA2	224	168905	AMAH	210	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	631T700	72	1	1	C	956	D	F

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
4.1	0.9	22 NOV 2019 1925	L	22 NOV 2019 2030	L	23 NOV 2019 1340	P

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					214 DEGD

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

JAMMER DEGD AFTER BIT AIRBORNE. MSP 410.LOW BAND RECEIVER FAIL.

INITIATOR
CDR M J NIESWAND

CORRECTIVE ACTION

RESEATED ALQ-214(V)4 JAMMER RECEIVER AND MODULATOR AND SYSTEM CHECKS GOOD ON DECK IAW IETM. AREA SECURE AND FOD FREE. ATAF PEMA 6IKSA88466.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AT3 J BLANKENSHIP	AT1 R CORRALES	AZCS J DENNIS

Figure 15-20: Transient Maintenance (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3Z5C7QP	PDA229718	DM	PDA	206	166948	AMAH	13B	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	97C9C	18	1	1	R	804	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
30003	268	30003	002813
Part Number	Date Removed	Part Number	Date Installed
MBEU145438	13 NOV 2019 0900	BMA16G130001	13 NOV 2019 0900

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.6	0.2	17 AUG 2019 1422	Z	13 NOV 2019 0646	Z	13 NOV 2019 0903	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		SJUNSHR			HI-TIME: 268 (MT97)

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 R HANSON

REMOVE AND REPLACE COMPONENT NOMENCLATURE CCU99/A IMPLS CRTG MT97; PART NO: MBEU145438; SERNO: 268; POS CD: SJUNSHR

CORRECTIVE ACTION

INSTALLED SERNO: 002813; DODIC: MT97; LOT NO: MBA16G130001; MFG DT: 31 JUL 2016; CONT OPEN DT: 08 NOV 2019; ORIG EXP DT: 30 NOV 2026; LOC: (NACES SHOULDER HARNESS REEL). REMOVED AND REPLACED MT97 IAW 11-100-1.1. AREA FOD AND CORROSION FREE AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AME2 D OLIVA	AME1 B MCELROY	AZCM P HUMMEL

Figure 15-21: Removal and Replacement of Cartridges, Cartridge Activated Devices, and Propellant Actuated Devices (Organizational Maintenance) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3JH3KHI	PE3319257	DM	PE3	100	165802	AMAJ	230	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	754CD00	17	1	1	Q	801	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
		072E5	ME3464
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000	1534AS7000	08 JAN 2020 0934

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.5	0.5	08 JAN 2020 0800		08 JAN 2020 0805		08 JAN 2020 0937	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		STAT 1			CONFIGURE STA 1 BRU

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

CONFIGURE STA 1 BRU 32

INITIATOR
AZ2 M MARMOLEJO

CORRECTIVE ACTION

CONFIGURED STA 1 BRU-32 S/N: ME3464 IAW IETM PEMA S/N 051. AREA FOD FREE, ATAF.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AO3 J PRYOR	AOCS L RABALAIS	AZCS M MOTA

Figure 15-22: Aircraft Mission Configuration (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3BU40VS	PE3318101	CC	PE3	205	165903	AMAJ	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030	11	1	1	0	000	O	E

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	14 NOV 2019 0701	Y	00 0000 0000	Y	21 JAN 2020 1940	D

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
	N					ACCEPTANCE INSPECTION

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC J MONTANO

PERFORM ACCEPTANCE INSPECTION CONDITIONAL INSPECTION

CORRECTIVE ACTION

ALL WORK CENTERS PERFORMED ACCEPTANCE INSPECTION IAW A1-F18EF-IETM.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ2 K TOURVILLE	AOCS L COLBY

Figure 15-23: Aircraft Acceptance Inspection (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3Z8Y	PE7044542	AF	PE7	105	166806	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27D66	12	1	1	B	070	G	E

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.0	1.0	14 FEB 2019 1304		14 FEB 2019 1305		28 FEB 2019 0050	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					SECONDARY SEAL CRACKED

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00I	T4AB2	E868905 E2556	0		00	0000 0000			
Inde›	Y	R	07I	99207	5110T19G01	1		00	0000 0000			
			07I	99207	5110T19G01	1	AK1	06	14 FEB 2019 1325	9045AH01	25 FEB 2019 0002	SEAL, METALLIC

DISCREPANCY

INITIATOR
AZ1 J NOBLES

STBD VEN SECONDARY SEAL CRACKED AT 7 O'CLOCK POSITION.

CORRECTIVE ACTION

REMOVED AND REPLACED CRACKED SECONDARY SEAL IAW IETMS. AREA SECURE AND FOD FREE AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
ADAN M RODRIGUEZ	ADC A CURBELLO	AOCS J TORRES

Figure 15-24: Acceptance Inspection (Fix Phase) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3Z8A	PQ3070141	AF	PQ3	401	163402	AMAF	120	N	Y

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
06T90M6	13C1200	23	1	1	R	381	G	E

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
76301	24561	76301	21572
Part Number	Date Removed	Part Number	Date Installed
74A410800-1013	13 MAR 2019 1530	74A410800-1013	20 MAR 2019 0135

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.2	1.2	13 MAR 2019 1401	Z	13 MAR 2019 1402	Z	20 MAR 2019 0151	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					PORT ACT CYL LEAK

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				76301	74A410800-1013	1	AK0	03	14 MAR 2019 1107	9073G659	15 MAR 2019 1030	ACT CYLINDER

DISCREPANCY

INITIATOR
AZ1 J BARCO

PORT LANDING GEAR ACTUATING CYLINDER LEAKING.

CORRECTIVE ACTION

REMOVED AND REPLACED LANDING GEAR ACTUATING CYLINDER.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AMC D CASTRO	AMCS J LACH	AZC M YAP

Figure 15-25: Acceptance Inspection (Fix Phase Repairable Required) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
422BXQB	PF5302248	CC	PF5	166	166666	AMAJ	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030	11	1	1	0	000	O	E

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	29 OCT 2019 1503		00 00000 0000		31 OCT 2019 1632	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					TRANSFER INSPECTION

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC D TOURVILLE

PERFORM TRANSFER INSPECTION CONDITIONAL INSPECTION

CORRECTIVE ACTION

ALL WORK CENTERS PERFORMED TRANSFER INSPECTION IAW A1-F18EF-IETM.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ1 A MITCHELL	AZC R HUGHESBATALLA

Figure 15-26: Aircraft Transfer Inspection (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU8DWE	PA2008A00	PC	PA2	224	168905	AMAH	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	03A0000	11	1	1	0	000	O	G

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	08 JAN 2019 2150	Y	00 0000 0000	Y	10 JAN 2019 1120	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					PHASE 'A' INSP

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 E HANELY

PERFORM PHASE 'A' INSPECTION

CORRECTIVE ACTION

ALL SHOPS COMPLIED WITH PHASE 'A' INSPECTION: WC 110, AD2 J TENA 10JAN19 1021, 120 AM2 R TOMAN 09JAN19 1511, 13B AME1 L SHIELDS 10JAN19 1249, 210 AT2 G WILSON 09JAN19 1654, 220 AE1 J WESTBROOK 09JAN19 1016, 230 AD1 T PETRI 08JAN19 2223, 310 AM1 A SAAVEDR 08JAN19 2237

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ2 RAULERSON	AZ1 L MENDOZA

Figure 15-27: Aircraft Phase Inspection (Check Crew Not Integrated) Control Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU7DRW	PA2114A00	PL	PA2	222	168917	AMAH	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	03B0000	11	1	1	0	000	O	G

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
23.6	17.5	24 APR 2019 1850	Z	25 APR 2019 0630	Z	26 APR 2019 2342	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	Y					PHASE 'B' INSP

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 E OLIVAS

COMPLY WITH PHASE 'B' INSP IAW REF: A1-F18EF-IETM ; S/N = 168917

CORRECTIVE ACTION

COMPLIED WITH PHASE 'B' INSP IAW IETMS. PEMA 6IKSA89163. FOR ALL INSPECTIONS AND PRECLOSURES LOOK TO INPROCESS. AREA IS SECURE. AREA IS FOD/CORROSION FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AM2 J BARRETT	AM2 N LYON	

Figure 15-28: Aircraft Phase Inspection Man-Hours (Look Phase) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3G884GY	PE2063A01	PF	PE2	131	166850	AMAJ	13B	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	41F10	12	1	1	B	180	M	G

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.1	0.7	04 MAR 2019 2237		05 MAR 2019 0353		05 MAR 2019 0515	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					AFT AV FAN FLTR CLOGGED

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	Y	R	18I	76301	ST7M480-1	1			00 0000 0000			

DISCREPANCY

INITIATOR
ASCS M HICKS

AFT AVIONICS COOLING FAN FILTER CLOGGED.

CORRECTIVE ACTION

REMOVED AND REPLACED AFT AVIONICS COOLING FAN FILTER IAW IETM. AREA FOD FREE AT TIME OF INSPECTION. PEMA S/N: 6IKSA88817.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AEC S HERNANDEZ	SSGT C CEASE	AZCS R RUBIO

Figure 15-29: Aircraft Phase (Fix Phase) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3Q544FE	PA9344583	SC	PA9	210	165907	AMAH	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030000M	11	1	1	0	000	O	D

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	10 DEC 2019 0623	Y	00 0000 0000	Y	23 DEC 2019 1252	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					DD: 12/15/2019 336 DAY S

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
PRC J STEINGRABER

PERFORM 336 DAY SPECIAL INSPECTION

CORRECTIVE ACTION

PRFORMED 336 DAY SPECIAL INSPECTION. 110: AD2 PRECIADO 18DEC19 1124, 120:AM3 WILLIAMS 23DEC19 1251, 12C: AM2 RILEY 17DEC19 1858, 13B: AME2 HUNGERFORD 13DEC19 1549, 210: AT2 ANDERSON 18DEC19 1439, 220:AE2 HANNUM 11DEC19 1201.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	ASCS F DIZON	AZCS S CALHOUN

Figure 15-30: Aircraft Special Inspection Control Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU88IK	PA2344430	SF	PA2	222	168917	AMAH	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	11CDU	11	1	1	C	020	L	D

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.6	0.6	10 DEC 2019 1527		10 DEC 2019 1830		12 DEC 2019 0338	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					WORN FIP 331L DD: 06JAN20

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

WORN FIP 331L. DD: 06JAN20

INITIATOR
ADC K RULUKED

CORRECTIVE ACTION

APPLIED FIP ON PANEL 331L IAW IETMS. UTILIZED PEMA SN 61IKSA89160. CHECKS GOOD. AREA VERIFIED FOD AND CORROSION FREE AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
SSGT J DICKISON	AZCS D WOLFE	AZC J ALVAREZ

Figure 15-31: Aircraft Special Inspection (Fix Phase) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU8YFS	PA2140180	CC	PA2	223	168915	AMAH	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030	11	1	1	0	000	O	S

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	16 MAY 2019 1900		00 0000 0000		23 MAY 2019 0856	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
						POST CARRIER INSP

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC B MARSHALL

PERFORM POST CARRIER INSP CONDITIONAL INSPECTION

CORRECTIVE ACTION

ALL SHOPS COMPLIED WITH POST CARRIER INSPECTION: 110 AD1 C LASKOWSKI 22MAY19 1233, 120 AM2 A WOODS 22MAY19 1544, 210 AT2 C CASPE 22MAY19 1431, 220 AE1 A KOEPKE 22MAY19 1318, 310 AM1 M WILLIAMSON 23MAY19 0736

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ1 M PINEDA	AZCS D EVANS

Figure 15-32: Aircraft Conditional Inspection Control Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
1IIFPJ9	QL0253469	CF	QL0	05	165761	AHZN	230	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	97C6K	23	1	1	R	C73	Q	S

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
30003	6162	30003	7361
Part Number	Date Removed	Part Number	Date Installed
1512AS121	16 SEP 2019 0946	ESD03F003001	16 SEP 2019 0950

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.3	1.2	10 SEP 2019 1340		10 SEP 2019 1345		16 SEP 2019 1209	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		01			CCDD: 07OCT19 C/H THRUSTER

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AD2 D FOGG

CORROSION ON THE CARGO HOOK THRUSTER MOUNTING PLATE AROUND QUICK RELEASE PIN HOLE. CCDD:07OCT19

CORRECTIVE ACTION

REMOVED CARGO HOOK THRUSTER AND CAD IAW A1-H60SA-490-300. REPLACED CARGO HOOK THRUSTER WITH SN: 7361 AND CARGO HOOK CAD WITH SN: 1000. AREA FOD FREE AND SECURED AT TIME OF INSPECTION. PEMA: 6CKSA67491.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AO3 N NGUYEN	AO2 D MIRALRIO	AZCS J BROWN

Figure 15-33: Aircraft Conditional Inspection (Fix Phase) (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
422A83M	PF5010281	FC	PF5	233	165783	AMAH	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	049	11	1	1	0	000	O	D

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	10 DEC 2019 1819	Y	00 0000 0000	Y	13 DEC 2019 0317	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					LEVEL I PRESERVATION OF ACFT

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC C DUNCAN

PERFORM LEVEL I PRESERVATION OF AIRCRAFT INSPECTION

CORRECTIVE ACTION

COMPLIED WITH LEVEL I PRESERVATION OF AIRCRAFT INSPECTION. 040 AT1 A JENSEN 13DEC19 0144, 110 AD1 D KLEIN 12DEC19 1038, 120 AM1 R ORTIZ 12DEC19 1626, 12C AM2 N DIAZNICANOR 5DEC19 1916, 13A PR2 B BARNES 5DEC19 1031, 13B AME1 M DAVIS 12DEC19 1538, 210 AT2 N MENDENHALL 13DEC19 0003, 230 AO2 A GERNT 12DEC19 1551, 310 AT1 M KOPP 12DEC19 1546 320 AT2 A REHDER 11DEC19 0747

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ1 M AQUINO	AZC J MANTANONA

Figure 15-34: Aircraft Preservation Control Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
422A83N	PF5010282	BC	PF5	233	165783	AMAH	020	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	049	11	1	1	0	000	O	D

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	14 DEC 2019 1819	Y	00 0000 0000	Y	18 DEC 2019 0317	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					DEPRESERVATION OF ACFT

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
MSGT M HAYES

PERFORM DEPRESERVATION OF AIRCRAFT INSPECTION

CORRECTIVE ACTION

COMPLIED WITH DEPRESERVATION OF AIRCRAFT INSPECTION. 040 AT1 A JENSEN 15DEC19 0144, 110 AD1 D KLEIN 15DEC19 1038, 120 AM1 R ORTIZ 15DEC19 1626, 12C AM2 N DIAZNICANOR 15DEC19 1916, 13A PR2 B BARNES 15DEC19 1031, 13B AME1 M DAVIS 17DEC19 1538, 210 AT2 N MENDENHALL 17DEC19 0003, 230 AO2 A GERNT 16DEC19 1551, 310 AT1 M KOPP 18DEC19 0317 320 AT2 A REHDER 17DEC19 0747

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ1 R AMMAY	AZCM R TERENZINI

Figure 15-35: Aircraft Depreservation Control Document (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU8CTR	PA2003512	DM	PA2	222	168917	AMAH	13B	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	47X1D00	23	1	1	R	804	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
99251	100207	99251	000012807
Part Number	Date Removed	Part Number	Date Installed
3261077-0103	03 JAN 2019 2354	3261077-0103	04 JAN 2019 0248

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
11.1	3.7	03 JAN 2019 2237	Z	03 JAN 2019 2245	Z	04 JAN 2019 0249	D

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
	N					HI-TIME OBOGS

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZC N STROHM

REPLACE OBOGS CONCENTRATOR DUE TO HI-TIME

CORRECTIVE ACTION

REMOVED AND REPLACED OBOGS FOR HI TIME IAW IETM. PERFORMED OBOGS TEST IAW IETM FOR OP CHECK OF NEW CONCENTRATOR. ALL TEST AND CHECKS PASS IAW IETM. AREA SECURE AND FREE OF FOD AND CORROSION AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AME3 S URENA	AME2 J DIXON	AMEC C GREEN

Figure 15-36: Removal and Replacement for Scheduled Maintenance/Hi-Time (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
38U3FCQ	PE3245150	WR	PE3		PD0156	YPC2	13A	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	97C71	11	2	1			O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
30003	039351LH		
Part Number	Date Removed	Part Number	Date Installed
851AS275	30 AUG 2019 0834		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
		30 AUG 2019 0831		00 0000 0000		00 0000 0000	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		01			MW19 REPLACEMENT

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
PRCM B GREEN

REPLACE BOTH LEFT HAND AND RIGHT HAND MW19 CARTRIDGES.

CORRECTIVE ACTION

CORRECTED BY	INSPECTED BY	MAINT CONTROL

Figure 15-37: Work Request (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD45I3	PE7143A00	IC	PE7	110	168489	AMAJ	X40	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030IMC1	11	3	1	0	000	O	G

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0	0	23 MAY 2019 1217		00 0000 0000		23 MAY 2019 1313	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					DD: 5/3/2019 IMC PMI (6 YR INSP)

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

PERFORM IMC PMI (6 YEAR) INSPECTION

INITIATOR
AZC J KIMES

CORRECTIVE ACTION

COMPLIED WITH IMC PMI (6 YEAR) INSPECTION IAW NAVAIR F/A-18E/F PMI.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
	AZ1 T FERGUSON	AZCS C CABANA

Figure 15-38: Standard Rework Control (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD4AB7	PE7214A00	IL	PE7	105	166806	AMAJ	040	Y	Y

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	030IMC1	11	1	1	0	000	O	G

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.6	0.3	02 AUG 2019 0949		02 AUG 2019 1000		02 AUG 2019 1226	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					DD: 7/3/2019 IMC PMI (6 YR INSP)

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY — INITIATOR: AZ1 K KOEPKE

COMPLY WITH IMC PMI (6 YEAR) IN ACCORDANCE WITH REFERENCE: NAVAIR F/A-18E/F & EA-18G PMI ; S/N = 166806

CORRECTIVE ACTION

COMPLIED WITH IMC PMI (6 YEAR) IN ACCORDANCE WITH REFERENCE: NAVAIR F/A-18E/F & EA-18G PMI ; S/N = 166806

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AZ3 R EVERHART	AZ2 V GILMORE	

Figure 15-39: Standard Rework Look Phase (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
4MG88TM	AW1299398	IF	AW1	300	165221	AMAF	120	X	

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	13C2214	11	1	1	R	070	M	G

REMOVED/OLD ITEM				INSTALLED/NEW ITEM			
Cage	Serial Number			CAGE	Serial Number		
Part Number	Date Removed			Part Number	Date Installed		

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
8.6	4.3	09 JAN 2016 1910		09 JAN 2016 1910		09 JAN 2016 2325	D

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
						NLG TORQUE

(H-Z) Failed/Required Material

Index	F/P	A/I	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
				22145	128161-1	1	AK0	03	09 JAN 2016 1945	6009G165	09 JAN 2016 2010	TORQUE LINK

DISCREPANCY

INITIATOR
ADC HOLLAND

NOSE LANDING GEAR TORQUE LINK BROKEN

CORRECTIVE ACTION

REMOVED AND REPLACE NOSE L/G TORQUE LINK. DROPPED CHECK GOOD.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AN JONES	AMCS MINGHELLA	AZC GRAYSON

Figure 15-40: Standard Rework Fix Phase (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD4FCV	PE7275557	DM	PE7	105	166806	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27DC100	25	1	1	R	956	H	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
99207	LMDNA020	99207	LMDN1556
Part Number	Date Removed	Part Number	Date Installed
4154T34P02	03 OCT 2019 1500	4154T34P02	03 OCT 2019 1737

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.0	1.0	02 OCT 2019 2031		03 OCT 2019 1500		03 OCT 2019 1903	U

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
	N					MSP 646

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00	T4AB1	E869202 E1443	0		00	0000 0000			

DISCREPANCY

INITIATOR
AD3 ODEGAARD

MSP 646 L CHANNEL A FADEC TERMINAL FAIL POPPED DURING LPT.

CORRECTIVE ACTION

REMOVED AND REPLACED FADEC. CONDUCTED LPT CODE CLEARED OP CHECK GOOD. AREA SECURE AND FOD FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
ADAA S WEAVER	AD2 B WAYNE	AZCS P NOBLE

Figure 15-41: Unscheduled Maintenance (Engine Installed) Repairable Replacement (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD4TLU	PE7317557	DM	PE7	114	166810	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27D6G	12	1	1	B	020	H	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed
	00 0000 0000		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.2	1.2	13 NOV 2019 2059		13 NOV 2019 2144		21 NOV 2019 1057	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					STBD VEN CAM ROLLERS

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00I	T4AB2	E869148 E2406	0		00	0000 0000			
I	Y	R	02I	99207	4055T39P01	6	AK1	05	13 NOV 2019 2200	9317AH11	15 NOV 2019 1136	IETMS/VEN CAM

DISCREPANCY

VEN CAM ROLLERS WORN ON STBD ENGINE

INITIATOR
ADAA S WEAVER

CORRECTIVE ACTION

REMOVE AND REPLACED STBD VEN CAM ROLLERS IAW IETM. AREA FOD AND CORROSION FREE. AREA SECURE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AD3 A GARR	AD2 C LUNA	AFCM O PANGCOG

Figure 15-42: Unscheduled Maintenance (Engine Installed) Repair (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3JHJASO	AA6067184	DM	AA6	105	165789	AMAH	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27DC200	14	1	1	P	801	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage: 99207	Serial Number: BECR1238	Cage:	Serial Number:
Part Number: 5106T87P06	Date Removed: 07 MAR 2020 2039	Part Number:	Date Installed: 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
4.0	2.0	07 MAR 2020 0800		07 MAR 2020 1201		07 MAR 2020 2049	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					DECONFIG PORT MFC

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	000	T4AA1	E868648 E2926	0		00	0000 0000			

DISCREPANCY

DECONFIG PORT MFC

INITIATOR
AMC K HOLCOMB

CORRECTIVE ACTION
DECONFIGURED PORT MAIN FUEL CONTROL S/N: BECR1238 IAW IETM PEMA S/N 80207. AREA SECURE AND FOD FREE. ATAF.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AD3 K LUNDEN	AD2 M ERLINGIS	AD1 S LEPAGE

Figure 15-43: Installation of Nondefective Engine Component (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Semo	Assy Cd	Work Center	CF Req	QA Req
4MG88TM	AW1299398	DM	AW1	300	165221	AMAF	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27474	14	1	1	P	800	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
99207	786-42		
Part Number	Date Removed	Part Number	Date Installed
441199-6	25 FEB 2019 1730		00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
1.0	1.0	25 FEB 2019 0900	Z	25 FEB 2019 1700	Z	25 FEB 2019 1800	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N		02			INSTALL MFC

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00(	TXAE	664244 E0840	0		00	0000 0000			

DISCREPANCY

INITIATOR
AVCM D SUTA

REMOVE MFC FROM #2 ENGINE

CORRECTIVE ACTION

REMOVED MFC AS DIRECTED

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AZ2 T CEBELAK	AZ1 L FORREST	AFCM J FITZPATRICK

Figure 15-44: Removal of Nondefective Engine Component (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3NY0	PE7257498	CM	PE7	100	166804	AMAJ	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
3PD3NY1	27DA1	19	1	1	T	814	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
99207	PFBANP63	99207	GRTU2330
Part Number	Date Removed	Part Number	Date Installed
4152T92P02	18 SEP 2019 1701	5106T94P06	03 OCT 2019 1349

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
4.1	2.0	18 SEP 2019 1601	Z	18 SEP 2019 1618	Z	17 OCT 2019 0025	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					S AI PRSOV AWT OP CHK

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN
H	N	0	00	T4AB2	E868807 E2401	0		00	0000 0000			
				99207	5106T94P07	1	AK0	02	18 SEP 2019 1547	8261GS08	11 OCT 2019 1330	PRSOV

DISCREPANCY

INITIATOR
AZCS M MOORE

Cannibalized item: [Engine 2 F414-GE-() ENGINE] AI-PRESSURE REGULATING AND SHUTOFF VALVE (DDSN: 8261GS08) for Modex 103 Original MCN: 3PD3NOE

CORRECTIVE ACTION

INSTALLED AI PRSOV IAW IETMS. ALL CHECKS GOOD. AREA SECURE. AREA FOD AND CORROSION FREE AT TIME OF INSPECTION.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AD3 A ODEGAARD	AD1 J TUCKER	ADCS A ALMONTE

Figure 15-45: Engine Component Cannibalization (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU82NY	PN3233080	TD	PN3	616	167840	AHZN	220	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No
	50	0461				A1

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	1000000	41	1	1	Q			

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed	Part Number	Date Installed

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.4	1.2	21 AUG 2019 0927		09 SEP 2019 1746		09 SEP 2019 2057	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					AFC-0461 NLT 30JUN2020

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 J WINDON

COMPLY WITH INTRM: CODE: 50 BASIC NO: 0461 REV LT: AMEND: PART: KIT NO: A1 AFC-0461 MH-60S INSTALLATION OF LOWER ANTI-COLLISION LIGHT [BUNO#: 167840]. AFC 0461 NLT 30JUN2020

CORRECTIVE ACTION

REMOVED AFC-461 PER HIGHER AUTHORITY IAW COMNAVAIRSYSCOM MSG DTG 150800Z AUG 19.
CHECKS GOOD. AREA FOD FREE.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AE3 B MAURER	AE2 J LUZANIA	AEC D COLLIER

Figure 15-46: TD Removal (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3Z5CXHQ	PDA205756	TD	PDA	110	E869119	T4A	110	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	27D1210	47	1	1	C			

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	Cage	Serial Number
99207	VOLJ4723	99207	VOLJ4723
Part Number	Date Removed	Part Number	Date Installed
5114T25G02	24 JUL 2019 1321	5114T25G02	24 JUL 2019 1321

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
0.4	0.2	24 JUL 2019 1321		24 JUL 2019 1445	Z	24 JUL 2019 1612	D

Meter	In Process Insp	Safety EI	Posit	Fid	Tech	System Reason
	N					PPB-0045/PRI TO FLIGHT

(H-Z) Failed/Required Material

Index	F/P A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
CIV J GREEN

Comply with Intrm: Code: 01 Basic No: 0045 Rev Ltr: Amend: Part: Kit No: 00 FAN ROTOR STAGE ONE DISK INSPECTION. ORG PRIOR TO NEXT FLT, INTERMEDIATE / DEPOT INSP IAW TD COMPLIANCE. [Ser#: VOLJ4723]

CORRECTIVE ACTION

COMPLIED WITH PPB-0045. TD DOES NOT APPLY TO ENG PORT ENG S/N: E869119 STBD ENG S/N: 868333. NOT FURTHER MAINTENANCE ACTION REQUIRED.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
CIV K MCMURRAY	CIV D JOHNSON	CIV R HENDRICKS

Figure 15-47: Engine TD Incorporation (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3FU82VR	QL0316559	TD	QL0	108	166361	AHZN	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No
	58	1638				00

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	4935300	47	1	1	C			

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
08484	126CKR	08484	0635
Part Number	Date Removed	Part Number	Date Installed
BL-27100-85	01 OCT 2019 1201	42325-76	01 OCT 2019 1201

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.0	1.0	01 OCT 2019 1200	Z	01 OCT 2019 1201	Z	01 OCT 2019 1452	D

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					AYB 1638/ NLT 03MAY2018

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AZ1 J WINDON

COMPLY WITH INTRM: CODE: 58 BASIC NO: 1638 REV LT: AMEND: PART: KIT NO: 00 AYB-1638 TO INSPECT RESCUE HOIST HOOKS FOR PROPER INSTALLATION AND CONDITION OF ATTACHMENT HARDWARE [SER#: 126CKR] CAT: URGENT W/B: N/A NLT:03MAY2018

CORRECTIVE ACTION

COMPLIED WITH AYB-1638 TO INSPECT RESCUE HOIST HOOKS FOR PROPER INSTALLATION AND CONDITION OF ATTACHING HARDWARE IAW: 490-300. CHECKS GOOD. AREA FOD FREE AND SECURED.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AMAA J SOKALSKI	AM1 A FISH	AZCM P CARBAJAL

Figure 15-48: TD Incorporation (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3EOIRZG	GQ2230475	AT	GQ2	**244**	164024	AMAG	120	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No
	74	0598				00

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	1000000	41	1	0	A			

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	Cage	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
22.6	12.1	29 AUG 2019 0025		29 AUG 2019 0026		08 OCT 2019 0402	**U**

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					ASSIST JO BOLT -AFC 598

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
CIV J HALE

ASSIST WORKCENTER 13B WITH JO-BOLT PANEL FOR AFC-598 LH ENGINE

CORRECTIVE ACTION

ASSISTED WORKCENTER 13B WITH JO-BOLT PANEL. JO BOLT PANEL REMOVED AND REINSTALLED IAW A1-F18AC-IETM S/N= 8JKKA56257. AREA CHECKS FREE OF FOD AT TIME OF INSPECTION. NNVD.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
CIV J POWERS	CIV G VERA	CIV T MILTON

Figure 15-49 TD Assist (Example)

COMPLETE WORK ORDER FORM

MCN	JCN	Type WO	Org Code	Modex	Buno/Serno	Assy Cd	Work Center	CF Req	QA Req
3PD3A8B	PQ3267311	DM	PQ3	109	166367	AHZN	210	N	N

Intrm Cd	Code	Basic No	Rev Ltr	Amend	Part	Kit No

Turn-In Doc	WUC/UNS	Trans	M/L	Item Process	Action Taken	Mal Code	Disc Code	Type Maint
	57X2200	11	1	1	S	804	O	B

REMOVED/OLD ITEM		INSTALLED/NEW ITEM	
Cage	Serial Number	CAGE	Serial Number
Part Number	Date Removed 00 0000 0000	Part Number	Date Installed 00 0000 0000

Man Hrs	Elapsed Hrs	Received	EOC	In Work	EOC	Completed	WO Status Cd
2.9	2.1	24 SEP 2019 0800		24 SEP 2019 2310		25 SEP 2019 2108	U

Meter	In Process Insp	Safety El	Posit	Fid	Tech	System Reason
	N					RMV & REINST T-SECTION AVI

(H-Z) Failed/Required Material

Index	F/P	A/T	MAL	Cage	Part Number	QTY	PROJ	PRI	Date ORD	DDSN	Date RCVD	NOMEN

DISCREPANCY

INITIATOR
AMC R HUERTA

REMOVE TRANSECTION SECTION AVIONICS AND REINSTALL AFTER TEST AND CHECK

CORRECTIVE ACTION

REMOVED AND REINSTALLED T-SECTION AVIONICS IAW: A1-H60SA-750-310. AREA FOD FREE AND SECURE AT END OF INSPECTION. PEMA SN: 0937.

CORRECTED BY	INSPECTED BY	MAINT CONTROL
AT3 A JACKSON	AT3 M JENSEN	AZCM M VANOVER

Figure 15-50: Reinstallation After Test and Check (Example)

CHAPTER 16

Intermediate Level (I-Level) Maintenance Documentation Procedures

Table of Contents

16.1 GENERAL POLICY AND PROCEDURES 1
16.1.1 Introduction 1
16.1.2 MAF Data Fields 2
16.1.2.1 Data Field Entries 2
16.1.2.2 Contingency VIDS/MAF Procedures 10
16.1.3 MAF Processing 16
16.1.3.1 Overview 16
16.1.3.2 Off-Equipment Work Flow 17
16.1.3.3 On-Equipment Work Flow 19
16.1.3.4 Removed Repairable Subassembly Component 21
16.1.4 Material Requisitioning 21
16.1.5 Inter-IMA Work Center Assist 22
16.1.6 Repair and Return 23
16.1.7 Depot Level Beyond Capability of Maintenance Interdiction (BCMI) Documentation 24
16.1.7.1 I-Level Induction, D-Level BCMI/RFI Process 24
16.1.7.2 I-Level Induction, D-Level Repair, and I-Level RFI Process 25
16.1.7.3 D-Level SRA Induction and RFI Process 26
16.1.7.4 New Capability Process 27
16.1.7.5 D-Level Assist Process 27
16.1.7.6 Artisan I-level Training/Assistance Process 27
16.1.8 Historical Files 27
16.2 I-LEVEL MAINTENANCE SOURCE DOCUMENTS 28
16.2.1 Support Equipment (SE), Training Devices, and Missile Target Documentation 28
16.2.1.1 General policy 28
16.2.1.2 On-Equipment SE Work 28

16.2.1.3 O-Level IMRL Reportable SE 28
16.2.1.4 SE Repair 28
16.2.1.5 SE Inspections and Periodic Maintenance (PM) 28
16.2.1.6 SE Corrosion Documentation 28
16.2.1.7 SE Preservation and Depreservation 29
16.2.1.8 SE Technical Directive (TD) Compliance 29
16.2.1.9 SE Inventory Reporting MAF. 29
16.2.2 Calibration 30
16.2.3 Aeronautical Component Documentation Procedures 31
16.2.3.1 Component Repair 31
16.2.3.2 Cannibalization 33
16.2.3.3 Matched Set 33
16.2.3.4 Tire and Wheel Documentation 33
16.2.3.5 Battery Documentation 33
16.2.3.6 IMA Repair and Return Support 34
16.2.3.7 Receipt of Unsatisfactory Material from the Supply Department 35
16.2.3.8 Component Received Missing SRC Card, ASR, MSR, or AESR 35
16.2.3.9 Corrosion Supporting MAF 35
16.2.3.10 Processing of Items Not Having a WUC or Not Identifiable to a Specific Type Equipment 36
16.2.3.11 Repair of Supply Assets 36
16.2.3.12 Maintenance Action Form (MAF) Work Request 36
16.2.3.13 ALSS and Armament Equipment Pool (AEP) MAF Documentation Procedures 37
16.2.3.14 Cartridges (CARTs), Cartridge Actuated Devices (CADs), and Propellant Actuated Devices (PADs) Documentation 37
16.2.3.15 Supply Asset Induction 38
16.2.3.16 Technical Directive (TD) Compliance 38
16.2.3.17 Stricken Aircraft Components 38
16.2.4 I-Level Engine, Auxiliary Power Unit (APU), and Support Equipment Gas Turbine Engine (SEGTE) Maintenance Documentation Procedures 39

16.2.4.1 Overview 39
16.2.4.2 Corrosion Documentation 39
16.2.4.3 Engine Repair 39
16.2.4.4 Major Engine Inspections 40
16.2.4.5 Technical Directive (TD) Compliance 40
16.2.4.6 Modular Engine Repair 41
16.2.4.7 Modular Engine Major Inspections 41
16.2.4.8 Modular Engine Technical Directive (TD) Compliance 41
16.2.4.9 Engine or Module Component Cannibalization 42
16.2.5 Documentation Examples 42
16.2.5.1 End Item Repair (No Removed Component) 42
16.2.5.2 End Item Repair of a SEGTE (No Removed Component) 43
16.2.5.3 End Item Repair (Removed Repairable Component) 44
16.2.5.4 Facilitate Other Maintenance (FOM) Action 46
16.2.5.5 Primary Work Center Repair Action 47
16.2.5.6 Assisting Work Center (Same WUC) 48
16.2.5.7 Assisting Work Center (Different WUC) 50
16.2.5.8 On-Equipment Cannibalization 51
16.2.5.9 SE Turned-In by a Supported Activity for Scheduled or Unscheduled Maintenance (Excluding TMDE) 52
16.2.5.10 Turn-In Document for Off-Equipment Repair 53
16.2.5.11 Turn-In Document for Support Equipment Gas Turbine Engine (SEGTE) Repair 54
16.2.5.12 Off-Equipment Component Repair 55
16.2.5.13 Suffix Turn-In Document 56
16.2.5.14 Off-Equipment Subassembly Repair 57
16.2.5.15 Inspection Control Document 59
16.2.5.16 Inspection Look Phase Supporting Document 60
16.2.5.17 Inspection Fix Phase Document 61
16.2.5.18 End Item TD Compliance (No Removal Component) 63
16.2.5.19 TD Compliance Supporting VIDS/MAF 64

16.2.5.20 TD Compliance Turn-In Document 65
16.2.5.21 Off-Equipment TD Compliance Action 66
16.2.5.22 TD Compliance Removal (On-Equipment) 68
16.2.5.23 Inventory Transaction (Gain) 69
16.2.5.24 Inventory Transaction (Loss) 70
16.2.5.25 Removed Component for Calibration 71
16.2.5.26 Component Turn-In Document 72
16.2.5.27 BCM Action (AMSU) 73
16.2.5.28 Troubleshooting Close Out 75
16.2.5.29 Assisting Work Center (Same WUC) 76
16.2.5.30 Assisting Work Center (Different WUC) 77
16.2.5.31 Component Repaired Using a Repairable Subassembly 78
16.2.5.32 Subassembly/Module Repair (Suffix) 79
16.2.5.33 Sub-Subassembly/Module Repair (Double Suffix) 81
16.2.5.34 Cannibalization (End Item) 82
16.2.5.35 Cannibalization (From AWP Component) 83
16.2.5.36 Cannibalization (Off-Equipment) 85
16.2.5.37 Matched Set (Repair and No Repair) 86
16.2.5.38 Tire and Wheel Documentation (Tires Prepositioned in W/C and Ordering Replacement Tire) 87
16.2.5.39 Transferring IMA Close Out (Post/Predeployment) 88
16.2.5.40 Receiving IMA (Reinitiation Documentation) 90
16.2.5.41 Component Missing SRC Card 91
16.2.5.42 Corrosion Supporting MAF 92
16.2.5.43 Turn-In from Supply for TD Compliance 93
16.2.5.44 VIDS/MAF Work Request (Production Control Entries) 94
16.2.5.45 VIDS/MAF Work Request (Local Manufacture/Fabrication) 95
16.2.5.46 VIDS/MAF Work Request (Supply Asset Build-Up Induction) 96
16.2.5.47 Scheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) 97

16.2.5.48 Scheduled Maintenance Work Request (NDI On-Site) (Passed Inspection) 98
16.2.5.49 Scheduled Maintenance Work Request (NDI On-Site) (Failed Inspection) 100
16.2.5.50 Scheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) 101
16.2.5.51 Unscheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) 102
16.2.5.52 Unscheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) 103
16.2.5.53 O-Level Armament Equipment Turn-In for Scheduled Maintenance 105
16.2.5.54 O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (No Material Required) (Completed) 106
16.2.5.55 O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (Maintenance and Material Required) (Completed) 107
16.2.5.56 Turn-In Acceptance/Functional Check on Armament Equipment 108
16.2.5.57 Turn-In Acceptance/Functional Check on Armament Equipment (Completed) 109
16.2.5.58 Armament Equipment Pool Preservation/Depreservation Control Document (Completed) 111
16.2.5.59 I-Level Armament Equipment Pool Component Due for Scheduled Maintenance (Completed) 112
16.2.5.60 O-Level ALSS Equipment Due for Scheduled Maintenance (Maintenance and Material Required) (Completed) 113
16.2.5.61 O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Completed) 114
16.2.5.62 O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Maintenance and Material Required) (Completed) 116
16.2.5.63 I-Level ALSS Pool Component Due for Scheduled Maintenance (Completed) 117

16.2.5.64 VIDS/MAF Discrepancy (Supply Asset Induction Document) (Material Condition Tag Missing)....118
16.2.5.65 Completed Discrepancy MAF (Supply Asset Induction Document) (Material Condition Tag Missing)....119
16.2.5.66 TD Compliance Turn-In Document (O-Level)....121
16.2.5.67 TD Compliance (IMA Assist)....122
16.2.5.68 Turn-In for TD Compliance....123
16.2.5.69 IMA TD Compliance....124
16.2.5.70 TD Compliance Removal....125
16.2.5.71 O-Level Turn-In Control Document for Engine Repair....127
16.2.5.72 Supply Asset Engine Depreservation....128
16.2.5.73 Supply Asset Engine (Assist VIDS/MAF) Test Cell Run....128
16.2.5.74 Fix-In-Place (Material Not Required)....129
16.2.5.75 Fix-In-Place (Material Required)....130
16.2.5.76 Removal/Replacement of a Tracked Consumable Component....131
16.2.5.77 Removal/Replacement of a Repairable Component with No Repairable Sub-Subassemblies....133
16.2.5.78 Removal/Replacement of a Repairable Component with Repairable Sub-Subassemblies....134
16.2.5.79 Facilitate Other Maintenance (FOM)....135
16.2.5.80 Engine Repair Control Document (Completed VIDS/MAF)....136
16.2.5.81 Supply Asset Engine Build-Up....137
16.2.5.82 Engine Component Turn-In for Repair....138
16.2.5.83 Engine Component Repair (Completed)....139
16.2.5.84 Turn-In Document Solely for Major Engine Inspection....140
16.2.5.85 Control Document Solely for Major Engine Inspection (Completed)....140
16.2.5.86 Control Document for Major Engine Inspection (Engine Undergoing Repair)....142
16.2.5.87 Major Engine Inspection (Look Phase Supporting Work Center)....142
16.2.5.88 Major Engine Inspection (Fix-In-Place)....143

16.2.5.89 Major Engine Inspection (Fix Phase Removal and Replacement of a Repairable Component)....144
16.2.5.90 Major Engine Inspection (Component Turn-In)....146
16.2.5.91 Major Engine Inspection Completed After Repair Action....146
16.2.5.92 Supply Asset (TD Compliance Request)....147
16.2.5.93 Supply Asset TD Compliance Request (IMA Production Control Entries)....148
16.2.5.94 Supply Asset (TD Compliance Completed)....149
16.2.5.95 O-Level Engine TD Compliance Request....150
16.2.5.96 O-Level Engine TD Compliance Request (Production Control Entries)....151
16.2.5.97 O-Level Engine TD Compliance Request (Completed)....152
16.2.5.98 I-Level Originated TD Compliance Request (Engine Component)....153
16.2.5.99 I-Level Originated TD Compliance (Completed)....154
16.2.5.100 O-Level Request for TD Compliance Assist (Engine Component)....156
16.2.5.101 O-Level Request for TD Compliance Assist (AMSU/Production Control Entries)....157
16.2.5.102 O-Level Request for TD Compliance Assist (Completed)....158
16.2.5.103 O-Level Turn-In Control Document for Engine Repair (Modular Engine)....159
16.2.5.104 Fix-In-Place (Not Requiring Material)....160
16.2.5.105 Fix-In-Place (Requiring Material)....161
16.2.5.106 Removal/Replacement of a Repairable Subassembly with No Repairable Sub-Subassemblies....162
16.2.5.107 Removal/Replacement of a Repairable Module/Component with Repairable Sub-Subassemblies....163
16.2.5.108 Engine Repair Control Document (Completed)....165
16.2.5.109 Turn-In of Repairable Module with Repairable Sub-Subassemblies....166
16.2.5.110 Removal/Replacement of a Repairable Sub-Subassembly from a Module....166
16.2.5.111 Module Repair (Completed)....168

16.2.5.112 Turn-In of Repairable Sub-Subassembly from a Repairable Component 169
16.2.5.113 Repair of a Repairable Component with Required Material....169
16.2.5.114 Turn-In of a Repairable Component Sub-Subassemblies 170
16.2.5.115 Repair of a Sub-Subassembly from a Component Subassembly (Completed)....171
16.2.5.116 Removal/Replacement of a Repairable Sub-Subassembly from a Module....172
16.2.5.117 Turn-In of a Repairable Sub-Subassembly from a Module 173
16.2.5.118 O-Level Turn-In Control Document Modular Engine Turn-In (Solely for Major Engine Inspection)....174
16.2.5.119 Major Modular Engine Inspection (Look Phase Supporting Work Center)....174
16.2.5.120 Major Modular Engine Inspection (Look Phase Supporting Work Center) (Engine Test Cell Run)....176
16.2.5.121 Major Engine Inspection (Fix-In-Place) 177
16.2.5.122 Major Engine Inspection (Fix Phase Module Replacement) 178
16.2.5.123 Major Engine Inspection (Module Turn-In) 179
16.2.5.124 Major Engine Inspection (Fix Phase Repairable Component Replacement)....180
16.2.5.125 Major Engine Inspection (Fix Phase Component Turn-In)....181
16.2.5.126 Completed Major Inspection Control Document (Modular Engine Turned-In Solely for Major Inspection)....181
16.2.5.127 O-Level Activity Request for a Modular Engine TD Compliance by I-Level Activity....183
16.2.5.128 Production Control Entries (O-Level Activity Request for TD Compliance) 184
16.2.5.129 Completed TD Compliance (Applies to a Module With No Module or Repairable Component P/N Change) 185
16.2.5.130 TD Compliance (Applies to a Module With P/N Change) 186
16.2.5.131 TD Compliance (Applies to a Component Within A Module)....187

16.2.5.132 Engine or Module Cannibalization (For A Supported Activity).....189
16.2.5.133 Removal and Replacement of Cartridges (CART), Cartridge Activated Devices (CAD), and Propellant Actuated Devices(PAD) (I-Level Maintenance).....190
Figure 16-1: NALCOMIS IMA MAF (Example) 192
Figure 16-2: OPNAV Form 4790/60 VIDS/MAF (Example) 193
Figure 16-3: NALCOMIS Contingency JCN Log (Example) 194
Figure 16-4: VIDS/MAFs Documentation Flow 195
Figure 16-5: Off-Equipment Documentation Flow 196
Figure 16-6: Serviceable Label-Material (DD 1574) (Example) 197
Figure 16-7: Unserviceable Label-Material (DD 1577-2) (Example) 198
Figure 16-8: On-Equipment Work Documentation (Example) 199
Figure 16-9: End Item Repair (No Removed Component) (Example) 200
Figure 16-10: End Item Repair of a SEGTE (No Removed Component) (Example) 201
Figure 16-11: End Item Repair (Removed Repairable Component) (Example) 202
Figure 16-12: Facilitate Other Maintenance Action (Example) 203
Figure 16-13: Primary Work Center Repair Action (Example) 204
Figure 16-14: Assisting Work Centers (Same WUC) (Example) 205
Figure 16-15: Assisting Work Centers (Different WUC) (Example) 206
Figure 16-16: On-Equipment Cannibalization (Example) 207
Figure 16-17: Support Equipment Turned-In by a Supported Activity for Scheduled Maintenance (Excluding TMDE) (Example) 208
Figure 16-18: Support Equipment Turned-In by a Supported Activity for Unscheduled Maintenance (Excluding TMDE) (Example) 209
Figure 16-19: Turn-In Document (Off-Equipment Repair) (Example) 210
Figure 16-20: Turn-In Document SEGTE Repair (Example) 211
Figure 16-21: Off-Equipment Component Repair (Example) 212
Figure 16-22: Suffix Turn-In Document (Example) 213
Figure 16-23: Off-Equipment Subassembly Repair (Example) 214
Figure 16-24: Inspection Control Document (Example) 215
Figure 16-25: Inspection Look Phase Supporting Document (Example) 216
Figure 16-26: Inspection Fix Phase Document (Example) 217

Figure 16-27: End Item TD Compliance (No Removal Component) (Example) 218
Figure 16-29: TD Compliance Turn-In Document (Example) 220
Figure 16-30: Off-Equipment TD Compliance Action (Example) 221
Figure 16-31: TD Compliance Removal (On-Equipment) (Example) 222
Figure 16-32: VIDS/MAF Required for End Item TD Compliance Concurrent with a Failed Part 223
Figure 16-33: VIDS/MAF Required for Component TD Compliance 224
Figure 16-34: VIDS/MAF Required for End Item TD Compliance With a Failed Part 225
Figure 16-35: VIDS/MAF Required for End Item TD Compliance Concurrent with a Failed Part 226
Figure 16-36: Inventory Transaction (Gain) (Example) 227
Figure 16-37: Inventory Transaction (Loss) (Example) 228
Figure 16-38: Removed Component for Calibration (Example) 229
Figure 16-39: Component Turn-In Document (Example) 230
Figure 16-40: BCM Action (AMSU) (Example) 231
Figure 16-41: Troubleshooting Close Out (Example) 232
Figure 16-42: Assisting Work Center (Same WUC) (Example) 233
Figure 16-43: Assisting Work Center (Different WUC) (Example) 234
Figure 16-44: Component Repaired Using a Repairable Subassembly (Example) 235
Figure 16-45: Subassembly/Module Repair (Suffix) (Example) 236
Figure 16-46: Sub-Subassembly/Module Repair (Double Suffix) (Example) 237
Figure 16-47: Cannibalization (End Item) (Example) 238
Figure 16-48: Cannibalization (From AWP Component) (Example) 239
Figure 16-49: Cannibalization (Off-Equipment) (Example) 240
Figure 16-50: Matched Set (Repair) (Example) 241
Figure 16-51: Matched Set (No Repair) (Example) 242
Figure 16-52: Tire and Wheel Documentation (Tires Prepositioned in W/C) (Example) 243
Figure 16-53: Tire and Wheel Documentation (Ordering Replacement Tire) (Example) 244
Figure 16-54: Transferring IMA Close Out (Post/Predeployment) (Example) 245
Figure 16-55: Receiving IMA (Reinitiation Documentation) (Example) 246
Figure 16-56: Component Missing SRC Card (Example) 247

Figure 16-57: Corrosion Supporting MAF (Example) 248
Figure 16-58: Turn-In from Supply for TD Compliance (Example) 249
Figure 16-59: VIDS/MAF Work Request (Production Control Entries) (Example) 250
Figure 16-60: VIDS/MAF Work Request (Local Manufacture/Fabrication) (Example) 251
Figure 16-61: VIDS/MAF Work Request (Supply Asset Build-Up Induction) (Example) 252
Figure 16-62: Scheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) (Example) 253
Figure 16-63: Scheduled Maintenance Work Request (NDI On-Site) (Passed Inspection) (Example) 254
Figure 16-64: Scheduled Maintenance Work Request (NDI On-Site) (Failed Inspection) (Example) 255
Figure 16-65: Scheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) (Example) 256
Figure 16-66: Unscheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) (Example) 257
Figure 16-67: Unscheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) (Example) 258
Figure 16-68: O-Level Armament Equipment Turn-In for Scheduled Maintenance (Example) 259
Figure 16-69: O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (No Material Required) (Completed) (Example) 260
Figure 16-70: O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example) 261
Figure 16-71: Turn-In Acceptance/Functional Check on Armament Equipment (Example) 262
Figure 16-72: Turn-In Acceptance/Functional Check on Armament Equipment (Completed) (Example) 263
Figure 16-73: Armament Equipment Pool Preservation/Depreservation Control Document (Completed) (Example) 264
Figure 16-74: I-Level Armament Equipment Pool Component Due for Scheduled Maintenance (Completed) (Example) 265

Figure 16-75: O-Level ALSS Equipment Due for Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example) 266
Figure 16-76: O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Completed) (Example) 267
Figure 16-77: O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example) 268
Figure 16-78: I-Level ALSS Pool Component Due for Scheduled Maintenance (Completed) (Example) 269
Figure 16-79: VIDS/MAF Discrepancy (Supply Asset Induction Document) (Material Condition Tag Missing) (Example) 270
Figure 16-80: Completed Discrepancy VIDS/MAF (Supply Asset Induction Document) (Material Condition Tag Missing) (Example) 271
Figure 16-81: TD Compliance Turn-In Document (O-Level) (Example) 272
Figure 16-82: TD Compliance (IMA Assist) (Example) 273
Figure 16-83: Turn-In for TD Compliance (Example) 274
Figure 16-84: IMA TD Compliance (Example) 275
Figure 16-85: TD Compliance Removal (Example) 276
Figure 16-86: O-Level Turn-In Control Document for Engine Repair (Example) 277
Figure 16-87: Supply Asset Engine Depreservation (Example) 278
Figure 16-88: Supply Asset Engine (Assist VIDS/MAF) Test Cell Run (Example) 279
Figure 16-89: Fix-In-Place (Material Not Required) (Example) 280
Figure 16-90: Fix-In-Place (Material Required) (Example) 281
Figure 16-91: Removal/Replacement of a Tracked Consumable Component (Example) 282
Figure 16-92: Removal/Replacement of a Repairable Component with No Repairable Sub-Subassemblies (Example) 283
Figure 16-93: Removal/Replacement of a Repairable Component with Repairable Sub-Subassemblies (Example) 284
Figure 16-94: Facilitate Other Maintenance (Example) 285
Figure 16-95: Engine Repair Control Document (Completed VIDS/MAF) (Example) 286
Figure 16-96: Supply Asset Engine Build-Up (Example) 287
Figure 16-97: Engine Component Turn-In for Repair (Example) 288

Figure 16-98: Engine Component Repair (Completed) (Example) 289
Figure 16-99: Turn-In Document Solely for Major Engine Inspection (Example) 290
Figure 16-100: Control Document Solely for Major Engine Inspection (Completed) (Example) 291
Figure 16-101: Control Document for Major Engine Inspection (Engine Undergoing Repair) (Example) 292
Figure 16-102: Major Engine Inspection (Look Phase Supporting Work Center) (Example) .. 293
Figure 16-103: Major Engine Inspection (Fix-In-Place) (Example) 294
Figure 16-104: Major Engine Inspection (Fix Phase Removal and Replacement of a Repairable Component) (Example) 295
Figure 16-105: Major Engine Inspection (Component Turn-In) (Example) 296
Figure 16-106: Major Engine Inspection Completed After Repair Action (Example) 297
Figure 16-107: Supply Asset (TD Compliance Request) (Example) 298
Figure 16-108: Supply Asset TD Compliance Request (IMA Production Control Entries) (Example) 299
Figure 16-109: Supply Asset (TD Compliance Completed) (Example) 300
Figure 16-110: O-Level Engine TD Compliance Request (Example) 301
Figure 16-111: O-Level Engine TD Compliance Request (Production Control Entries) (Example) 302
Figure 16-112: O-Level Engine TD Compliance Request (Completed) (Example) 303
Figure 16-113: I-Level Originated TD Compliance Request (Engine Component) (Example) 304
Figure 16-114: I-Level Originated TD Compliance (Completed) (Example) 305
Figure 16-115: O-Level Request for TD Compliance Assist (Engine Component) (Example) 306
Figure 16-116: O-Level Request for TD Compliance Assist (AMSU/Production Control Entries) (Example) 307
Figure 16-117: O-Level Request for TD Compliance Assist (Completed) (Example) 308
Figure 16-118: O-Level Turn-In Control Document for Engine Repair (Modular Engine) (Example) 309
Figure 16-119: Fix-In-Place (Not Requiring Material) (Example) 310
Figure 16-120: Fix-In-Place (Requiring Material) (Example) 311

Figure 16-121: Removal/Replacement of a Repairable Subassembly with No Repairable Sub-Subassemblies (Example) 312
Figure 16-122: Removal/Replacement of a Repairable Module/Component with Repairable Sub-Subassemblies (Example) 313
Figure 16-123: Engine Repair Control Document (Completed) (Example)..... 314
Figure 16-124: Turn-In of Repairable Module with Repairable Sub-Subassemblies (Example) 315
Figure 16-125: Removal/Replacement of a Repairable Sub-Subassembly from a Module (Example)..... 316
Figure 16-126: Module Repair (Completed) (Example) 317
Figure 16-127: Turn-In of Repairable Sub-Subassembly from a Repairable Component (Example)..... 318
Figure 16-128: Repair of a Repairable Component with Required Material (Example)..... 319
Figure 16-129: Turn-In of a Repairable Component Sub-Subassemblies (Example) 320
Figure 16-130: Repair of a Sub-Subassembly from a Component Subassembly (Completed) (Example)..... 321
Figure 16-131: Removal/Replacement of a Repairable Sub-Subassembly from a Module (Example)..... 322
Figure 16-132: Turn-In of a Repairable Sub-Subassembly from a Module (Example) 323
Figure 16-133: O-Level Turn-In Control Document Modular Engine Turn-In (Solely for Major Engine Inspection) (Example) 324
Figure 16-134: Major Modular Engine Inspection (Look Phase Supporting Work Center) (Example)..... 325
Figure 16-135: Major Modular Engine Inspection (Look Phase Supporting Work Center) (Engine Test Cell Run) (Example) 326
Figure 16-136: Major Engine Inspection (Fix-In-Place) (Example) 327
Figure 16-137: Major Engine Inspection (Fix Phase Module Replacement) (Example) 328
Figure 16-138: Major Engine Inspection (Module Turn-In) (Example) 329
Figure 16-139: Major Engine Inspection (Fix Phase Repairable Component Replacement) (Example)..... 330
Figure 16-140: Major Engine Inspection (Fix Phase Component Turn-In) (Example)..... 331

Figure 16-141: Completed Major Inspection Control Document (Modular Engine Turned-In Solely for Major Inspection) (Example) 332
Figure 16-142: O-Level Activity Request for a Modular Engine TD Compliance by I-Level Activity (Example) 333
Figure 16-143: Production Control Entries (O-Level Activity Request for TD Compliance) (Example) 334
Figure 16-144: Completed TD Compliance (Applies to a Module With No Module or Repairable Component P/N Change) (Example) 335
Figure 16-145: TD Compliance (Applies to a Module With P/N Change) (Example) 336
Figure 16-146: TD Compliance (Applies to a Component Within A Module) (Example) 337
Figure 16-147: Engine or Module Cannibalization (For a Supported Activity) (Example) 338
Figure 16-148: Removal and Replacement of Cartridges, Cartridge Activated Devices, and Propellant Actuated Devices (I-Level Maintenance) (Example) 339

CHAPTER 16

Intermediate Level (I-Level) Maintenance Documentation Procedures

16.1 General Policy and Procedures

16.1.1 Introduction

16.1.1.1 This chapter provides direction for OIMA MAF documentation for repairs and services performed by intermediate level maintenance activities (IMA). Unless different procedures are specifically called out, the documentation requirements of this chapter apply to repairable components, engines, SE, AWSE, ALSS, and other items processed by the IMA.

16.1.1.2 Following are general descriptions of the types of maintenance actions IMAs must document on MAFs:

a. On-equipment work not involving the removal of defective or suspected defective repairables.

b. Look phase of acceptance, transfer, special, conditional, major aircraft and combined airframe and engine special inspections, and corrosion, preservation and depreservation.

c. Fix in place actions discovered during inspection.

d. Removal of components for check, test, Facilitate Other Maintenance (FOM) or service actions.

e. Removal and replacement actions for cannibalization.

f. Accumulated man-hours as a result of work stoppage for parts or maintenance.

g. Accumulated man-hours during or at the end of a reporting period for a job not completed, where required by the cognizant ACC or TYCOM.

h. Maintenance actions and man-hours by assisting work center in support of a primary work center.

i. Support of a repairable item processing through the IMA.

j. Incorporation of TDs and associated maintenance actions.

k. Removal and replacement of repairable components in end items.

l. Repair of removed repairable components.

m. Repair of subcomponents removed from repairable components.

n. Record of ordering and issue of repairable components, subassemblies, and parts.

o. Disposition of components and subassemblies declared BCM.

p. Major inspections performed on removed engines, when initiated by an O-level activity.

q. Documentation of first-degree repair maintenance actions.

r. Troubleshooting man-hours.

s. Documenting preservation and depreservation.

NOTE: The Type MAF code must be used in NALCOMIS, but does not appear on the hard copy MAF. See Appendix E for Type MAF codes.

16.1.2 MAF Data Fields

16.1.2.1 Data Field Entries

This section describes general functions for initiating, updating, and clearing an OIMA MAF (Figure 16-1). This section also contains an explanation of the functions required to add/delete the NALCOMIS MAF. The codes used to describe the data throughout the sections of the MAF are in Appendix E and the applicable WUC structure assigned to the OOMA baseline or the WUC manual for NALCOMIS users. Specific data fields to be used and data fields requirements are controlled by the Maintenance Data validation specifications (VALSPEC) in Appendix F. Specific data field application and requirements are as follows:

ENTRIES REQUIRED SIGNATURE. This section is provided to ensure historical records and OOMA CM ALS records are updated in a timely and orderly manner. Required actions will be accomplished prior to forwarding the MAF to the data analyst for approval. Logs and Records personnel will screen all MAFs using the appropriate function. Upon indicating approval, NALCOMIS will electronically post their name to the MAF.

LOCAL USE. This field may be used as desired.

REFERENCE. May be used to enter the supply reference to aid the work center in requisitioning the failed or required material.

ACCUMULATED WORK HOURS

NAME or SHIFT. Enter the name or shift of personnel performing the work.

Workers hours update will be used by the CDI or supervisor who will place their initials in the appropriate data field. Prior to JC or job status changes, for example, work stoppage, a sight inventory of the tool container(s) must be conducted by the Work Center Supervisor or CDI.

EMT. NALCOMIS provides for the system generated Elapsed Maintenance Time (EMT) through its internal clock. However, this field is not displayed in the Accumulated Work Hour Field on the NALCOMIS MAF.

ACCUMULATED AWM HOURS. This time is automatically calculated.

NOTES: 1. A worker, CDI, QAR, Supervisor cannot be in work on more than one WO at a time.

2. CDQARs and CDIs assigned to their respective production work center will account for their expended man-hours on the WO while performing mandatory QA inspections; or in the research and ordering of parts as specified in maintenance technical manuals, technical directives and other directives. For inspections that do not require tools, their hours will be accounted for on the WO by selecting their name, entering "NTR" in the tool box and initialing. The above process is not considered signing for your town tools, as no tools were required.

3. Work center supervisors may also account for man-hour expenditure involving research and ordering parts using the same procedures as above.

FAILED/REQUIRED MATERIAL. This section will be used to document a failed part without an AWP situation, a failed part and an AWP situation occurring simultaneously, an AWP situation without a failed part, and a supply request only, with no failed part or AWP situation.

NOTE: To ensure high-usage parts stock is maintained in the Pre-Expended Bin (PEB), all parts that contributed to the failure will be documented in the FAILED MATERIALS field of the MAF.

INDEX. NALCOMIS will automatically provide for the proper indexing of ordered parts. These letters represent a specific record type that will be generated via aviation 3M processing. This allows for the 19 most significant failed parts to be reported against a specific maintenance action. For example, assignment of index H indicates the first failed part record, Z indicates the last and 19th failed parts record against the maintenance action. The purpose of indexing is to flag engineering data items only, not supply usage data. Therefore, only significant failed parts will be annotated with H - Z in this field, that is those items which are known or suspected to have contributed to the discrepancy reported in the Discrepancy Field of the MAF.

F/P. Enter an (x) to denote a failed part if the failed material or parts replaced during the repair are piece parts that have failed in a major component. Common hardware, nuts, screws, safety wire, seals, gaskets, washers, and fittings that are routinely replaced during a maintenance action will be documented only if their failure is known or suspected to have contributed to the discrepancy.

NOTE: PEB items not in stock and required for repair of a discrepancy will be ordered against the MAF requiring parts.

AWP. Immediately upon receipt of notification that the repair part(s) is/are not available on the ship/station, the Work Center Supervisor will ensure an (x) is entered if the failed/required material is causing an awaiting parts status of the repairable item identified in the WUC Field. Only those items that caused the AWP status will be marked (x). In all cases, even if notification of nonavailability of repair parts is not received, the AWP component is to be delivered to the

AWP holding area within 24 hours from the time the need for a repair part was discovered by the work center. (This field is used at maintenance levels 2 and 3.)

A/T. Enter the one-character alpha or numeric code, which describes the action taken against the removed module, subassemblies, or significant failed parts required. AT codes are listed in Appendix E.

MAL. Enter the code that best describes the malfunction occurring within the removed subassembly. MAL codes are listed in Appendix E.

FSCM. Enter the CAGE code of failed part or required material.

PART NUMBER. Enter the manufacturer's part number of the failed or required material.

REF SYMBOL. Enter the alphanumeric code which identifies a piece part as distinct from other items of the same part number in a single subassembly or circuit, such as four of the same diodes within a circuit, each has the same part number but a different reference symbol. These are found in the illustrated parts breakdown manual for the weapon system.

QTY. Enter the quantity of failed or required material.

PROJ. Enter the applicable project code.

PRI. Enter the MILSTRIP priority assigned to the material requisition.

DATE ORD. The Julian date the request was placed on order (NALCOMIS generated).

REQ NO. The MILSTRIP requisition number of the material required to complete the maintenance action (NALCOMIS generated).

DATE REC. The Julian date that requisitioned material is received (NALCOMIS generated).

WORK UNIT CODE. Enter the WUC that identifies the system, subsystem, or component on which work is being performed on. All repairable items must have a WUC assigned, which can be found by querying the applicable NALCOMIS OOMA or the DECKPLATE WUC Baseline Report. If a WUC cannot be found for a repairable item, submit a Baseline Trouble Report (BTR) via JDRS to the NAVAIR TEC or WUC. For consumables not identified by specific WUC, use NHA WUC.

NOTE: General Work Unit Codes 030 (inspection) and 049 (preservation/depreservation) are used on the MAF as the WUC for conditional and acceptance/transfer inspections and for preservation/depreservation. Appendix E lists general and special WUCs.

ACT ORG. The organization code of the organization accomplishing the work (NALCOMIS generated).

TRANS. Enter the two-character numeric transaction code used to identify the type of data being reported. Appendix E contains a complete list of these codes with definitions.

M/L. Enter the level of maintenance (1 through 3) which is performed (not necessarily the level assigned to the activity).

A/T. Enter the one-character alpha or numeric code that describes the action that has been taken. This code describes what action has been performed on the item identified by the WUC. AT code A (discrepancy checked, no repair required) is used only in those cases where an inspection or operational check has been performed and the reported trouble cannot be duplicated or does not exist. In such cases use the MAL code 799 (no defect). Adjustments made to peak a system, which is within tolerances, may use this code with the appropriate malfunction code, for example, A-127, A-281, A-282. A consumable item replaced on a MAF should reflect the system or NHA code only in the WUC field and AT Code B or C. AT Code R should be used in the H-Z Failed/Required Material fields for parts replaced. AT Codes are in Appendix E.

NOTE: The TD status code is a single-character alpha code used to indicate the status of compliance with a TD. This code applies to the action taken field of the MAF when reporting TD status. TD Status Codes are listed in Appendix E.

MAL CODE. Enter the three-character alphanumeric code used to describe the malfunction, which caused the maintenance action on the item described by the WUC. These codes are divided into three logical groups to assist personnel in finding the most applicable code as follows (MAL codes are contained in Appendix E):

(1) Conditional (no fault) Group. These codes are used when a nondefective item is removed, or when the defect/malfunction is not the fault of the item in question.

(2) Reason for Removal Group. These codes are used to generally describe trouble symptoms or apparent defects prompting removal of malfunctioning items for repair.

(3) Reason for Failure Group. These codes are used to generally describe underlying defects or basic failure reasons determined during repair of items exhibiting trouble symptoms.

NOTE: Maintenance Control/Production Control must enter the appropriate malfunction code when initiating a cannibalization MAF.

I/P. Enter the number of times that an action, indicated by an AT code, is applied to the item identified by the WUC recorded on a MAF, for example, since the fuel nozzle of a jet engine has a WUC, replacement of five fuel nozzles would be documented as five items processed. In contrast, replacement of several transistors in an electronic assembly would be documented as one item processed, with the WUC identifying the electronic assembly being repaired and the AT code indicating repair. MAFs submitted for close outs by work centers at the end of, or during a reporting period will indicate 0 items processed. The IP field is limited to two characters. If the count exceeds 99, an additional form must be prepared and submitted.

HOURS. OIMA automatically calculates man-hours.

EMT. NALCOMIS, through the internal clock, will automatically calculate EMT. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although the EMT is directly related to job man-hours, it is not to be confused with actual total man-hours required to complete a job, for example, if three men worked together for 2.5 hours to make a repair, the total man-hours would be 7.5 hours and the EMT would be 2.5 hours.

TECHNICAL DIRECTIVE ID. Enter the 12 or 13 characters that identify the specific TD incorporated or being incorporated in the type equipment. This field is divided into seven sections as follows:

INT. Enter an X to indicate an interim TD; otherwise leave blank.

CODE. Enter the two-character numeric code that denotes the type of directive being incorporated. TD codes are in Appendix E.

BASIC NO. Enter the four numeric characters identifying the basic TD, preceded by a zero(s) to complete the field.

RV. Enter the one alpha character that denotes the specific revision of the basic TD. Leave blank if not applicable.

AM. Enter the one numeric amendment number of the basic TD. Leave blank if not applicable.

PART. Enter the two-character numeric part number as listed in the TD. Leave blank if not applicable.

KIT. Enter the two-character alphanumeric number of the specific kit incorporated. If no kit is required, enter 00 in this section.

NOTE: TDs must be on file within NALCOMIS prior to TD MAF initiation.

TYPE EQUIP. Enter the TEC that describes the end item on which work is being performed. TEC structuring is explained in Appendix E. The specific TECs are identified in the NAVAIR Logistics web site TEC Translator (https://deckplate.navair.navy.mil/#/).

NOTE: The OOMA NALCOMIS application uses the Assembly Catalog as an expansion of the NAVAIR assigned TEC to further identify a specific end item within the TEC. Assembly codes (Assembly CD) are used exclusively within the OOMA NALCOMIS application and are defined in Appendix E.

BU/SERNO. Enter the bureau or serial number of the equipment or end item on which work is being performed. If more than six digits enter the last six; if less than six digits prefix with sufficient zeros to total six characters. This field must not be blank. Enter 0 in this field when using the MAF to document work on groups of like items, for example, jacks, stands, common aeronautical equipment, or items not identified by bureau/serial number. In cases of on-equipment work at the O-level for personal survival equipment, enter the first letter of the

aircrewman's first and last name and last four digits of the DOD ID Number (as listed on the member's ID card).

W/D. The WD code is a single alpha character that identifies when the need for maintenance was discovered. The three sets of WD codes that cover the equipment categories are: (1) aircraft and engines; (2) SE, PME, and expeditionary airfield; and (3) missiles/missile targets.

T/M. Enter the one-character alpha or numeric code used to describe the type of work being accomplished, for example, scheduled, unscheduled, supply support. Definitions and explanations of these codes are in Appendix E.

POSIT. Enter POSITs which are used to evaluate performance/logistics characteristics between identical components. For NALCOMIS application users, POSITs are included in applicable WUC manuals and are identified by a double asterisk (**) preceding the WUC. The OOMA NALCOMIS application identifies POSITs as a separate data element within the applicable baseline. When a component has been identified as position sensitive, it must be mandatory that the POSIT be documented in block A60 of the MAF. Identifiers are categorized into two groups as follows:

General Position Codes. A two digit alphanumeric code which indicates a specific location by use of plain language:

LH/RH - Indicates left-hand or right-hand installation, such as main landing gear components, tires, side by side cockpit, and components.

FW/AF - Indicates fore and aft positions such as tandem cockpit components.

UP/LW - Indicates upper or lower positions, such as anticollision lights or antennas.

PR/SC/AL - Indicates primary, secondary, or alternate positions, such as hydraulic components or multiple avionics component installations.

01, 02, 03, 04 - Indicates positions using a sequential numbering system, such as helicopter rotor dynamic components or a numbering system used to identify the position of fuel nozzles on a gas turbine engine.

Specific Position Codes. A two digit alphanumeric code which indicates a specific location using alphanumeric sequencing:

A1 - Bleed Valve, Stg 5, 2 o'clock, #1 engine.

B1 - Bleed Valve, Stg 5, 4 o'clock, #1 engine.

A2 - Bleed Valve, Stg 5, 2 o'clock, #2 engine.

B2 - Bleed Valve, Stg 4, 4 o'clock, #2 engine.

FID. Leave blank (aircraft only).

SFTY/EI. Enter the locally assigned four digit control number from the NAMDRP Report Control Number.

METER. This field is mandatory when TEC for on-equipment work is G, H, or S and maintenance level is 1.

SE FSCM. CAGE of the end item of SE (optional).

TECH. Enter an N for all maintenance actions involving Engineering and Technical Service (ETS) support.

INV CD. Enter the one digit inventory code that describes the status of the equipment during the transaction (Appendix F).

PERM CD. Leave blank (aircraft only).

REPAIR CYCLE

RECD. Date and Time. This field is automatically generated upon MAF initiation.

IN WORK. Enter Julian date and time.

COMP. Enter Julian date and time completed.

AWAITING MAINTENANCE HRS. Enter the appropriate AWM reason code for the related maintenance action. Order of significance may be determined by local policy.

MAINTENANCE/SUPPLY REC. NALCOMIS tracks and documents all awaiting maintenance/ supply time. This is calculated by the internal monitoring of job status as related to supply status/ maintenance status.

REMOVED/OLD ITEM. These fields are completed in NALCOMIS using the appropriate function, when a repairable component is removed from the end item or major component on which work is being performed. Enter the CAGE, SERNO, and P/N or lot number for the CART, CAD, or PAD. If the SERNO is more than 10 characters, enter the last 10. If the P/N is more than 15 characters, enter the last 15. (For Optimized NALCOMIS the SERNO and P/N field is limited to a maximum of 15 and 32 characters respectively.) Enter the time/cycle, preceded by an alpha character as listed in Appendix E. For warranty items, use the second time/cycle field, enter a W, followed by four digits to indicate the length of the warranty period in time/cycles, or the date of warranty expiration. Information about warranty length and expiration date can be found on the data plate affixed to the item, or in its logbook or associated records. If the current time/cycles figure for an item is greater than the specified warranty length of that item, no W entry should be made since the item is no longer under warranty. In the third time/cycle enter an X, followed by the last four characters of the contract number. The contract number can be found on the data plate affixed to the item, or the logbook or associated records, or NTCSS Optimized NALCOMIS CM ALS records.

INSTALLED/NEW ITEM. These fields are completed in NALCOMIS using the appropriate function, when a repairable component is installed on the end item or the major

component on which work is being performed. Enter the CAGE, the SERNO and P/N or lot number for the CART, CAD, or PAD. If the serial number is more than 10 characters, enter the last 10. If the part number is more than 15 characters, enter the last 15. (For Optimized NALCOMIS the SERNO and P/N field is limited to a maximum of 15 and 32 characters respectively.) Enter the time/cycle preceded by an alpha character listed in Appendix E. For warranty items, use the second time/cycle field, enter a W, followed by four digits to indicate the length of the warranty period in time/cycles, or the date of warranty expiration. Information about warranty length and expiration date can be found on the data plate affixed to the item, or in its logbook or associated records. If the current time/cycles figure for an item is greater than the specified warranty length of that item, no W entry should be made since the item is no longer under warranty. In the third time/cycle enter an X, followed by the last four characters of the contract number. The contract number can be found on the data plate affixed to the item, or the logbook or associated records, or NTCSS Optimized NALCOMIS CM ALS records.

DISCREPANCY. Enter a detailed narrative description of the reported discrepancy and the System Reason Field. An example of details is specifying the location and position and dimensions of visible damage.

PILOT/INITIATOR. Enter the person's name and rank who discovered the discrepancy.

CORRECTIVE ACTION. Enter a detailed narrative description of the corrective action(s) taken to correct the discrepancy, publication used, the statement "FOD/Corrosion free", the statement "operational or leak check performed", and PEMA serno used.

NOTE: If the corrective action was performed per a Fleet Engineering Disposition (FED) (10.33), the corrective action must include the FED authorization reference number.

CF REQ/RFI. This is a dual purpose field for use by the O-level and I-level activities. The O-level will enter an (x) if a check flight is required after completion of the maintenance action. The IMA will enter an (x) if the repair action is RFI.

QA REQ/BCM REQ. This is a dual purpose field for use by the O-level and I-level activities. The O-level will enter an (x) if the maintenance action requires a QAR inspection. (Not applicable to CDI inspection.) The IMA will enter an (x) if the repair action is BCM.

RFI or BCM. NALCOMIS will update this data field based on the action taken entry.

CORRECTED BY. Corrected By will be signed by the trained and certified worker assigned to the maintenance action. Once the logged on person gives a job status of JC, NALCOMIS will automatically post the workers name to the corrected by field of the MAF. At this time, the Hard Copy Notice (HCN)/MAF is closed to the worker and the MAF clearing cycle has begun.

INSPECTED BY. The CDI/QAR will use the appropriate function to indicate approval of a specific MAF. NALCOMIS will electronically post the CDI/QARs name to the MAF based on the logged-on person.

SUPERVISOR. The supervisor will use the appropriate function to indicate approval of a specific MAF. NALCOMIS will electronically post the supervisor's name to the MAF. The supervisor's name in the supervisor field signifies completion of the maintenance action, verification that tool control inventories were conducted at the proper intervals, the component was adequately preserved and secured for routing to the AMSU, documentation is correct, and QA measures were adhered to based on the logged-on person. This indicates all tool control requirements have been complied with.

MAINT CONTROL. The Production Controller will use the appropriate function to indicate approval of a specific MAF. NALCOMIS will electronically post the controller's name to the MAF based on the logged-on person.

JCN. The JCN is automatically filled in.

NOTE: The JCN for I-level repair of SE in the subcustody of another department is auto assigned by NALCOMIS upon Production Control approval, with the I-level organization code.

WORK CENTER. Enter the appropriate work center code performing the maintenance action described on the MAF. Work center codes are listed in Appendix E.

STATUS. For level 1 maintenance only, enter "U" for up discrepancy and "D" for down discrepancy. This data field may be updated using appropriate update function.

INSPT JCN. Used for power plants engine induction.

PRI. Production Control or authorized personnel will fill in this data field to approve the initiated MAF using the appropriate function.

SYSTEM/REASON. Enter a brief (snap shot) description of the reported discrepancy using the appropriate function.

MCN. Serial number assigned to each maintenance action.

16.1.2.2 Contingency VIDS/MAF Procedures

In the event OIMA is not functioning, IMAs will document maintenance on OPNAV 4790/60 VIDS/MAF forms (Figure 16-2). Procedures:

NOTE: If the OIMA system is unrecoverable, contact the Naval Information Warfare Center Fleet Support Center at DSN 647-6373 / COMM 1-833-637-3669 or by submission of a trouble ticket via: https://nesd-dwp.onbmc.mil for a data recovery push.

a. VIDS/MAF fields will be filled in per 16.1.2.1. Once OIMA is back on line, information will be transcribed electronically to OIMA.

b. When using VIDS/MAF forms, Production Control must enter the JCN. The JCN is a 9, 10, or 11 character number that serves as a base for Monthly Data Report (MDR) and Production

Control procedures. The JCN allows for separate identification of each maintenance action, and provides a link with maintenance actions performed by the IMA in support of an organization. The JCN is composed of four parts:

(1) Organization (ORG) Code. This is a three-character alphanumeric code that identifies an organization. It is used in the JCN to identify the organization that originally assigns a JCN to a maintenance action. In the case of transient aircraft maintenance, the JCN will contain the ORG code of the aircraft reporting custodian. When an activity is assigned more than one ORG code, for example, separate codes assigned to an air station Operations Department and Aircraft Intermediate Maintenance Department or Detachment (AIMD), the ORG code of the department directly responsible for O-level maintenance will be used in the JCN on all source documents for aircraft and equipment assigned to the activity. The general format structure of ORG codes is in Appendix E.

NOTE: All supported organization codes must reside in the NALCOMIS database.

(2) Day. This is a three-character numeric code specifying the day of the year, for example 01 January is day 001 and 15 January is day 015. This is the date the JCN was assigned to a maintenance action and does not necessarily reflect the date on which the work was actually started.

(3) Serial Number. The serial number is either a three character number that runs sequentially from 001 to 999, or a three character alphanumeric number. This number is normally assigned in sequence as new jobs are initiated, for example, 001, 002, and 003. When 999 has been assigned, the next number in sequence will be 001. Alphanumeric serial numbers are used only when documenting inspections other than turnaround, daily, special, conditional, corrosion, acceptance, and transfer.

(4) Suffix. The JCN suffix is a structured alphabetic or alphanumeric code added to the basic JCN to identify a subassembly or sub-subassembly repair action performed independently of the major component repair. The following listing is a breakdown of the double suffix logic:

First Position	Second Position	Position Identification
Alpha	Blank	A repairable subassembly, which has repairable sub-subassemblies.
Alpha	Alpha	A repairable sub-subassembly removed from a repairable subassembly.
Numeric	Alpha	A repairable subassembly with no repairable sub-subassemblies.

c. Where signatures are required, the individual will print their rank followed by their first initial and last name in the bottom of the signature block, and sign in the top of the signature block.

d. When additional space is required on the hardcopy MAF or VIDS/MAF to document information on multiple entries in a data field, such as in the Failed Parts section, attach a second blank hardcopy WO or MAF, label "page 2", "page 3", etc., and continue to document in the affected field.

e. CM ALS for assemblies and parts received during contingency operations will be obtained and added to the Primary folder in CM Inventory Explorer prior to commencing the back fit MAFs.

NOTE: Activities receiving CM ALS from the OMAWHOLE are responsible for back fitting all logbook historical data not previously entered into the CM ALS module while the aircraft/asset was in the custody of a non-NTCSS Optimized OMA NALCOMIS activity.

f. Once OIMA is available, data on the hardcopy forms must be back fitted into OIMA. Hardcopy forms for conditional inspections will be kept on file for 6 months. Hardcopy forms for special inspections will be kept on file until the next like inspection is completed in OIMA.

NOTE: Special attention must be made when back fitting hardcopy MAFs and VIDS/MAFs into OIMA to ensure correct data is entered in the correct sequence with flight record data being applied to the correct logsets.

g. Upon completion of the back fitting process, a verification of the Maintenance module and the ALS CM Inventory Explorer must be performed for the affected equipment or tracked assets.

h. Figure 16-4 illustrates the VIDS/MAFs documentation flow.

16.1.2.2.1 Routine Preventative Measures

a. All Work Centers will print Work Load/Buffer Management tool (BMT) reports at the beginning of every shift and update as changes occur throughout the work shift.

b. Supply should ensure adequate amount of VIDS/MAFs are available.

c. Maintenance Control/Supply will Maintain a logbook or listing to track DDSN assignments by work center to reflect the following information:

(1) DDSN

(2) MCN

(3) JCN

(4) Ordered Date/Time

(5) CAGE

(6) Part Number

(7) QTY

(8) Repairable/Consumable,

(9) Status (Comp, EXREP, Refer or Cancel, and Received Date/Time.

16.1.2.2.2 Pre-recovery Procedures

a. Production Control (PC)/Supply:

(1) IMA Maintenance Material Control Officer (MMCO) and Supply Officer (SUPPO) will determine when to initiate contingency procedures.

(2) Hold a maintenance meeting with Satellite Production Controls, the DBA/SAA, Supply and Quality Assurance representatives.

NOTE: The most current copy of your work center reports must be maintained and communicated with Production Control at all times upon any updates.

(3) Conduct additional meetings as determined by the MMCO and Maintenance Master Chief Petty Officer (MMCPO)

(4) Revert to using COMNAVAIRFORINST 4790/60 (VIDS/MAFs 5-part).

(5) Establish folders to control VIDS/MAFs. Copy 3 is maintained in main PC. Reports must be complete, accurate and kept up to date.

(6) OOMA Configuration Management (CM) Auto-Log Sets (ALS) will be manually updated; and log set Transfer/Receipt will be handled via disk/email.

(7) Immediately perform backup of OOMA when OIMA goes offline. Records of Engine/APU log sets will be printed and manually updated as required by governing instructions.

(8) PC and work centers will manually update most current copy of BMT.

(9) Annotate non-NALCOMIS maintenance actions on VIDS/MAF Copy 3. Conduct daily VIDS/MAF verification with work centers.

NOTE: OMA wholesale/repositories and any external databases must lie utilized to maintain accurate and up-to-date ALS data.

b. All satellite PC's must established a JCN log (Figure 16-3). JCNs will be established as follows:

(1) Main PC will dictate the use of JCN serial number assignment to their divisions and satellite Production Controls (i.e. D9M043600, 601, 602). This will prevent duplication of JCN's during back fit.

(2) Inductions from tenant commands will have JCNs already annotated on the turn-in to the repair cycle.

c. DBA (supply and maintenance):

(1) Provide assistance to work centers on proper documentation. Provide maintenance managers with time estimates concerning restoration of system.

(2) Notify up-lined/interfacing activities (i.e. AFAST, DECKPLATE, NIWC, etc.) of NALCOMIS down/up period.

(3) Update NALCOMIS when system is restored.

d. Quality Assurance:

(1) Maintain adequate source documents and maintenance manuals (hard copies) in the event the LAN or share drive is down.

(2) Will ensure all publications are up to date and accessible to maintenance personnel.

e. Work Centers:

(1) Manually process all components on VIDS/MAF Copy 1. Ensure all completed SRA/ASSIST or work requests are attached to the MOM VIDS/MAF.

(2) Annotate latest copy of VIDS/MAFs as required to reflect latest job status of MCNs.

(3) Annotate work center workload report as required.

(4) PC and work centers will manually update most current copy of BMT.

16.1.2.2.3 Post Recovery Procedures.

a. VIDS/MAF contingency will be granted to personnel identified as part of the back fit team per division. The back fit team will consist of divisional AZ's and JASU. .Teams will provide up to date progress on the back fit to main PC. .

b. The IMA’s Buffer Management Tool (BMT) will be used as a secondary source of data recovery.

c. ADP System Administrator will act as primary source of restoration of NTCSS application.

d. Back fit operations to be coordinated by PC and JASU.

e. DBA will control and monitor user personnel access to update NALCOMIS during back fitting operations.

f. Work centers will not back fit their own VIDS/MAFs.

g. Back fitting will be consolidated to a few central locations (i.e. PC's and JASU).

h. Expedite the routing of technical research requirements to back fit team.

i. Back fit one work center VIDS/MAFs at a time.

j. Back fit WRA JCN first.

k. WRA/JCN (DDSN).

l. Non-IMA org (attached SRA, attached assists, and attached work requests).

m. Level 2 VIDS/MAFs - In order to successfully back fit all inductions processed while the system was down, a chronological file of all DD FORM 1348s and VIDS/MAFs must be maintained. Required folders:

(1) Level 2 VIDS/MAFs LOAD TURN IN DDSN (JASU/DCU).

(2) Level 2 VIDS/MAFs – LOAD VIDS/ MAF RECORD WRA OR SRA (Satellite PC's).

(3) Level 2 VIDS/MAFs - LOAD VIDS/MAF H-Z RECORD WRA OR SRA (Satellite PC's).

n Level 2 VIDS/MAFs - CLEAR MATERIAL CONTNGENCY (Supply DBA/JASU/DCU).

o. Update requisitions supply status (supply action).

p. Clear DIFM return (DCU).

q. Technical Research (maintenance or supply action).

r. Completed VIDS/MAFs (maintenance action).

s. All IMA on equipment VIDS/MAFs (completed and outstanding level 2 VIDS/MAFS, assist, and work request VIDS/MAFs).

(1) All WRAs with non-IMA JCN org codes should be back fitted first.

(2) All VIDS/MAFs with supply JCNs and ORG codes that are Supply Officer (SO) assets must be placed in suspense prior to induction.

(3) Ensure status of the turn-in DDSNs and stock numbers issued are clearly visible on the VIDS/MAF.

(4) The latest status of AWP DDSNs should be on the VIDS/MAF.

t. Supply will not back fit maintenance actions and maintenance will not back fit supply requisitions.

u. On and Off-equipment cannibalization actions.

NOTE: While NALCOMIS is down, cannibalization actions should be held to a bare minimum due to possible problems during back fit.

v. Repairable Parts processing:

(1) Material requirements must be back fitted using contingency. Production control must create the turn in for the repairable.

(2) The turn in VIDS/MAF that was created during the down-time should be attached to the WRA.

(3) Supply will clear the requisitions from the Material Contingency Mailbox.

(4) Production control will induct the SRA through AMSU approval box.

(5) Production control will the job status and times to reflect the actual times that apply.

w. On-equipment VIDS/MAF processing Level I VIDS/MAFs:

(1) Ensure all Engine/Test Set/Bench/Support Equipment gain/loss are properly configured/de-configured in NALCOMIS Asset Configuration and where appropriate accounted for in OOMA.

(2) Review/update NALCOMIS SESS with close attention to Periodic Maintenance (PM) reports. .

(3) Maintenance back fit team puts the Level 1 VIDS/MAF on the file using VIDS/MAF Contingency.

(4) Supply back fit team use Material Contingency to bring material requirements added-to the Level 1 VIDS/MAF by maintenance on line..

(5) Maintenance will induct all repairable items through the AMSU automated mailbox.

(6) Supply back fit personnel will update the DDSNs with the status using requisition maintenance.

x. OOMA contingency:

(1) Monitor log sets in all folders to avoid log set duplication.

(2) Respective Satellite PC's must transfer/receive log set, as supported squadrons/other activities may catch up on transfers during down-time.

16.1.3 MAF Processing

16.1.3.1 Overview

a. The Aviation Material Screening Unit (AMSU) receives the defective component with a MAF. AMSU enters the appropriate data into NALCOMIS using the AMSU Receipt function. Upon approval, 2 copies of MAFs are generated; one copy is attached to the defective component for delivery to the applicable work center, and the other copy is for Production Control.

b. The Work Center Supervisor receives the component, screens the MAF, and assigns a worker to the maintenance action. The worker performs technical screening and commences the repair action.

NOTE: Upon task assignment, the tool container number will be documented using the NALCOMIS function.

c. If parts are required, the worker will order necessary parts using the appropriate function. See 16.1.4 for requisitioning procedures.

d. Once maintenance is completed, the worker updates the MAF indicating the appropriate action, and assigns a job status of JC. At this time a mailbox message is created for the CDI and the worker attaches a material condition tag to the component.

e. The CDI reviews the MAF in the appropriate NALCOMIS function indicating approval. At this time NALCOMIS will electronically assign the CDI's name to the MAF Inspected By Field. A mailbox message will be created for the Work Center Supervisor.

f. The Work Center Supervisor reviews the MAF in the appropriate NALCOMIS function and screens the MAF for accuracy and completeness. Upon approval, the Work Center Supervisor's name is electronically assigned to the MAF and a mailbox message will be created for Production Control. At this time the AMSU is notified that the component is ready for pickup.

g. Production Control reviews the MAF completeness. Upon approval, the Production Controller's name is electronically assigned to the MAF. At this time NALCOMIS generates two MAFs; one MAF is for the work center, which is used to verify the maintenance report, and the second MAF will accompany the component to AMSU for disposition. A mailbox message is created to logs and records for review. Logs and Records personnel will ensure OOMA CM ALS records are updated for the component or equipment, if applicable.

h. AMSU notifies the Component Control Section (CCS) that the component is ready for disposition and delivers the component to CCS.

i. The Maintenance Data Base Administrator/Analyst (MDBA/A) reviews the appropriate mailbox message and approves or rejects completed MAFs. Rejected MAFs are returned to the work center for corrections. Approved MAFs are then submitted to DECKPLATE.

16.1.3.2 Off-Equipment Work Flow

Figure 16-5 shows the MAF flow for off-equipment work. When a NRFI component is received at AMSU, the following induction procedures will be followed:

a. If AMSU personnel have the appropriate special maintenance qualification (SMQ), induct the item by assigning a work priority. NALCOMIS will print two MAFs: one for Production Control and the second to accompany the component to the work center. The accompanying OOMA CM ALS record will be moved to an induction status.

b. AMSU personnel who do not have the SMQ to assign a work priority will induct the component without a priority assigned. NALCOMIS creates the "PC Approval Required" mailbox message and moves the OOMA CM ALS record to Induction Status. Production Control approves the MAF by assigning a work priority and indicating approval. Two MAFs

will be printed; one for Production Control and one to accompany the component to the appropriate work center.

NOTE: The Production Control copy is for local use.

c. AMSU routes the NRFI component, with a MAF, to the work center. MAF data is maintained and updated on a continuing basis through on-line functions.

d. When directed by Production Control, the work center places the component in-work (IW).

e. If the work center determines that repair parts are required the work center uses various on-line functions confirming the correct part data prior to ordering. Using the appropriate function, the work center will order the parts required. NALCOMIS provides Production Control with specific mailbox message identifying each MAF awaiting parts approval. Components or subcomponents that are removed and replaced will be documented in the OOMA configuration management (CM) task. Procedures are in the OMA-UG. See 16.1.4 for requisitioning procedures.

f. Production Control will indicate approval by assigning a project code and issue priority code and NALCOMIS will automatically assign the proper sequenced document date and serial number (DDSN) for each approved part and produce required MAFs to support shop replaceable assembly (SRA) turn-ins and work center updates. Components or subcomponents that are removed and replaced will be documented in the OOMA CM task. Procedures are in the OMA-UG/Online Help.

g. If the DDSN local status code reflects nonavailability of the part requisitioned, the work center changes the MAF job status (JS) to WT (in transit to AWP locker) and routes the part with MAF to the awaiting parts (AWP) unit. The AWP unit performs receipt function that changes the MAF JS to WQ (Gear in AWP Work Center). For parts authorized to remain in shop, the same procedures apply.

h. When all parts are received by the AWP unit, the MAF JS will be upgraded to WB (in transit from AWP unit to work center) via online functions. If additional parts are required for induction, repeat the procedures outlined in paragraphs 16.1.3.2.a. through h. above.

i. When the maintenance action is completed, the worker updates the JS to JC (job complete). NALCOMIS creates the mailbox message for "Collateral Duty Inspector (CDI) Approval Required" or "Quality Assurance (QA) Approval Required".

NOTE: When the MAF has been completed, if the component is RFI attach a Serviceable Tag - Material (DD 1574), Figure 16-6, to the component before placing it inside the shipping container. If the component is NRFI (in a BCM condition), attach a hard copy Unserviceable Material Tag (DD 1577-2), Figure 16-7, to the component. Attach the MAF and a paper copy of the material condition tag to the outside of the shipping container.

j. Upon CDI or QA approval, NALCOMIS creates the "Supervisor Required" mailbox.

k. When the MAF has been approved by the Work Center Supervisor, NALCOMIS creates the “Production Control Review” mailbox.

l. When Production Control approves the MAF, NALCOMIS prints two copies of the completed MAF. The first copy is routed with the component and the other one is retained by the work center for maintenance report verification. Production Control must ensure OOMA CM ALS records accurately reflect SERNO, CAGE, P/N, status, and configuration of the component.

NOTE: If the component is a due in from maintenance (DIFM) asset, NALCOMIS creates the mailbox message "Completed Repair Actions" once Production Control review function is complete.

m. AMSU or equivalent picks up the component from the work center and delivers the ready for issue (RFI)/beyond capability of maintenance (BCM) component to the Aviation Supply Department (ASD) with the completed MAF, Aeronautical Equipment Service Record (AESR), Module Service Record (MSR), Assembly Service Record (ASR), Equipment History Record (EHR), or Scheduled Removal Component (SRC) card and RFI or BCM tag for disposition. DIFM return moves NTCSS Optimized OMA NALCOMIS CM ALS records to RFI, BCM, or out folder (as applicable).

n. Upon Logs and Records review, NALCOMIS prints two copies of the completed MAF; one for Production Control's historical file (16.1.7) and the second copy for the QA review. NALCOMIS creates the mailbox message "Data Analyst Review".

NOTES: 1. NALCOMIS generates configuration documents for updating engine AESR/MSR and associated records.

2. Requisition and turn-in procedures for Aviation Life Support System (ALSS) and armament equipment and repair parts must be per Type Commander (TYCOM) guidelines (where applicable) or as established in this instruction. All ALSS and armament turn-ins will be delivered directly to the ALSS and armament pool. The NTCSS Optimized OMA NALCOMIS CM ALS records will be delivered electronically to the ALSS and Armament Equipment Branch. ALSS and armament equipment maintenance will be documented in CM task. CM inventory will accurately reflect the physical status.

16.1.3.3 On-Equipment Work Flow

a. Figure 16-8 illustrates the document flow for on-equipment work of I-level equipment, such as test benches, and mobile facilities. Procedures:

(1) Production Control receives the equipment and a MAF from the originating activity for inspection or repair of support equipment (SE) and items for which the originating activity has Individual Material Readiness List (IMRL) reporting responsibility. Custody Code L items in user subcustody are processed as user reporting IMRL items for MAF flow during deployment. Look phase JCNs will be assigned for PM actions. When Production Control

receives SE that has an OOMA CM ALS, all maintenance will be documented using CM task. CM Inventory will accurately reflect physical status.

(2) Production Control inducts the MAF into NALCOMIS. NALCOMIS prints two MAFs; one for customer receipt and the second is routed to the work center.

(3) Once the maintenance action is complete, Production Control retains a copy of the completed MAF and a copy will accompany the item back to the originating activity.

b. The MAF for each maintenance action is initiated with the following information:

(1) Type Equipment Code (TEC).

(2) BUNO/SERNO.

(3) Discrepancy (required).

(4) Equipment status (required for level 1).

(5) When Discovered Code (required).

(6) JS (optional).

(7) JS Date (optional).

(8) JS Time (required if date entered).

(9) Work Center (required).

(10) Type Maintenance (required).

(11) Maintenance level 1.

(12) WUC (required and must be reside on the database).

(13) Work Priority (allowed with proper SMQ).

(14) Meter (required if maintenance level equals 1).

(15) System Reason (required).

NOTE: Production Control will perform the above functions for DISCD Code O (Administrative) documents.

c. If Work priority (PRI) is not assigned, NALCOMIS creates mailbox message "Production Control approval required". Production Control approves the MAF using the appropriate function and routes the MAF to the work center.

d. When the maintenance action is completed, the worker updates the JS to JC. NALCOMIS creates the mailbox message for "CDI Approval Required" or "QA Approval Required":

(1) Upon CDI or QA approval, NALCOMIS creates the "Supervisor Required" mailbox.

(2) When the MAF has been approved by the work center supervisor, NALCOMIS creates the mailbox message "Production Control Review".

e. When Production Control reviews the MAF, NALCOMIS prints two copies of the completed MAF, one to be routed with the component. The second copy is retained by the work center for maintenance report verification.

f. Upon Logs and Records Review NALCOMIS prints two copies of the completed MAF; one for Production Control's historical file (16.1.8) and one for "QA Review". NALCOMIS creates mailbox message "Data Analyst Review".

g. MAF flow within the Weapons Department for on-equipment maintenance of AWSE end items will be the same as the procedures discussed above, even though several of the maintenance functions, which are organized as separate entities in IMA, may be combined organizationally into one in the Weapons Department. For example, Maintenance Control, the work center, and Material Control could exist as a single point in the Weapons Department, and the standard MAF flow procedure would still be used just as though these three entities had been geographically, rather than organizationally, collocated.

16.1.3.4 Removed Repairable Subassembly Component

A MAF is used to document removal and subsequent IMA processing of repairable components. These procedures also apply to consumable components that are inducted into the IMA for repair. Maintenance on a removed repairable component is off-equipment work (16.1.3.2) and documented by completing the Hard Copy Notice (HCN) or MAF (paragraph 16.2.5.12).

a. Suffix MAF. NALCOMIS will generate a HCN/MAF for each repairable subassembly approved in the Material Approval Function. Each additional MAF will be automatically assigned a suffix to the same JCN (paragraph 16.2.5.13) used for the original maintenance action, per paragraph 16.1. A suffix is required, even when the maintenance of the removed subassembly is performed by the same person or shop that removed it.

b. Removed Repairable Subassembly. When ordering or documenting the removal of a repairable subassembly in NALCOMIS the user must indicate repairable subassembly by entering a (Y) for yes in the appropriate field. This allows NALCOMIS to set up the appropriate JCN logic for the MAF. If no repairable sub-subassemblies are removed, this is the last document required (paragraph 16.2.5.14).

c. Removed Repairable Sub-subassembly. If repairable sub-subassemblies are removed, repeat the procedures in paragraphs 16.1.3.3.a and 16.1.3.3.b.

16.1.4 Material Requisitioning

Various OIMA functions are used to identify the correct part and order material. When the requisition is placed, Production Control is notified with a specific mailbox message identifying each MAF awaiting parts approval. Procedures:

a. Production Control will indicate approval by assigning a project code and issue priority code. NALCOMIS will automatically assign the proper sequenced DDSN for each approved part and produce required MAFs to support SRA turn-ins and work center updates.

b. If the item is not available within 24 hours, or the DDSN local status code reflects nonavailability of the part requisitioned, the work center changes the MAF JS to WT (in transit to AWP locker) and routes the part with MAF to the AWP unit. The AWP unit performs receipt function that changes the MAF JS to WQ (Gear in AWP Work Center). For parts authorized to remain in shop, the same procedures apply. Production Control is notified of the status change via NALCOMIS.

c. If a repairable SRA is requisitioned, the DDSN assigned by NALCOMIS becomes the turn-in document number on the MAF initiated by the work center for that SRA. NALCOMIS issues a suffix JCN from the original JCN and the work center packages and preserves the SRA for induction into the repair activity having cognizance.

d. When all parts are received by the AWP unit, the MAF JS will be upgraded to WB (in transit from AWP unit to work center) via online functions. The component and parts are delivered to the work center.

e. A component may go through the AWM, in work, and AWP process many times before being RFI or it is determined that the item must be shipped to another activity for repair. If so, ensure the above steps are taken each time the status of the component changes.

f. The following steps are taken to process a WRA for BCM-4 action:

(1) Notify Production Control of the status change from AWP to in work.

(2) Ensure all SRAs are installed and secured, and all documentation is provided for any missing SRAs.

(3) Preserve for off-station processing.

(4) Complete MAF documentation and notify Production Control of the status change from in work to BCM-4 via local procedures.

g. NALCOMIS will generate a MAF once the repairable component ordered is approved using the Material Approval Process, this turn-in will have the same JCN as the end item, except components removed for calibration. If the component is from supply stock, the turn-in document will reflect the supply JCN per paragraphs 16.2.5.10 and 16.2.5.11. If the component is removed from an end item, the document will be generated by NALCOMIS for the work center that removed it. A turn-in document is required even when the maintenance on the removed component is performed by the same person or shop that removed it.

16.1.5 Inter-IMA Work Center Assist

The following procedures are used when one work center requires assistance from another work center within the same IMA:

a. The primary work center generates a MAF using the Work Center Assist/Support MAF Initiation function.

b. Production Control approves the assist MAF using the appropriate on-line function. NALCOMIS will produce (two) MAFs; one for the assisting work center and one for Production Control.

c. When the assist MAF has been completed, a copy of the MAF will be provided to the primary work center.

16.1.6 Repair and Return

a. Processing defective components for shipment to another IMA for Repair and Return:

(1) AMSU receives the defective component with a completed MAF with AT Code D, condition tag, and associated records or NTCSS Optimized OMA NALCOMIS CM ALS records from the work center and forwards them to Document Control Unit (DCU).

(2) DCU processes the component via the DIFM return function.

(3) Supply ships the component with MAF, associated records, and DOD Single Line Item Release Receipt Document (DD 1348-1) per local supply procedures. NTCSS Optimized OMA NALCOMIS CM ALS records are transferred electronically to the unit identification code (UIC) that the component is shipped to.

b. Processing defective components received from another IMA for Repair and Return:

(1) Supply receives the defective component with the D-action MAF, associated records or OOMA CM ALS records, and DOD Single Line Item Release Receipt Document (DD 1348-1) per local supply procedures.

(2) Supply delivers the defective component, MAF, and associated records or OOMA CM ALS records to AMSU.

(3) AMSU inducts the MAF, fills in the Repair and Return, and the Owed Org field.

(4) AMSU receives the component with a completed MAF, and associated records or OOMA CM ALS records from the work center or production control.

(5) The Component Control Section (CCS) receives the component from AMSU and processes it to the originating I-level activity via the DIFM return function.

(6) Supply ships the component with MAF, associated records, and DOD Single Line Item Release Receipt Document (DD 1348-1) per local supply procedures. OOMA CM ALS records are transferred electronically to the UIC that the component is shipped to.

c. Processing components returned from another IMA as a result of a previous BCM Action:

(1) Supply receives the component, MAF, associated records, or OOMA CM ALS records and DOD Single Line Item Release Receipt Document (DD 1348-1) per local supply procedures.

(2) Supply delivers the RFI component and records or OOMA CM ALS records to the customer. NRFI components received are processed per local procedures.

NOTE: Components shipped as RFI but without an RFI tag will be inducted into the IMA for check and test. The CCS will initiate the work request using a supply JCN via on-line functions.

d. See 16.2.3.6 for additional information on repair and return.

16.1.7 Depot Level Beyond Capability of Maintenance Interdiction (BCMI) Documentation

This section describes documentation processes and procedures for BCMI maintenance actions and D level associated Supply data for those I-level activities with embedded D-level artisans. These activities are responsible for training D-level artisans on OIMA procedures and ensuring the documentation is accomplished correctly.

16.1.7.1 I-Level Induction, D-Level BCMI/RFI Process

A component is received from supply and is inducted by JASU into an I-level work center. If the work center determines the repair action is beyond I-level repair capability but within the capability of an assigned D-level artisan, the following will occur:

a. The I-level work center notifies Production Control and the artisan the I-level work center requires D-level assistance in the repair, and documents man-hours invested in the attempt to repair.

b. The D-Level artisan goes in work using the BCMI web-based application.

c. The D-level orders any repair parts required using the BCMI web-based application, repairs the component, documents man-hours, the level of maintenance performed, and signs off the MAF as RFI.

d. I-Level Induction, D-Level BCMI/RFI Documentation Procedures.

(1) The I-level work center will change the current status of the MAF to M1 (AWM Depot).

(2) The work center will update work hours and tools and complete Transaction Code, Action Taken Code, Malfunction Code, and Items Processed. The work center must use the “Notes” tab to provide additional information to the D-level artisan.

(3) The D-level artisan will go in work, order parts, update accumulated work hours, shift, and tool box information using the BCMI web-based application.

(4) After the D-level artisan completes repair, the artisan updates the job status to M1, updates the Transaction Code, Action Taken Code, Malfunction Code, and Items Processed. This allows the artisan to update/change the MAF prior to moving to a JC status.

(5) On the Sign-off tab, validate the MAF. Errors will be displayed in the Error Message List sub-screen. All errors must be corrected prior to the MAF being moved to a JC status.

(6) Once all errors are corrected, validate MAF again, change the M1 status to JC and perform sign-offs in the Corrected by, Inspected by and Supervisor blocks (as applicable).

(7) Production Control scan locate the sign-off in the PC Review Mailbox and clear it.

16.1.7.2 I-Level Induction, D-Level Repair, and I-Level RFI Process

A component is received from JASU and inducted into the I-level work center. The I-level work center determines that depot repair is required; however, the final RFI function belongs to the I-level work center. The following will occur:

a. The I-level work center notifies Production Control and the artisan the I-level work center requires D-level assistance in the repair and documents man-hours invested in the initial maintenance.

b. If the D-level artisan assigned to perform the repair is assigned to a D-level work center, the I-level technicians will initiate an assist MAF to that work center. D-level artisans directly assigned to the I-level work center must document their repair on the original MAF.

c. The D-Level artisan goes in work using the BCMI web-based application.

d. The D-level artisan orders any repair parts, documents man-hours and work performed, signs off assist MAF (if applicable) and notifies I-level personnel that D-level work is complete.

e. I-level technician performs final RFI of item, D-level artisan inspects/verifies and signs “Inspected By” certifying item is RFI if assist MAF was not used (if both are assigned to the same work center).

f. I-Level Induction, D-Level Repair, and I-level RFI Documentation Procedures. The following explains documentation:

(1) A component is received from Supply and is inducted by into an I-level work center.

(2) The I-level work center can go in work, order parts, etc.

(3) The I-level work center determines that required repair is beyond I-level capability and will change the status of the MAF to M1 (AWM Depot).

(4) The I-level work center will notify Production Control of the need for D-level artisan repair. If the D-level artisan assigned to perform the repair is assigned to a D-level work center, the I-level technicians will initiate an assist MAF to that work center. D-level artisans directly assigned to the I-level work center must document their repair on the original MAF.

(5) The I-level work center must ensure all tools are accounted for and all work hours are correct on the original MAF. The work center must use the "Notes" tab to provide additional information to the D-level artisan.

(6) The D-level Artisan will go in work, order parts, update accumulated work hours, shift, tool box information and complete the repair action using the BCMI web-based application.

NOTE: All parts required by an artisan to accomplish the repair must be ordered with a D level work center and identified as a failed part (indexed) on the MAF. The BCMI web-based application eliminates the requirement for D-level artisans to identify all ordered parts as failed parts (indexed) in order to capture MAINT/L 3 costs.

(7) Once the repair is complete, the D-level artisan will update the MAF to M6 Status or sign-off the assist MAF.

(8) The D-level artisan will notify Production Control/I-level work center that the repair is complete and the need for further I-level work center maintenance.

(9) The D-level artisan will validate the MAF to ensure the MAF is correct and all tools have been accounted for.

(10) The D-level artisan may use the "Notes" tab to provide additional information that assists the I-level technicians in the final RFI of the component.

(11) The I-level work center completes the maintenance/RFI run.

(12) The D-level artisan signs the "Inspected By" block of the MAF/WO if the highest level of repair for the item was maintenance level 3.

NOTES: 1. D-Level artisans must be assigned the necessary SMQs for authorized work center functions (e.g. "Inspected By" block).

2. If the D-Level artisan cannot repair the inducted component on the assist MAF, then the D-Level artisan must sign-off the MAF with Action Taken Code F, notify Production Control and I-Level work center that the repair cannot be completed, and if recommended the repair action is BCM.

16.1.7.3 D-Level SRA Induction and RFI Process

This scenario is basically the same as an internal SRA repair performed currently, but the ICRL may need to be updated to reflect the appropriate work center's capability to repair the SRA. D-level artisans and I-level technicians should be integrated into the same work center. Work center integration enables adding the SRA to the I-level work center's ICRL using the appropriate D-level capability code (Figure 10.20-2).

16.1.7.4 New Capability Process

This scenario uses the same processes that are currently used when adding new capability to an I-level work center. D-level artisans and I-level technicians should be integrated into the same work center. Work center integration enables adding the SRA to the I-level work center's ICRL using the appropriate D-level capability code (Figure 10.20-2).

16.1.7.5 D-Level Assist Process

A component is inducted by JASU into an I-level or D-level work center. During the repair, assistance is required. Regardless of the maintenance level required for the assist, an assist MAF will be initiated using existing O-level or I-level NALCOMIS assist MAF procedures. This applies when repairable parts are not required. Examples include, but are not limited to: NDI, 2M repairs, welding, etc.

NOTE: By definition, a 2M artisan is unable to determine if an item is RFI until the item is tested using an approved procedure defined in NAVAIR approved publications. Therefore, 2M artisan procedures are the same as I-level 2M procedures. Specifically, the original work center will order required parts and forward, with SRA (circuit card assembly, etc.) and an assist MAF to the D-level 2M artisan. Once the required repair is complete, the SRA (circuit card assembly) will be forwarded back to the original work center to verify RFI status.

16.1.7.6 Artisan I-level Training/Assistance Process

D-level artisans should use OIMA to clock man-hours expended on training I-level technicians. If the artisan is assigned to the same work center as the I-level technician, training hours will be documented on the original MAF within the I-level work center. If the D-level artisan is assigned to a D-level work center, the I-level technicians will initiate an assist MAF to that work center to account for training hours.

16.1.8 Historical Files

a. Production Control will maintain a historical file with copies of completed inspection MAFs for a minimum of 6 months from the date the MAF was completed. MAFs for preventive maintenance (PM) inspections will be maintained for 6 months or one complete inspection cycle whichever is greater. The historical file will be arranged in sequence of equipment nomenclature, SERNO, and JCN, that is JCN within SERNO within nomenclature. Activities have the option of establishing historical files by work center as long as the above filing order is maintained. A temporary file may also contain those MAFs with a close out Action Taken Code of L or N.

b. Completed engine MAFs must be maintained in the engine historical file by engine type and serial number, in JCN sequence, for 6 months from the completion date on the engine induction MAF. The file must contain the completed MAFs for repairs/inspections of the engine, engine test cell performance sheets, and all the completed local forms generated for pre-induction screening.

16.2 I-level Maintenance Source Documents

16.2.1 Support Equipment (SE), Training Devices, and Missile Target Documentation

16.2.1.1 General policy

Maintenance on SE, training devices, and missile targets will be documented per the procedures in this section.

16.2.1.2 On-Equipment SE Work

a. The discrepancy MAF initiation function will be used to initiate MAFs for on-equipment work performed on an end item of SE, except for calibration. (Refer to paragraph 16.2.2. for calibration documentation.) If no repairable component is removed, the worker will initiate the MAF using the appropriate update function. Paragraphs 16.2.5.1 through 16.2.5.8 show on-equipment documentation. On-equipment work requiring MAF initiation:

(1) Repairing an end item.

(2) Removing a repairable component from an end item for any reason, including calibration.

(3) Compliance with a TD on an end item.

(4) Inspecting an end item.

(5) Documenting preservation or depreservation.

(6) On-equipment cannibalization.

16.2.1.3 O-Level IMRL Reportable SE

A MAF is used to induct O-level SE into the IMA for repair, periodic inspection, and TD compliance (paragraph 16.2.5.9). A requesting activity delivers the MAF and SE to the IMA. Production Control signs the MAF acknowledging receipt of the SE. Use the appropriate function inducting the item creating a MAF.

16.2.1.4 SE Repair

SE repair is documented per the applicable MAF procedure of 16.2.5.

16.2.1.5 SE Inspections and Periodic Maintenance (PM)

SE inspection (except preoperational and postoperational inspections) and PM are documented per the procedures of 16.2.5.15, 16.2.5.16. and 16.2.5.17.

16.2.1.6 SE Corrosion Documentation

a. Corrosion prevention performed per MRCs (scheduled maintenance) will be documented on the inspection look phase MAF. This includes SE washing performed as part of a scheduled inspection.

b. Corrosion treatment requirements found during the look phase of an inspection will be documented on a fix phase MAF. The treatment of bare metal is included in this category. Use AT Code Z and the appropriate Malfunction Code per Appendix E.

c. All unscheduled corrosion prevention is documented on a MAF. Unscheduled SE cleaning and temporary repairs of bare metal are included in this category. Multiple items processed may be documented. Use Work Unit Code 040, AT Code 0, Malfunction Code 000, WD Code O, and TM Code D.

d. Unscheduled corrosion treatment actions are documented on the MAF using AT Code Z and the appropriate Malfunction Code per Appendix E.

16.2.1.7 SE Preservation and Depreservation

a. MAFs are used to document preservation/depreservation of end items per NAVAIR 17-1-125.

b. When Production Control approves the preservation/depreservation MAF, NALCOMIS will automatically assign a numeric serial number JCN. This MAF will be used as the control document. WUC 049 and TM code D will be used.

c. Upon completion of the preservation/depreservation action the control document will be processed by Production Control with 1 item processed entered in the items processed field of the MAF.

d. MAFs are issued to each work center participating in the preservation/depreservation action. If only one work center is involved in preservation/depreservation action, man-hours may be accounted for on the control document.

16.2.1.8 SE Technical Directive (TD) Compliance

SE TD compliance will be documented on a MAF per paragraphs 16.2.5.18 through 16.2.5.22.

16.2.1.9 SE Inventory Reporting MAF.

16.2.1.9.1 Definitions. The SE inventory reporting system provides the SE reporting custodian with a list of major assets on hand. These reporting system requirements are in addition to the AMMRL Program and do not negate the reporting requirements published in NAVAIRINST 13650.1. The following terms are used throughout this section in describing how to document inventory transactions:

a. Controlling Custodian. Support Equipment Controlling Authorities (SECAs) are responsible for fleet distribution and management of SE assets.

b. Reporting Custodian. Reporting custodian is the activity (usually I-level) having primary custody of the SE as indicated on the IMRL.

c. Inventory Codes. Inventory status codes define the reporting requirements and current status of SE in the inventory reporting system. Inventory Code 0 applies to SE. Inventory 0 also

applies to training devices and missile targets that are required to be inventoried, but for which no mission capability data is collected.

d. Transaction Codes. SE inventory transactions are described by the transaction codes in Appendix E.

(1) Inventory Gain (Transaction Code 00). An inventory gain is the receipt of an SE unit into inventory reporting by a reporting custodian. SE and missile targets will be gained with an inventory status of 0 only.

(2) Inventory Loss (Transaction Code 03). An inventory loss is when a reporting custodian transfers an SE unit or strikes it from naval service. An inventory loss is documented only if the unit has previously been gained and is in the inventory system.

NOTE: Paragraphs 16.2.5.23 and 16.2.5.24 provide examples of MAFs used to document equipment gain or loss.

16.2.1.9.2 Inventory System Documentation Procedures. The following lists the codes necessary to properly document inventory transactions:

Transaction Code	Inventory Code	Inventory Transaction
00	0	Gain into inventory of an equipment that is inventoried but for which no mission capability data is collected. These items will only be gained or lost and will require no change in material condition reporting status (MCRS) reporting. This code is used for SE, training devices, and missile target inventory reporting and is not applicable to aircraft.
03	0	Loss from inventory of equipment that is inventoried but for which no mission capability data is collected. These items will only be gained or lost and will require no change in MCRS reporting. This code is used for SE, training devices, and missile target inventory reporting and is not applicable to aircraft.

16.2.1.9.3 Change of Reporting Custodian. All maintenance actions are terminated when an equipment transfer involves a change of reporting custodian. This is done by completing the maintenance action on the completed line as of 2400 on the date of the equipment transfer. Transaction Code 11, AT Code N, and 0 items processed will be used. The only name required is that of the supervisor. Refer to paragraph 16.2.1.9 for a description of inventory procedures required for the change of reporting custodian.

16.2.2 Calibration

16.2.2.1 Calibratable Item METER Card. The Precision Measuring Equipment (PME) Work Center (Work Center 670) of IMAs participating in the MEASURE Program documents all

calibration and repair actions on the METER Card per OP43P6B. A METER Card is initiated as a turn-in document for any end item or component processed to the PME Work Center for any reason. The provisions of this paragraph are not applicable to any maintenance actions performed on the calibratable building blocks (BBs) of the any automatic test equipment (ATE). These maintenance actions, including those incident to an off-line or on-line calibration action, must be documented on the MAF. The calibration actions associated with any calibratable ATE BB must be documented on the METER Card.

16.2.2.2 Calibration MAF. A MAF is used by work centers, other than Work Center 670 to document all maintenance actions except calibration. When a component is removed from an end item for processing to the PME Work Center (for calibration or repair), a supporting MAF is generated to account for man-hours and EMT expended removing and reinstalling the component. A separate MAF with a different JCN is required for each component removed. Paragraph 16.2.5.25 is an example of a MAF documenting the removal of a component for processing to the PME work center on a METER Card.

NOTE: Only PME that requires parts to be ordered will be inducted via NALCOMIS procedures. All other repair actions will be completed on the METER Card. NO EXCEPTIONS.

16.2.3 Aeronautical Component Documentation Procedures

16.2.3.1 Component Repair

16.2.3.1.1 If administrative screening of the turn-in component (paragraph 16.2.5.26) reveals check, test, and repair capability exists or the repair capability has not been established within the IMA, the screening unit will notify the IMA Production Control that the component is available for scheduling into the appropriate work center for screening and repair. The screening unit will enter the Julian date the item was received in the RECD Field. When the screening unit is notified of the repair schedule for the component by Production Control, the following information will be entered on the MAF. Paragraph 16.2.5.27 is an example of a BCM action by AMSU.

16.2.3.1.2 AMSU delivers the component and MAF to the appropriate work center. The MAF remains open until final disposition of the component is known. Any supporting documentation will be done on additional MAFs. Some of the situations requiring supporting documentation are:

a. Close Out. A close out of incomplete maintenance actions may be required by local managers for the end of each reporting period. Each maintenance action will be closed out as of the last day of the reporting period or upon transfer of the equipment.

b. Work stoppages due to a lack of parts.

c. Troubleshooting. When it is necessary to separate troubleshooting man-hours from repair man-hours, the troubleshooting man-hours are accounted for on a separate MAF. The existing MAF remains outstanding until the repair action is completed. Documentation of failed/required

material and removed or installed items is done only on the repair action MAF (paragraph 16.2.5.28).

d. Assisting Work Centers Supporting the Basic Repair Action. When more than one work center works on the same maintenance action, one work center is designated the primary work center and the other work centers are assisting work centers. The primary work center will generate a separate MAF for each assisting work center with the same JCN and DISC Code V. If the assisting and primary work centers work on the same WUC item, the assisting work center accounts for 0 items processed. Assist MAF documentation will be to the work center that the personnel performing the task are permanently assigned regardless of the physical location of the repair station (paragraphs 16.2.5.29 and 16.2.5.30).

16.2.3.1.3 If repairable subassemblies or modules are faulty, a new MAF is initiated for each subassembly or module per paragraph 16.2.5.31.

a. Suffix and Double Suffix MAF. For each removed subassembly, module, or sub-subassembly, document per paragraphs 16.1.3, 16.2.5.32, and 16.2.5.33.

b. Material Requisitioning. When a demand is placed on supply for a replacement subassembly, module, or sub-subassembly using the suffix or double suffix JCN, NALCOMIS will enter the JCN on the DOD Single Line Item Requisition System Document (DD 1348-1) issue document that is generated at ASD. This action is necessary to establish the requirement for a local repair cycle asset of subassemblies and modules to stock PEBs. The suffix or double suffix MAF is forwarded to Supply, with the remainder of the suffix or double suffix MAF processed the same as for any repairable item.

16.2.3.1.4 Failed/Required Material. The requirement for repairable subassemblies, modules, or sub-subassemblies will be recorded in this field of the original (major component) or subassembly MAF per paragraph 16.1.3 with the following additional requirements:

a. Project. Enter the MILSTRIP project code assigned by Production Control.

b. Priority. Enter the MILSTRIP priority assigned to the material requisition.

c. Date Ordered. NALCOMIS generated.

d. Requisition Number. NALCOMIS generated.

e. Date Received. NALCOMIS generated.

16.2.3.1.5 Retain the major component, subassembly, or module MAF. In the case of an AWP situation, the major component, subassembly, or module MAF will be forwarded with the defective component to the AWP unit.

16.2.3.1.6 When it becomes necessary to transfer a repairable item off ship or station because of a lack of parts (BCM-4), the unavailable items are entered in the Failed/Required Material fields and Maintenance/Supply Record fields will be completed to reflect AWP time. Use of AT Code 4 is restricted to occasions when the same AT code is entered for a major assembly identified by the WUC. Complete the MAF via normal MAF clearing cycle. When the maintenance action is

completed, the Work Center Supervisor gives the component, the MAF, and material condition tag to the material delivery representative, and retains a copy of the MAF for MDR verification.

16.2.3.2 Cannibalization

Any order to cannibalize must come from Production Control who will issue and approve a cannibalization action for the removal and replacement of a component being cannibalized. Document cannibalization actions per paragraphs 16.2.5.34, 16.2.5.35, and 16.2.5.36.

16.2.3.3 Matched Set

The repair of matched sets will be documented in the same manner shown in paragraph 16.2.5.37.

16.2.3.4 Tire and Wheel Documentation

A built-up tire and wheel assembly is treated as a major repairable component with repairable subassemblies. If a wheel assembly has a different SERNO on each wheel half, the SERNO of the valve core half will be used for control and documentation purposes. Man-hours for routine processing of the wheel, such as cleaning and painting, will be documented on the turn-in MAF. NDI will be documented on an assist MAF. A MAF prepared by supply will be required when a wheel assembly replacement must be built up to replenish the supply pool. Supply must submit a work request for "Test and Check" when an RFI tag is missing or unreadable. The Work Center Supervisor will inspect the tire to determine serviceability. If unserviceable, the work request will be signed off with A/T code "F" and the tire carcass will be marked for retread or scrap and BCM Code 1 or 9 used (as appropriate) (paragraph 16.2.5.38).

NOTE: The unserviceable tire will be returned to supply and identified with the appropriate code to indicate retread or scrap. Supply will establish a pool based on the appropriate wheel assembly, part numbers, stock numbers, or pool index numbers. All requests will be against this number. Supply must pre-expend or subcustody tires to the tire shop as required. Tires requisitioned on a one-for-one basis must be ordered using the Failed/Required Material Fields of the MAF. Enter AT Code R for tires that are categorized as repairable and must be accounted for on the turn-in MAF. A turn-in suffix MAF is generated automatically for each tire that is BCM.

16.2.3.5 Battery Documentation

Batteries will be turned in to the IMA on a MAF turn-in document. They will be documented as follows:

a. Batteries received for scheduled maintenance and not requiring maintenance other than servicing, use Transaction Code 31, AT Code A, and MAL Code 804.

b. Batteries received for repair or scheduled maintenance and requiring maintenance other than servicing, use Transaction Code 31 or 32, AT Code C, and an appropriate MAL Code.

c. EMT does not include the clock hours for charging time when maintenance personnel are not actually monitoring the work.

d. A MAF will not be created for end of service (EOS) unless maintenance requirements need to be documented.

16.2.3.6 IMA Repair and Return Support

In some instances an IMA will be required to transfer NRFI repairables to another IMA for repair, such as post deployment off-load by a carrier IMA, or shipment of a BCM item to an IMA known to have repair capability. Documentation procedures in these instances are as follows:

a. Transferring IMA Close Out (post and predeployment). Paragraph 16.2.5.39 is an example of a MAF for post and predeployment close out.

(1) Close out the original MAF, entering the appropriate AT Code (Appendix E) and any man-hours and EMT expended prior to transfer. In the case of post deployment off-load, use of AT Code D is mandatory, whether the item was AWP, AWM, or IN WORK at the time of off-load. In other instances, a BCM Code will ordinarily be appropriate. The MAF will be submitted by the transferring IMA for processing; a copy of this MAF will accompany the item to the AMSU or AWP unit and will be shipped with the component to the receiving IMA.

(2) WRAs must have all D-level repairable SRAs installed prior to closing out the MAF for shipment to the receiving IMA. Likewise, SRAs with attaching D-level repairable SSRAs must have attaching SSRAs installed prior to closing out the MAF for shipment of the SRA to the receiving IMA.

(3) WRAs missing FLR components will have such components installed prior to closing out the MAF for shipment to the receiving IMA provided the component is still available. Otherwise, document the missing FLR component per the following paragraph.

(4) When a field level repairable SRA has been removed from the WRA and no replacement SRA is installed prior to off-load, document the close-out (original) MAF as follows: Failed/Required Material Index - Enter H-Z for each "missing" module, subassembly or sub-subassembly (as appropriate). Failed Part - Enter an X (as appropriate). Awaiting Parts - Enter an X (as appropriate). AT code - Enter P. MAL, FSCM, Part Number, Ref Symbol, Qty, Date Ordered, Requisition Number - Enter appropriate data to identify the missing unit. Date Received - Enter date the requisition was cancelled. Transaction Code - Enter 32.

(5) On turn-in MAF, ensure FSCM, PN, Ref Symbol, Qty, Date Ordered, and Ref Number of H-Z field are filled in for each "missing" module, subassembly, or sub-subassembly (as appropriate).

NOTE: To allow for proper supply documentation ensure CCS is notified of missing FLR SRAs from the WRA to be shipped off-station. Supply must cancel any off-ship/station requisitions for missing FLRs prior to closing out the MAF. The importance of proper documentation cannot be overemphasized.

b. Receiving IMA Reinitiation Document. Paragraph 16.2.5.40 is an example of a reinitiated MAF from a transferring IMA. Upon receipt of a repairable item from another IMA, receiving AMSU will forward a copy of the MAF to the local supply CCS. Subsequent repair/disposition will be documented on the new MAF per paragraph 16.1.3, except that the RECEIVED DATE field will reflect the date the component was received from the transferring IMA.

16.2.3.7 Receipt of Unsatisfactory Material from the Supply Department

When components received from supply prove unsatisfactory, these procedures will be followed.

a. Component received, installed, and determined to be NRFI:

(1) Complete original MAF, Failed/Required Material fields.

(2) Requisition a replacement component using original MAF, Failed/Required Material Fields. NALCOMIS will automatically generate a turn-in document to accompany the NRFI component. Ensure the MAF is completed per paragraph 16.1.3 with the following exception: WD CODE field must be "Y" (received bad from Supply).

b. Component received NRFI (not installed) or improper replacement received. Turn-in the NRFI/improper component to the AWP unit. The AWP unit will prepare a DOD Single Line Item Release Receipt Document (DD 1348-1) using Record Type 62 for return of the material to Supply Response Section (SRS). Ensure all accompanying documentation, for example, RFI tag, SRC Card, and MAF are returned with all items.

16.2.3.8 Component Received Missing SRC Card, ASR, MSR, or AESR

Components, assemblies, or equipment received from supply missing SRC cards, ASRs, MSRs, or AESRs must be considered as NRFI and turned in on a DOD Single Line Item Release Receipt Document (DD 1348-1) prepared by Material Control. If the component is installed and cannot be determined to be new, it must be considered as faulty. Paragraph 16.2.5.41 is an example of a MAF documented for turn-in of a component that is missing the SRC card. Items missing ASRs, MSRs, or AESRs should be documented in a similar manner.

NOTE: If the determination can be made that the component is in fact new, an SRC Card, ASR, MSR, or AESR will then be initiated by the requisitioning activity.

16.2.3.9 Corrosion Supporting MAF

Documentation of man-hours expended for corrosion prevention during the repair of WRAs/SRAs are considered part of the repair process and are included on the repair MAF (paragraph 16.2.5.42).

16.2.3.10 Processing of Items Not Having a WUC or Not Identifiable to a Specific Type Equipment

The maintenance effort in check, test, servicing of items or equipment for which no WUC exists or that cannot be identified to a specific TEC is documented as described in paragraph 16.2.3.12, MAF Work Request.

16.2.3.11 Repair of Supply Assets

The repair of supply assets will be documented in the same manner as discussed in paragraph 16.1.3 with the following exceptions:

a. The local supply department will initiate a MAF completing all required data elements.

b. JCN assignment will be made by the Supply Department using the organization code assigned to the Supply Department, for example, A8D or C84. Refer to Maintenance Data VALSPEC in Appendix F.

c. When in receipt of an applicable TD for compliance, the Supply Department, working with the IMA QA, will screen all assets to ensure modification incorporation (where applicable).

d. The IMA Production Control and Supply will schedule applicable/required maintenance actions in a timely manner. Paragraph 16.2.5.43 is an example of the MAF documented for an end item turned in from a supply activity for TD compliance.

16.2.3.12 Maintenance Action Form (MAF) Work Request

16.2.3.12.1 The MAF Work Request is used to document man-hours expended in support of work or assistance that is beyond the requesting activity's capability and does not involve repair of aeronautical material. It is used primarily for, but is not limited to, the following:

a. Inducting items from supply for buildup, such as engines and propellers.

b. Inducting items not having a WUC or not identifiable to a specific type equipment for check, test, service, manufacture, or fabrication.

c. Requesting NDI either on-site or at the IMA when a TD is not involved.

NOTE: Work requests for items removed for local manufacture or fabrication must be approved and signed by the requesting activity's Maintenance Control Supervisor and the supporting activity's Production Control Supervisor. Batteries received for check, test, or service will be documented per paragraph 16.2.3.5. ALSS and AEP will be documented per paragraph 16.2.3.13.

16.2.3.12.2 Examples of MAF Work Requests are in paragraphs 16.2.5.44 through 16.2.5.52.

16.2.3.12.3 This and subsequent paragraphs outline the procedures for documentation and processing of maintenance requirements when approved and signed by both the requesting activity's Maintenance Control Supervisor and the supporting activity's Production Control Supervisor or their authorized representatives. Upon receipt of the MAF work request and

item(s), Production Control will sign a copy of the MAF work request, acknowledging receipt of the item(s), and return it to the originating activity. Upon completion of check, test, or manufacture, the work center will notify Production Control of job completion. A copy of the MAF will be attached to the item(s) and routed to Production Control who will notify the originating activity that the item(s) is/are ready for pickup. Production control will issue the item(s), with a MAF attached to the item(s) and inform the originating activity that the item(s) is/are ready for pickup.

16.2.3.12.4 Items completing check, test, or local manufacture will be processed as described in paragraphs 16.2.5.44 through 16.2.5.52.

16.2.3.13 ALSS and Armament Equipment Pool (AEP) MAF Documentation Procedures

a. ALSS and AEP items will be turned into the IMA on a MAF turn-in document. They will be documented as follows:

(1) ALSS/AEP received for scheduled maintenance and not requiring maintenance, use Transaction Code 31, AT Code "A" and MAL Code 804.

(2) ALSS/AEP received for unscheduled or scheduled maintenance and requiring maintenance use Transaction Code 31 or 32, AT Code "C" and an appropriate MAL Code.

(3) EMT does not include clock hours for leak check time when maintenance personnel are not actually monitoring the work.

(4) Requisition and turn-in procedures for ALSS/AEP assemblies and repair parts must be per standard induction/requisition procedures. All turn-ins will be delivered directly to the respective pool work center.

b. Examples of ALSS and AEP MAF documentation are in paragraphs 16.2.5.53 through 16.2.5.63.

AMA 2024-04

16.2.3.14 Cartridges (CARTs), Cartridge Actuated Devices (CADs), and Propellant Actuated Devices (PADs) Documentation

Replacement of installed explosive devices requires an individual MAF for removal and replacement of each device. The removal and replacement action will be documented in the REMOVED/OLD ITEM and INSTALLED/NEW ITEM blocks using Transaction Code 18 or 19 (as appropriate). The WORK UNIT CODE block (A22) must reflect the WUC that is assigned in OOMA NALCOMIS baseline or, for NALCOMIS users, obtained from the WUC manual. The PART NUMBER blocks (E23 and G23) must reflect the lot number of the devices being removed and installed. TIME/CYCLES blocks (E42 and G38) must have an entry using Time/Cycle Prefix Code H and the container open date for CARTs or CADs and the propellant manufacture date for PADs. An example is in paragraph 16.2.5.133.

16.2.3.15 Supply Asset Induction

Supply assets missing the material condition tag/history records will be inducted per paragraphs 16.2.5.64 and 16.2.5.65.

16.2.3.16 Technical Directive (TD) Compliance

16.2.3.16.1 If a TD is complied with at the O-level (on-equipment work), all maintenance actions will be documented on a MAF.

16.2.3.16.2 If during compliance with a TD it becomes necessary to forward an item to the IMA for modification or inspection and return, the following procedures will be followed:

a. If the IMA informs the O-level activity that the item requires repair, the O-level activity must initiate another MAF for turn-in and requisitioning purposes using the original JCN and will be documented by the IMA. The outstanding TD compliance MAF originally provided to the IMA will be destroyed. After the repair action is complete, Production Control will then initiate a replacement TD compliance MAF using a supply JCN.

b. Items processed in excess of 1 may be entered only when the TEC Field contains a code beginning with Y, D, S, H, or G or ending with 9 and is either a nonserialized item or does not include a part number change in the REMOVED/OLD ITEM or INSTALLED/NEW ITEM fields. Serialized items for which a part number change is reflected in fields E or G must be accomplished on an individual TD compliance MAF.

16.2.3.16.3 Examples of TD MAFs are in paragraphs 16.2.5.66 through 16.2.5.70.

16.2.3.17 Stricken Aircraft Components

The Supply Department manages the Stricken Aircraft Reclamation and Disposal Program per paragraph 6.6.6. Supply will initiate a MAF work request to induct salvaged components for IMA verification of material condition. The MAF will be prepared per 16.2.5.64 with the word "SALVAGED" in the Discrepancy field. A copy of the MAF is retained in the Component Control Section (CCS) suspense file. When reclaimed components are determined to be RFI, they will be tagged with a Serviceable Tag - Material (DD 1574), Figure 16-6, and put in stock as a gain by inventory. If NRFI, the salvaged item will be tagged with an Unserviceable Material Tag (DD 1577-2), Figure 16-7, and processed with BCM Action Type code D and shipped to the designated repair point.

NOTE: Refer to 10.46.9.4, and OPNAVINST 3750.6 for general procedures for recovery, reclamation, and transfer of crash damaged aircraft.

16.2.4 I-Level Engine, Auxiliary Power Unit (APU), and Support Equipment Gas Turbine Engine (SEGTE) Maintenance Documentation Procedures

16.2.4.1 Overview

a. Documentation procedures are broken down into two parts; conventional engines (paragraphs 16.2.5.71 through 16.2.5.102) and modular engines (paragraphs 16.2.5.103 through 16.2.5.132.

b. Documentation procedures, whether an aircraft engine, APU, or SEGTE are the same with the following exceptions:

(1) Failed/Required Material FSCM Field. When identifying an APU or SEGTE always enter numeric 1 for engine position; for example, PHAB1.

(2) Removed/Old Item or Installed/New Item FSCM Fields. When identifying an APU or SEGTE always enter numeric 1 for engine position; for example, PHAB1.

(3) Removed/Old Item or Installed/New Item Time/Cycles Fields. When documenting APU or SEGTE enter the engine hour meter or start counter reading (as appropriate).

16.2.4.2 Corrosion Documentation

a. Corrosion prevention performed per MRCs (scheduled maintenance) will be documented on the inspection look phase MAF. This includes SE washing performed as part of a scheduled inspection.

b. Corrosion treatment requirements found during the look phase of an inspection will be documented on a fix phase MAF. The treatment of bare metal is included in this category. Use AT Code Z and the appropriate Malfunction Code per Appendix E.

c. All unscheduled corrosion prevention is documented on a MAF. Unscheduled SE cleaning and temporary repairs of bare metal are included in this category. Multiple items processed may be documented. Use Work Unit Code 040, AT Code 0, Malfunction Code 000, WD Code O, and TM Code D.

d. Unscheduled corrosion treatment actions are documented on the MAF using AT Code Z and the appropriate Malfunction Code per Appendix E.

16.2.4.3 Engine Repair

a. Control Document. The turn-in document will be retained as a control document until the repair is complete.

b. All man-hours and EMT expended in accomplishing the repair will be documented on the MAF.

c. The same JCN will be used for repair actions requiring the removal and replacement of consumable components and fix-in-place discrepancies.

d. Suffix JCNs will be used for repair actions requiring the removal and replacement of repairable components.

e. Examples of conventional engine repair documentation are in paragraphs 16.2.5.71 through 16.2.5.83.

16.2.4.4 Major Engine Inspections

16.2.4.4.1 Control Document.

a. For engines turned in solely for inspection, the turn-in document will serve as the control document for the inspection.

b. For major engine inspections after repair, IMAs will initiate a MAF to serve as the inspection control document. The JCN will be provided by the O-level activity in the Discrepancy Field of the turn-in MAF.

c. If only one work center is involved in the inspection, look phase man-hours and elapsed maintenance time may be entered on the control document. If more than one work center is involved, a supporting MAF must be documented for each work center involved in the inspection.

16.2.4.4.2 WUC. The WUC for engine inspections will be constructed in the following manner:

a. First three positions will be 030.

b. Fourth through sixth positions will reflect the hour level of the engine inspection (divided by 10) being performed. For example, a 900-hour engine inspection would be recorded in these positions as 090.

c. Seventh position is zero.

(1) Example: The WUC for a 900-hour engine inspection would be as follows: 0300900

d. When MRCs do not specify a specific interval for a major inspection, the hour level will be calculated by multiplying the number of aircraft phases times the phase interval. As an example, for the T56-A-14, the WUC 0301200 would be used for the major inspection.

16.2.4.4.3 Repair Document. Job Control Number Fields. Enter the same data elements as on the control document but with sequential numbering in the second and third positions of the serial number for example, A01, A02. If more than 99 numbers are required for this purpose, refer to paragraph 16.1.2.2b for additional JCN information.

16.2.4.4.4 Examples of engine inspection documentation are in paragraphs 16.2.5.84 through 16.2.5.91.

16.2.4.5 Technical Directive (TD) Compliance

16.2.4.5.1 Technical Directive Compliance MAF Initiation. TD compliance MAF initiation can be originated from three sources; supply activity, O-level, and I-level Production Control:

a. The supply activity originates the TD compliance MAF using a supply JCN for TD compliance on all engines or engine components held as supply stock. Examples of documentation are in paragraphs 16.2.5.92, 16.2.5.93, and 16.2.5.94.

b. O-level activities originate the TD compliance MAF using an O-level JCN for engines or engine components sent to the IMA solely for TD compliance. Examples of documentation are in paragraphs 16.2.5.95, 16.2.5.96, and 16.2.5.97.

c. I-level Production Control originates the TD compliance MAF for engines or engine components inducted for repair which require TD compliance. Examples of documentation are in paragraphs 16.2.5.98 and 16.2.5.99.

16.2.4.5.2 O-level activities requesting assistance from the IMA in the incorporation of a TD must use the procedures per paragraphs 16.2.5.100, 16.2.5.101, and 16.2.5.102.

NOTE: If an engine or engine component sent to the IMA for a TD compliance is found to require repair, the IMA will inform the O-level activity which must provide a turn-in MAF for documenting the repair action. The original TD compliance MAF is destroyed and Production Control initiates a replacement TD compliance MAF using a supply JCN.

16.2.4.6 Modular Engine Repair

Paragraphs 16.2.5.103 through 16.2.5.117 are examples of repairs on modular engines and associated components. The TEC Field will reflect the equipment category and model/series of the engine. For modules, the engine application series (fourth position) will be X, for example, the F404-GE-400 module would be TXAX.

16.2.4.7 Modular Engine Major Inspections

Modular Engine inspections are documented in the same manner as 16.2.4.4. Examples of major modular engine inspection documentation are in paragraphs 16.2.5.118 through 16.2.5.126.

16.2.4.8 Modular Engine Technical Directive (TD) Compliance

16.2.4.8.1 All TDs for modular engines will be issued against the module.

16.2.4.8.2 WUC will be that of the module or component of the module but never the engine.

16.2.4.8.3 The TEC Field will reflect the equipment category and model/series of the engine. For modules, the engine application series (fourth position) will be "X", for example, the F404-GE-400 module would be TXAX. If a component is being sent from supply for TD compliance, the TEC will be for the equipment category model/series with an X in the application series (fourth position), for example, an F404-GE-400 engine component separate from a module would be TXAX.

16.2.4.8.4 If the TD applies to more than one module, a separate MAF will be issued for each module.

16.2.4.8.5 Transaction Code 41 will be used with modules that do not have a part number change.

16.2.4.8.6 Transaction Code 47 will be used for either a module with a part number change or a TD incorporation on a component. Removed/Old Item Fields and Installed/New Item Fields will be completed.

16.2.4.8.7 JCN will be that of the activity requesting the TD compliance.

16.2.4.8.8 When a complete engine is turned in for TD compliance, the propulsion system serial number (PSSN) will be reflected in the Discrepancy Field.

NOTE: If an engine or engine component sent to the IMA for a TD compliance is found to require repair, the IMA will inform the O-level activity which must provide a turn-in MAF for documenting the repair action. The original TD compliance MAF is destroyed and Production Control initiates a replacement TD compliance MAF using a supply JCN.

16.2.4.8.9 Examples of TD compliance on modular engines, modules, and their associated components are in paragraphs 16.2.5.127 through 16.2.5.131.

16.2.4.9 Engine or Module Component Cannibalization

Production Control, when authorized by Supply, will initiate cannibalization actions for awaiting parts repair or non-mission capable supply or partial mission capable supply situations. The removal of components for cannibalization and the replacement of components after cannibalization will be documented on one MAF using the procedure outlined in paragraph 16.2.5.132.

16.2.5 Documentation Examples

16.2.5.1 End Item Repair (No Removed Component)

Figure 16-9 is an example of a VIDS/MAF documented when repairing an end item if no repairable components are removed. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 11 or 12. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed; first position must be D,G,H,M,S,V, or Y.

BU/SERNO - Enter the appropriate bureau/serial number; must be on database.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - JCN system generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.2 End Item Repair of a SEGTE (No Removed Component)

Figure 16-10 is an example of a VIDS/MAF documented when repairing an end item if no repairable components from an SEGTE are removed. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data to identify the SEGTE, always enter numeric one (1) for engine position in FSCM field; for example, PDCA1: enter the failed part(s)/record supply requisition(s). A/T is 0, MAL Code is 000, and QTY is 00000.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

TRANS - Must be 12. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number; must be on database.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter appropriate job status, Julian dates and times.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.3 End Item Repair (Removed Repairable Component)

Figure 16-11 is an example of a VIDS/MAF documented when repairing an end item that involved removal and replacement of a repairable component. A VIDS/MAF with a different JCN is required for each removed repairable component. The following data fields require

entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisitions(s).

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Must be 23. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number; must be on database.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates the contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates the contract number.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.4 Facilitate Other Maintenance (FOM) Action

Figure 16-12 is an example of a FOM VIDS/MAF. A FOM action is the removal and reinstallation of an RFI component from the same end item in support of another maintenance action on the end item. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisitions(s).

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Must be 11. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Must be S. (Appendix E)

MAL CODE - Must be 800, 804 or 811. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.5 Primary Work Center Repair Action

When more than one work center works on the same maintenance action (Figures 16-13, 16-14, and 16-15), one will be designated the primary work center and the others are assisting work centers. Each work center participating in the maintenance action must generate a separate MAF with the same JCN. The primary work center describes the original method of discovery and accounts for the number of items processed. Assisting work centers document WD Code V. If the assisting and the primary work centers work on the same work unit coded item, the assisting work center accounts for 0 items processed. If they work on different work unit coded items, the assisting work center accounts for its number of items processed. Refer to paragraph 16.2.5.4 for an example of FOM actions. Figure 16-13 is an example of the VIDS/MAF documented for a repair action requiring an assisting work center. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisitions(s).

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Must be 11 or 12. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Must be 800. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.6 Assisting Work Center (Same WUC)

Figure 16-14 is an example of an assisting work center working on a same work coded item. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisitions(s).

WORK UNIT CODE - Must be the same as the primary work center's MAF.

ACT ORG - System generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Items processed must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.7 Assisting Work Center (Different WUC)

Figure 16-15 is an example of an assisting work center working on a different work unit coded item. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisitions(s).

WORK UNIT CODE - Must be the different than the primary work center.

ACT ORG - System generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.8 On-Equipment Cannibalization

Cannibalization is the removal of an RFI item from one piece of equipment so that it may be used in a different piece of equipment. Cannibalization is controlled by Maintenance Control/Production Control, and should be authorized only when it appears that Supply cannot respond in time to avoid the curtailment of the operational commitment. The cancellation of a cannibalization JCN should occur only if no cannibalization action has been physically started. In the event that the actual removal for cannibalization action has been initiated/completed and the requirement is cancelled, reinstall the cannibalized item, documenting the action as if it were to FOM. Figure 16-16 is an example of cannibalization and subsequent replacement of a component from an end item and is documented on a VIDS/MAF in normal manner of a removed and replaced component. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - System generated.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - System generated. (Appendix E)

M/L - System generated.

A/T - System generated. (Appendix E)

MAL CODE - Enter the appropriate MAL Code; must be 812, 813, or 814. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the equipment.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Enter WD Code; must be O. (Appendix E)

T/M - TM Code; must be B. (Appendix E) POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.9 SE Turned-In by a Supported Activity for Scheduled or Unscheduled Maintenance (Excluding TMDE)

Figures 16-17 and 16-18 are examples of a turn-in VIDS/MAF from a supported activity requesting scheduled or unscheduled maintenance on a piece of SE. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code SI.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - Not required.

M/L* - System generated.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate serial number.

W/D* - Enter WD Code O. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER* - Enter the JCN from the activity turning in the equipment.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY* - Enter the narrative description of the discrepancy. Enter the point of contact.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Not required.

16.2.5.10 Turn-In Document for Off-Equipment Repair

Figure 16-19 is an example of the turn-in document to initiate an off-equipment repair of a removed component. A separate turn-in document with the same JCN as the removal MAF is required for each removed component to be repaired. The following data fields are system generated. Automated Aeronautical Material Screening Unit (AMSU) induction displays the following information:

WORK UNIT CODE - System generated.

ACT ORG - I-level Organization Code; system generated.

TRANS - (Appendix E)

M/L - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. (Optional)

MAINTENANCE/SUPPLY REC - System generated. (Optional)

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - System generated.

DISCREPANCY - System generated.

CORRECTIVE ACTION - Applies to auto BCM actions.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Applies to auto BCM actions.

MAINT CONTROL - No entry allowed.

16.2.5.11 Turn-In Document for Support Equipment Gas Turbine Engine (SEGTE) Repair

Figure 16-20 is an example of the turn-in document to initiate an off-equipment repair of SEGTE. The following data fields are system generated. Automated AMSU induction displays the following information:

WORK UNIT CODE - System generated.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code. (Appendix E)

M/L - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. (Optional)

MAINTENANCE/SUPPLY REC - System generated. (Optional)

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - System generated.

DISCREPANCY - System generated.

CORRECTIVE ACTION - Applies to auto BCM actions.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Applies to auto BCM actions.

MAINT CONTROL - No entry allowed.

16.2.5.12 Off-Equipment Component Repair

Figure 16-21 is an example of a completed off-equipment component repair action documented by completing the turn-in MAF. This is the last MAF required if no repairable subassemblies are removed on the component. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields system generated from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE* - Enter the specific WUC of the item being processed. System generated.

ACT ORG* - I-level Organization Code. System generated.

TRANS - Must be 31or 32. (Appendix E)

M/L* - Must be 2. System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP* - Enter the TEC for the item being processed. System generated.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database. System generated.

W/D* - Enter the appropriate WD Code. System generated. (Appendix E)

T/M* - Enter the appropriate TM Code. System generated. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable). System generated.

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM*-Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number. System generated.

WORK CENTER* - Enter the appropriate Work Center Code. System generated. (Appendix E).

DISCREPANCY*- Enter the narrative description of the discrepancy. System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.13 Suffix Turn-In Document

Figure 16-22 is an example of the suffix VIDS/MAF turn-in document to initiate an off-equipment repair of a subassembly removed from a component. A separate turn-in document with a different suffix of the JCN used for component removal is required for each removed

subassembly. The following data fields are system generated. Automated AMSU Induction displays the following information:

WORK UNIT CODE - System generated.

ACT ORG - I-level Organization Code. System generated.

TRANS - (Appendix E)

M/L - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated.

MAINTENANCE/SUPPLY REC - System generated.

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Blank.

DISCREPANCY - System generated.

CORRECTIVE ACTION - Applies to auto BCM actions.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Applies to auto BCM actions.

MAINT CONTROL - No entry allowed.

16.2.5.14 Off-Equipment Subassembly Repair

Figure 16-23 is an example of a completed off-equipment component repair action documented by completing the turn-in suffix VIDS/MAF. This is the last MAF required if no repairable sub-subassemblies are removed from the subassembly. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE* - Enter the specific WUC of the item being processed. System generated.

ACT ORG* - I-level Organization Code. System generated.

TRANS - Must be 31or 32. (Appendix E)

M/L* - Must be 2. System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

TYPE EQUIP* - Enter the TEC for the item being processed. System generated.

BU/SERNO* - Enter the appropriate bureau/serial number. System generated.

W/D* - Enter the appropriate WD Code. System generated. (Appendix E)

T/M* - Enter the appropriate TM Code. System generated. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable). System generated.

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number. System generated.

JOB CONTROL NUMBER* - JCN system generated.

WORK CENTER* - Enter the appropriate Work Center Code. System generated. (Appendix E).

DISCREPANCY* - Enter the narrative description of the discrepancy. System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: If repairable sub-assemblies are removed, repeat the procedures described in paragraphs 16.2.5.13 and 16.2.5.14 NALCOMIS will automatically assign a double suffix JCN as outlined in paragraph 16.1.2.2.

16.2.5.15 Inspection Control Document

Figure 16-24 is an example of an inspection control document. Production Control will generate a control MAF for each look phase inspection. The control document has a special JCN constructed per paragraph 16.1 and is used to accumulate the man-hours (NALCOMIS will track EMT) expended by the primary work center controlling the inspection. Control documents will account for 1 item processed. If the primary work center performs the entire inspection, the control document is the only MAF required. If more than one work center is involved in the look phase, the control MAF will show 1 item processed and 0.0 man-hours and the supporting look phase MAF will show 0 items processed and accumulated man-hours. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the total number of man-hours if combined with look phase.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - First three positions must be 030.

ACT ORG - I-level Organization Code. System generated.

TRANS - Must be 11. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - System generated. (Appendix E)

MAL CODE - Must be 000. System generated. (Appendix E)

I/P - Must be 01.

TYPE EQUIP - Enter the TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - System generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Not required.

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.16 Inspection Look Phase Supporting Document

Figure 16-25 is an example of an inspection supporting document. Each assisting work center participating in the inspection will generate a look phase supporting MAF. NALCOMIS will provide the same JCN as the control MAF. Supporting documents are used to accumulate the man-hours expended by assisting work centers. Supporting documents will account for 0 items processed. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the total number of man-hours if combined with look phase.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - First three positions must be 030.

ACT ORG - I-level Organization Code. System generated.

TRANS - Must be 11. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - System generated. (Appendix E)

MAL CODE - Must be 000. System generated. (Appendix E)

I/P - Must be 00.

HOURS - System generated from accumulated work hours field. System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - System generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Not required.

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.17 Inspection Fix Phase Document

Figure 16-26 is an example of the fix document. Fix phase MAFs are used to document repair of discrepancies discovered during an inspection. A fix phase MAF has an alpha/numeric JCN (NALCOMIS auto assigns this JCN) constructed per paragraph 16.1. The WUC identifies the failed component/system. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line function.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE -Enter the appropriate Malfunction Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.18 End Item TD Compliance (No Removal Component)

Figure 16-27 is an example of a TD compliance VIDS/MAF documenting an end item TD with no removed component. For each component removed, a separate TD compliance turn-in document is generated. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

NOTE: TDs must reside in the configuration sub-system prior to the TD MAF being initiated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Trans Code 41. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Leave blank.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Not required.

T/M - Not required.

POSIT - Not required.

SFTY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data, if required.

INSTALLED/NEW ITEM - Enter the appropriate data, if required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate work center.

DISCREPANCY- Enter the narrative description of the discrepancy. System generated.

CORRECTIVE ACTION - Enter the narrative description.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.19 TD Compliance Supporting VIDS/MAF

Figure 16-28 is an example of a TD compliance supporting VIDS/MAF; note the TD compliance is not identified. The following data fields require entries or are of special interest. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Transaction Code 11. (Appendix E)

M/L - Must be 1.

A/T - AT Code must be S. (Appendix E)

MAL CODE - MAL Code; must be 804. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC. The TEC entered on the TD compliance facilitate MAF will be a G, H, M, S or V series code that identifies the end item the component was removed from.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD Code; must be O. (Appendix E)

T/M - TM Code, must be B. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Not required.

TECHNICAL DIRECTIVE ID - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date/time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Not required.

INSTALLED NEW/ITEM - Not required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate work center.

DISCREPANCY- Enter the narrative description.

CORRECTIVE ACTION - Enter the narrative description.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.20 TD Compliance Turn-In Document

Figure 16-29 is an example of a TD compliance turn-in document to initiate off-equipment compliance with a TD. The TD compliance turn-in document is a MAF with the same JCN as the component removal document. For component TD compliance actions on supply stock, the TD compliance turn-in document will be generated by the Supply Department, NALCOMIS will auto-assign a supply JCN, no removal document is required. The following data fields require entries or are system generated/updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Enter Transaction Code 47. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - Not required.

TYPE EQUIP - Enter the TEC. The TEC must be a Y series code for a component TD compliance.

BU/SERNO - Enter the appropriate component serial number or 000000 if nonserialized.

W/D - Not required.

T/M - Not required.

POSIT - Not required.

SFTY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received Date/Time; system generated.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Enter the appropriate data as required.

INSTALLED/NEW ITEM - Not required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code (Appendix E)

DISCREPANCY - Enter the narrative description.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

MAINT CONTROL - Not required.

16.2.5.21 Off-Equipment TD Compliance Action

Figure 16-30 is an example of a completed off-equipment TD compliance action. Off-equipment TD compliance actions are documented by completing the TD compliance turn-in document. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Transaction code must be 47. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate technical directive code. (Appendix E)

MAL CODE - Leave blank.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Not required.

T/M - Not required.

POSIT - PSI (if applicable).

SFTY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date/time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates/times.

REMOVED/OLD ITEM - Enter the appropriate data, if required.

INSTALLED NEW/ITEM - Enter the appropriate data, if required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description.

CORRECTIVE ACTION - Enter the narrative description.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.22 TD Compliance Removal (On-Equipment)

Figure 16-31 is an example of a completed on-equipment TD compliance removal which is documented in the same manner as TD incorporations except for data field action taken. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Transaction Code must be 41. (Appendix E)

M/L - Must be 1.

A/T - Technical Directive Status Code must be Q. (Appendix E)

MAL CODE - Leave blank.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Not required.

T/M - Not required.

POSIT - PSI (if applicable).

SFTY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date/time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates/times.

REMOVED/OLD ITEM - Not required.

INSTALLED NEW/ITEM - Not required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description.

CORRECTIVE ACTION - Enter the narrative description.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.23 Inventory Transaction (Gain)

Figure 16-36 is an example of a VIDS/MAF documented when reporting an equipment gain. The following data fields are system generated or updated by using on-line functions:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

WORK UNIT CODE - Not required.

ACT ORG - System generated.

TRANS - Transaction Code; system generated.

M/L - Not required.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the serial number of the item being processed. The serial number is always six characters and not zeros. If there are fewer than six characters, prefix the number with zeros until there are six. If there are more than six characters, enter only the last six. If there is no serial number (due to missing name plates, etc.) create a serial number by using the Organization Code of the reporting custodian plus a unique, locally assigned three character serial, such as A9D001 or A9DAAT. This assigned serial number is to be affixed to the equipment and will remain with the unit until the equipment is stricken from naval inventory.

W/D - Not required.

T/M - Not required.

METER - Enter the appropriate meter time in whole hours (no tenths) or cycle/starts from the equipment meter. Prefix with enough zeros and the letter M or S to make a total of five positions, such as M0921. If the equipment has no meter, enter A0000.

INV CD - Enter the appropriate Inventory Code. (Appendix E).

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Not required.

WORK CENTER - Not required.

DISCREPANCY - Not required.

CORRECTIVE ACTION - System generated.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

SUPERVISOR - Name of person performing.

MAINT CONTROL - Not required.

16.2.5.24 Inventory Transaction (Loss)

Figure 16-37 is an example of a VIDS/MAF documented when reporting an equipment loss. The following data fields are system generated or updated by using on-line functions:

WORK UNIT CODE - Not required.

ACT ORG - Enter the appropriate Organization Code.

TRANS - Transaction code; system generated.

M/L - Not required.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

TYPE EQUIP - Enter the appropriate TEC. First position must be D, G, H, M, S, V, or Y.

BU/SERNO - Enter the serial number of the item being processed. Refer to paragraph 16.2.5.23.

W/D - Not required.

T/M - Not required.

METER - Enter the appropriate meter time in whole hours (no tenths) or cycle/starts from the equipment meter. Prefix with enough zeros and the letter M or S to make a total of five positions, such as M0921. If the equipment has no meter, enter A0000.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Not required.

WORK CENTER - Not required.

DISCREPANCY - Not required.

CORRECTIVE ACTION - System generated.

CORRECTED BY/INSPECTED BY/SUPERVISOR - System generated.

MAINT CONTROL - Not required.

16.2.5.25 Removed Component for Calibration

Figure 16-38 is an example of a VIDS/MAF documenting the removal of a component for processing to the PME work center on a METER Card. If informed that the component failed, the Transaction Code data field will be 23; Action Taken Code will be R and the REMOVED/OLD ITEM and the INSTALLED/NEW ITEM fields will be filled in. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG* - I-level Organization Code.

TRANS - Must be 11. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed; first position must be D, G, H, M, S, V, or Y.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number. System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.26 Component Turn-In Document

Figure 16-39 is an example of a turn-in document to initiate repair of a removed component being received from an external activity. A separate turn-in document with the same JCN as the

removal MAF is required for each removed component to be repaired. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code "D".

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Not required, unless item is an auto BCM action.

M/L* - Must be 2.

A/T - Not required, unless item is an auto BCM action.

MAL CODE - Not required, unless item is an auto BCM action.

I/P - Not required, unless item is an auto BCM action.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database.

W/D* - Enter the appropriate WD Code. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT* - Enter the appropriate PSI; if applicable.

SFTY/EI* - Enter the appropriate safety/EI number; if applicable.

REPAIR CYCLE* - System generated, may be updated upon induction.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E). Auto assigned if on the ICRL.

DISCREPANCY* - Enter the narrative description of the discrepancy.

TURN-IN DOCUMENT* - Enter the appropriate requisition number for the replacement component.

CORRECTIVE ACTION* - Not required, unless item is an auto BCM action.

CORRECTED BY/INSPECTED BY/SUPERVISOR* - Not required, unless item is an auto BCM action.

16.2.5.27 BCM Action (AMSU)

Figure 16-40 is an example of a BCM action at AMSU. ASD will retain a MAF as a suspense copy, and the component will be forwarded to the IMA screening unit. The AMSU performs administrative screening of the component to determine if a check/test/repair capability exists in

the IMA work centers. If it does not, the AMSU completes the MAF in the following manner. (*) denotes those data fields completed by the AMSU induction. Type MAF Code "D". AMSU and work centers will not document any man-hours on BCM 1 MAFs.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS* - Must be 31.

M/L* - Must be 2.

A/T* - Must be 1 or 8.

MAL CODE* - Enter the appropriate MAL Code. (Appendix E)

I/P* - Must be 1.

HOURS* - System generated from accumulated work hours field.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database.

W/D* - Enter the appropriate WD Code. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE* - System generated, may be updated upon induction.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate Work Center Code 05A. Auto assigned if on the ICRL. (Appendix E).

DISCREPANCY* - Enter the narrative description of the discrepancy.

TURN-IN DOCUMENT - Enter the appropriate requisition number for the replacement component.

CORRECTIVE ACTION* - System generated.

CORRECTED BY/INSPECTED BY/SUPERVISOR* - Signature is electronically posted to the MAF, based on the individual PASSWORD/SMQ. NALCOMIS will create the appropriate mailbox messages as required.

MAINT CONTROL - Signature electronically posted to the MAF, based on the individual's SMQ.

16.2.5.28 Troubleshooting Close Out

Figure 16-41 is an example of a VIDS/MAF documented for the reporting of man-hours expended in troubleshooting. NALCOMIS must create the close-out MAF automatically by performing the basic MAF update function and indicating the close-out to be performed. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - System generated.

WORK UNIT CODE - Same as original MAF. System generated.

ACT ORG - I-level organization code. System generated.

TRANS - System generated.

M/L - System generated.

A/T - System generated.

MAL CODE - System generated.

I/P - System generated.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

METER - System generated.

REPAIR CYCLE - System generated.

MAINTENANCE/SUPPLY REC - System generated.

JOB CONTROL NUMBER - Same as original MAF. System generated.

WORK CENTER - System generated.

DISCREPANCY - System generated.

CORRECTIVE ACTION - System generated.

CORRECTED BY/INSPECTED BY/SUPERVISOR - System generated as required.

16.2.5.29 Assisting Work Center (Same WUC)

Figure 16-42 is an example of an assisting work center working on a same work unit coded item. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - Must be the same as the primary work center's MAF.

ACT ORG - System generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Items processed must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.30 Assisting Work Center (Different WUC)

Figure 16-43 is an example of an assisting work center working on a different work unit coded item. For NDI actions done on assist MAF refer to paragraphs 16.2.5.47 and 16.2.5.48 for action taken and MAL code. The transaction code will be 11 for NDI assists. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - Must be different from the primary Work Center Code. (Appendix E)

ACT ORG - System generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.31 Component Repaired Using a Repairable Subassembly

Figure 16-44 is an example of removal, replacement, and subsequent repair actions on sub-assemblies/modules of a major component. When a defective subassembly/module is removed from a major component undergoing repair in the IMA, and the repair of these items is accomplished as a separate job, NALCOMIS will generate a proper sequenced suffix JCN after the requested parts are approved. The failed/required material field is used to document the repair of the major component. Enter the following information for each subassembly/module removed. Complete the remainder of the MAF as specified in paragraph 16.1.3. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields completed by the AMSU induction.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s). Upon approval of the requested subassemblies/modules by Production Control, NALCOMIS will auto assign a DDSN to each failed/required line of the MAF.

WORK UNIT CODE - Enter the specific WUC of the unit being processed.

ACT ORG - I-level Organization Code.

TRANS - Must be 31or 32. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial

W/D* - Enter the appropriate WD Code. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE* - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC* - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate removed/old item data.

JOB CONTROL NUMBER* - Enter the appropriate JCN.

WORK CENTER* - If the CAGE/part number is on the database ICRL, the work center will be electronically posted to the turn-in MAF for each repairable. If CAGE/part number is not on the ICRL, enter the appropriate work center code. (Appendix E)

DISCREPANCY* - Enter the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.32 Subassembly/Module Repair (Suffix)

Figure 16-45 is an example of a subassembly repair action documented by completing the suffix MAF. This is the last MAF required if no repairable subassemblies are removed from the subassembly. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s). Upon approval of the requested subassemblies/modules by Production Control, NALCOMIS will auto assign a DDSN to each failed/required line of the MAF.

WORK UNIT CODE - System generated.

ACT ORG - I-level Organization Code.

TRANS - Must be 31 or 32. (Appendix E)

M/L - System generated; must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated.

WORK CENTER - If the FSCM/part number is on the database ICRL, the work center will be electronically posted to the turn-in MAF for each repairable. If FSCM/part number is not on the ICRL, enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.33 Sub-Subassembly/Module Repair (Double Suffix)

Figure 16-46 is an example of a sub-subassembly repair action documented by completing the double suffix MAF. The failed/required material field is used to document the repair of the sub-subassembly. Enter information for those items, which are known or suspected to have contributed to the discrepancy. NALCOMIS will generate the proper sequenced double suffix JCN. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s). Upon approval of the requested sub-subassemblies/modules by Production Control NALCOMIS will auto assign a DDSN to each failed/required line of the MAF.

WORK UNIT CODE - System generated.

ACT ORG - I-level Organization Code.

TRANS - Must be 31 or 32. (Appendix E)

M/L - System generated; must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - If the FSCM/part number is on the database ICRL, the work center will be electronically posted to the turn-in MAF for each repairable. If FSCM/part number is not on the ICRL, enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.34 Cannibalization (End Item)

Figure 16-47 is an example of a cannibalization of an end item. The removal of items for cannibalization will be documented on a MAF using the appropriate function and procedures listed in paragraph 16.1.3. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level organization code. System generated.

TRANS - System generated. (Appendix E)

M/L - System generated.

A/T - System generated. (Appendix E)

MAL CODE - Enter the appropriate MAL code; must be 812, 813, 814, 815, 816, 817, or 818 (Appendix E).

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the equipment.

BU/SERNO - Enter the appropriate bureau/serial number; must be on the database.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.35 Cannibalization (From AWP Component)

Figure 16-48 is an example of cannibalization from an AWP component. If a joint decision is made by supply and IMA to cannibalize instead of placing the repairable component AWP, the following information will be entered in the FAILED/REQUIRED MATERIAL fields on the MAF from which the serviceable repairable/consumable item is removed. NALCOMIS performs this function automatically. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

NOTE: By performing these functions within NALCOMIS the fields identified below as "Not required" will be completed as the MAF sign-off occurs.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - System generated.

WORK UNIT CODE - Not required.

ACT ORG - Not required.

TRANS - Not required.

M/L - Not required.

A/T - System generated.

MAL CODE - System generated.

I/P - Not required.

HOURS - Not required.

EMT - Not required.

TYPE EQUIP - Not required.

BU/SERNO - Not required.

W/D - Not required.

T/M - Not required.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Not required.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Not required.

WORK CENTER - Not required.

DISCREPANCY - Not required.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

MAINT CONTROL - Not required.

16.2.5.36 Cannibalization (Off-Equipment)

Figure 16-49 is an example of cannibalization of an item from a repairable component or subassembly that is documented in the FAILED/REQUIRED MATERIAL section of the MAF for the component/subassembly from which the item was cannibalized. The removed item is considered to have caused AWP but is not a "failed part" of the component/subassembly from which it was cannibalized. It may be a failed part of the component for which it was cannibalized. Identify the removed item in the normal manner of a required part that caused AWP and transfer the requisition to this JCN. NALCOMIS performs this function automatically. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

NOTE: By performing these functions within NALCOMIS the fields identified below as "Not required" will be completed as the MAF sign-off occurs.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Indicate (as appropriate) the FP and AWP blocks and fill in the AT and MAL blocks (as required), QTY (as required), PROJ and PRI (as appropriate), Julian date ordered and REQ NO (as applicable). System generated.

WORK UNIT CODE - Not required.

ACT ORG - Not required

TRANS - Not required.

M/L - Not required.

A/T - System generated.

MAL CODE - System generated.

I/P - Not required.

HOURS - Not required.

EMT - Not required.

TYPE EQUIP - Not required.

BU/SERNO - Not required.

W/D - Not required.

T/M - Not required.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Not required.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Not required.

WORK CENTER - Not required.

DISCREPANCY - Not required.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

MAINT CONTROL - Not required.

16.2.5.37 Matched Set (Repair and No Repair)

Figures 16-50 and 16-51 are examples of a VIDS/MAF documented when processing a matched set. Figure 16-50 illustrates repair action and Figure 16-51 illustrates no repair action. When the "no defect" component is determined at the I-level activity, it must be documented per paragraph 16.1.3 with the following exceptions: Action Taken Code must be A, MAL Description Code must be 806. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code D.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed part(s), and/or record supply requisition(s).

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code.

TRANS - Must be 31or 32. (Appendix E)

M/L* - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number, must be on database.

W/D* - Enter the appropriate WD code. (Appendix E)

T/M* - Enter the appropriate TM code. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate removed/old item data. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Enter the assigned JCN.

WORK CENTER* - Enter the appropriate work center code, auto assigned if FSCM/part number is on database ICRL. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.38 Tire and Wheel Documentation (Tires Prepositioned in W/C and Ordering Replacement Tire)

Figures 16-52 and 16-53 are examples of the VIDS/MAF documented for aircraft tire and wheel actions. The work center must document tire identification and BCM data in the failed and required material fields of the MAF. Using AMSU Receipt, and various on-line functions the following data fields require entry. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code D.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data (as required).

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG - I-level organization code. System generated.

TRANS - Must be 31or 32. (Appendix E)

I/P* - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - Not required.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number, must be on database.

W/D* - Enter the appropriate WD code. (Appendix E)

T/M* - Enter the appropriate TM code. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

METER - Not required.

REPAIR CYCLE* - System generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate removed/old item data. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Not required.

JOB CONTROL NUMBER* - Assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate work center code. Auto assigned if FSCM/part number is on database ICRL. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION* - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.39 Transferring IMA Close Out (Post/Predeployment)

Figure 16-54 is an example of an IMA close out for post/predeployment. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter for each "missing" FLR module, subassembly of sub-subassembly (as appropriate). The action taken field must be P.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code.

TRANS - Must be 31 or 32. (Appendix E)

M/L - Must be 2.

A/T - Must be D. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate removed/old item data. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.40 Receiving IMA (Reinitiation Documentation)

Figure 16-55 is an example of a reinitiated VIDS/MAF from a transferring I-level activity. On receipt of a repairable item from another I-level activity, the receiving AMSU will forward a copy of the MAF to the local Supply CCS. Subsequent repair and disposition will be documented on the new MAF per paragraph 16.1.3, except the Received Date field will reflect the date the component was received from the transferring I-level activity. The following data fields require entries. An asterisk (*) denotes those data fields completed by the AMSU induction using information taken from the transferring activity MAF. Type MAF Code D.

WORK UNIT CODE* - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code.

M/L - Must be 2.

EMT - System generated.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - Enter the appropriate WD Code. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE* - Received date/time; system generated.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Enter the appropriate JCN from the activity item is received from.

WORK CENTER* - Enter the appropriate work center code, auto assigned if FSCM/part number is on database ICRL. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

TURN IN DDSN* - Enter the turn-in document from the activity item is being received from.

PILOT/INITIATOR* - Enter the person’s name (as appropriate).

16.2.5.41 Component Missing SRC Card

Figure 16-56 is an example of a VIDS/MAF documented for turn-in of a component that is missing the SRC card. Using AMSU receipt, the following data fields require entry. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code D.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code, system generated.

TRANS - Required if item is an auto BCM action.

M/L* - Must be 2.

A/T - Required if item is an auto BCM action.

MAL CODE* - Enter "140".

I/P - Required if item is an auto BCM action.

TYPE EQUIP* - Enter the TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - Enter the appropriate WD Code. (Appendix E)

T/M* - Enter the appropriate TM Code. (Appendix E)

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE* - System generated, may be updated upon induction.

MAINTENANCE/SUPPLY REC* - Not required.

REMOVED/OLD ITEM* - Enter the appropriate removed/old item data. Time cycle field enter the appropriate time/cycle prefix code (Appendix E) followed by 9999. The use of 9999 indicates the value is unknown.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate work center code. Auto assigned if on the ICRL. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

TURN-IN DOCUMENT* - Enter the appropriate requisition number for the replacement component.

CORRECTIVE ACTION* - Required if item is an auto BCM action.

CORRECTED BY/INSPECTED BY/SUPERVISOR* - Required if item is an auto BCM action.

16.2.5.42 Corrosion Supporting MAF

Figure 16-57 is an example of a supporting MAF documenting corrosion treatment. If corrosion caused the malfunction and treatment of that condition results in elimination of the discrepancy, then it is proper to use Transaction Code 31 or 32 with an AT Code C and MAL Codes C01 through C33. The only time a supporting MAF (Z/C01 through C33/Transaction Code 11) is required is when the corrosion treatment is separate and distinct from the malfunction cause. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code. System generated.

TRANS - Enter the appropriate Transaction Code, as required. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

METER - Not required for level 2 maintenance.

REPAIR CYCLE - System generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate work center code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.43 Turn-In from Supply for TD Compliance

Figure 16-58 is an example of the VIDS/MAF documented for an end item turned in from a supply activity for TD compliance. The supply activity, after coordinating through the I-level QA, must initiate a TD compliance MAF for each item requiring TD compliance. The supply activity must complete the following data fields on the TD compliance MAF prior to issuing to Production Control for scheduling. The following explains documentation:

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

TYPE EQUIP - Enter the TEC for the equipment.

BU/SERNO - Enter the appropriate bureau/serial number.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates control number.

JOB CONTROL NUMBER - System will generate Supply ORG JCN.

DISCREPANCY - Enter the narrative description of the discrepancy and initiator.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD for supply induction of items requiring TD compliance.

16.2.5.44 VIDS/MAF Work Request (Production Control Entries)

Figure 16-59 is an example of Work Request VIDS/MAF data fields completed by Production Control. This information is provided by the requesting activity. Using the appropriate on-line function, enter the required data. The following explains documentation:

TYPE MAF CODE - "WR".

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Not required.

M/L - Must be 2.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number, must be on database.

W/D - Enter the appropriate WD code. (Appendix E)

T/M - Enter the appropriate TM code. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. May be modified prior to approval.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate Work Center Code; auto assigned if FSCM/part number is on database ICRL. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

PILOT/INITIATOR - Signature is electronically posted to the MAF upon approval.

MAINT CONTROL - Not required.

16.2.5.45 VIDS/MAF Work Request (Local Manufacture/Fabrication)

Figure 16-60 is an example of a completed Work Request VIDS/MAF documenting local manufacture or fabrication. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data as required.

WORK UNIT CODE - System generated.

ACT ORG - System generated.

TRANS - Transaction Code must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be A. (Appendix E)

MAL CODE - MAL code, must be 000. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

WORK CENTER - System generated.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - System generated.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.46 VIDS/MAF Work Request (Supply Asset Build-Up Induction)

Figure 16-61 is an example of a completed Work Request VIDS/MAF documenting supply asset build-up inductions. Supply must move the item to suspense prior to performing the Work Request function. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - System generated.

ACT ORG - System generated.

TRANS - System generated.

M/L - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL code, must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the serial number requiring build-up.

W/D - Enter W/D Code O.

T/M - Enter T/M Code T.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - System generated upon initiation.

WORK CENTER - Enter the appropriate work center.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - System generated.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.47 Scheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection)

Figure 16-62 is an example of a completed Work Request VIDS/MAF documenting an In-Shop NDI. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - System generated; must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be A. (Appendix E)

MAL CODE - MAL code, must be 570 series. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD code must be O. (Appendix E)

T/M - TM code (as appropriate). (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate work center.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.48 Scheduled Maintenance Work Request (NDI On-Site) (Passed Inspection)

Figure 16-63 is an example of a completed Work Request VIDS/MAF documenting an On-Site NDI Inspection. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - System generated; must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be A. (Appendix E)

MAL CODE - MAL code, must be 570 series. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD code must be O. (Appendix E)

T/M - TM code (as appropriate). (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: The NDI technician must sign-off the squadron's work request. Squadron Maintenance Control must obtain the Level II copy within 48 hours.

16.2.5.49 Scheduled Maintenance Work Request (NDI On-Site) (Failed Inspection)

Figure 16-64 is an example of a completed Work Request VIDS/MAF documenting an On-Site NDI failing test. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - System generated; must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be F. (Appendix E)

MAL CODE - MAL code, must be 570 series. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD code must be O. (Appendix E)

T/M - TM code (as appropriate). (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Not required.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate work center.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.50 Scheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection)

Figure 16-65 is an example of a completed Work Request VIDS/MAF documenting an In-Shop NDI failing test. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - System generated; must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be F. (Appendix E)

MAL CODE - MAL code, must be 570 series. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number, must be on database.

W/D - WD Code must be O. (Appendix E)

T/M - TM Code (as appropriate). (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate Work Center Code.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.51 Unscheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection)

Figure 16-66 is an example of a completed Work Request VIDS/MAF documenting an In-Shop unscheduled NDI. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - Transaction code must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be A. (Appendix E)

MAL CODE - MAL code must be 570. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number, must be on database.

W/D - WD Code must be O. (Appendix E)

T/M - TM Code must be S. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate Work Center Code.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.52 Unscheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection)

Figure 16-67 is an example of a completed Work Request VIDS/MAF documenting an In-Shop unscheduled NDI failing test. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - Transaction Code must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT code must be F. (Appendix E)

MAL CODE - MAL code must be 570 series. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD code. (Appendix E)

T/M - TM code. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting activity.

WORK CENTER - Enter the appropriate Work Center Code.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.53 O-Level Armament Equipment Turn-In for Scheduled Maintenance

Figure 16-68 is an example of an O-level armament equipment turn-in for scheduled maintenance. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields completed by the AMSU induction. Type MAF Code "SD".

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Not required.

M/L* - Must be 2.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE* - Received date/time; system generated.

MAINTENANCE/SUPPLY REC* - System generated.

REMOVED/OLD ITEM* - Enter the appropriate data.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate Work Center Code, auto assigned if on database ICRL.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Not required.

16.2.5.54 O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (No Material Required) (Completed)

Figure 16-69 is an example of a completed VIDS/MAF documenting scheduled maintenance of a removed armament equipment pool item, no discrepancies. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - Transaction code must be 31. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number, must be on database.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate work center, auto assigned if on database ICRL.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.55 O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (Maintenance and Material Required) (Completed)

Figure 16-70 is an example of a completed VIDS/MAF documenting scheduled maintenance of a removed armament equipment pool item; maintenance and material required. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG* - System generated.

TRANS - Transaction Code must be 32. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be C. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Items processed; must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC for the item being processed.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - System generated.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - System generated.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.56 Turn-In Acceptance/Functional Check on Armament Equipment

Figure 16-71 is an example of a turn-in Work Request VIDS/MAF documenting the acceptance/functional check on armament equipment received from another AEP or excess from a supported activity. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - System generated.

M/L - Must be 2.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - Not required.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD Code must be O. (Appendix E)

T/M - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Not required.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the JCN from the activity turning in the component.

WORK CENTER - Enter the appropriate Work Center Code.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Not required.

16.2.5.57 Turn-In Acceptance/Functional Check on Armament Equipment (Completed)

Figure 16-72 is an example of a Work Request Turn-In VIDS/MAF documenting the acceptance/functional check on armament equipment received from another armament equipment pool (AEP) or excess from a supported activity. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE - Enter the specific WUC of the item being inducted.

ACT ORG - System generated.

TRANS - System generated, must be 30. (Appendix E)

M/L - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL code (as appropriate). (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD Code. (Appendix E)

T/M - TM Code. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data.

JOB CONTROL NUMBER - Enter the assigned JCN from the requesting/supported activity.

WORK CENTER - Enter the appropriate Work Center Code.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.58 Armament Equipment Pool Preservation/Depreservation Control Document (Completed)

Figure 16-73 is a preservation/depreservation control document. Production Control will generate a MAF for each preservation/depreservation. The following data fields require entries. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed parts/record supply requisitions.

WORK UNIT CODE - The first three positions must be 049.

ACT ORG - System generated.

TRANS - Transaction code must be 11. (Appendix E)

M/L - Enter the appropriate maintenance level.

A/T - AT Code must be 0. (Appendix E)

MAL CODE - MAL Code must be 000. (Appendix E)

I/P - Must be 01.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the appropriate TEC.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - WD Code must be O. (Appendix E)

T/M - TM Code must be D. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Not required.

METER - Enter the appropriate meter time (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate work center. (Appendix E).

WORK PRIORITY - Enter the appropriate work priority.

SYSTEM REASON - Enter the short narrative description of the discrepancy.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.59 I-Level Armament Equipment Pool Component Due for Scheduled Maintenance (Completed)

Figure 16-74 is an example of a completed VIDS/MAF documenting scheduled maintenance of an I-level AEP component. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Transaction Code must be 31. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data.

JOB CONTROL NUMBER* - Enter the assigned JCN from the IMA activity.

WORK CENTER* - Enter the appropriate work center. Auto assigned if on the database ICRL.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.60 O-Level ALSS Equipment Due for Scheduled Maintenance (Maintenance and Material Required) (Completed)

Figure 16-75 is an example of a completed VIDS/MAF documenting scheduled maintenance of ALSS equipment (maintenance and material required). The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Transaction Code must be 32. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be C. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data, as required.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - System generated.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - System generated.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.61 O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Completed)

Figure 16-76 is an example of a completed VIDS/MAF documenting scheduled maintenance of ALSS personal equipment. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Transaction Code must be 31. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data, as required.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate work center; auto assigned if FSCM/part number is on database ICRL.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - System generated.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.62 O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Maintenance and Material Required) (Completed)

Figure 16-77 is an example of a completed VIDS/MAF documenting scheduled maintenance of ALSS personal equipment (maintenance and material required). The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Transaction Code must be 32. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be C. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data, as required.

JOB CONTROL NUMBER* - Enter the assigned JCN from the requesting activity.

WORK CENTER* - Enter the appropriate Work Center Code; auto assigned if FSCM/part number is on database ICRL.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.63 I-Level ALSS Pool Component Due for Scheduled Maintenance (Completed)

Figure 16-78 is an example of an I-level completed VIDS/MAF documenting scheduled maintenance of an ALSS pool component. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF SD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data, as required.

WORK UNIT CODE* - Enter the specific WUC of the item being inducted.

ACT ORG* - System generated.

TRANS - Transaction Code must be 31. (Appendix E)

M/L* - Must be 2.

A/T - AT Code must be A. (Appendix E)

MAL CODE - MAL Code must be 804. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O. (Appendix E)

T/M* - TM Code must be D. (Appendix E)

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data, as required.

JOB CONTROL NUMBER* - Enter the assigned JCN of the IMA.

WORK CENTER* - Enter the appropriate Work Center Code (Appendix E); auto assigned if FSCM/part number is on database ICRL.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - Enter the name of the person (as appropriate).

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.64 VIDS/MAF Discrepancy (Supply Asset Induction Document) (Material Condition Tag Missing)

Figure 16-79 is an example of a VIDS/MAF documented for items inducted from a supply activity for check, test, or service. Supply must move the item to suspense prior to performing the MAF function. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code D.

ENTRIES REQUIRED SIGNATURE - Not required.

ACCUMULATED WORK HOURS - Not required.

FAILED/REQUIRED MATERIAL - Not required.

WORK UNIT CODE* - Enter the appropriate WUC of item being inducted.

ACT ORG* - System generated.

TRANS - Not required.

M/L* - Must be 2.

A/T - Not required.

MAL CODE - Not required.

I/P - Not required.

HOURS - Not required.

EMT - System generated.

TYPE EQUIP* - Enter the appropriate TEC.

BU/SERNO* - Enter the appropriate bureau/serial number.

W/D* - WD Code must be O.

T/M* - TM Code must be T.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC* - System generated.

REMOVED/OLD ITEM - Enter the FSCM, part number, removed date, serial number of the removed item(s) and time cycle. If there is no serial number enter 0.

JOB CONTROL NUMBER* - JCN will have a Supply Org code.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Not required.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Not required.

PILOT/INITIATOR* - Type name.

MAINT CONTROL - Not required.

16.2.5.65 Completed Discrepancy MAF (Supply Asset Induction Document) (Material Condition Tag Missing)

Figure 16-80 is an example of a completed VIDS/MAF documented for items inducted from a supply activity for check, test, or service. The following data fields require entries. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF code D.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the appropriate data (as required).

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Transaction Code must be 31/32. (Appendix E)

M/L* - System generated.

A/T - AT Code. (Appendix E)

MAL CODE - MAL Code. (Appendix E)

I/P - Enter the total number of items being processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

W/D* - System generated.

T/M* - System generated.

POSIT - Not required.

SFTY/EI - Not required.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated upon initiation.

WORK CENTER* - System generated.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

PILOT/INITIATOR* - System generated.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.66 TD Compliance Turn-In Document (O-Level)

Figure 16-81 illustrates the data groups to be completed by the O-level activity on the TD compliance VIDS/MAF. If the TD is applicable to an end item, such as an aircraft or NC-5, and a component is to be removed and sent to the IMA for modification or inspection as a portion of the TD compliance, the man-hours required to remove and reinstall the component will be documented on a TD compliance WO. The O-level will then originate a TD compliance WO for each component forwarded to the I-level activity. This TD compliance WO will accompany the component to the I-level activity for documentation of the assisting TD compliance action, and processing. The I-level activity will sign a copy, indicating receipt of the component and return it to the O-level activity as an IOU receipt. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code TD.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the TEC for equipment.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.67 TD Compliance (IMA Assist)

Figure 16-82 is an example of the VIDS/MAF documented for a TD compliance with the I-level activity assist. The I-level activity will complete the MAF as an assist work center. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code TD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code, system generated.

TRANS - Transaction Code must be 47. (Appendix E)

M/L* - System generated.

A/T - Enter Technical Directive status code, action taken field, must be A.

I/P - Must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number (if applicable); if not enter 00.

TYPE EQUIP* - Enter TEC for the equipment.

BU/SERNO* - Enter the appropriate bureau/serial number.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

RECEIVED DATE/TIME - System generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Entries are required when TYPE EQUIP is Y, D, S, H, or G series or whenever an incorporation is being reported against a component related modification. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.68 Turn-In for TD Compliance

Figure 16-83 is an example of a VIDS/MAF documented for items turned in for TD compliance. If the TD compliance is directly applicable to a component, the removal and replacement of the component and the associated man-hours will be documented on a VIDS, MAF, or WO. The O-level activity will then originate a TD compliance WO for the component being forwarded to the I-level activity. This TD compliance WO will accompany the component to the I-level activity for documenting the accomplishment of the TD compliance action and processing. If the component is not ordered, the I-level activity will sign copy 2, indicating receipt of the component and return copy 2 to the O-level activity as an IOU receipt. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code TD.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the Y series TEC for the item or the applicable TEC of the end item.

BU/SERNO* - Enter 000000 for Y series equipment or the appropriate bureau/serial number.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.69 IMA TD Compliance

Figure 16-84 is an example of the VIDS/MAF documented when processing an item for TD compliance at the I-level activity. The I-level activity will complete the remainder of the TD compliance MAF accounting for the items(s) processed in IP data field. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code TD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code, system generated.

TRANS - Transaction Code must be 47. (Appendix E)

M/L* - System generated.

A/T - Enter Technical Directive status code, action taken field.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the Y series TEC for the item or the applicable TEC of the end item.

BU/SERNO* - Enter 000000 if unknown or the appropriate bureau/serial number, must be on the database.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Entries are required when TYPE EQUIP is Y, D, S, H, or G series or whenever an incorporation is being reported against a component related modification. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.70 TD Compliance Removal

Figure 16-85 is an example of a VIDS/MAF documented for a TD compliance removal. TD compliance removals will be documented in the same manner as TD compliance incorporations. An asterisk (*) denotes those data fields completed by the AMSU induction.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code, system generated.

TRANS - Transaction Code must be 47. (Appendix E)

M/L* - System generated.

A/T - Enter Technical Directive status code Q.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the Y series TEC for the item or the applicable TEC of the end item.

BU/SERNO* - Enter 000000 if unknown or the appropriate bureau/serial number.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Entries are required in these blocks when TYPE EQUIP is Y, D, S, H, or G series or whenever an incorporation is being reported against a component related

modification. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.71 O-Level Turn-In Control Document for Engine Repair

Figure 16-86 is an example of a VIDS/MAF turn-in control document for engine repair initiated by the O-level. The following data fields will be transcribed from O-level turn-in VIDS, MAF, or WO into NALCOMIS AMSU Induction. Type MAF Code D.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

MAL CODE - Enter the conditional MAL Code (if applicable); otherwise leave blank.

TYPE EQUIP - Enter the TEC for the engine.

BU/SERNO - Enter the PSSN.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the appropriate data to reflect the PSSN as a removed component. Leave part number data field blank. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - Utilize O-level JCN.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy. Provide inspection JCN for IMA use.

INSP JCN - Enter ALPHA JCN from the discrepancy block of the Turn-In MAF.

TURN-IN DOCUMENT - Enter the data from the turn-in MAF.

SYSTEM REASON - Enter engine SERNO/MOM.

NOTE: Before any engine can be inducted for repair or inspection the engine must be loaded to the Configuration Subsystem within NALCOMIS.

16.2.5.72 Supply Asset Engine Depreservation

Figure 16-87 is an example of a VIDS/MAF for a supply asset engine depreservation. The following data fields require entries.

WORK UNIT CODE - Enter 049.

ACT ORG - System generated.

TRANS - System generated 11.

M/L - System generated.

TYPE EQUIP - Enter the TEC for the engine.

BU/SERNO - Enter the PSSN.

W/D - System generated O. (Appendix E)

T/M - System generated D. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

DISCREPANCY - Enter the narrative description of the discrepancy.

JOB CONTROL NUMBER - System generated with Supply Org.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

SYSTEM REASON - Uncan/depreserve.

NOTE: Before any engine can be inducted for repair or inspection the engine must be loaded to the Configuration Subsystem within NALCOMIS.

16.2.5.73 Supply Asset Engine (Assist VIDS/MAF) Test Cell Run

Figure 16-88 is an example of a VIDS/MAF for a supply asset engine (Assist MAF) test cell run. The following data fields require entries.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - System generated.

TRANS - System generated 11.

M/L - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated V. (Appendix E)

T/M - System generated T. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

DISCREPANCY - Enter the narrative description of the discrepancy.

JOB CONTROL NUMBER - System generated with Supply Org.

WORK CENTER - Enter the appropriate work center code. (Appendix E)

SYSTEM REASON - Enter "Test Cell Run".

NOTE: Before any engine can be inducted for repair or inspection the engine must be loaded to the Configuration Subsystem within NALCOMIS.

16.2.5.74 Fix-In-Place (Material Not Required)

Figure 16-89 is an example of a supporting VIDS/MAF for a fix-in-place repair action not requiring material. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 11. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated from Engine Turn-in MAF.

WORK CENTER - Enter the appropriate work center. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.75 Fix-In-Place (Material Required)

Figure 16-90 is an example of a supporting VIDS/MAF for a fix-in-place repair action requiring material. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Enter the failed parts, identify parts that caused AWP during repair, and/or record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Enter 12 when material is being indexed in failed required material. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.76 Removal/Replacement of a Tracked Consumable Component

Figure 16-91 is an example of a supporting VIDS/MAF for a removal and replacement of a tracked consumable. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 18. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item . Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.77 Removal/Replacement of a Repairable Component with No Repairable Sub-Subassemblies

Figure 16-92 is an example of a supporting VIDS/MAF for a removal and replacement of a repairable with no repairable sub-subassemblies. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 23. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.78 Removal/Replacement of a Repairable Component with Repairable Sub-Subassemblies

Figure 16-93 is an example of a supporting VIDS/MAF for a removal and replacement of a repairable with repairable sub-subassemblies. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being removed/replaced.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 23. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.79 Facilitate Other Maintenance (FOM)

Figure 16-94 is an example of a supporting VIDS/MAF to FOM. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 11. (Appendix E)

M/L - Must be 2.

A/T - Must be S. (Appendix E)

MAL CODE - Must be 800. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - Must be O. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - System generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate work center. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.80 Engine Repair Control Document (Completed VIDS/MAF)

Figure 16-95 is an example of a completed VIDS/MAF for an engine repair control document. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

ACT ORG* - I-level Organization Code; system generated.

TRANS - Transaction Code must be 31. (Appendix E)

M/L* - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated from engine turn-in MAF.

BU/SERNO* - System generated from engine turn-in MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

REMOVED/OLD ITEM* - Enter the appropriate data to reflect the PSSN as a removed component. Leave part number data field blank. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - System generated from engine turn-in MAF.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action taken and indicate if RFI or BCM. This section may also be used to report test cell run time.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.81 Supply Asset Engine Build-Up

Figure 16-96 is an example of a VIDS/MAF for a supply asset engine build-up. The following data fields require entries.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - System generated.

TRANS - System generated 30.

M/L - System generated.

TYPE EQUIP - Enter the TEC for the engine.

BU/SERNO - Enter the PSSN.

W/D - Enter WD Code O. (Appendix E)

T/M - Enter TM Code T. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the appropriate data to reflect the PSSN as a removed component. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy. Provide inspection JCN for IMA use.

JOB CONTROL NUMBER - System generated with Supply Org.

WORK CENTER - Enter the appropriate work center code. (Appendix E)

SYSTEM REASON - Enter engine serial number and the word "QEC".

NOTE: Before any engine can be inducted for repair or inspection the engine must be loaded to the Configuration Subsystem within NALCOMIS.

16.2.5.82 Engine Component Turn-In for Repair

Figure 16-97 is an example of an engine component turned in for repair. An engine component turned in for repair will have the following data fields which are system generated when the part is ordered.

WORK UNIT CODE - System generated.

MAL CODE - Enter conditional MAL code (if applicable); otherwise leave blank.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

REMOVED/OLD ITEM - System generated.

JOB CONTROL NUMBER - System generated.

DISCREPANCY - System generated.

TURN-IN DOCUMENT - System generated.

16.2.5.83 Engine Component Repair (Completed)

Figure 16-98 is an example of a completed engine component repair. To complete the repair use the turn-in document and make the following entries. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields system generated from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Enter the failed part(s), identify parts that caused AWP during repair, and/or record supply requisition(s) (if applicable).

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 31 or 32. (Appendix E)

M/L - Must be 2, system generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated from engine turn-in MAF.

BU/SERNO* - System generated from engine turn-in MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

JOB CONTROL NUMBER* - System generated from engine turn-in MAF.

WORK CENTER* - Enter the appropriate work center. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.84 Turn-In Document Solely for Major Engine Inspection

Figure 16-99 is an example of a turn-in document from O-level activity solely for a major engine inspection. This induction MAF also serves as the inspection control MAF. (*) denotes those data fields completed by the AMSU induction. Type MAF Code "PC".

WORK UNIT CODE* - Enter the seven position WUC describing the inspection.

TYPE EQUIP* - Enter the TEC of the engine.

BU/SERNO* - Enter the PSSN.

W/D* - Must be O.

T/M* - Must be J.

POSIT* - Enter the appropriate PSI (if applicable).

REMOVED/OLD ITEM* - Reflects the propulsion system as a removed component. Leave part number blank.

JOB CONTROL NUMBER* - Enter O-level inspection JCN.

DISCREPANCY* - Enter narrative description of the type of inspection to be performed and initiator.

TURN-IN DOCUMENT* - Enter turn-in document from O-level turn-in.

16.2.5.85 Control Document Solely for Major Engine Inspection (Completed)

Figure 16-100 an example of a completed control document for a major engine inspection. The I-level activity will fill in the following blocks on the control document for an engine that has been inducted into the I-level activity solely for a major engine inspection. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields system generated from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - If only one work center is involved in the inspection, look phase man-hours may be entered on the control document. EMT will be system generated. If more than one work center is involved, a separate supporting MAF must be documented for each work center involved in the inspection.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 31. (Appendix E)

M/L* - Must be 2, system generated.

A/T - Must be 0. (Appendix E)

MAL CODE - Must be 000. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

TYPE EQUIP* - System generated from engine turn-in MAF.

BU/SERNO* - System generated from engine turn-in MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

JOB CONTROL NUMBER* - System generated from engine turn-in MAF.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action and indicate if RFI or BCM.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: If the engine is BCM, it should be documented using a fix phase JCN. The turn-in document and E blocks will be transferred to the BCM MAF. The inspection control document for the BCM'd engine will be closed out using Transaction Code 11 and 0 items processed.

16.2.5.86 Control Document for Major Engine Inspection (Engine Undergoing Repair)

Figure 16-101 is an example of a supporting control document for an engine undergoing repair that requires a major inspection. I-level maintenance activities will comply with this instruction when engines are turned in for repair. If an inspection is required, the IMA will initiate the MAF. The following explains documentation:

WORK UNIT CODE - Enter the seven position WUC describing the inspection.

TYPE EQUIP - System generated from repair MAF.

BU/SERNO - System generated from repair MAF.

W/D - System generated.

T/M - Must be J, system generated.

POSIT - Enter the appropriate PSI (if applicable).

JOB CONTROL NUMBER - System generated from engine turn-in MAF, must be A00, B00, etc.

DISCREPANCY - Enter narrative description of the type of inspection to be performed.

SYSTEM/REASON - Enter PSSN and the word INSP.

16.2.5.87 Major Engine Inspection (Look Phase Supporting Work Center)

Figure 16-102 is an example of a look phase supporting work center for a major engine inspection. If more than one work center is involved in the inspection, a separate supporting MAF must be documented for each work center. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields system generated from the control document created. Inspection look MAFs can be initiated when the control MAF is initiated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Must be 11. (Appendix E)

M/L* - System generated.

A/T* - System generated. (Appendix E)

MAL CODE* - System generated. (Appendix E)

I/P* - Must be 0, system generated.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated from inspection control MAF.

BU/SERNO* - System generated from inspection control MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

JOB CONTROL NUMBER* - System generated from inspection control MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the MRC numbers to be complied with.

CORRECTIVE ACTION - Enter the MRC numbers complied with and item numbers of any discrepancy discovered. Inspection supervisor will assign a fix phase MAF to cover any discrepancy found.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

SYSTEM REASON - Engine SERNO and the word "LOOK".

16.2.5.88 Major Engine Inspection (Fix-In-Place)

Figure 16-103 is an example of the VIDS/MAF documented for a fix-in-place for a major engine inspection. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields system generated from the control document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG* - System generated.

TRANS - Must be 11 or 12. (Appendix E)

M/L* - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field

EMT - System generated.

TYPE EQUIP* - System generated from inspection control MAF.

BU/SERNO* - System generated from inspection control MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

JOB CONTROL NUMBER* - System generated from inspection control MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the MRC numbers to be complied with.

CORRECTIVE ACTION - Enter a narrative description of the corrective action taken.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.89 Major Engine Inspection (Fix Phase Removal and Replacement of a Repairable Component)

Figure 16-104 is an example of a removal and replacement of a repairable component during a major engine inspection. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields system generated from the control document created in.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - This section will be used to document Supply requisitions. No index.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG* - System generated.

TRANS - Must be 23. (Appendix E)

M/L* - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated from inspection control MAF.

BU/SERNO* - System generated from inspection control MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates, and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - System generated from inspection control MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter a narrative description of the corrective action taken.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.90 Major Engine Inspection (Component Turn-In)

Figure 16-105 is an example of a component turn-in during a major engine inspection. Turn-in MAF is created.

WORK UNIT CODE - System generated.

TYPE EQUIP - System generated.

BU/SERNO - System generated.

W/D - System generated.

T/M - System generated.

POSIT - Enter the appropriate PSI (if applicable).

JOB CONTROL NUMBER - System generated.

DISCREPANCY - System generated.

SYSTEM/REASON - System generated.

16.2.5.91 Major Engine Inspection Completed After Repair Action

Figure 16-106 is an example of a major engine inspection control document after repair action. I-level maintenance activities will comply with this instruction when engines are turned in for repair. If an inspection is required, the I-level maintenance activity will initiate the MAF. When the original repair action is complete and the inspection is complete, there should be two completed control documents MAFs. The transaction code will be 31 for the repair control document and 11 for the inspection control document. Some data fields are system generated or updated by using on-line functions. (*) denotes those data fields system generated from the turn-in document.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - If only one work center is involved in the inspection, look phase man-hours may be entered on the control document. EMT will be system generated. If more than one work center is involved, a separate supporting MAF must be documented for each work center involved in the inspection.

WORK UNIT CODE* - System generated.

ACT ORG - I-level organization code; system generated.

TRANS - Must be 11. (Appendix E)

M/L* - Must be 2; system generated.

A/T - Must be 0. (Appendix E)

MAL CODE - Must be 000. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

TYPE EQUIP* - System generated from engine turn-in MAF.

BU/SERNO* - System generated from engine turn-in MAF.

W/D* - System generated.

T/M* - System generated. (Appendix E)

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

JOB CONTROL NUMBER* - System generated from Engine Turn-in MAF.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter a narrative description of the corrective action taken.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.92 Supply Asset (TD Compliance Request)

Figure 16-107 is an example of the entries required by the Supply Department for TD compliance on all engines or engine components held as supply stock. The following explains documentation:

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

TYPE EQUIP - Enter the TEC that identifies the type of engine to which the TD applies.

BU/SERNO - Enter the PSSN of the engine or serial number of the component to which the TD applies.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates control number.

JOB CONTROL NUMBER - System generated.

DISCREPANCY - Enter the narrative description of the discrepancy and initiator.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.93 Supply Asset TD Compliance Request (IMA Production Control Entries)

Figure 16-108 is an example of the entries required by Production Control for TD compliance on all engines or engine components held as supply stock. An asterisk (*) denotes entries completed when MAF was initiated.

ENTRIES REQUIRED SIGNATURE - Check LOGS and REC boxes and upon completion of TD compliance enter name/rate/rank to certify all applicable logs/records have had appropriate entries made.

WORK UNIT CODE - Enter the WUC which identifies the engine or component to which the TD applies.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 41 or 47 (as appropriate); system generated. (Appendix E)

M/L - Must be 2; system generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the TEC that identifies the type of engine to which the TD applies.

BU/SERNO* - Enter the PSSN of the engine or serial number of the component to which the TD applies.

JOB CONTROL NUMBER* - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

REMOVED/OLD ITEM - Enter the appropriate data for PSSN. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY* - Enter the narrative description of the discrepancy and initiator.

NOTE: Production Control will initiate separate MAFs for each work center involved, using the same JCN as the control document.

16.2.5.94 Supply Asset (TD Compliance Completed)

Figure 16-109 is an example of the completed TD compliance (work center entries) for supply stock. (*) denotes those data fields previously completed by Supply and Production Control.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code, system generated.

TRANS - Transaction Code must be 41 or 47 (as appropriate).

M/L* - System generated.

A/T - Enter TD Status Code. (Appendix E)

I/P - Enter the total number of items processed. The following conditions will apply to the number of items processed being recorded. (1) TD Status Codes A or W will require 0's. (2) TD Status Codes C, D, P, or Q will require a minimum of 1 in this data field.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the TEC that identifies the type of engine to which the TD applies.

BU/SERNO* - Enter the PSSN of the engine or serial number of the component to which the TD applies.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - Enter the appropriate work center code. (Appendix E)

REMOVED/OLD ITEM - Enter the appropriate data for PSSN. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.95 O-Level Engine TD Compliance Request

Figure 16-110 is an example of the O-level originating the TD compliance VIDS/MAF (turn-in) using an O-level JCN for engines or engine components sent to the I-level activity solely for TD compliance. The following data fields will be filled in at the I-level activity. Type MAF Code TD.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

TYPE EQUIP - Enter the TEC that identifies the type of engine to which the TD applies.

BU/SERNO - Enter the PSSN of the engine or serial number of the component to which the TD applies; otherwise enter 000000.

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the appropriate data for the PSSN. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

JOB CONTROL NUMBER - Utilize O-level JCN from turn-in.

TURN-IN DOCUMENT - Enter the data from turn-in MAF. If engine/component is not ordered but only turned in for TD compliance, leave blank.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.96 O-Level Engine TD Compliance Request (Production Control Entries)

Figure 16-111 is an example of Production Control entries for an O-level engine TD compliance. (*) denotes those data fields that are system generated.

WORK UNIT CODE* - Enter the specific WUC of the item being processed.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the TEC for equipment.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on database.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM* - Enter the appropriate data for the PSSN. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Utilize O-level JCN.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

PRI - Enter 1, 2, or 3.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.97 O-Level Engine TD Compliance Request (Completed)

Figure 16-112 is an example of a completed I-level work center VIDS/MAF for an engine TD compliance request. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Transaction Code must be 41. (Appendix E)

M/L* - System generated.

A/T - Enter the appropriate TD Status Code that describes the action taken by the reporting work center. (Appendix E)

I/P - Enter the total number of items processed. The following conditions will apply to the number of items processed: (1) TD Status Codes A or W will require 0's. (2) TD Status codes C, D, P, or Q will require a 1 in this data field.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - System generated.

TECHNICAL DIRECTIVE ID CODE* - System generated. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - System generated.

TECHNICAL DIRECTIVE ID RV* - System generated.

TECHNICAL DIRECTIVE ID AM* - System generated.

TECHNICAL DIRECTIVE ID PART* - System generated.

TECHNICAL DIRECTIVE ID KIT* - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

POSIT* - System generated.

SFTY/EI* - System generated.

REMOVED/OLD ITEM* - System generated.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - System generated. (Appendix E)

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the discrepancy.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.98 I-Level Originated TD Compliance Request (Engine Component)

Figure 16-113 is an example of an I-level originated TD compliance. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

FAILED/REQUIRED MATERIAL - This section will be used to record supply requisitions.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 41 or 47. (Appendix E)

M/L - Enter the appropriate maintenance level.

TYPE EQUIP - Enter the TEC that identifies the type of engine to which the TD applies. Enter YE series TEC for components.

BU/SERNO - Enter the PSSN of the engine or serial number of the component to which the TD applies, otherwise enter 000000.

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

REMOVED/OLD ITEM - Enter the FSCM, serial number, part number, and Julian date removed. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - Enter a supply JCN.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

NOTES: 1. TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

2. Production Control will initiate separate MAFs for each work center involved.

16.2.5.99 I-Level Originated TD Compliance (Completed)

Figure 16-114 is an example of a completed VIDS/MAF for an I-level originated TD compliance. The following explains documentation. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL* - This section will be used to record supply requisitions.

WORK UNIT CODE* - Enter the specific WUC for the item being processed.

ACT ORG* - I-level Organization Code; system generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L* - System generated.

A/T - Enter the appropriate TD Status Code. (Appendix E)

I/P - Enter the total number of items processed. The following conditions will apply to the number of items processed: (1) TD Status Codes A or W will require 0's. (2) TD Status Codes C, D, P, or Q will require 01.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE* - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - Enter basic number.

TECHNICAL DIRECTIVE ID RV* - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM* - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART* - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT* - Enter kit number.

TYPE EQUIP* - Enter the TEC for the equipment.

BU/SERNO* - Enter the appropriate bureau/serial number; must be on the database.

POSIT* - Enter the appropriate PSI (if applicable).

SFTY/EI* - Enter the appropriate safety/EI number; if applicable.

REMOVED/OLD ITEM* - Enter the FSCM, serial number, part number, and Julian date removed. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED NEW ITEM - Enter the FSCM, serial number, part number, and Julian date installed. Second Time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - Supply JCN.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.100 O-Level Request for TD Compliance Assist (Engine Component)

Figure 16-115 is an example of the entries on the turn-in VIDS/MAF from the O-level activity. Type MAF Code TD.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

TYPE EQUIP - Enter the TEC that identifies the type of engine to which the TD applies. Enter YE series TEC for components.

BU/SERNO - Enter the PSSN of the engine or serial number of the component to which the TD applies, otherwise enter 000000.

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the FSCM, serial number, part number, Julian date removed. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.101 O-Level Request for TD Compliance Assist (AMSU/Production Control Entries)

Figure 16-116 is an example of the entries required by AMSU/Production Control for an O-level TD compliance assist. Type MAF code "TD".

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 41 or 47 (as appropriate). (Appendix E)

M/L - Must be 2.

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

TYPE EQUIP - Enter the TEC that identifies the type of engine to which the TD applies. Enter YE series TEC for components.

BU/SERNO - Enter the PSSN of the engine or serial number of the component to which the TD applies; otherwise enter 000000.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Enter the FSCM, serial number, part number, and Julian date removed. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - Utilize O-level JCN.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

PRI - Enter 1, 2, or 3.

NOTES: 1. TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

2. Production Control will initiate separate MAFs for each work center involved, using the same JCN as the control document.

16.2.5.102 O-Level Request for TD Compliance Assist (Completed)

Figure 16-117 is an example of a completed VIDS/MAF for an O-level TD compliance assist. The following explains documentation. An asterisk (*) denotes those data fields that are system generated. Type MAF Code TD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Enter the appropriate Transaction Code. (Appendix E)

M/L* - System generated.

A/T - Enter the appropriate TD Status Code. (Appendix E)

I/P - Must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - System generated.

TECHNICAL DIRECTIVE ID CODE* - System generated. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - System generated.

TECHNICAL DIRECTIVE ID RV* - System generated.

TECHNICAL DIRECTIVE ID AM* - System generated.

TECHNICAL DIRECTIVE ID PART* - System generated.

TECHNICAL DIRECTIVE ID KIT* - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

POSIT* - System generated.

SFTY/EI* - System generated.

REMOVED/OLD ITEM* - System generated.

INSTALLED NEW ITEM - Enter the FSCM, serial number, part number, and Julian date installed. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - System generated. (Appendix E)

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTES: 1. TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

2. If an engine or engine component sent to the IMA for TD compliance is found to require repair, the IMA will inform the O-level activity, which must provide a turn-in MAF for documenting the repair action. The original TD compliance MAF is destroyed and Production Control initiates a replacement TD compliance MAF using a supply JCN.

16.2.5.103 O-Level Turn-In Control Document for Engine Repair (Modular Engine)

Figure 16-118 is an example of an O-level turn-in VIDS/MAF for a modular engine repair. Type MAF Code D.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

MAL CODE - Enter the conditional MAL code (if applicable); otherwise leave blank.

TYPE EQUIP - Enter the TEC of the engine.

BU/SERNO - Enter the PSSN.

W/D - Enter the applicable WD code. (Appendix E)

T/M - Enter the appropriate TM code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SAFETY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Reflects the PSSN as a removed component on the turn-in MAF. Leave part number blank. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter narrative description of the discrepancy and initiator. Provide inspection JCN for IMA use.

INSPECTION JCN - Enter inspection JCN from discrepancy field.

TURN-IN DOCUMENT - Transcribe the data from O-level turn-in.

16.2.5.104 Fix-In-Place (Not Requiring Material)

Figure 16-119 is an example of a supporting VIDS/MAF for a fix-in-place repair action on a modular engine not requiring material. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - System generated from engine turn-in MAF.

ACT ORG - I-level Organization Code. System generated.

TRANS - Must be 11. (Appendix E)

M/L - Must be 2; system generated.

A/T - System generated from engine turn-in MAF.

MAL CODE - System generated from engine turn-in MAF.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - JCN system generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.105 Fix-In-Place (Requiring Material)

Figure 16-120 is an example of a supporting VIDS/MAF for a fix-in-place repair action on a modular engine requiring material. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Enter the failed parts, identify parts that caused AWP during repair, and/or record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code, system generated.

TRANS - Enter 12 when material is being indexed in failed/required material. (Appendix E)

M/L - System generated from engine turn-in MAF, must be 2.

A/T - System generated from engine turn-in MAF.

MAL CODE - System generated from engine turn-in MAF.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

JOB CONTROL NUMBER - JCN system generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.106 Removal/Replacement of a Repairable Subassembly with No Repairable Sub-Subassemblies

Figure 16-121 is an example of a removal/replacement of a repairable subassembly with no repairable sub-subassemblies. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level organization code, system generated.

TRANS - Must be 23. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - JCN system generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.107 Removal/Replacement of a Repairable Module/Component with Repairable Sub-Subassemblies

Figure 16-122 is an example of a supporting VIDS/MAF for a removal/replacement of repairable modules/components with repairable sub-subassemblies. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 23. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated from engine turn-in MAF.

BU/SERNO - System generated from engine turn-in MAF.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - JCN system generated from engine turn-in MAF.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.108 Engine Repair Control Document (Completed)

Figure 16-123 is an example of a completed engine repair control document. Use the turn-in document and complete the following blocks. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields completed by the AMSU induction. Type MAF Code "D".

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Transaction code must be 31. (Appendix E)

M/L* - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

W/D* - System generated. (Appendix E)

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates, and times.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - System generated. (Appendix E)

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.109 Turn-In of Repairable Module with Repairable Sub-Subassemblies

Figure 16-124 is an example of a turn-in VIDS/MAF for repairable sub-subassemblies. An engine module turned in for repair will have the following data fields system generated when the part is ordered. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for modules with an X in the fourth position.

BU/SERNO* - System generated.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT - System generated.

16.2.5.110 Removal/Replacement of a Repairable Sub-Subassembly from a Module

Figure 16-125 is an example of a supporting VIDS/MAF for a removal/replacement of a repairable sub-subassembly from a module. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being removed/replaced.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 23. (Appendix E)

M/L - System generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated for the engine module with fourth position X.

BU/SERNO - System generated for the engine module.

W/D - System generates W; it can be changed to R or X. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.111 Module Repair (Completed)

Figure 16-126 is an example of a completed VIDS/MAF for module repair. Use the turn-in document and complete the following blocks. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - Enter the specific WUC for the item being removed/replaced.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 31. (Appendix E)

M/L - Must be 2; system generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated for the engine module with fourth position X.

BU/SERNO* - System generated for the engine module.

W/D* - System generates W; it can be changed to R or X. (Appendix E)

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates, and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY* - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.112 Turn-In of Repairable Sub-Subassembly from a Repairable Component

Figure 16-127 is an example of a turn-in VIDS/MAF for a repairable sub-subassembly from a repairable component. A repairable sub-subassembly turned in for repair will have the following data fields system generated when the part is ordered. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL Code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for modules with an X in the fourth position.

BU/SERNO* - System generated to reflect module serial number.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT - System generated.

16.2.5.113 Repair of a Repairable Component with Required Material

Figure 16-128 is an example of a repair of a repairable component with required material. Use the turn-in document and complete the following blocks. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE* - Enter the specific WUC for the item being removed/replaced.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 31 or 32. (Appendix E)

M/L - Must be 2; system generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated for the engine module with fourth position X.

BU/SERNO* - System generated for the engine module.

W/D* - System generates W; it can be changed to R or X. (Appendix E)

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.114 Turn-In of a Repairable Component Sub-Subassemblies

Figure 16-129 is an example of a turn-in VIDS/MAF for a repairable component. Use for turn-in of defective sub-subassembly for sub-subassembly repair in the I-level activity when the repair

of these items is accomplished as a separate job. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for modules with an X in the fourth position.

BU/SERNO* - System generated to reflect module serial number.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT* - System generated.

16.2.5.115 Repair of a Sub-Subassembly from a Component Subassembly (Completed)

Figure 16-130 is an example of a completed VIDS/MAF for repair of a sub-subassembly from a component subassembly. Use the turn-in document and complete the following blocks. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE* - Enter the specific WUC for the item being removed/replaced.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 31 or 32. (Appendix E)

M/L - Must be 2; system generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated for the engine module with fourth position X.

BU/SERNO* - System generated for the engine module.

W/D* - System generates W; it can be changed to R or X. (Appendix E)

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates, and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

16.2.5.116 Removal/Replacement of a Repairable Sub-Subassembly from a Module

Figure 16-131 is an example of a removal and replacement of a repairable sub-subassembly VIDS/MAF from a module. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions. An asterisk (*) denotes those data fields that are system generated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE* - Enter the specific WUC for the item being removed/replaced.

ACT ORG - I-level Organization Code; system generated.

TRANS - Transaction Code must be 23. (Appendix E)

M/L - Must be 2; system generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP* - System generated for the engine module with fourth position X.

BU/SERNO* - System generated for the engine module.

W/D* - System generates W; it can be changed to R or X. (Appendix E)

T/M* - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM* - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - System generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

16.2.5.117 Turn-In of a Repairable Sub-Subassembly from a Module

Figure 16-132 is an example of a turn-in of a repairable sub-subassembly from a module. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL Code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for modules with an X in the fourth position.

BU/SERNO* - System generated to reflect module serial number.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT* - System generated.

16.2.5.118 O-Level Turn-In Control Document Modular Engine Turn-In (Solely for Major Engine Inspection)

Figure 16-133 is an example of an O-level turn-in control document. Use for turn-in from the O-level activity to accomplish the induction of the engine. Type MAF Code PC.

WORK UNIT CODE - Enter the seven position WUC describing the inspection.

TYPE EQUIP - Enter the TEC of the engine.

BU/SERNO - Enter the PSSN for the engine.

W/D - Must be O.

T/M - Must be J.

POSIT - Enter the appropriate PSI (if applicable).

REMOVED/OLD ITEM - Reflects the PSSN as a removed component. Leave part number blank.

JOB CONTROL NUMBER - Use O-level phase JCN.

DISCREPANCY - Enter narrative description of the type of inspection to be performed and initiator.

TURN-IN DOCUMENT - Use O-level turn-in document number.

SYSTEM/REASON - Enter the engine PSSN and the word MOM.

16.2.5.119 Major Modular Engine Inspection (Look Phase Supporting Work Center)

Figure 16-134 is an example of a look phase supporting work center for a major engine inspection not requiring any material. If more than one work center is involved in the inspection, a separate supporting MAF must be documented for each work center. The following data fields

require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Same as control document.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 11, system generated. (Appendix E)

M/L - System generated.

A/T - Must be 0. (Appendix E)

MAL CODE - Must be 000. (Appendix E)

I/P - Must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Same as control document, system generated.

BU/SERNO - Same as control document, system generated.

W/D - Same as control document, system generated. (Appendix E)

T/M - Same as control document, system generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

DISCREPANCY - Enter the card numbers of the MRC to be complied with.

CORRECTIVE ACTION - Enter the MRC card numbers complied with and item numbers of any discrepancy discovered. Any discrepancy found will have a fix phase JCN assigned.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

SYSTEM/REASON - Enter the engine serial number and the word LOOK.

16.2.5.120 Major Modular Engine Inspection (Look Phase Supporting Work Center) (Engine Test Cell Run)

Figure 16-135 is an example of a look phase supporting work center for a major engine inspection (Engine Test Cell Run). The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE - Same as control document.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 11, system generated. (Appendix E)

M/L - System generated.

A/T - Must be 0. (Appendix E)

MAL CODE - Must be 000. (Appendix E)

I/P - Must be 0.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Same as control document, system generated.

BU/SERNO - Same as control document, system generated.

W/D - Same as control document, system generated. (Appendix E)

T/M - Same as control document, system generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

DISCREPANCY - Enter the card numbers of the MRC to be complied with.

CORRECTIVE ACTION - Enter the MRC card numbers complied with and item numbers of any discrepancy discovered. Any discrepancy found will have a fix phase JCN assigned.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

SYSTEM/REASON - Enter the engine serial number and the word RUN.

16.2.5.121 Major Engine Inspection (Fix-In-Place)

Figure 16-136 is an example of a fix-in-place VIDS/MAF during a major engine inspection. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the failed parts(s), identify parts that caused AWP during repair, and/or record supply requisition(s) (if applicable).

WORK UNIT CODE - Enter the specific WUC.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 11 or 12. (Appendix E)

M/L - System generated.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Same as control document, system generated.

BU/SERNO - Same as control document, system generated.

W/D - Must be M, system generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

16.2.5.122 Major Engine Inspection (Fix Phase Module Replacement)

Figure 16-137 is an example of a fix phase module replacement VIDS/MAF during a major engine inspection. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC for the item being requisitioned.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 23. (Appendix E)

M/L - Must be 2; system generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Same as control document.

BU/SERNO - Same as control document.

W/D - Must be M. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data to reflect the old module. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data to reflect the new module. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

16.2.5.123 Major Engine Inspection (Module Turn-In)

Figure 16-138 is an example of a fix phase module replacement MAF during a major engine inspection. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for modules with an X in the fourth position.

BU/SERNO* - System generated to reflect module serial number.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT* - System generated.

16.2.5.124 Major Engine Inspection (Fix Phase Repairable Component Replacement)

Figure 16-139 is an example of a fix phase repairable component replacement VIDS/MAF during a major engine inspection. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 23. (Appendix E)

M/L - Must be 2; system generated.

A/T - Must be R. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated for the engine.

BU/SERNO - System generated for the engine.

W/D - System generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

16.2.5.125 Major Engine Inspection (Fix Phase Component Turn-In)

Figure 16-140 is an example of a fix phase component turn-in VIDS/MAF during a major engine inspection. An asterisk (*) denotes those data fields that are system generated.

WORK UNIT CODE* - System generated.

MAL CODE - Enter conditional MAL Code (if applicable); otherwise leave blank.

TYPE EQUIP* - System generated for engine TEC.

BU/SERNO* - System generated to reflect engine.

W/D* - System generated.

T/M* - System generated.

REMOVED/OLD ITEM* - System generated.

JOB CONTROL NUMBER* - System generated.

DISCREPANCY* - System generated.

TURN-IN DOCUMENT - System generated.

16.2.5.126 Completed Major Inspection Control Document (Modular Engine Turned-In Solely for Major Inspection)

Figure 16-141 is an example of a major inspection control document for an engine turned-in solely for inspection. The following data fields require entries for a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - If only one work center is involved in the inspection, look phase man-hours and EMT may be entered on the control document. If more than one work center is involved, a separate supporting MAF must be documented for each work center involved in the inspection.

WORK UNIT CODE - Enter the specific WUC for the item being processed.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 31. (Appendix E)

M/L - Must be 2; system generated.

A/T - Must be 0. (Appendix E)

MAL CODE - Must be 000. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - System generated for the engine.

BU/SERNO - System generated for the engine.

W/D - System generated. (Appendix E)

T/M - System generated. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

REMOVED/OLD ITEM - Reflects the PSSN as a removed component on the control document only. All other supporting documents will not have the PSSN identification listed in the "E" record. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

16.2.5.127 O-Level Activity Request for a Modular Engine TD Compliance by I-Level Activity

Figure 16-142 is an example of the O-level originating the TD compliance VIDS/MAF using an O-level JCN for modular engine sent to the I-level activity solely for TD compliance. Type MAF Code TC.

WORK UNIT CODE - Enter the module or component WUC.

TECHNICAL DIRECTIVE ID INT - Enter X (if applicable).

TECHNICAL DIRECTIVE ID CODE - Enter appropriate code. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO. - Enter basic number.

TECHNICAL DIRECTIVE ID RV - Enter revision (if applicable).

TECHNICAL DIRECTIVE ID AM - Enter amendment (if applicable).

TECHNICAL DIRECTIVE ID PART - Enter part (if applicable).

TECHNICAL DIRECTIVE ID KIT - Enter kit number.

TYPE EQUIP - Enter the TEC for module to which the TD applies.

BU/SERNO - Enter the appropriate bureau/serial number for the module.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REMOVED/OLD ITEM - Must be filled in under the following circumstances: 1) If module will have a part number change; 2) If the TD applies to a component within the module, enter the information concerning the component. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER - Use O-level JCN.

DISCREPANCY - Enter the narrative description of the discrepancy and initiator.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.128 Production Control Entries (O-Level Activity Request for TD Compliance)

Figure 16-143 is an example of Production Control entries on an O-level activity request for a TD compliance VIDS/MAF. An asterisk (*) indicates data entered from the O-level turn-in document.

WORK UNIT CODE* - System generated.

ACT ORG* - System generated.

TRANS - Transaction Code must be 41 or 47 (as appropriate). (Appendix E)

M/L* - System generated. Must be 2.

TECHNICAL DIRECTIVE ID INT* - System generated.

TECHNICAL DIRECTIVE ID CODE* - System generated. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - System generated.

TECHNICAL DIRECTIVE ID RV* - System generated.

TECHNICAL DIRECTIVE ID AM* - System generated.

TECHNICAL DIRECTIVE ID PART* - System generated.

TECHNICAL DIRECTIVE ID KIT* - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

POSIT - Enter the appropriate PSI (if applicable).

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

REMOVED/OLD ITEM - Must be filled in under the following circumstances: 1) If module will have a part number change; 2) If the TD applies to a component within the module, enter the information concerning the component. Second time cycle denotes removal of a warranted item. Third time cycle indicates contract number.

DISCREPANCY - Enter the narrative description of the discrepancy and initiator.

JOB CONTROL NUMBER - Use O-level JCN.

WORK CENTER* - System generated. (Appendix E)

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.129 Completed TD Compliance (Applies to a Module With No Module or Repairable Component P/N Change)

Figure 16-144 is an example of a TD compliance VIDS/MAF documenting an end item TD with no removed component. For each component removed, a separate TD compliance turn-in document is generated per paragraph 16.2.5.20. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

NOTE: All TDs must reside in the configuration sub-system prior to the TD MAF being initiated.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Must be 41. (Appendix E)

M/L - Must be 1.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Leave blank.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Not required.

T/M - Not required.

POSIT - Not required.

SAFETY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates/times.

REMOVED/OLD ITEM - Enter the appropriate data, if required.

INSTALLED/NEW ITEM - Enter the appropriate data, if required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description.

CORRECTIVE ACTION - Enter the narrative description.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.130 TD Compliance (Applies to a Module With P/N Change)

Figure 16-145 is an example of a VIDS/MAF documented when processing an item for TD compliance at the IMA. The IMA will complete the remainder of the TD compliance MAF accounting for the item(s) processed in an IP data field. An asterisk (*) denotes those data fields previously completed by AMSU induction. Type MAF Code TD.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

WORK UNIT CODE* - System generated.

ACT ORG - I-level Organization Code; system generated.

TRANS - Must be 47. (Appendix E)

M/L* - System generated.

A/T - Enter the TD Status Code.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TECHNICAL DIRECTIVE ID INT* - System generated.

TECHNICAL DIRECTIVE ID CODE* - System generated. (Appendix E)

TECHNICAL DIRECTIVE ID BASIC NO.* - System generated.

TECHNICAL DIRECTIVE ID RV* - System generated.

TECHNICAL DIRECTIVE ID AM* - System generated.

TECHNICAL DIRECTIVE ID PART* - System generated.

TECHNICAL DIRECTIVE ID KIT* - System generated.

TYPE EQUIP* - System generated.

BU/SERNO* - System generated.

POSIT* - System generated.

SFTY/EI - Enter the appropriate safety/EI number (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates, and times.

REMOVED/OLD ITEM* - System generated.

INSTALLED NEW ITEM - Entries are required when a Y, D, S, H, or G series TEC is entered or whenever an incorporation is being reported against a component related modification. Second time cycle denotes installation of a warranted item. Third time cycle indicates contract number.

JOB CONTROL NUMBER* - System generated.

WORK CENTER* - System generated.

DISCREPANCY* - System generated.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

NOTE: TD identification information must be loaded to the NALCOMIS Configuration Subsystem prior to the induction of any TD.

16.2.5.131 TD Compliance (Applies to a Component Within A Module)

Figure 16-146 is an example of a completed off-equipment TD compliance action. Off-equipment TD compliance actions are documented by completing the TD compliance turn-in document. The following data fields require entries to document a completed action. Some data fields are system generated or updated by using on-line functions.

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Enter the parts required information.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - System generated.

TRANS - Must be 47. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Leave blank.

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed.

BU/SERNO - Enter the appropriate bureau/serial number.

W/D - Not required.

T/M - Not required.

POSIT - PSI (if applicable).

SAFETY/EI - Not required.

TECHNICAL DIRECTIVE ID - Enter the appropriate TD information for the Code/Basic No/Kit.

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates/times.

REMOVED/OLD ITEM - Enter the appropriate data, if required.

INSTALLED/NEW ITEM - Enter the appropriate data, if required.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E).

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF. Not required.

16.2.5.132 Engine or Module Cannibalization (For A Supported Activity)

Figure 16-147 is an example of cannibalization action of a removal and subsequent replacement of a component from an engine or module under repair. Removed for a supported activity. Some data fields are system generated or updated by using on-line functions. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - This section will be used to document or record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being cannibalized.

ACT ORG - I-level Organization Code, system generated.

TRANS - Must be 18. (Appendix E)

M/L - Must be 2.

A/T - Must be T. (Appendix E)

MAL CODE - Must be 813, 814, 815, 816, 817, or 818. (Appendix E)

I/P - Must be 1.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the general TEC for the engine or module, for example, JHDX.

BU/SERNO - Enter the SERNO of the engine or SERNO of the uninstalled module.

W/D - Must be O, system generated. (Appendix E)

T/M - Must be B, system generated. (Appendix E)

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

REMOVED/OLD ITEM - Enter the FSCM, serial number, part number, Julian date removed, and appropriate time/cycle data for the removed item.

INSTALLED/NEW ITEM - Enter the FSCM, serial number, part number, Julian date removed, and appropriate time/cycle data for the installed item.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates and times.

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action taken.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

JOB CONTROL NUMBER - JCN system generated from module inspection control MAF.

PRI - Production control or authorized personnel will fill in this data field to approve the initiated MAF.

SYSTEM/REASON - Enter a brief (snap shot) description of the reported discrepancy.

AMA 2024-04

16.2.5.133 Removal and Replacement of Cartridges (CART), Cartridge Activated Devices (CAD), and Propellant Actuated Devices(PAD) (I-Level Maintenance)

Figure 16-148 is an example of a VIDS/MAF documented for the removal and replacement of explosive devices. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate field, signature is electronically posted.

ACCUMULATED WORK HOURS - Enter the appropriate data.

FAILED/REQUIRED MATERIAL - Record supply requisitions.

WORK UNIT CODE - Enter the specific WUC of the item being processed.

ACT ORG - I-level Organization Code. System generated.

TRANS - Must be 18. (Appendix E)

M/L - Must be 2.

A/T - Enter the appropriate AT Code. (Appendix E)

MAL CODE - Enter the appropriate MAL Code. (Appendix E)

I/P - Enter the total number of items processed.

HOURS - System generated from accumulated work hours field.

EMT - System generated.

TYPE EQUIP - Enter the TEC for the item being processed; first position must be D, G, H, M, S, V, or Y.

BU/SERNO - Enter the appropriate bureau/serial number, must be on database.

W/D - Enter the appropriate WD Code. (Appendix E)

T/M - Enter the appropriate TM Code. (Appendix E)

POSIT - Enter the appropriate PSI (if applicable).

REPAIR CYCLE - Received date/time; system generated. In-work/completed date/time; enter the appropriate Julian date and time.

MAINTENANCE/SUPPLY REC - Enter the appropriate job status, Julian dates/times.

REMOVED/OLD ITEM - Enter the appropriate data for the removed/old item. The part number block (E23) must reflect the lot number of the device removed. The time/cycle block (E42) must have an entry using time/cycle prefix code H and the container open date (MMYY) for CARTs or CADs and the manufacture date (MMYY) for PADs.

INSTALLED/NEW ITEM - Enter the appropriate data for the installed/new item. The part number block (G23) must reflect the lot number of the device installed. The time/cycle block (G38) must have an entry using time/cycle prefix code H and the container open date (MMYY) for CARTs or CADs and the manufacture date (MMYY) for PADs.

JOB CONTROL NUMBER - System generated upon Production Control approval.

WORK CENTER - Enter the appropriate Work Center Code. (Appendix E)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED BY/INSPECTED BY/SUPERVISOR - Signatures are electronically posted to the MAF, based on the individual SMQ/PASSWORD.

MAINT CONTROL - Signature is electronically posted to the MAF, based on the individual's SMQ.

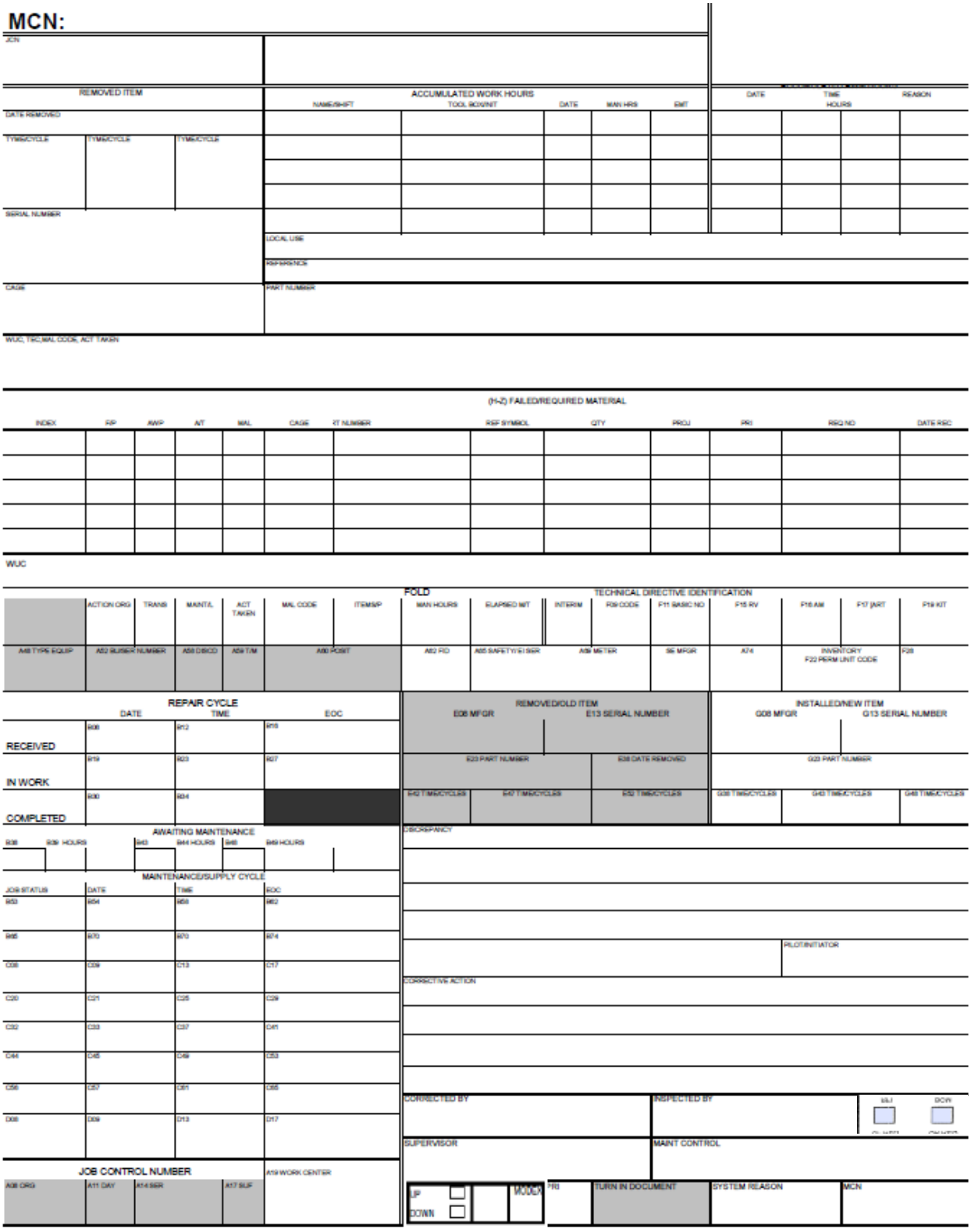


Figure 16-1: NALCOMIS IMA MAF (Example)

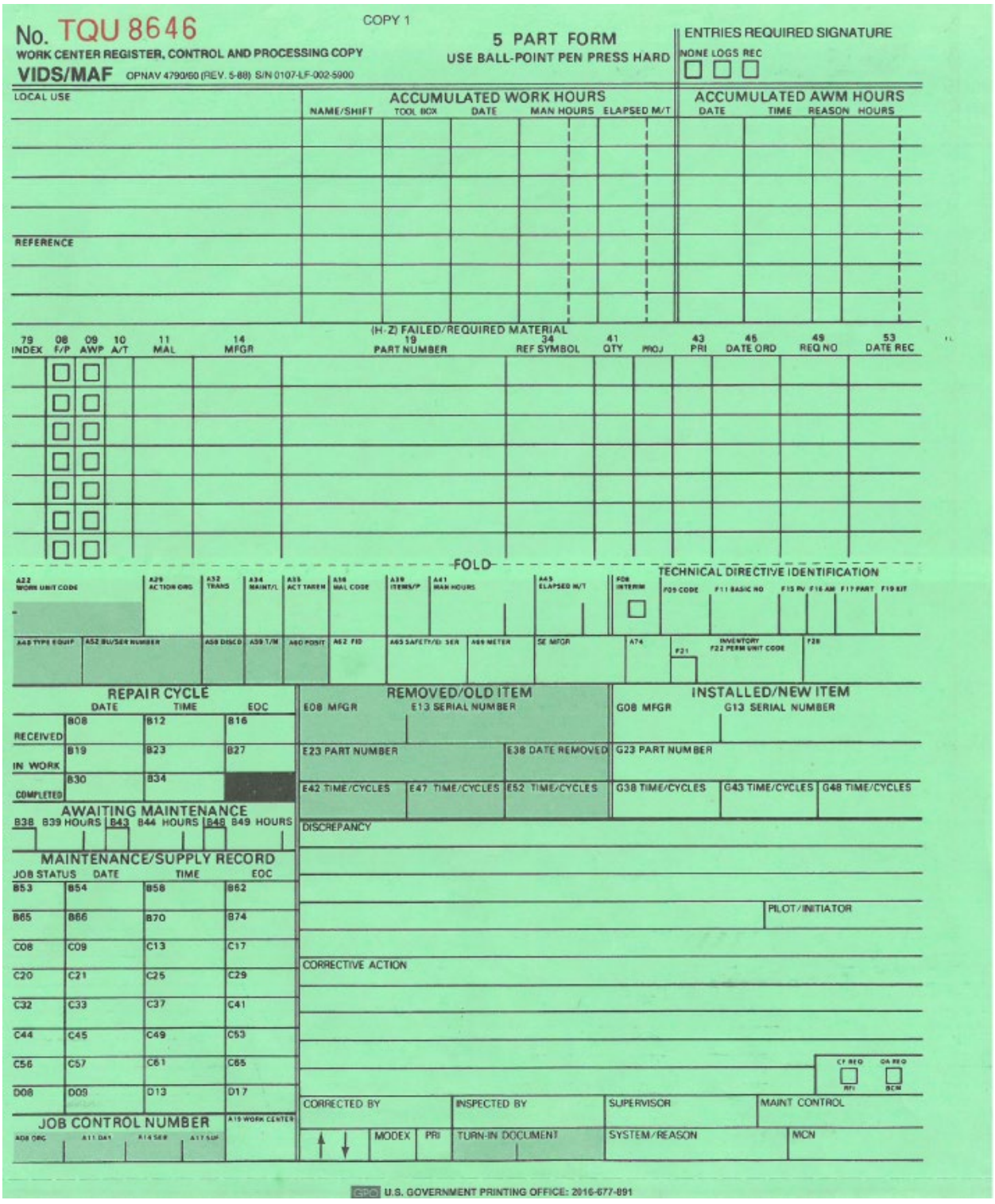
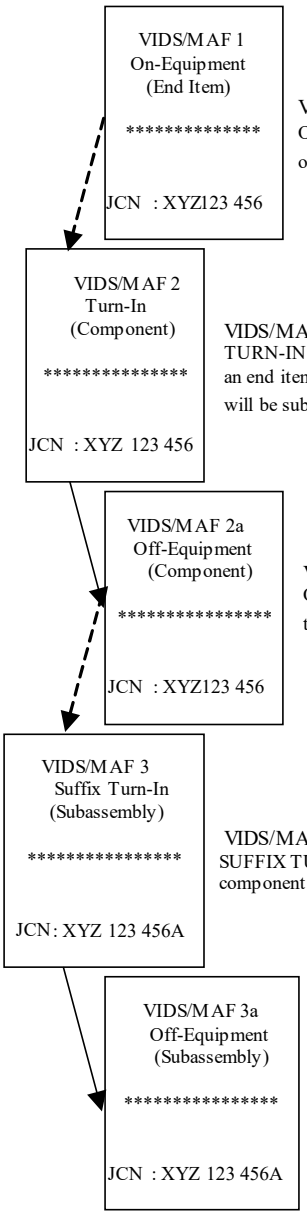


Figure 16-2: OPNAV Form 4790/60 VIDS/MAF (Example)

NALCOMIS CONTINGENCY JCN LOG

JCN	JULIAN DATE	MODEX	W/C	DISCREPANCY	INITIATOR

Figure 16-3: NALCOMIS Contingency JCN Log (Example)



VIDS/MAF 1
ON-EQUIPMENT WORK. A VIDS/MAF is generated for all work performed on an end item of SE. If no repairable component is removed, this is the only document required.

VIDS/MAF 2
TURN-IN DOCUMENT. A VIDS/MAF is generated whenever a repairable component is removed from an end item for off-equipment work. A turn-in document will have the same JCN as the removal document, and will be submitted to AMSU.

VIDS/MAF 2a
OFF-EQUIPMENT Complete the maintenance action on the removed component by completing the turn-in document. If no repairable subassemblies are removed, this is the last document required.

VIDS/MAF 3
SUFFIX TURN-IN. A VIDS/MAF is generated for each repairable subassembly removed from component during off-equipment work. A suffix VIDS/MAF will have a suffix of the original JCN.

VIDS/MAF 3a
OFF-EQUIPMENT. Complete the maintenance action on a removed subassembly by completing the suffix turn-in document. If no repairable sub-subassembly is removed, this is the last document required.

NOTE: If a repairable sub-subassembly is removed from a subassembly, repeat the procedures shown in VIDS/MAF 3 and VIDS/MAF 3a.

Figure 16-4: VIDS/MAFs Documentation Flow

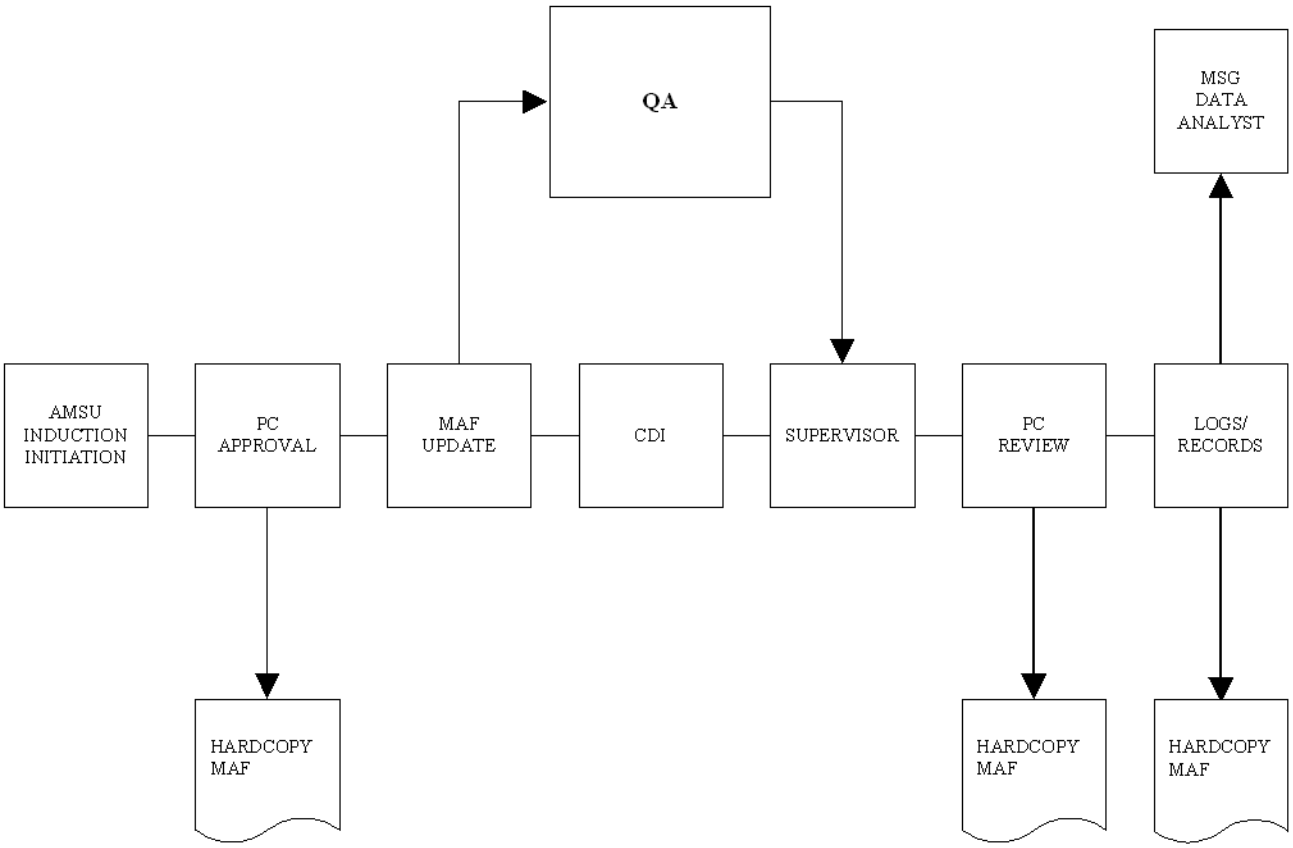


Figure 16-5: Off-Equipment Documentation Flow

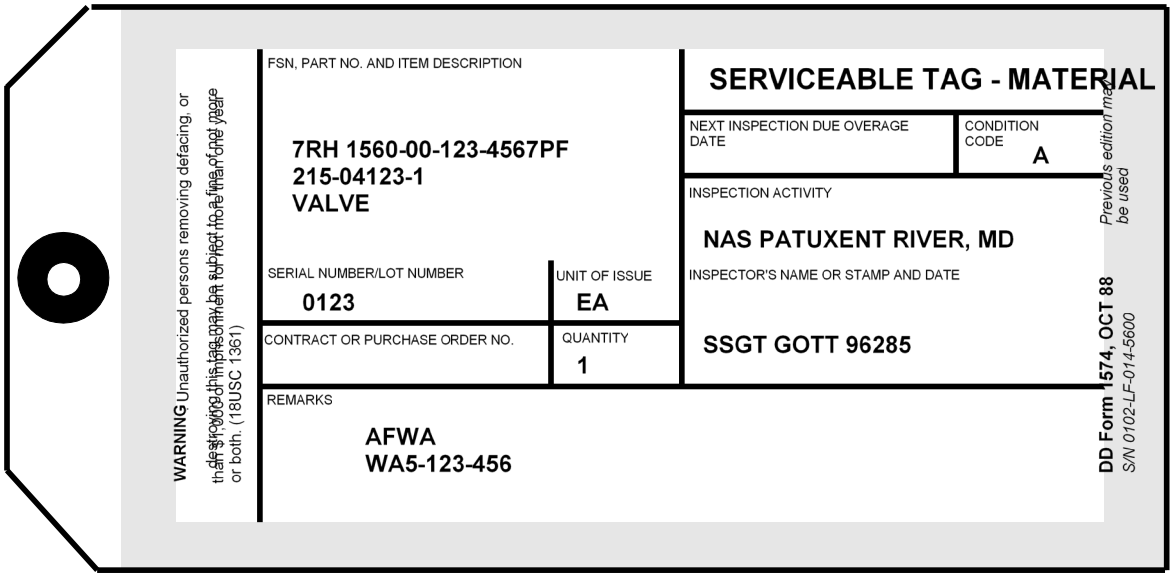


Figure 16-6: Serviceable Label-Material (DD 1574) (Example)

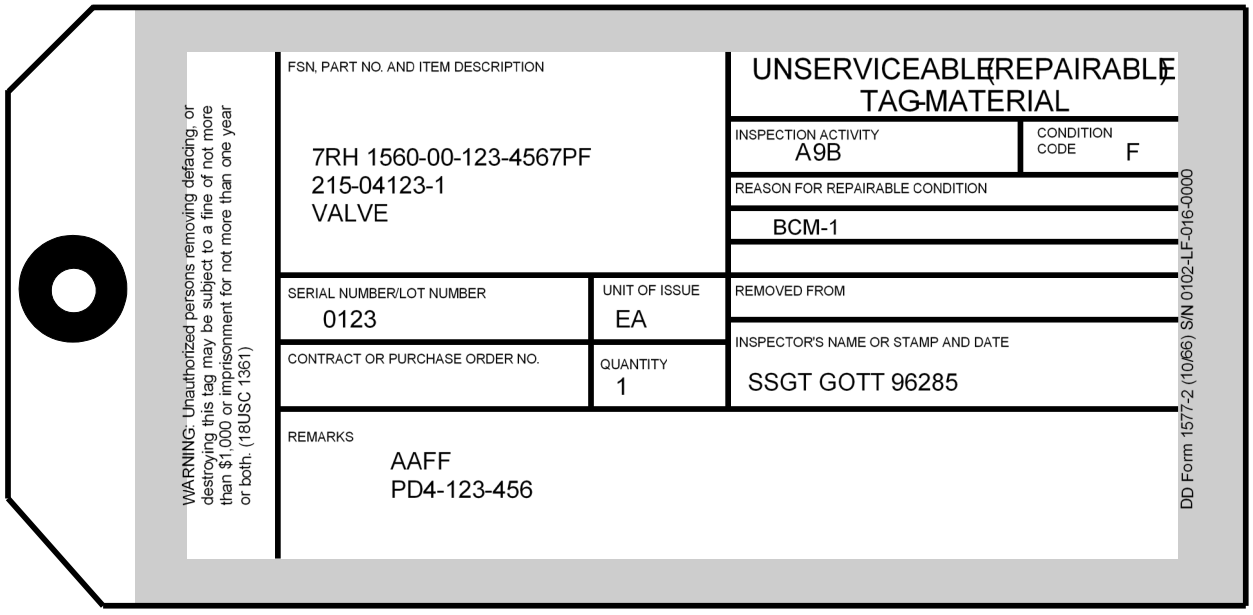


Figure 16-7: Unserviceable Label-Material (DD 1577-2) (Example)

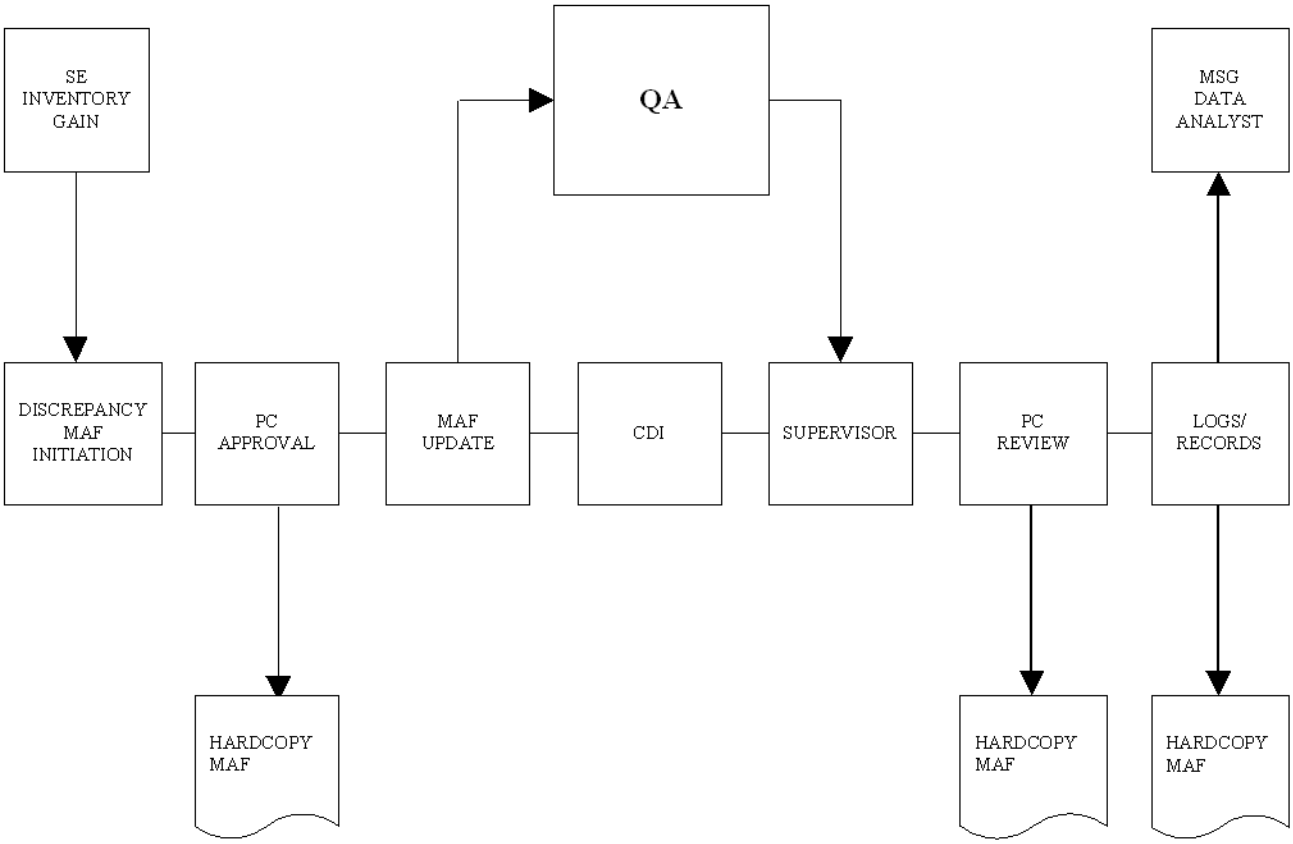
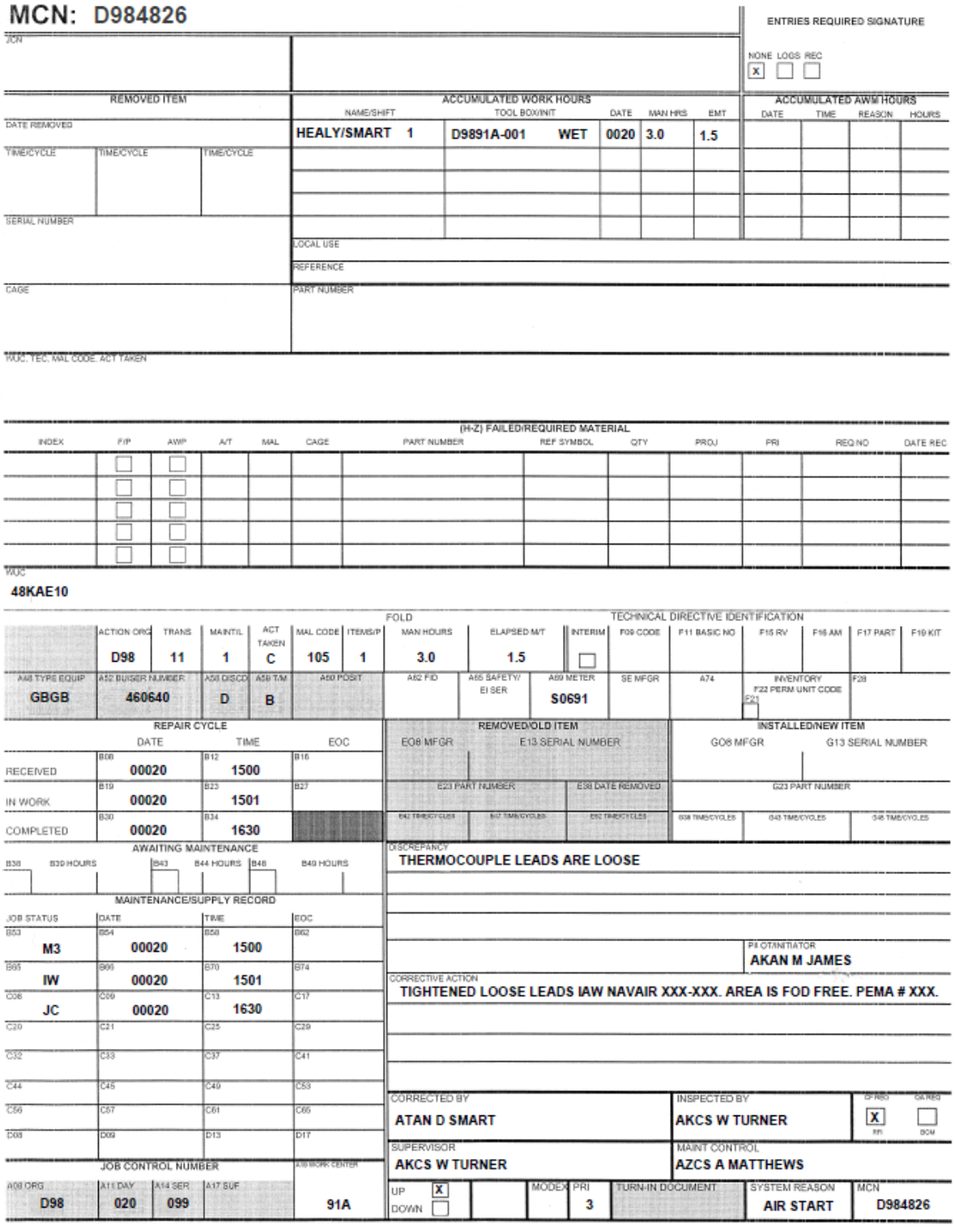


Figure 16-8: On-Equipment Work Documentation (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT	DATE	MAN HRS	EMT
HEALY/SMART 1	D9891A-001 WET	0020	3.0	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC
48KAE10

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINTIL	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	C	105	1	3.0	1.5	[ ]						

A48 TYPE EQUIP	A52 BUISER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F28
GBGB	460640	D	B				S0691			F21	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00020	1500	
IN WORK	00020	1501	
COMPLETED	00020	1630	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00020	1500	
IW	00020	1501	
JC	00020	1630	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	020	099		91A

REMOVED/OLD ITEM
EO8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
GO8 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
THERMOCOUPLE LEADS ARE LOOSE

PI OT/INITIATOR
AKAN M JAMES

CORRECTIVE ACTION
TIGHTENED LOOSE LEADS IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATAN D SMART

INSPECTED BY
AKCS W TURNER

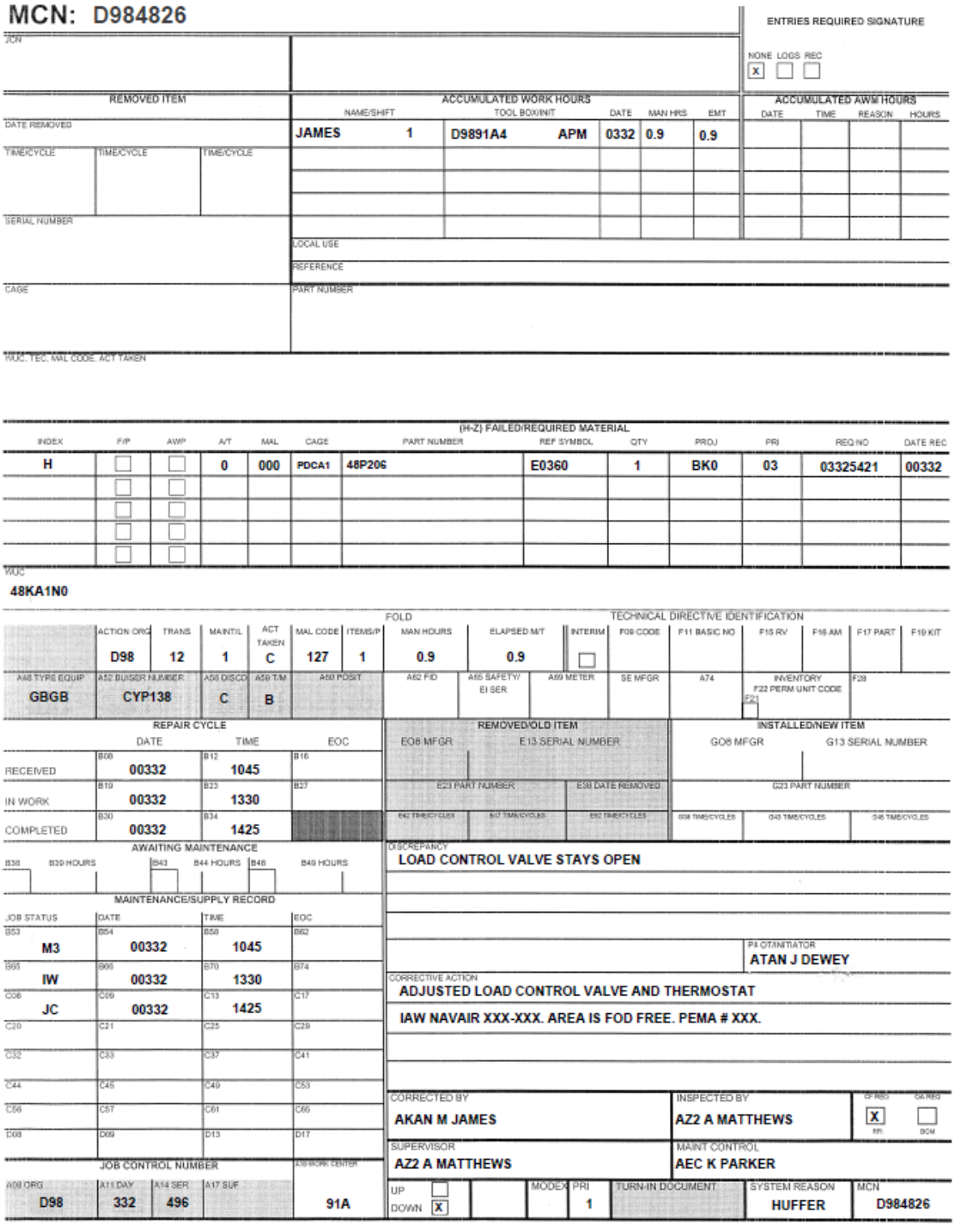
QA REQ: QA [X] | QA [ ]

SUPERVISOR
AKCS W TURNER

MAINT CONTROL
AZCS A MATTHEWS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP [X] DOWN [ ]			3		AIR START	D984826

Figure 16-9: End Item Repair (No Removed Component) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
JAMES	1	D9891A4	APM	0332	0.9	0.9

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	[ ]	[ ]	0	000	PDCA1	48P206	E0360	1	BK0	03	03325421	00332

WUC
48KA1N0

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	12	1	C	127	1	0.9	0.9	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GBGB	CYP138	C	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00332	1045	
IN WORK	00332	1330	
COMPLETED	00332	1425	

REMOVED/OLD ITEM
E08 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
LOAD CONTROL VALVE STAYS OPEN

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00332	1045	
IW	00332	1330	
JC	00332	1425	

PILOT/INITIATOR
ATAN J DEWEY

CORRECTIVE ACTION
ADJUSTED LOAD CONTROL VALVE AND THERMOSTAT
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
AKAN M JAMES

INSPECTED BY
AZ2 A MATTHEWS

QA REQ: IPI [X] QAR [ ]

SUPERVISOR
AZ2 A MATTHEWS

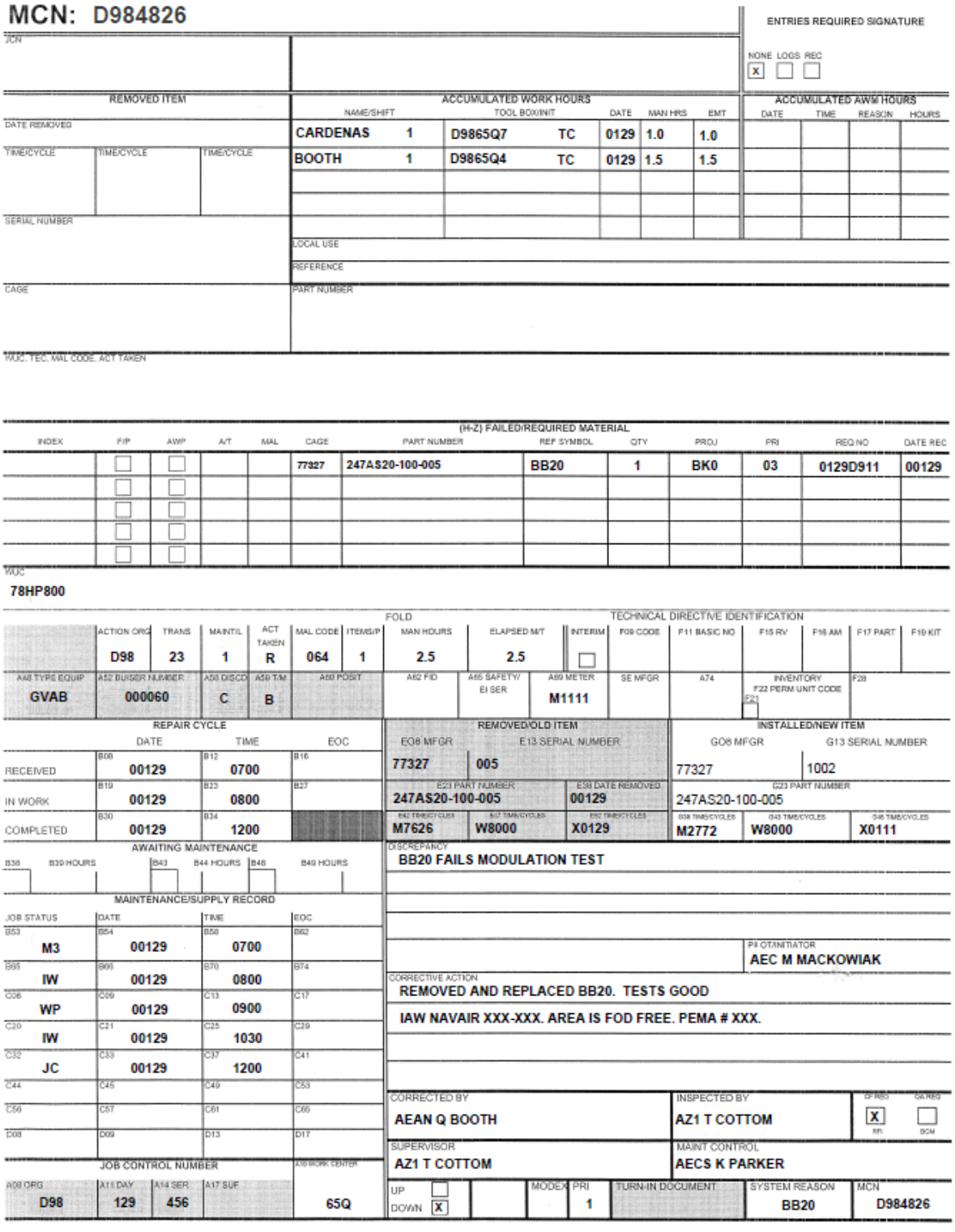
MAINT CONTROL
AEC K PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	332	496		91A

UP [ ] DOWN [X] | MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON HUFFER | MCN D984826

Figure 16-10: End Item Repair of a SEGTE (No Removed Component) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
CARDENAS	1	D9865Q7	TC	0129	1.0	1.0
BOOTH	1	D9865Q4	TC	0129	1.5	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]			77327	247AS20-100-005	BB20	1	BK0	03	0129D911	00129

WUC
78HP800

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	23	1	R	064	1	2.5	2.5	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GVAB	000060	C	B				M1111				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00129	0700	
IN WORK	00129	0800	
COMPLETED	00129	1200	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00129	0700	
IW	00129	0800	
WP	00129	0900	
IW	00129	1030	
JC	00129	1200	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	129	456		65Q

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
77327	005

E23 PART NUMBER	E38 DATE REMOVED
247AS20-100-005	00129

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M7626	W8000	X0129

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
77327	1002

G23 PART NUMBER: 247AS20-100-005

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
M2772	W8000	X0111

DISCREPANCY
BB20 FAILS MODULATION TEST

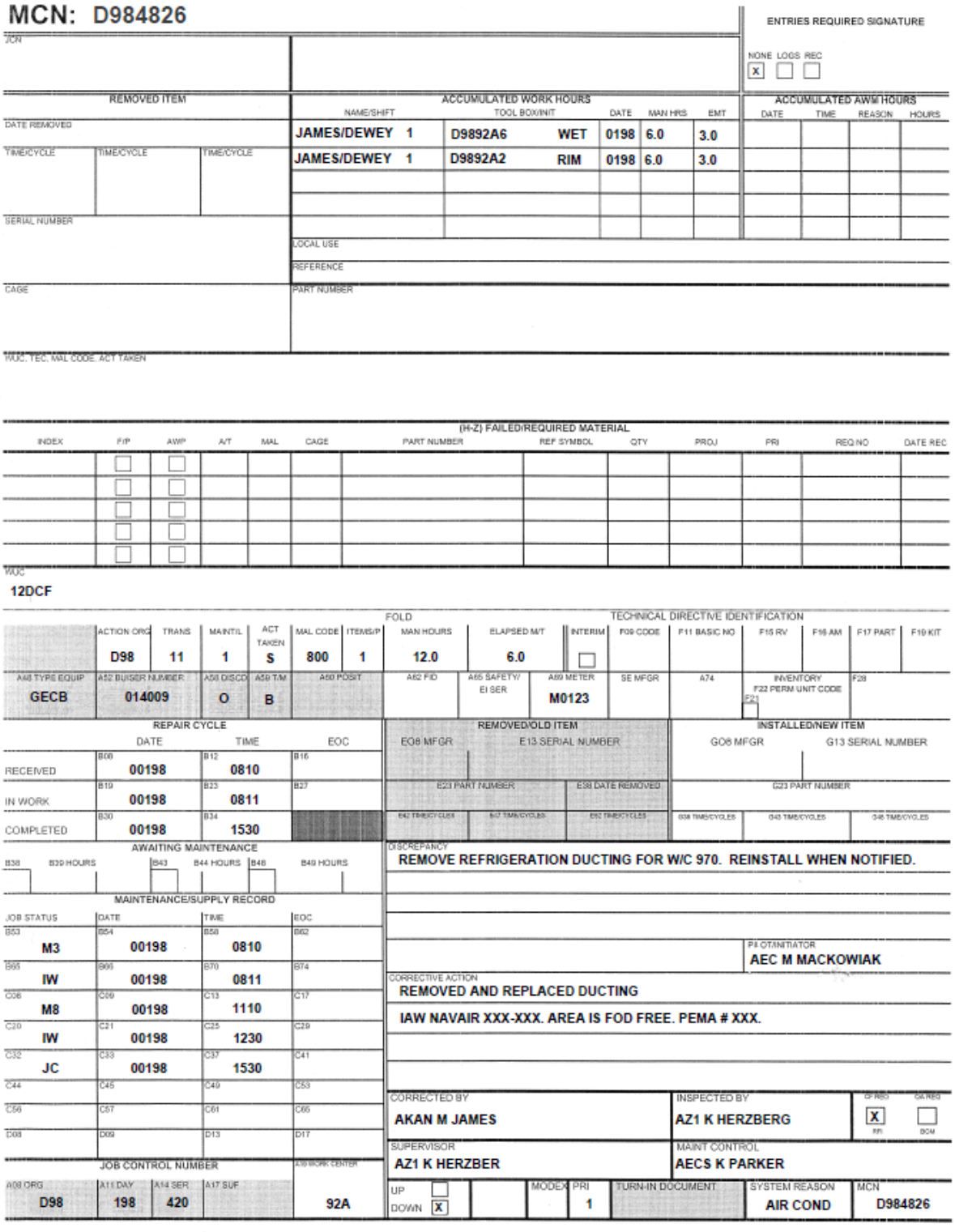
PI OT/ANTIATOR
AEC M MACKOWIAK

CORRECTIVE ACTION
REMOVED AND REPLACED BB20. TESTS GOOD
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY: AEAN Q BOOTH
INSPECTED BY: AZ1 T COTTOM
QA REQ: [X]
SUPERVISOR: AZ1 T COTTOM
MAINT CONTROL: AECS K PARKER

UP [ ] DOWN [X] | MODEX | PRI: 1 | TURN-IN DOCUMENT | SYSTEM REASON: BB20 | MCN: D984826

Figure 16-11: End Item Repair (Removed Repairable Component) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT		DATE	MAN HRS	EMT
JAMES/DEWEY 1	D9892A6	WET	0198	6.0	3.0
JAMES/DEWEY 1	D9892A2	RIM	0198	6.0	3.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC
12DCF

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINTIL	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	S	800	1	12.0	6.0	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23
GECB	014009	O	B				M0123			F21 [ ]	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00198	B12 0810	B16
IN WORK	B19 00198	B23 0811	B27
COMPLETED	B30 00198	B34 1530	

REMOVED/OLD ITEM
EQ8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
REMOVE REFRIGERATION DUCTING FOR W/C 970. REINSTALL WHEN NOTIFIED.

PI OT/ANITIATOR
AEC M MACKOWIAK

CORRECTIVE ACTION
REMOVED AND REPLACED DUCTING
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 0810	B62
B65 IW	B66 00198	B70 0811	B74
C06 M8	C09 00198	C13 1110	C17
C20 IW	C21 00198	C25 1230	C29
C32 JC	C33 00198	C37 1530	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

CORRECTED BY
AKAN M JAMES

INSPECTED BY
AZ1 K HERZBERG

QA REQ: OPNAV [X] NAVAIR [ ]

SUPERVISOR
AZ1 K HERZBER

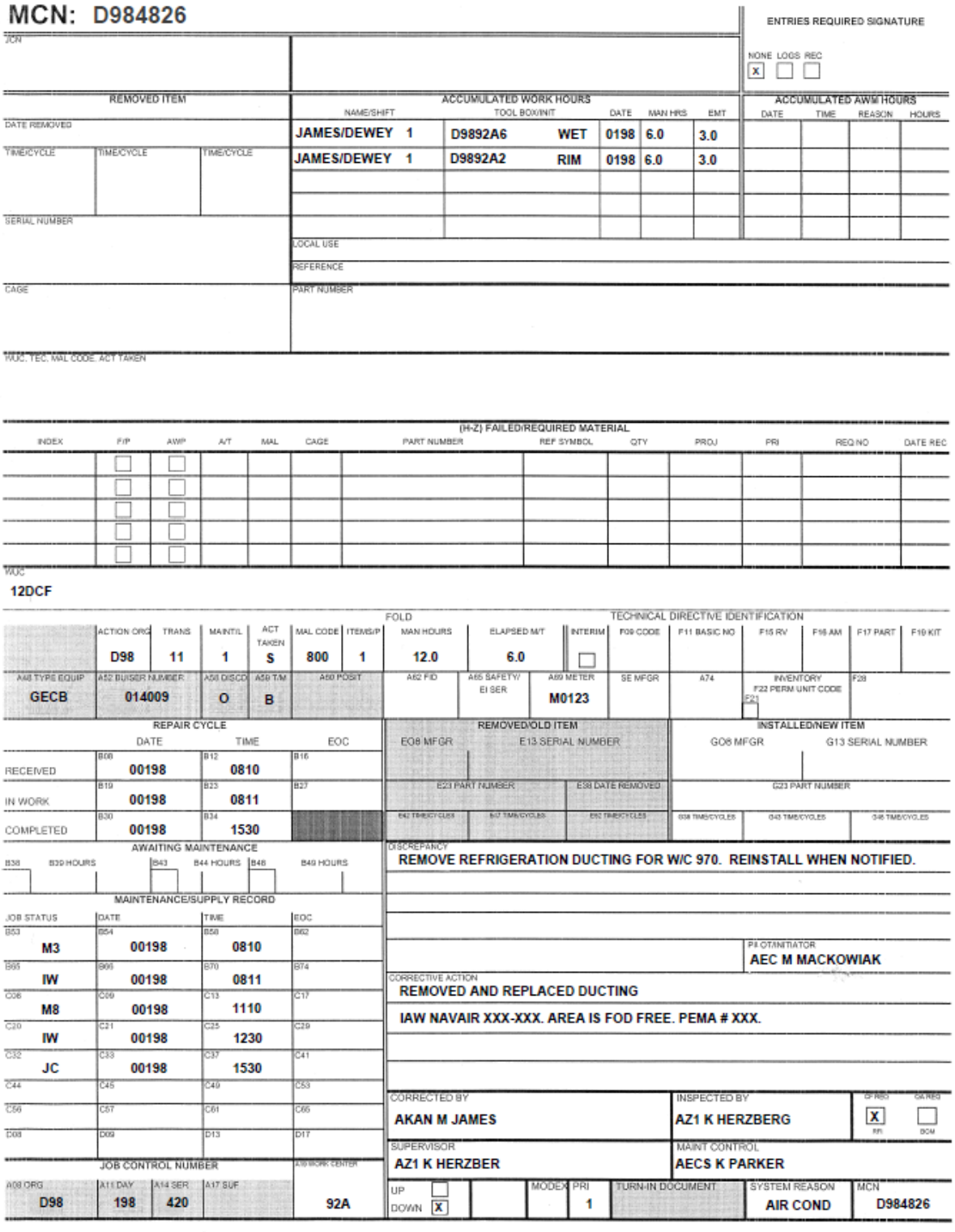
MAINT CONTROL
AECS K PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	420		92A

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
DOWN [X]			1		AIR COND	D984826

Figure 16-12: Facilitate Other Maintenance Action (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT		DATE	MAN HRS	EMT
JAMES/DEWEY 1	D9892A6	WET	0198	6.0	3.0
JAMES/DEWEY 1	D9892A2	RIM	0198	6.0	3.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC: 12DCF

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT'L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	S	800	1	12.0	6.0	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GECB	014009	O	B				M0123				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00198	B12 0810	B16
IN WORK	B19 00198	B23 0811	B27
COMPLETED	B30 00198	B34 1530	

REMOVED/OLD ITEM
EQ8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
REMOVE REFRIGERATION DUCTING FOR W/C 970. REINSTALL WHEN NOTIFIED.

PI OT/ANTIATOR
AEC M MACKOWIAK

CORRECTIVE ACTION
REMOVED AND REPLACED DUCTING
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 0810	B62
B65 IW	B66 00198	B70 0811	B74
C06 M8	C09 00198	C13 1110	C17
C20 IW	C21 00198	C25 1230	C29
C32 JC	C33 00198	C37 1530	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

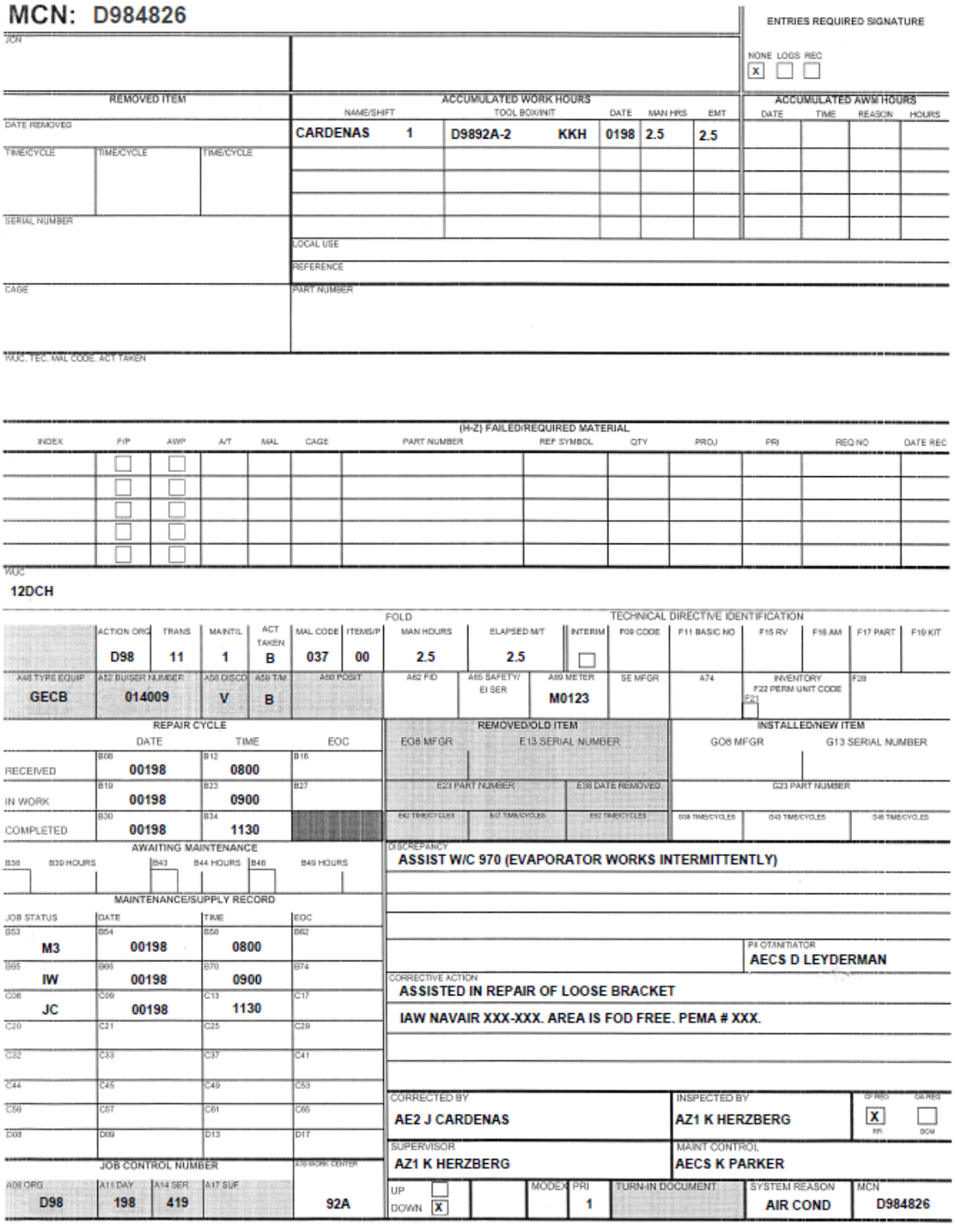
CORRECTED BY: AKAN M JAMES
INSPECTED BY: AZ1 K HERZBERG
QA REQ: [X] RR [ ] BCM
SUPERVISOR: AZ1 K HERZBER
MAINT CONTROL: AECS K PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	420		92A

UP [ ] DOWN [X] | MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON: AIR COND | MCN: D984826

Figure 16-13: Primary Work Center Repair Action (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
CARDENAS	1	D9892A-2	KKH	0198	2.5	2.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC
12DCH

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	B	037	00	2.5	2.5	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GECB	014009	V	B				M0123				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00198	B12 0800	B16
IN WORK	B19 00198	B23 0900	B27
COMPLETED	B30 00198	B34 1130	

REMOVED/OLD ITEM
EO8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
GO8 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

DISCREPANCY
ASSIST W/C 970 (EVAPORATOR WORKS INTERMITTENTLY)

PI OT/ANTIATOR
AECS D LEYDERMAN

CORRECTIVE ACTION
ASSISTED IN REPAIR OF LOOSE BRACKET
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 0800	B62
B65 IW	B66 00198	B70 0900	B74
C06 JC	C09 00198	C13 1130	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

CORRECTED BY
AE2 J CARDENAS

INSPECTED BY
AZ1 K HERZBERG

QA REQ: QAR [X] QCM [ ]

SUPERVISOR
AZ1 K HERZBERG

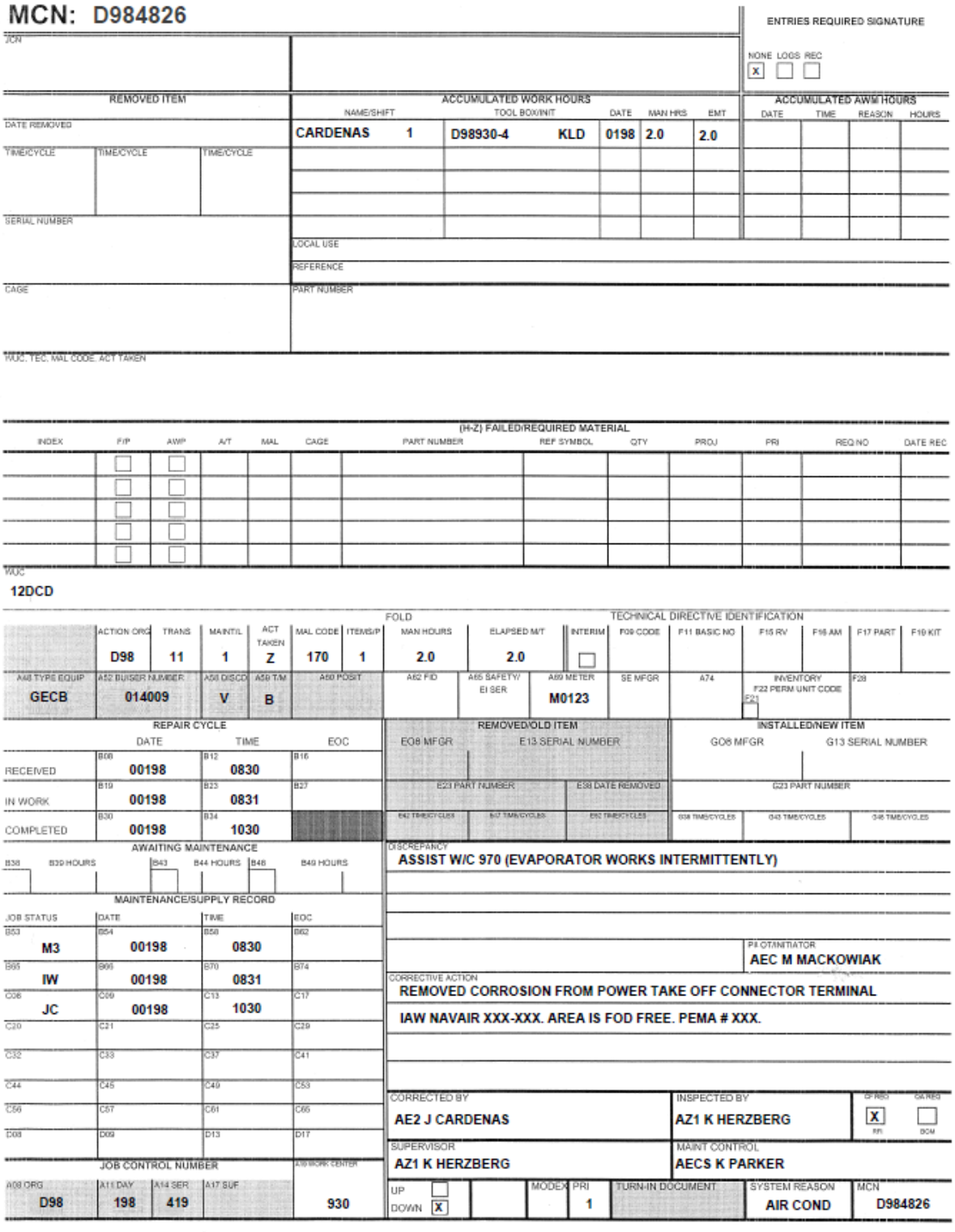
MAINT CONTROL
AECS K PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	419		92A

UP [ ] DOWN [X] | MODE | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON AIR COND | MCN D984826

Figure 16-14: Assisting Work Centers (Same WUC) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
CARDENAS	1	D98930-4	KLD	0198	2.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC
12DCD

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINTIL	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	Z	170	1	2.0	2.0	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23
GECB	014009	V	B				M0123			F21 [ ]	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00198	B12 0830	B16
IN WORK	B19 00198	B23 0831	B27
COMPLETED	B30 00198	B34 1030	

REMOVED/OLD ITEM
EQ8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
ASSIST W/C 970 (EVAPORATOR WORKS INTERMITTENTLY)

PI OT/ANTIATOR
AEC M MACKOWIAK

CORRECTIVE ACTION
REMOVED CORROSION FROM POWER TAKE OFF CONNECTOR TERMINAL
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 0830	B62
B65 IW	B66 00198	B70 0831	B74
C06 JC	C09 00198	C13 1030	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

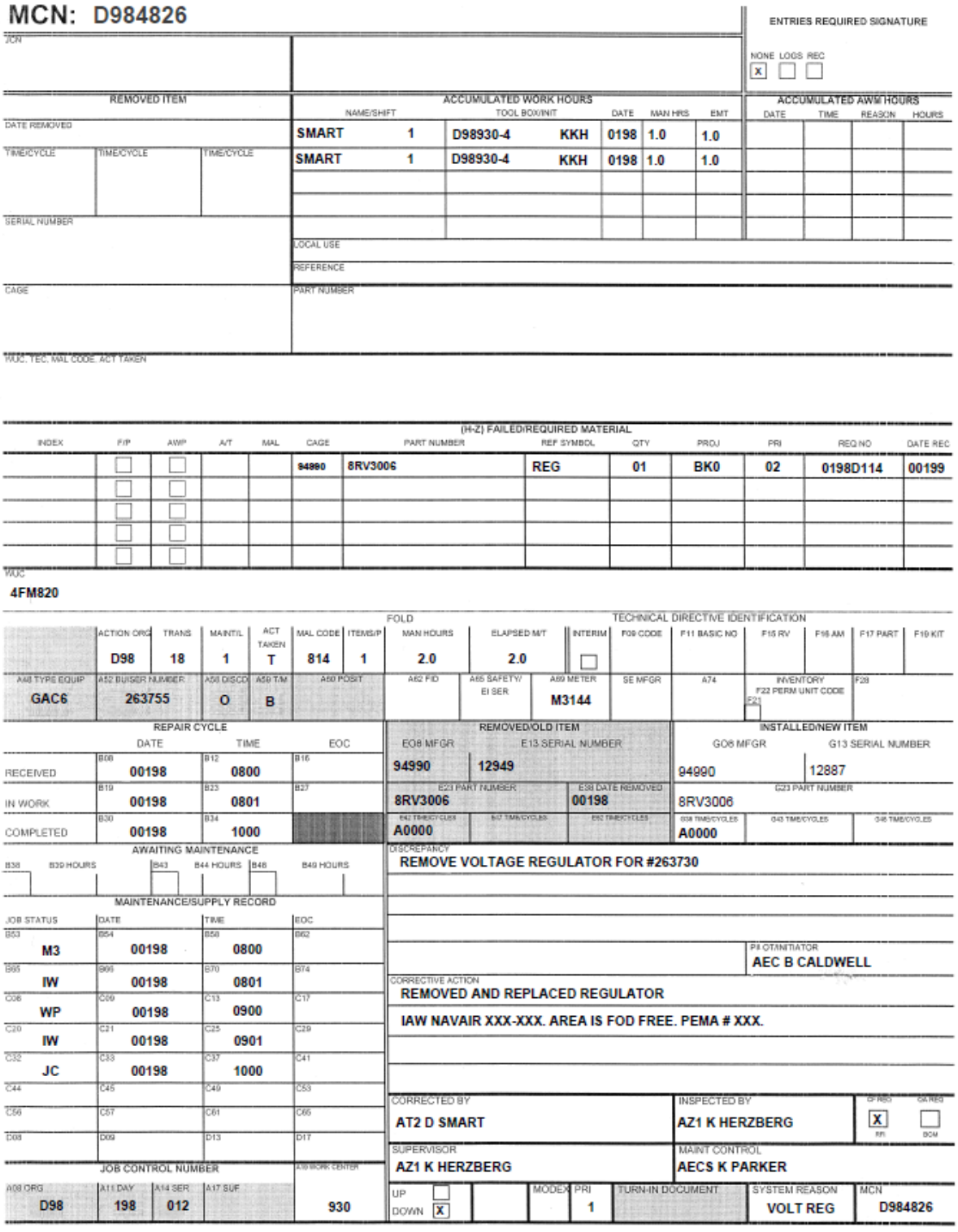
CORRECTED BY: AE2 J CARDENAS
INSPECTED BY: AZ1 K HERZBERG
QA REQ: [X] RR [ ] BCM
SUPERVISOR: AZ1 K HERZBERG
MAINT CONTROL: AECS K PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	419		930

UP [ ] DOWN [X] | MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON: AIR COND | MCN: D984826

Figure 16-15: Assisting Work Centers (Different WUC) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
SMART	1	D98930-4	KKH	0198	1.0	1.0
SMART	1	D98930-4	KKH	0198	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]			94990	8RV3006	REG	01	BK0	02	0198D114	00199
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC
4FM820

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	18	1	T	814	1	2.0	2.0	[ ]						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GAC6	263755	O	B				M3144				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00198	0800	
IN WORK	00198	0801	
COMPLETED	00198	1000	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00198	0800	
IW	00198	0801	
WP	00198	0900	
IW	00198	0901	
JC	00198	1000	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	012		930

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
94990	12949

E23 PART NUMBER	E38 DATE REMOVED
8RV3006	00198

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A0000		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
94990	12887

G23 PART NUMBER
8RV3006

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
A0000		

DISCREPANCY
REMOVE VOLTAGE REGULATOR FOR #263730

PI OT/INITIATOR
AEC B CALDWELL

CORRECTIVE ACTION
REMOVED AND REPLACED REGULATOR
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
AT2 D SMART

INSPECTED BY
AZ1 K HERZBERG

QA REQ: OFF/I [X] QA REQ [ ]

SUPERVISOR
AZ1 K HERZBERG

MAINT CONTROL
AECS K PARKER

UP		MODE	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
DOWN [X]			1		VOLT REG	D984826

Figure 16-16: On-Equipment Cannibalization (Example)

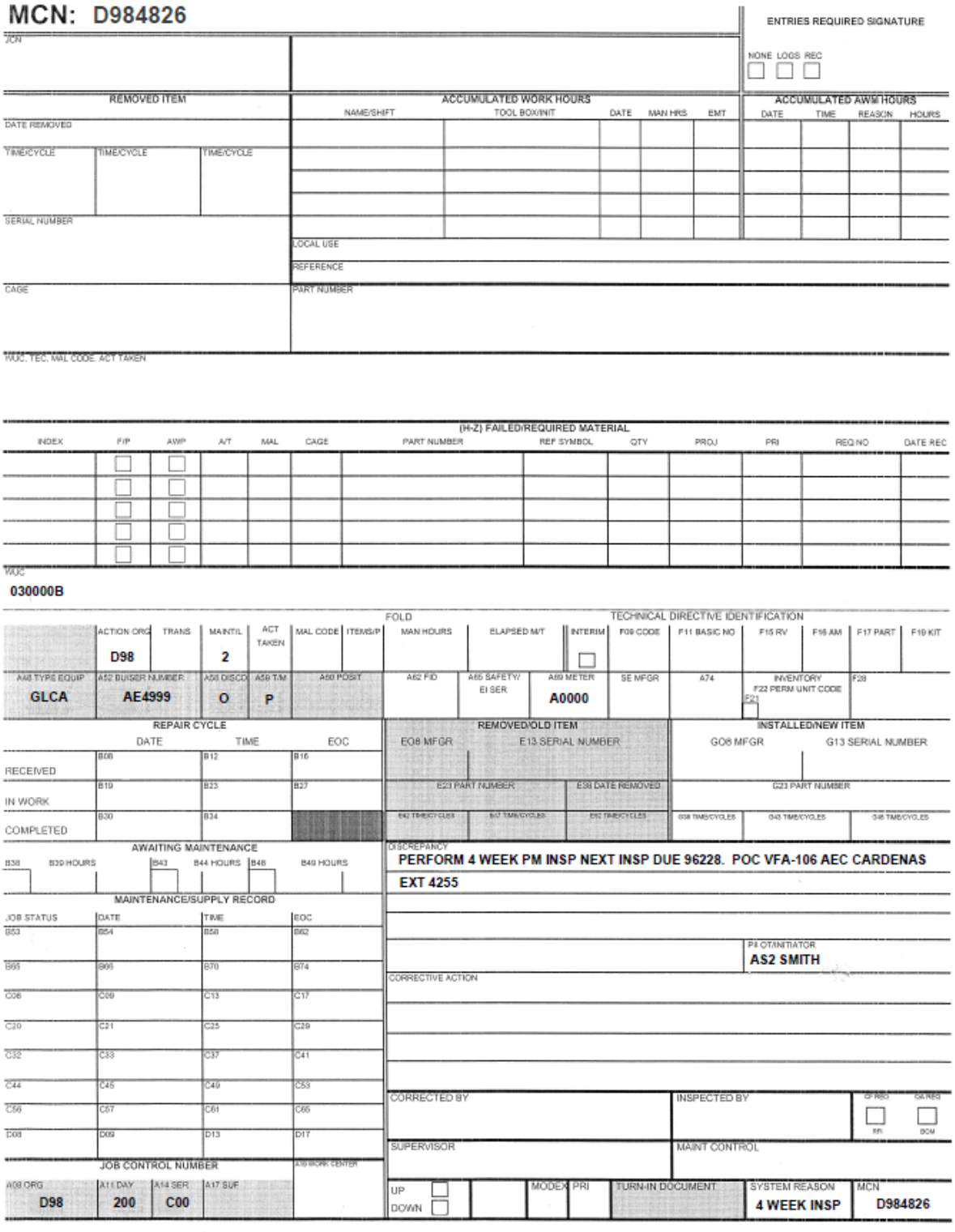


Figure 16-17: Support Equipment Turned-In by a Supported Activity for Scheduled Maintenance (Excluding TMDE) (Example)

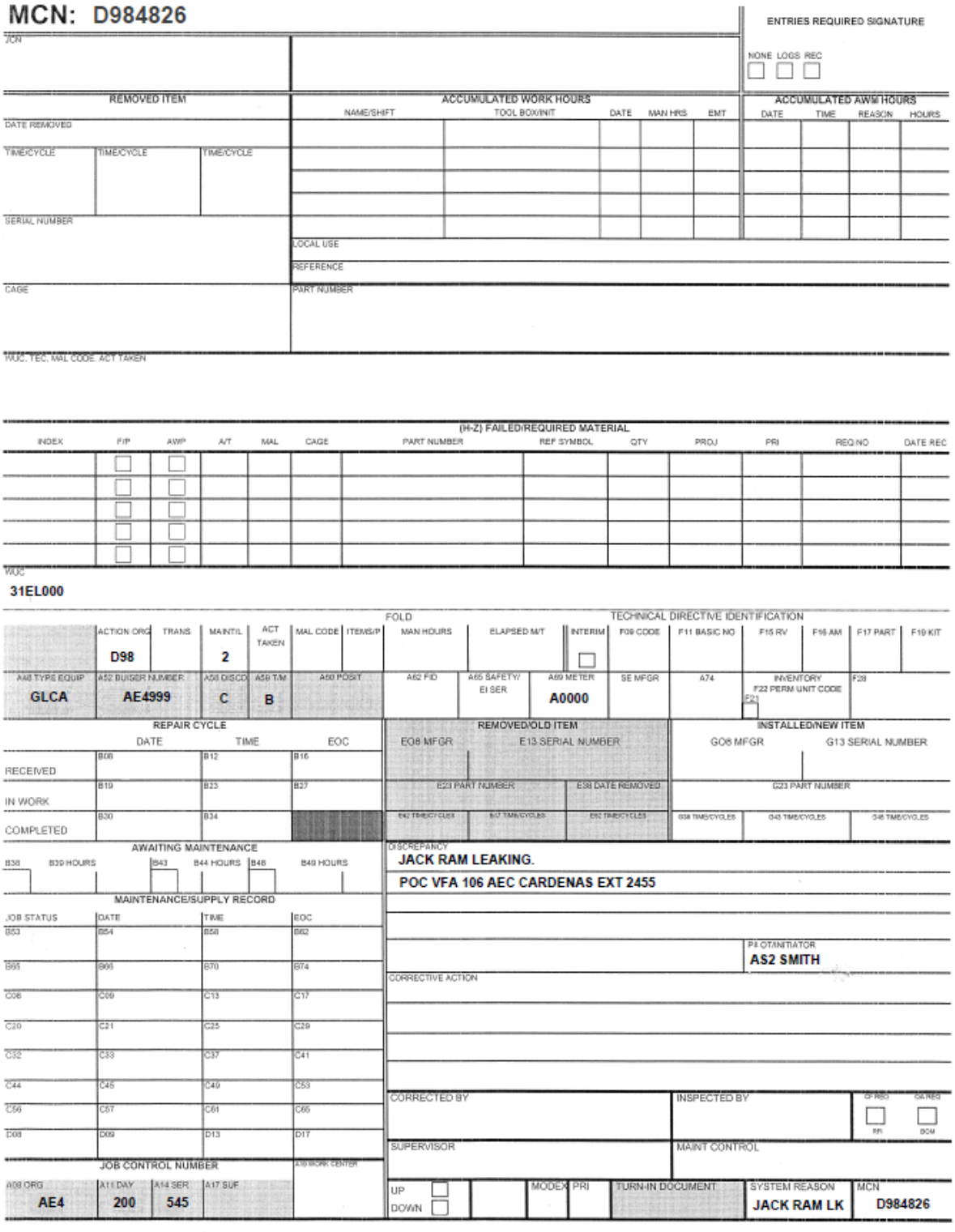


Figure 16-18: Support Equipment Turned-In by a Supported Activity for Unscheduled Maintenance (Excluding TMDE) (Example)

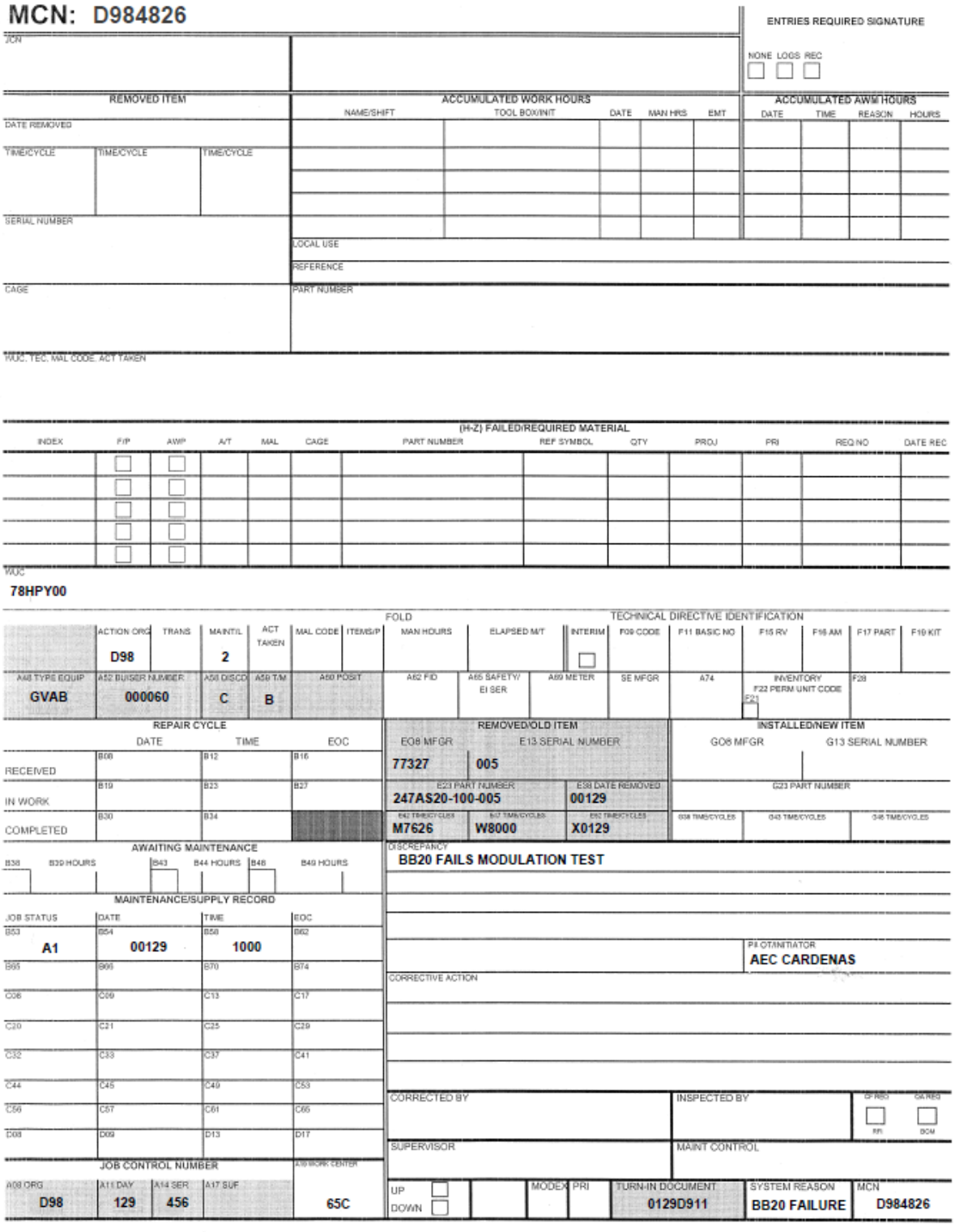


Figure 16-19: **Turn-In Document (Off-Equipment Repair) (Example)**

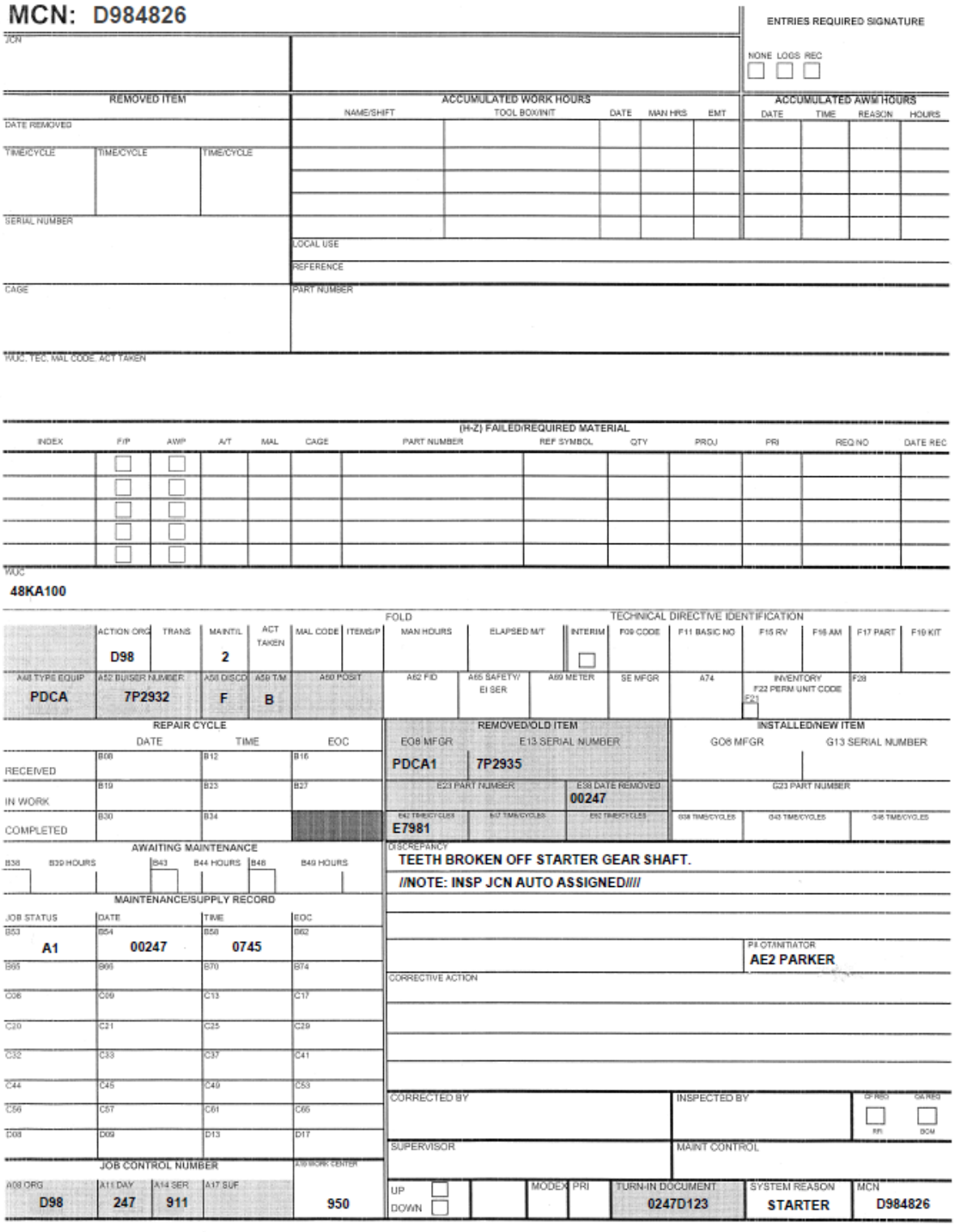
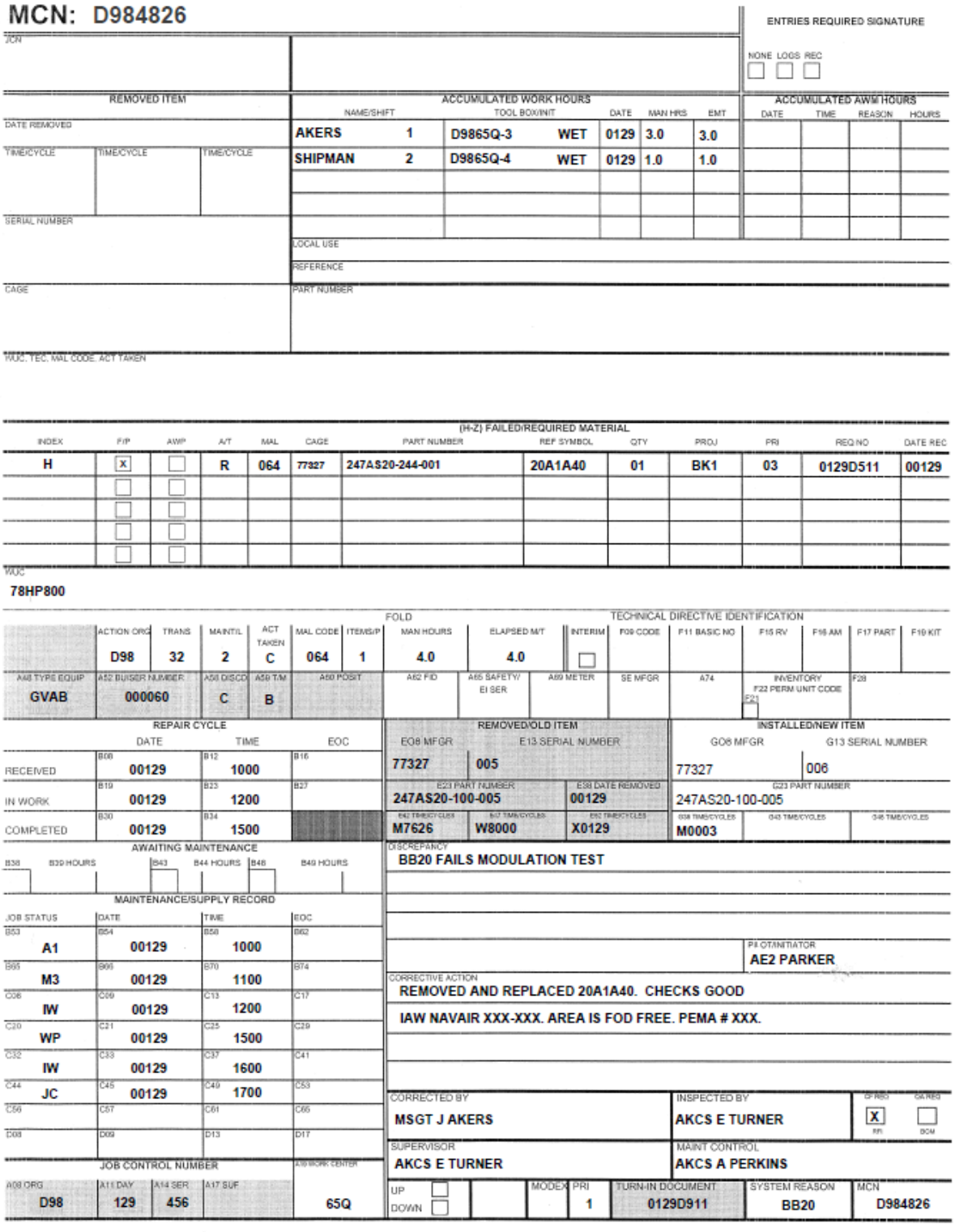


Figure 16-20: Turn-In Document SEGTE Repair (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
AKERS	1	D9865Q-3	WET	0129	3.0	3.0
SHIPMAN	2	D9865Q-4	WET	0129	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	064	77327	247AS20-244-001	20A1A40	01	BK1	03	0129D511	00129

WUC
78HP800

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	32	2	C	064	1	4.0	4.0							

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GVAB	000060	C	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00129	1000	
IN WORK	00129	1200	
COMPLETED	00129	1500	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	00129	1000	
M3	00129	1100	
IW	00129	1200	
WP	00129	1500	
IW	00129	1600	
JC	00129	1700	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	129	456		65Q

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
77327	005

E23 PART NUMBER: 247AS20-100-005
E38 DATE REMOVED: 00129
E42 TIME/CYCLES: M7626
E47 TIME/CYCLES: W8000
E52 TIME/CYCLES: X0129

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
77327	006

G23 PART NUMBER: 247AS20-100-005
G38 TIME/CYCLES: M0003
G43 TIME/CYCLES:
G48 TIME/CYCLES:

DISCREPANCY
BB20 FAILS MODULATION TEST

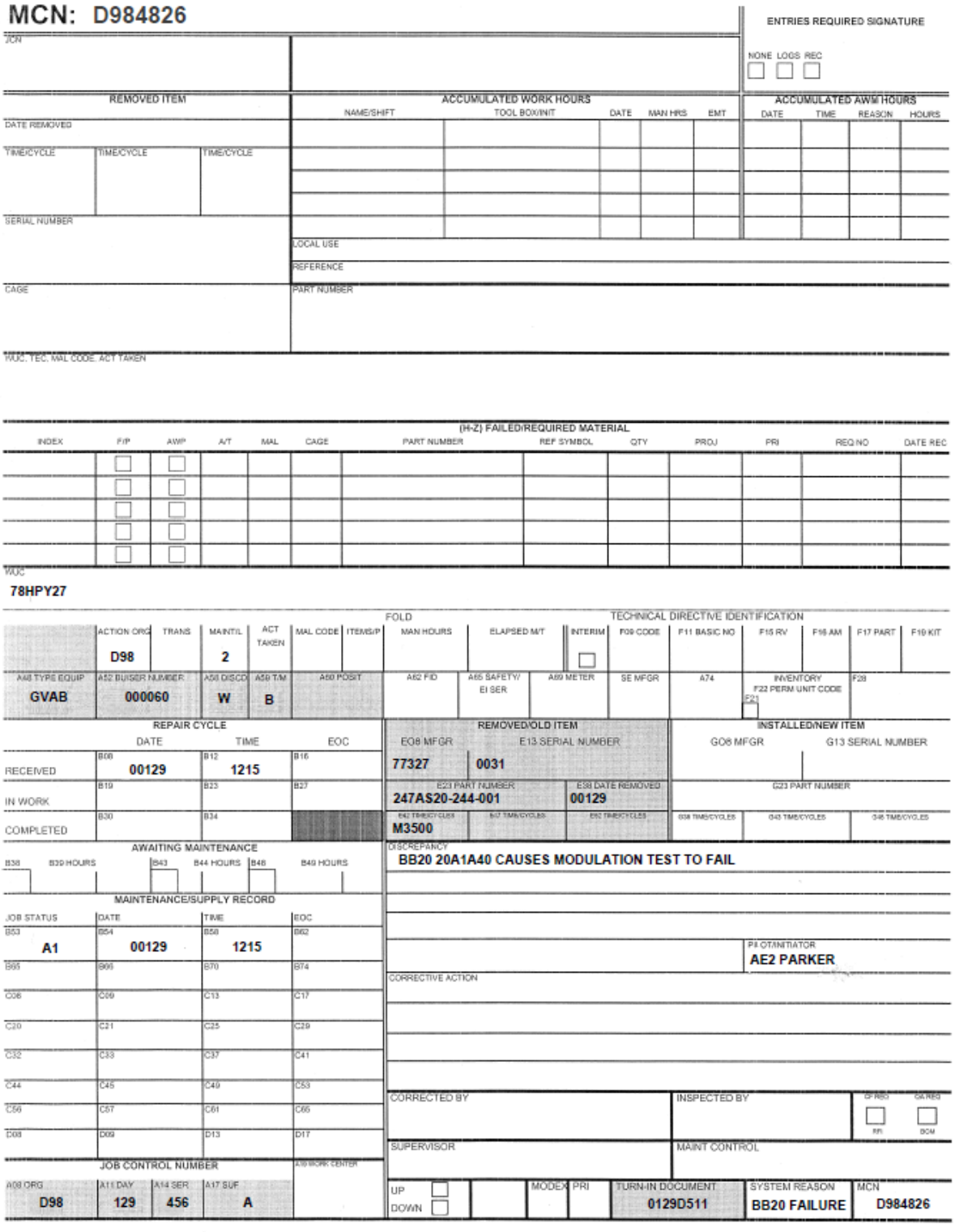
PI OT/INITIATOR
AE2 PARKER

CORRECTIVE ACTION
REMOVED AND REPLACED 20A1A40. CHECKS GOOD
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY: MSGT J AKERS
INSPECTED BY: AKCS E TURNER
QA REQ: X
SUPERVISOR: AKCS E TURNER
MAINT CONTROL: AKCS A PERKINS

UP / DOWN | MODEX | PRI: 1 | TURN-IN DOCUMENT: 0129D911 | SYSTEM REASON: BB20 | MCN: D984826

Figure 16-21: Off-Equipment Component Repair (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS
NAME/SHIFT | TOOL BOX/INIT | DATE | MAN HRS | EMT

ACCUMULATED AWM HOURS
DATE | TIME | REASON | HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL
INDEX | F/P | AWP | A/T | MAL | CAGE | PART NUMBER | REF SYMBOL | QTY | PROJ | PRI | REQ NO | DATE REC

WUC
78HPY27

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98		2												

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GVAB	000060	W	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00129	B12 1215	B16
IN WORK	B19	B23	B27
COMPLETED	B30	B34	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 00129	B58 1215	B62
B65	B66	B70	B74
C06	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	129	456	A	

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
77327	0031

E23 PART NUMBER	E38 DATE REMOVED
247AS20-244-001	00129

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M3500		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
BB20 20A1A40 CAUSES MODULATION TEST TO FAIL

PI OT/ANTIATOR
AE2 PARKER

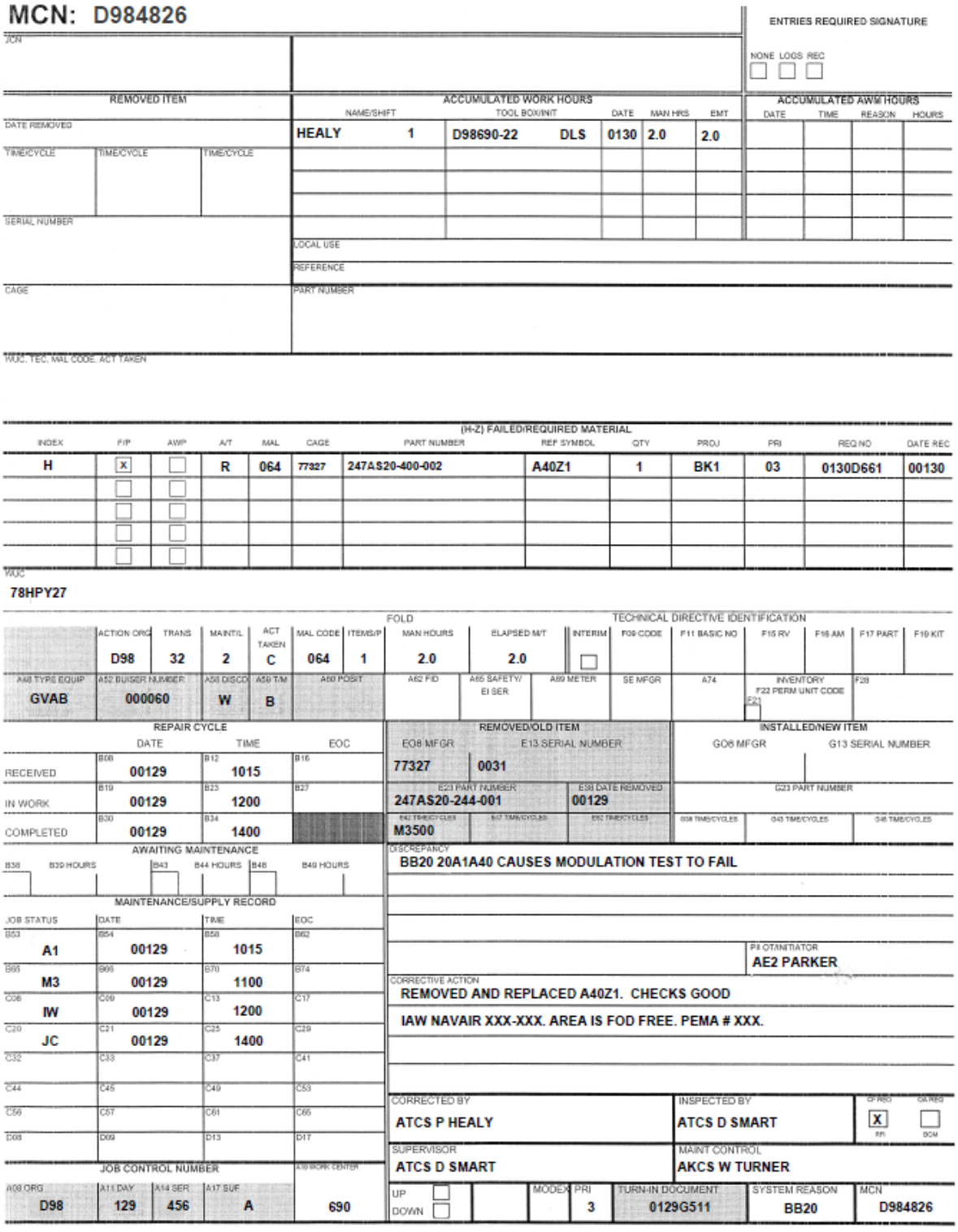
CORRECTIVE ACTION

CORRECTED BY | INSPECTED BY | QA REQ | QA REQ
SUPERVISOR | MAINT CONTROL

UP / DOWN | MODEX | PRI | TURN-IN DOCUMENT | SYSTEM REASON | MCN

TURN-IN DOCUMENT	SYSTEM REASON	MCN
0129D511	BB20 FAILURE	D984826

Figure 16-22: Suffix Turn-In Document (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
HEALY	1	D98690-22	DLS	0130	2.0	2.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	064	77327	247AS20-400-002	A40Z1	1	BK1	03	0130D661	00130

WUC
78HPY27

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	32	2	C	064	1	2.0	2.0							

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GVAB	000060	W	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00129	1015	
IN WORK	00129	1200	
COMPLETED	00129	1400	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	00129	1015	
M3	00129	1100	
IW	00129	1200	
JC	00129	1400	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	129	456	A	690

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
77327	0031

E23 PART NUMBER	E38 DATE REMOVED
247AS20-244-001	00129

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M3500		

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
BB20 20A1A40 CAUSES MODULATION TEST TO FAIL

PI OT/ANTIATOR
AE2 PARKER

CORRECTIVE ACTION
REMOVED AND REPLACED A40Z1. CHECKS GOOD
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS P HEALY

INSPECTED BY
ATCS D SMART

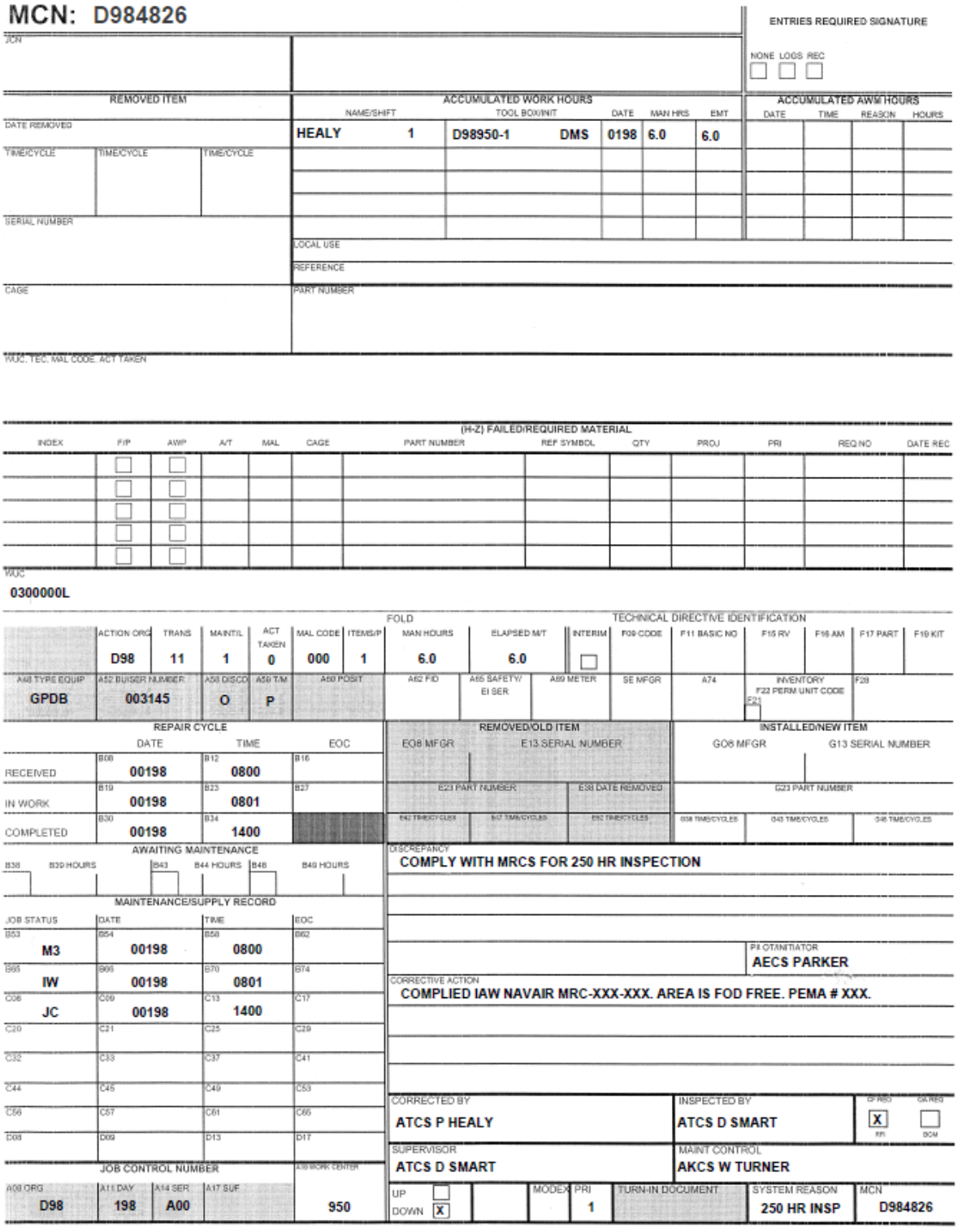
QA REQ: QAR X | QCM

SUPERVISOR
ATCS D SMART

MAINT CONTROL
AKCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3	0129G511	BB20	D984826

Figure 16-23: Off-Equipment Subassembly Repair (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
HEALY	1	D98950-1	DMS	0198	6.0	6.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0300000L

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	0	000	1	6.0	6.0	☐						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GPDB	003145	O	P								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00198	B12 0800	B16
IN WORK	B19 00198	B23 0801	B27
COMPLETED	B30 00198	B34 1400	

REMOVED/OLD ITEM
EQ8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
COMPLY WITH MRCS FOR 250 HR INSPECTION

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 0800	B62
B65 IW	B66 00198	B70 0801	B74
C06 JC	C09 00198	C13 1400	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

PILOT/INITIATOR
AECS PARKER

CORRECTIVE ACTION
COMPLIED IAW NAVAIR MRC-XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS P HEALY

INSPECTED BY
ATCS D SMART

QA REQ: QAR [X] | QCM [ ]

SUPERVISOR
ATCS D SMART

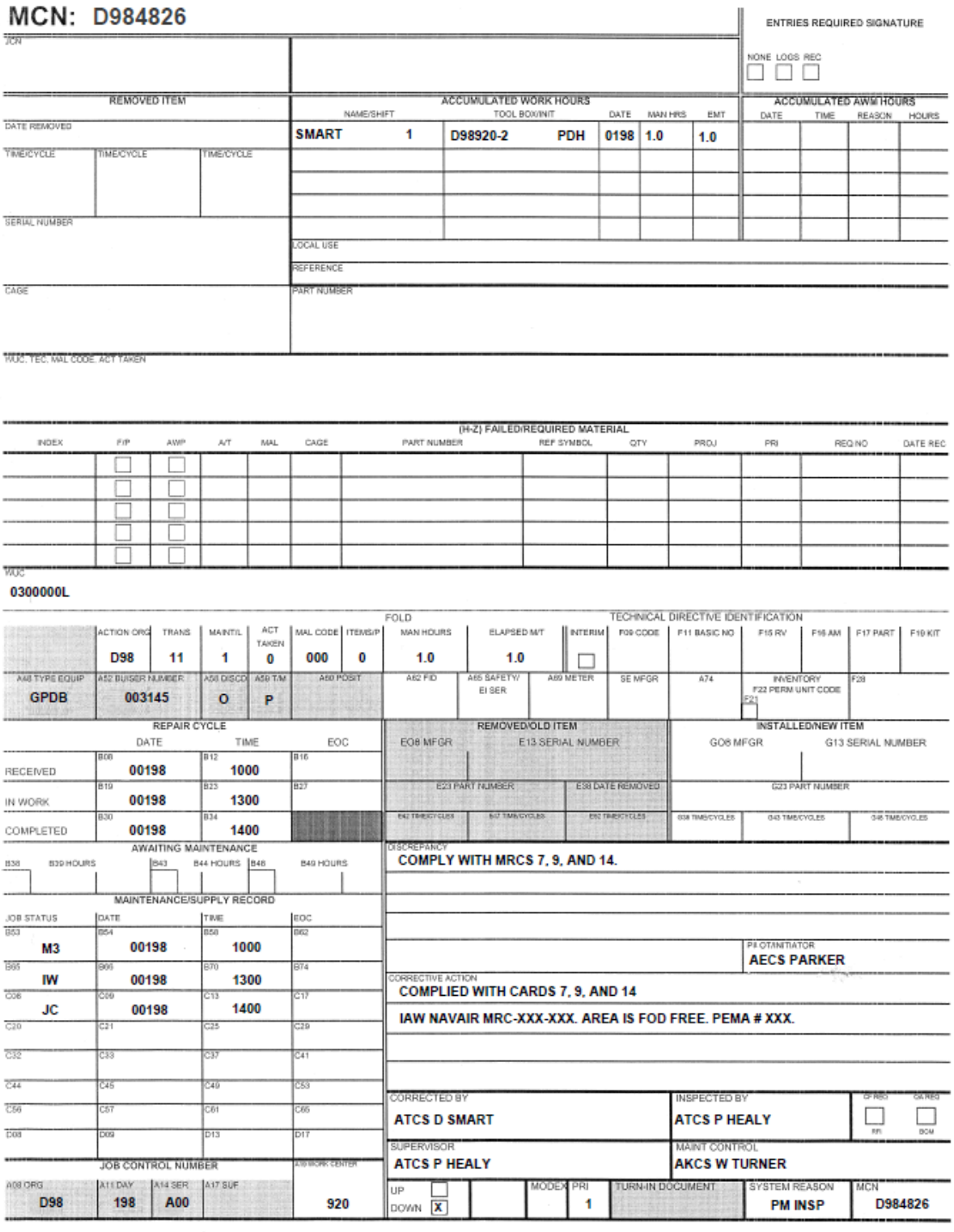
MAINT CONTROL
AKCS W TURNER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	A00		950

UP ☐
DOWN [X]
MODEX
PRI 1
TURN-IN DOCUMENT
SYSTEM REASON 250 HR INSP
MCN D984826

Figure 16-24: Inspection Control Document (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
SMART	1	D98920-2	PDH	0198	1.0	1.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0300000L

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	0	000	0	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A56 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GPDB	003145	O	P								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00198	1000	
IN WORK	00198	1300	
COMPLETED	00198	1400	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00198	1000	
IW	00198	1300	
JC	00198	1400	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	A00		920

REMOVED/OLD ITEM
E08 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
COMPLY WITH MRCS 7, 9, AND 14.

PI OT/INITIATOR
AECS PARKER

CORRECTIVE ACTION
COMPLIED WITH CARDS 7, 9, AND 14
IAW NAVAIR MRC-XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

QA REQ: QAR ☐ QCM ☐

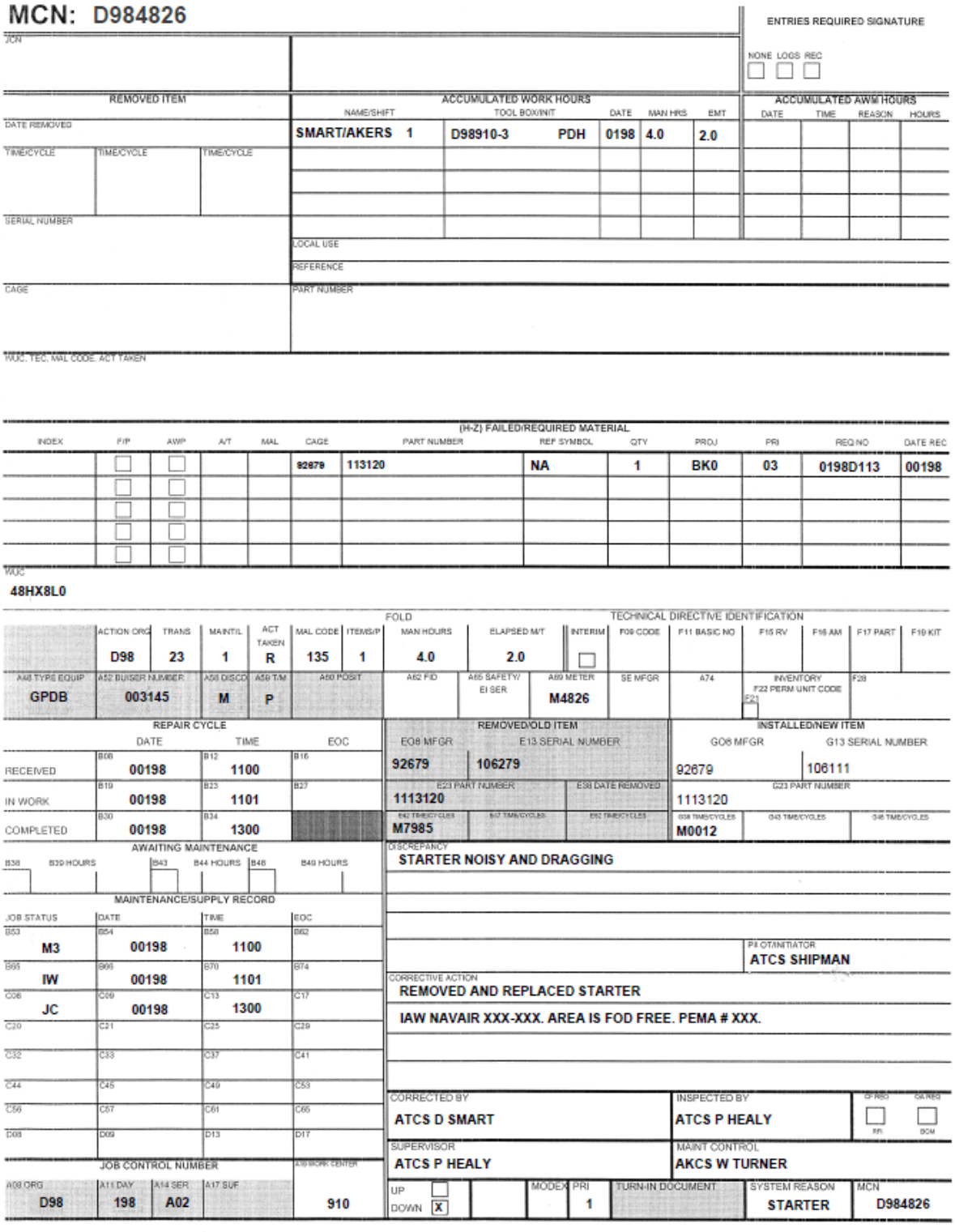
SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

UP ☐
DOWN ☒

MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON: PM INSP | MCN: D984826

Figure 16-25: Inspection Look Phase Supporting Document (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT	DATE	MAN HRS	EMT
SMART/AKERS 1	D98910-3 PDH	0198	4.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			92679	113120	NA	1	BK0	03	0198D113	00198

WUC
48HX8L0

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	23	1	R	135	1	4.0	2.0	☐						

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GPDB	003145	M	P				M4826				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B06 00198	B12 1100	B16
IN WORK	B19 00198	B23 1101	B27
COMPLETED	B30 00198	B34 1300	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00198	B58 1100	B62
B65 IW	B66 00198	B70 1101	B74
C06 JC	C09 00198	C13 1300	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	A02		910

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
92679	106279

E23 PART NUMBER	E38 DATE REMOVED
1113120	

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M7985		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
92679	106111

G23 PART NUMBER
1113120

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
M0012		

DISCREPANCY
STARTER NOISY AND DRAGGING

PI OT/ANTIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REMOVED AND REPLACED STARTER
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

QA REQ: IPI ☐ QCM ☐

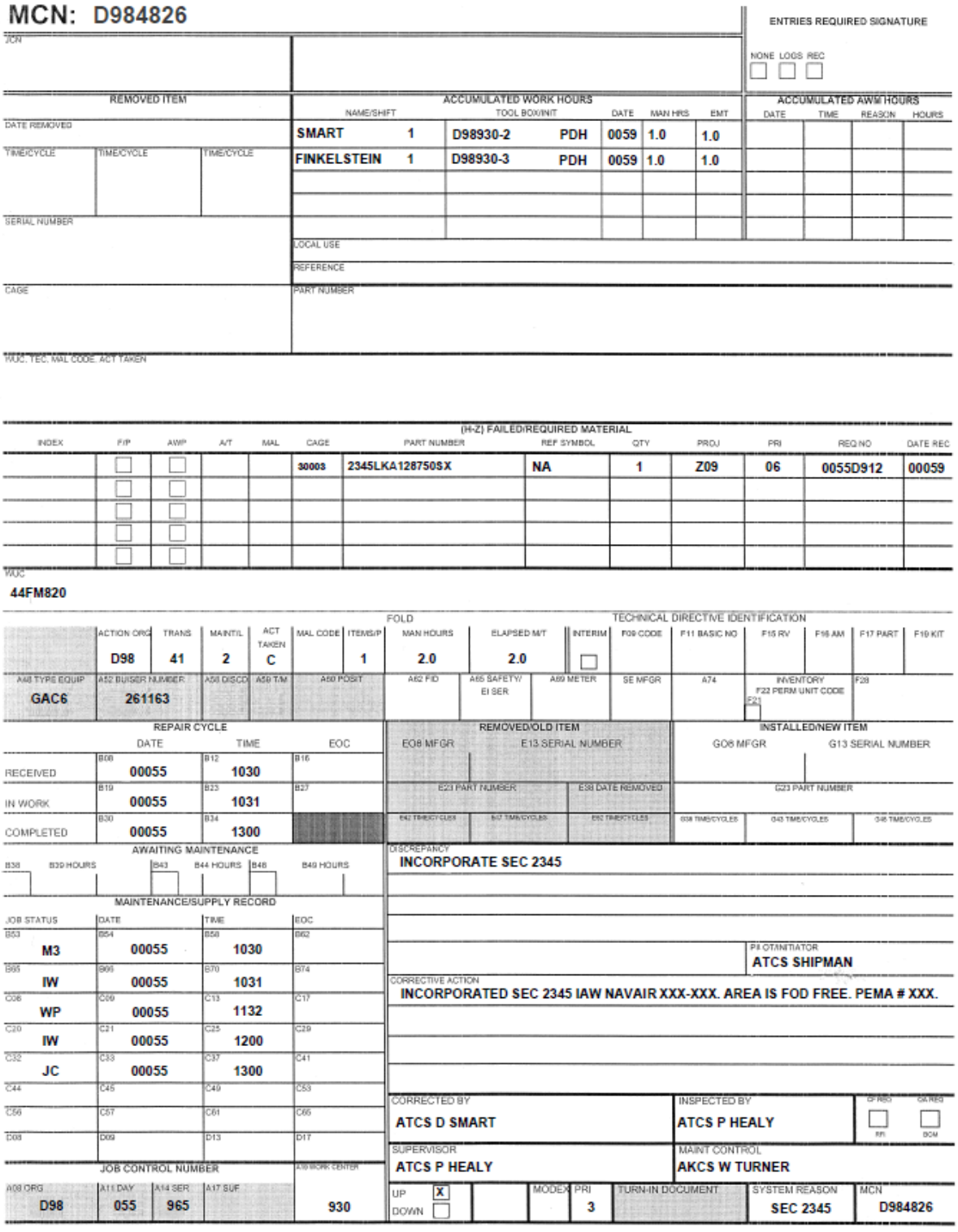
SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

UP ☐
DOWN ☒

MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON STARTER | MCN D984826

Figure 16-26: Inspection Fix Phase Document (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
SMART	1	D98930-2	PDH	0059	1.0	1.0
FINKELSTEIN	1	D98930-3	PDH	0059	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
					30003	2345LKA128750SX	NA	1	Z09	06	0055D912	00059

WUC
44FM820

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	41	2	C		1	2.0	2.0							

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GAC6	261163										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00055	1030	
IN WORK	00055	1031	
COMPLETED	00055	1300	

REMOVED/OLD ITEM
E08 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
INCORPORATE SEC 2345

PI OT/ANTIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
INCORPORATED SEC 2345 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00055	1030	
IW	00055	1031	
WP	00055	1132	
IW	00055	1200	
JC	00055	1300	

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

QA REQ: RR | BCM

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

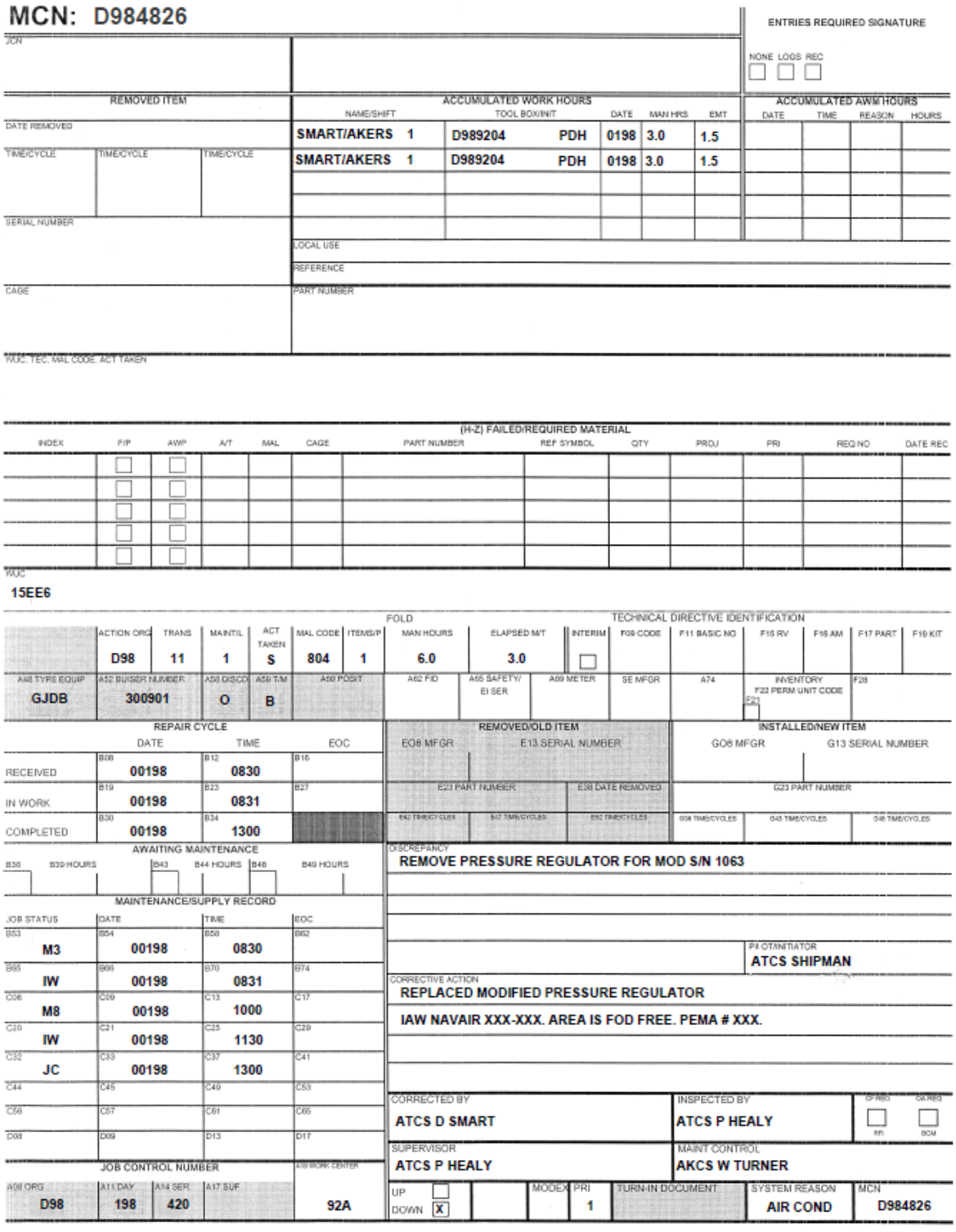
JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	055	965		930

UP [X] DOWN [ ]

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
	3		SEC 2345	D984826

Figure 16-27: End Item TD Compliance (No Removal Component) (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT		DATE	MAN HRS	EMT
SMART/AKERS 1	D989204	PDH	0198	3.0	1.5
SMART/AKERS 1	D989204	PDH	0198	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC

WUC
15EE6

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	1	S	804	1	6.0	3.0							

A48 TYPE EQUIP	A52 BUISER NUMBER	A56 DISCD	A58 T/M	A60 POS/T	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F28
GJDB	300901	O	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00198	0830	
IN WORK	00198	0831	
COMPLETED	00198	1300	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B46 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00198	0830	
IW	00198	0831	
M8	00198	1000	
IW	00198	1130	
JC	00198	1300	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A39 WORK CENTER
D98	198	420		92A

REMOVED/OLD ITEM
EO8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIMS/CYCLES | E47 TIMS/CYCLES | E52 TIMS/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIMS/CYCLES | G43 TIMS/CYCLES | G46 TIMS/CYCLES

DISCREPANCY
REMOVE PRESSURE REGULATOR FOR MOD S/N 1063

PI OTANTIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REPLACED MODIFIED PRESSURE REGULATOR
IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

SF/NSS | GK/NSS
RFI | BCM

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

UP | DOWN X | MODEX | PRI 1 | TURN-IN DOCUMENT | SYSTEM REASON AIR COND | MCN D984826

Figure 16-28: TD Compliance Supporting VIDS/MAF (Example)

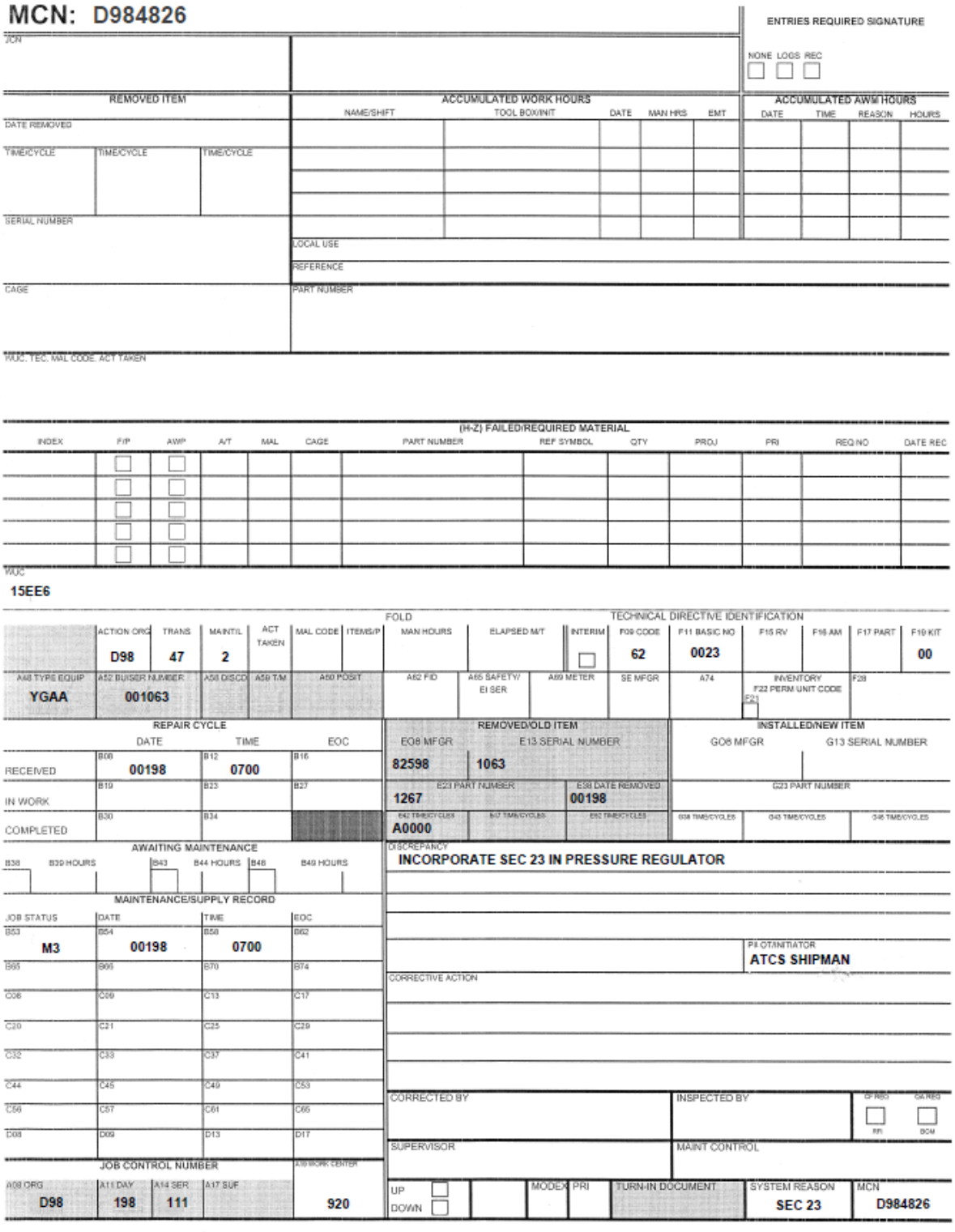
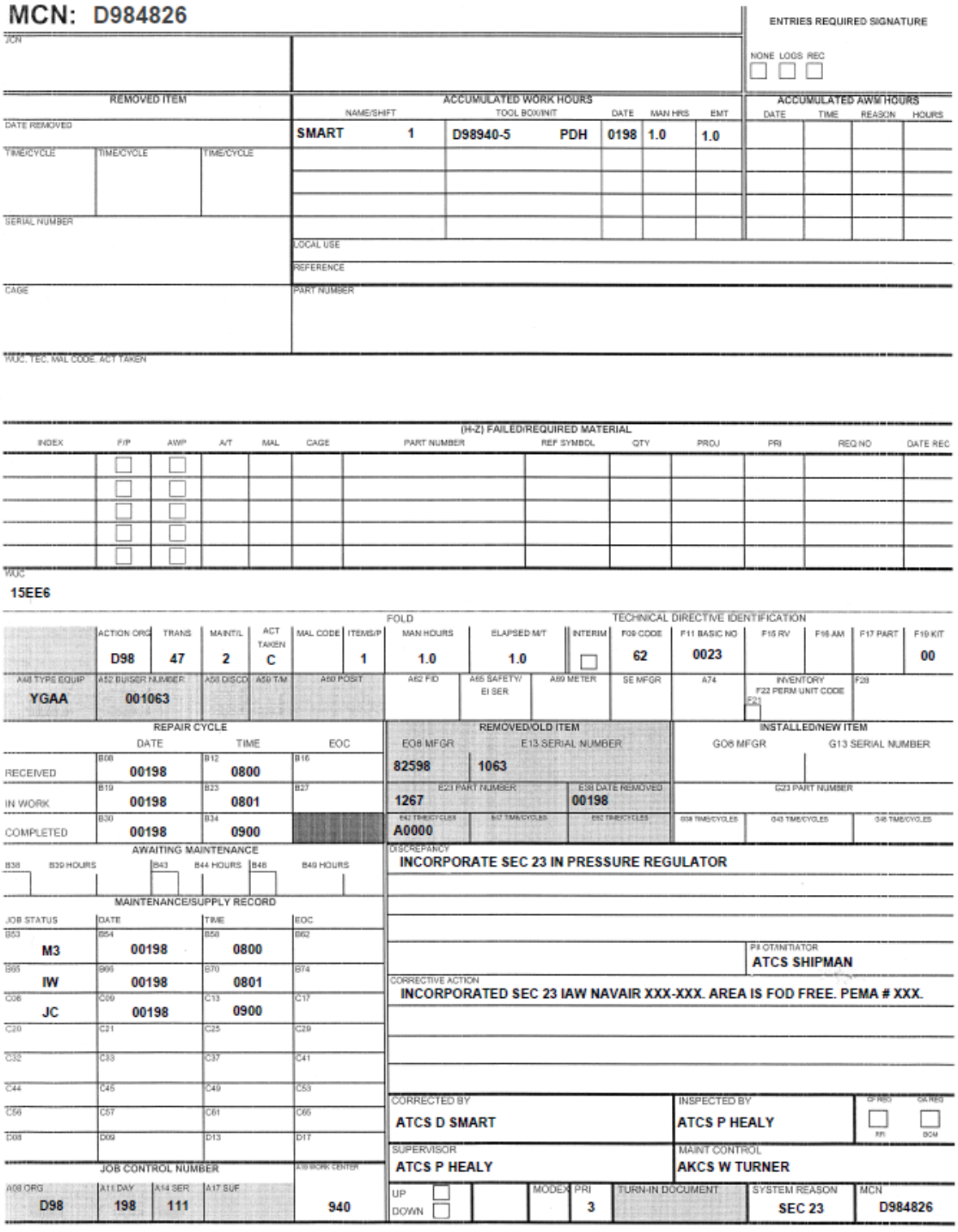


Figure 16-29: TD Compliance Turn-In Document (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INIT		DATE	MAN HRS	EMT
SMART	1	D98940-5	PDH	0198	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
15EE6

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	47	2	C		1	1.0	1.0	☐	62	0023				00

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YGAA	001063										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	00198	0800	
IN WORK	00198	0801	
COMPLETED	00198	0900	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	00198	0800	
IW	00198	0801	
JC	00198	0900	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	198	111		940

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
82598	1063

E23 PART NUMBER	E38 DATE REMOVED
1267	00198

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A0000		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
INCORPORATE SEC 23 IN PRESSURE REGULATOR

PI OT/ANTIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
INCORPORATED SEC 23 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

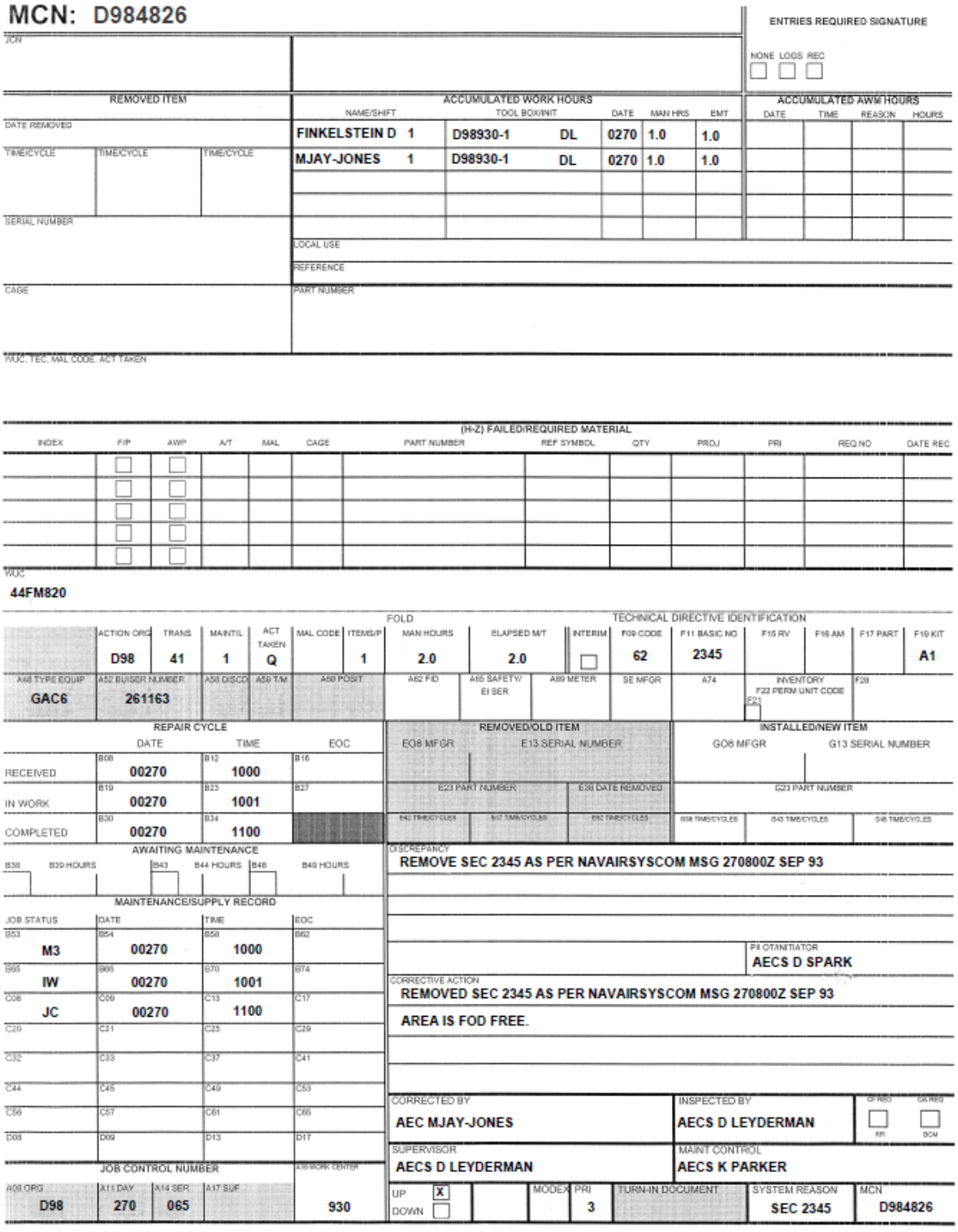
QA REQ: RII ☐ BCM ☐

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP ☐ DOWN ☐			3		SEC 23	D984826

Figure 16-30: Off-Equipment TD Compliance Action (Example)



MCN: D984826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/INIT		DATE	MAN HRS	EMT
FINKELSTEIN D 1	D98930-1	DL	0270	1.0	1.0
MJAY-JONES 1	D98930-1	DL	0270	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
CAGE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
44FM820

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	41	1	Q		1	2.0	2.0	☐	62	2345				A1

A48 TYPE EQUIP	A52 BUR/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GAC6	261163										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 00270	B12 1000	B16
IN WORK	B19 00270	B23 1001	B27
COMPLETED	B30 00270	B34 1100	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 00270	B58 1000	B62
B65 IW	B66 00270	B70 1001	B74
C06 JC	C09 00270	C13 1100	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D05	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
D98	270	065		930

REMOVED/OLD ITEM
EO8 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
GO8 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
REMOVE SEC 2345 AS PER NAVAIRSYSCOM MSG 270800Z SEP 93

PI OT/ANTIATOR
AECS D SPARK

CORRECTIVE ACTION
REMOVED SEC 2345 AS PER NAVAIRSYSCOM MSG 270800Z SEP 93
AREA IS FOD FREE.

CORRECTED BY
AEC MJAY-JONES

INSPECTED BY
AECS D LEYDERMAN

QA REQ | QA REQ
RR | BCM

SUPERVISOR
AECS D LEYDERMAN

MAINT CONTROL
AECS K PARKER

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		SEC 2345	D984826

Figure 16-31: TD Compliance Removal (On-Equipment) (Example)

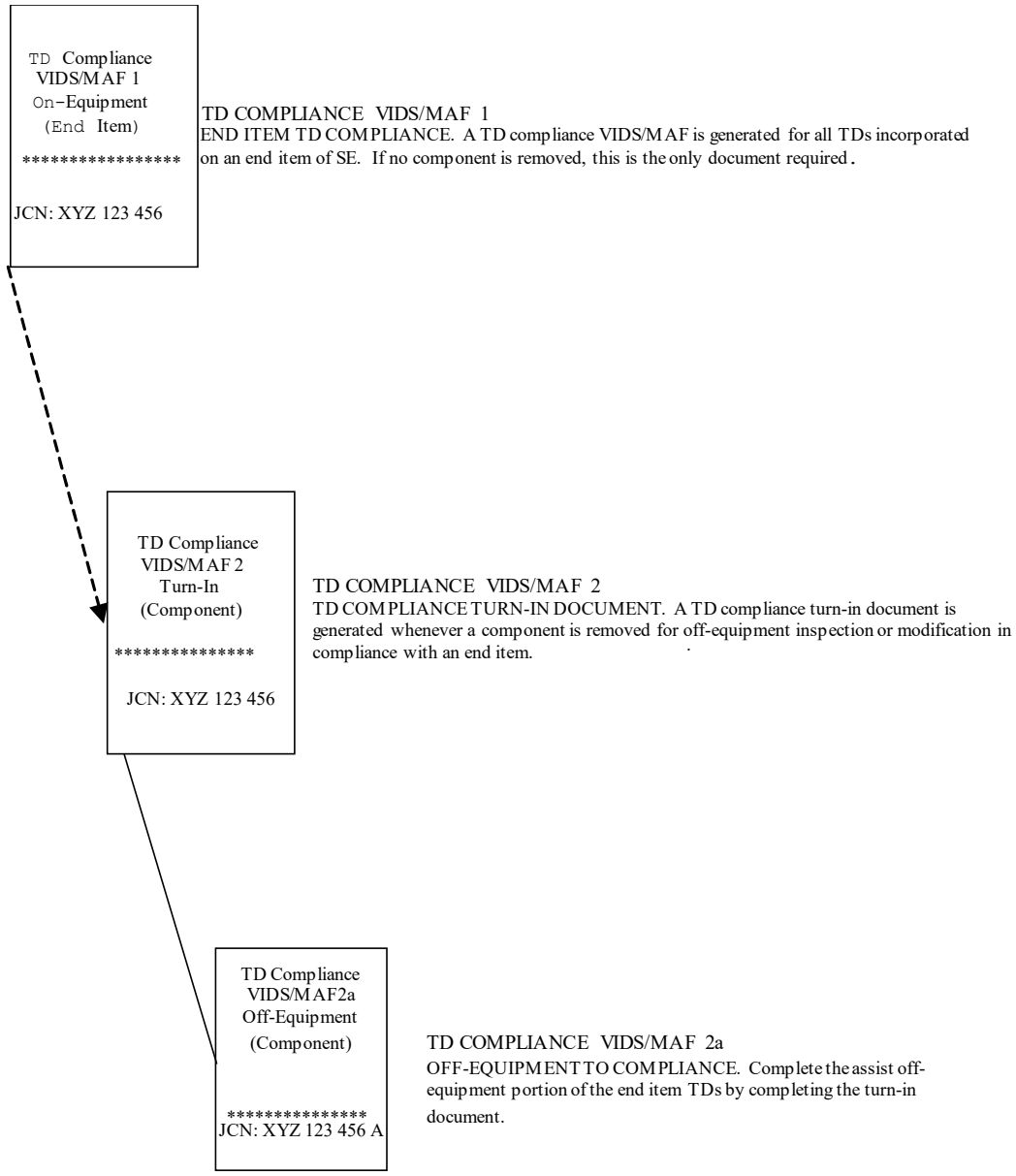
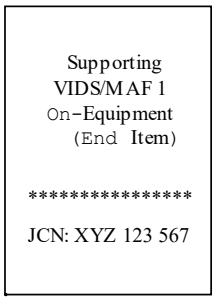
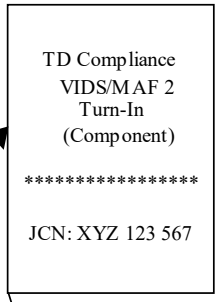


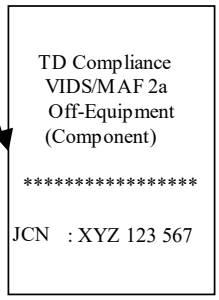
Figure 16-32: VIDS/MAF Required for End Item TD Compliance Concurrent with a Failed Part



SUPPORTING VIDS/MAF 1
COMPONENT TD COMPLIANCE. A TD compliance supporting VIDS/MAF is generated to account for on-equipment work, whenever a RFI component is removed for off-equipment inspection or modification in compliance with a TD that applies only to the components. The TD compliance is not identified on the supporting VIDS/MAF.



TD COMPLIANCE VIDS/MAF 2
TD COMPLIANCE TURN-IN DOCUMENT. A TD compliance turn-in document is generated, whenever a component is removed for off-equipment inspection or modification in compliance with a TD that applies only to the component.



TD COMPLIANCE VIDS/MAF 2a
OFF-EQUIPMENT TD COMPLIANCE. Complete the compliance portion of the component TD by completing the turn-in document.

Figure 16-33: VIDS/MAF Required for Component TD Compliance

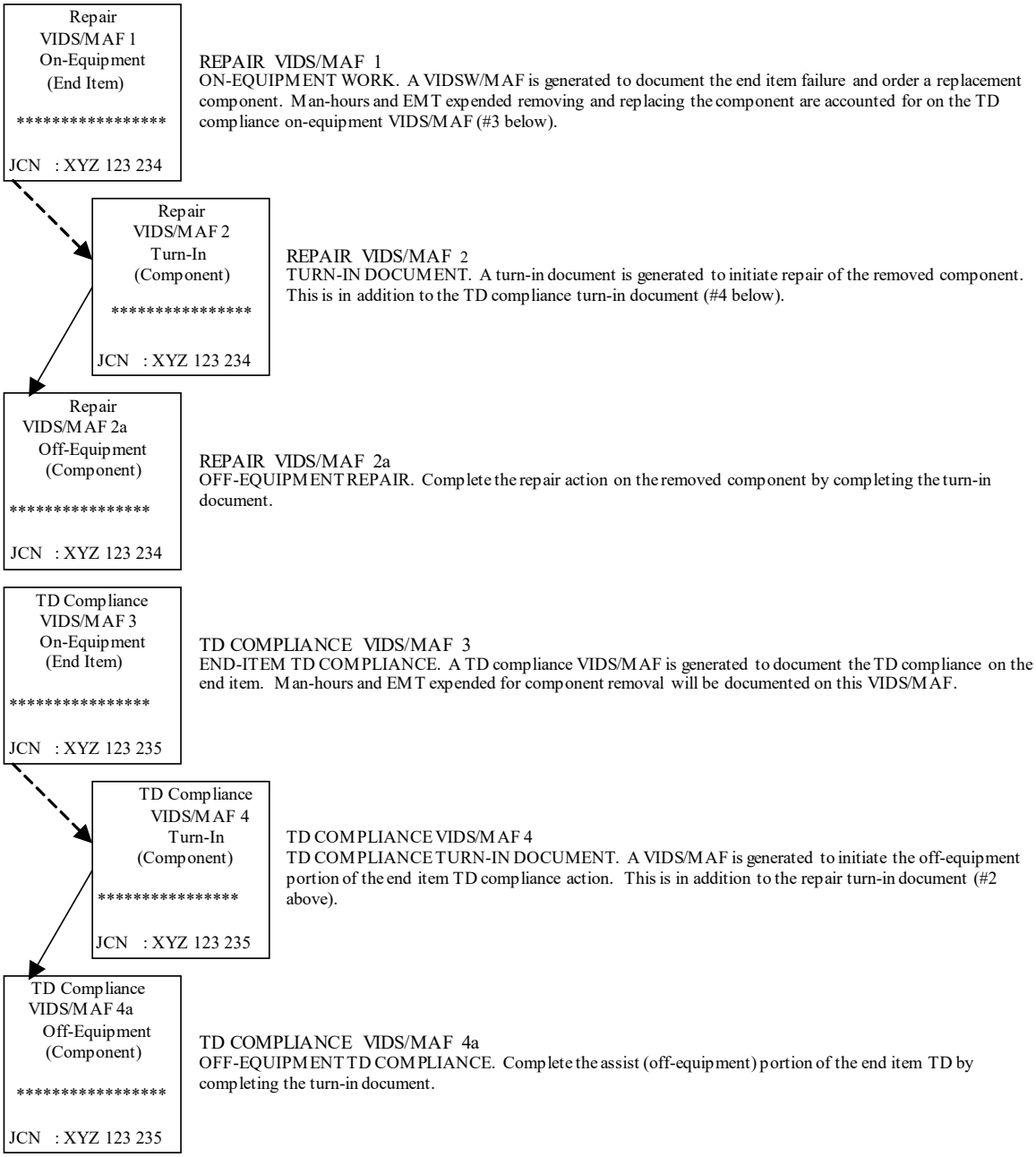


Figure 16-34: VIDS/MAF Required for End Item TD Compliance With a Failed Part

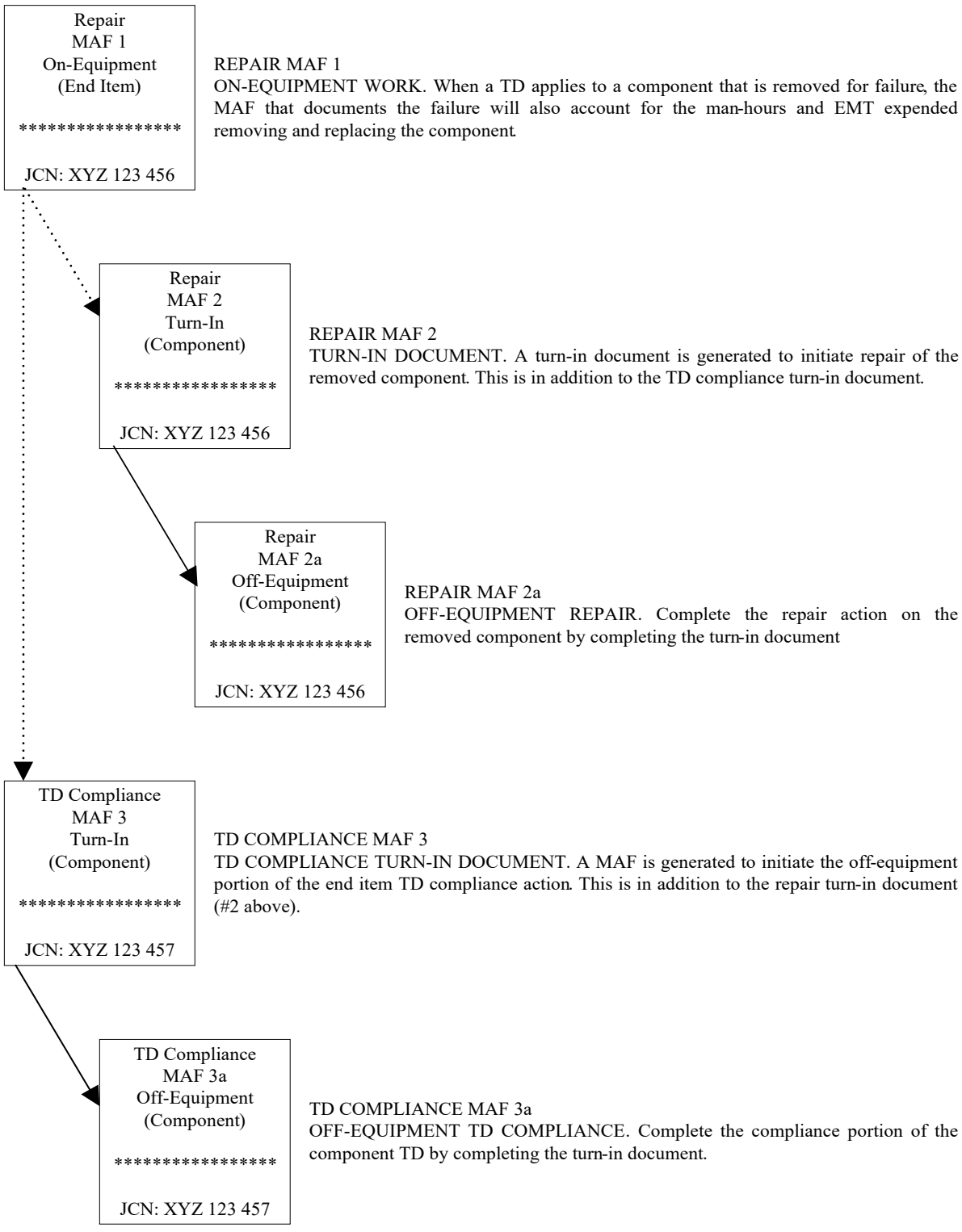


Figure 16-35: VIDS/MAF Required for End Item TD Compliance Concurrent with a Failed Part

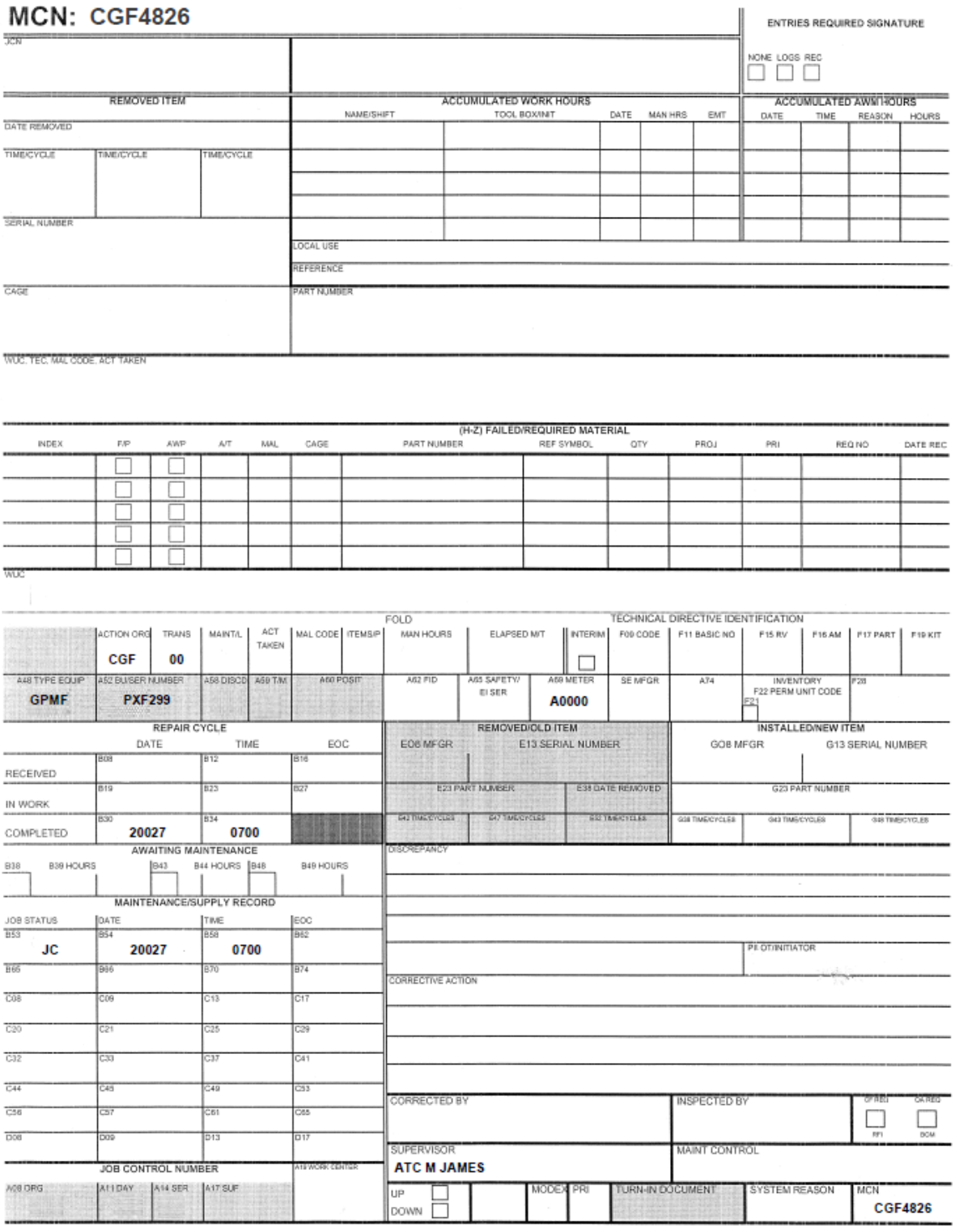


Figure 16-36: Inventory Transaction (Gain) (Example)

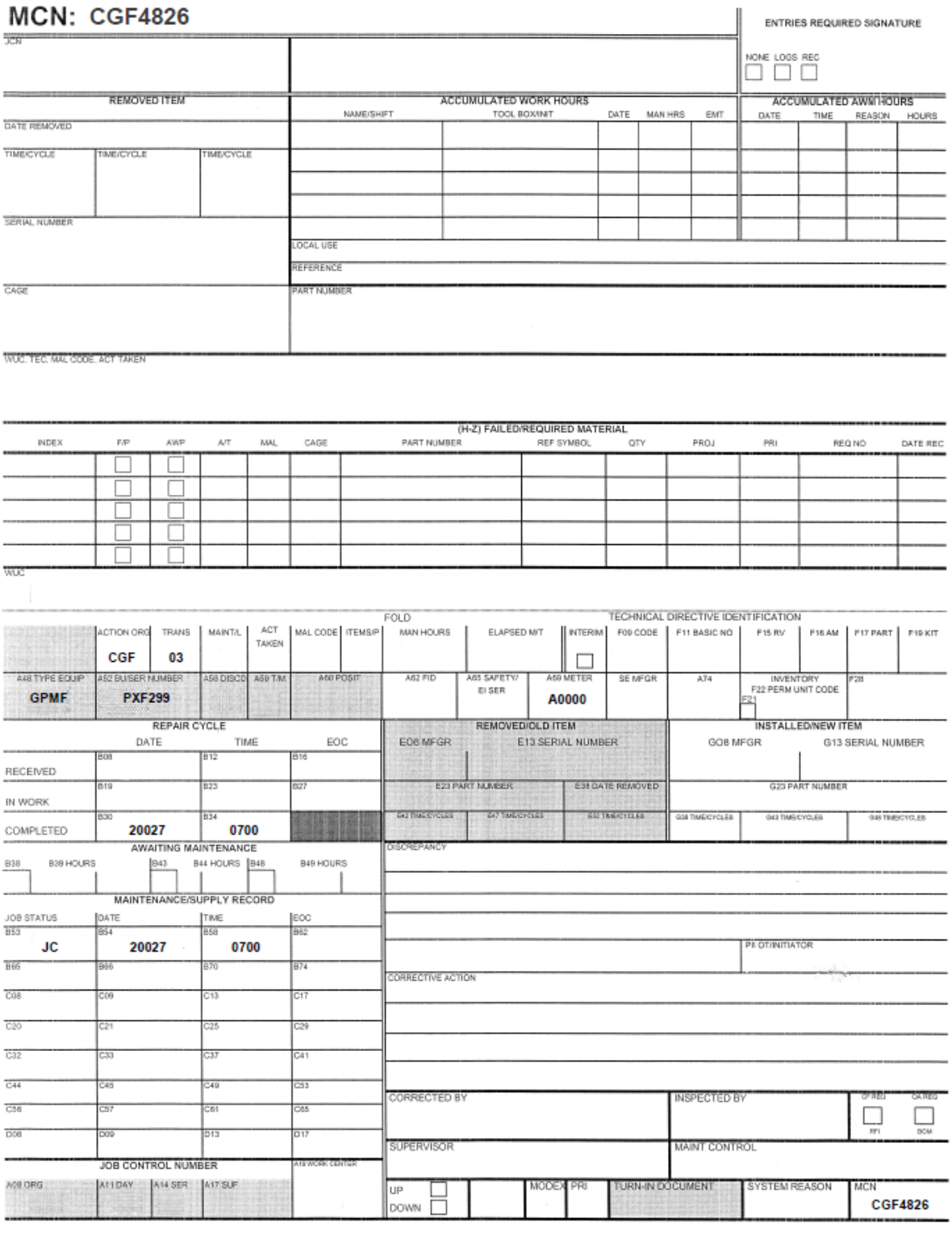
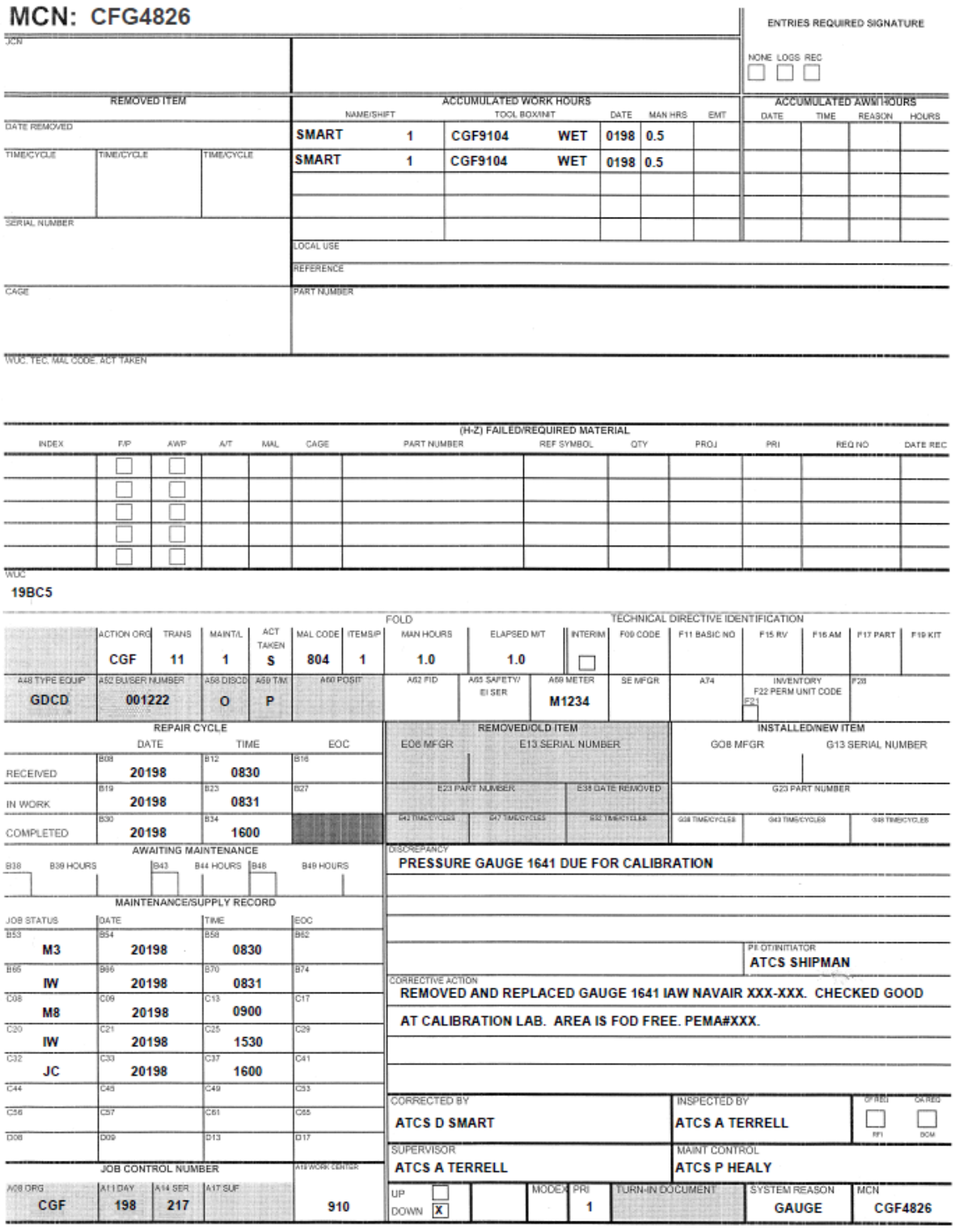


Figure 16-37: Inventory Transaction (Loss) (Example)



MCN: CFG4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF9104	WET	0198	0.5	
SMART	1	CGF9104	WET	0198	0.5	

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
19BC5

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	11	1	S	804	1	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
GDCD	001222	O	P				M1234				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20198	B12 0830	B16
IN WORK	B19 20198	B23 0831	B27
COMPLETED	B30 20198	B34 1600	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20198	B58 0830	B62
B65 IW	B66 20198	B70 0831	B74
C08 M8	C09 20198	C13 0900	C17
C20 IW	C21 20198	C25 1530	C29
C32 JC	C33 20198	C37 1600	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	198	217		910

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
PRESSURE GAUGE 1641 DUE FOR CALIBRATION

PR OTINITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REMOVED AND REPLACED GAUGE 1641 IAW NAVAIR XXX-XXX. CHECKED GOOD
AT CALIBRATION LAB. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS A TERRELL

QA REQ: RFI ☐ BOM ☐

SUPERVISOR
ATCS A TERRELL

MAINT CONTROL
ATCS P HEALY

UP		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
DOWN X			1		GAUGE	CGF4826

Figure 16-38: Removed Component for Calibration (Example)

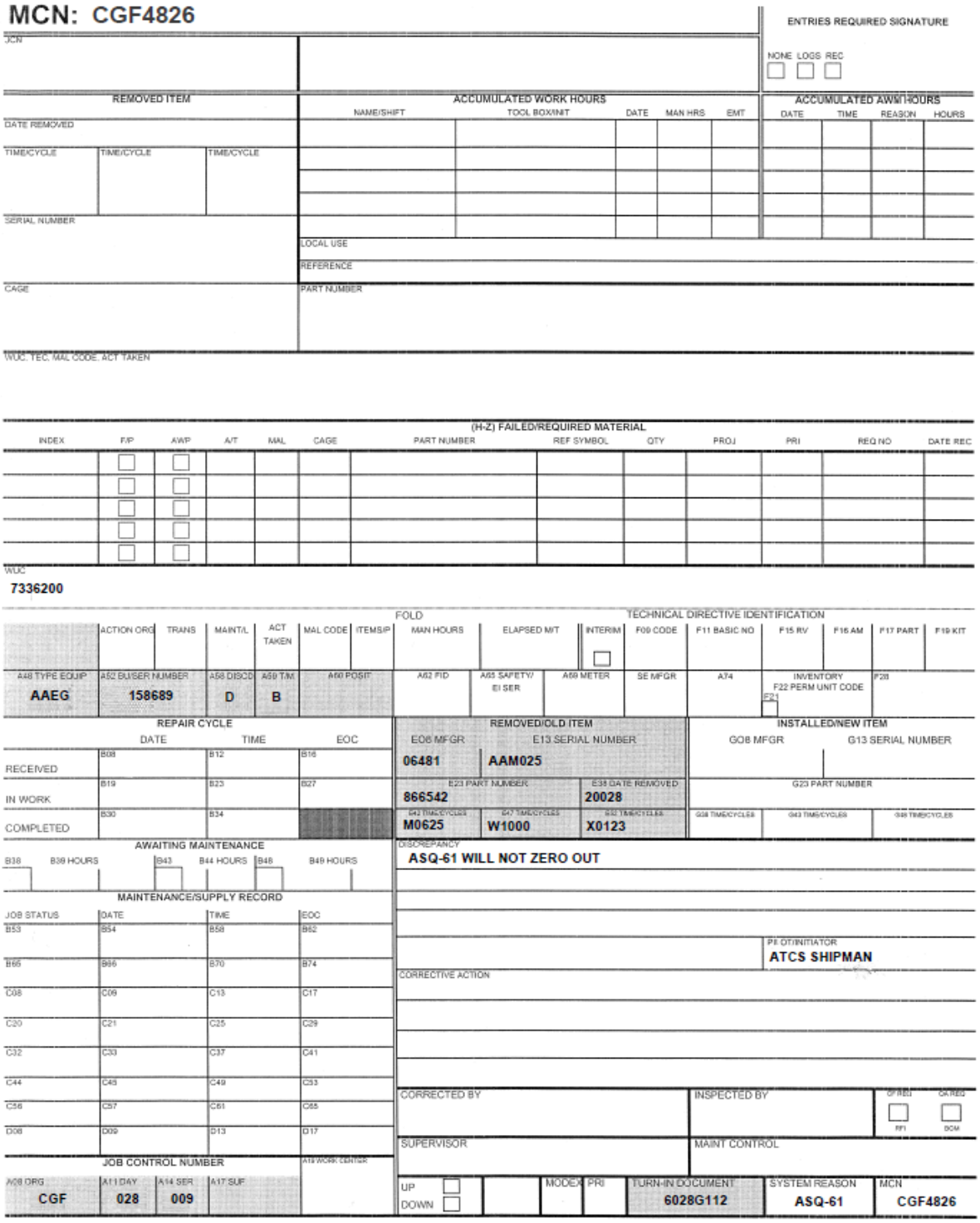


Figure 16-39: Component Turn-In Document (Example)

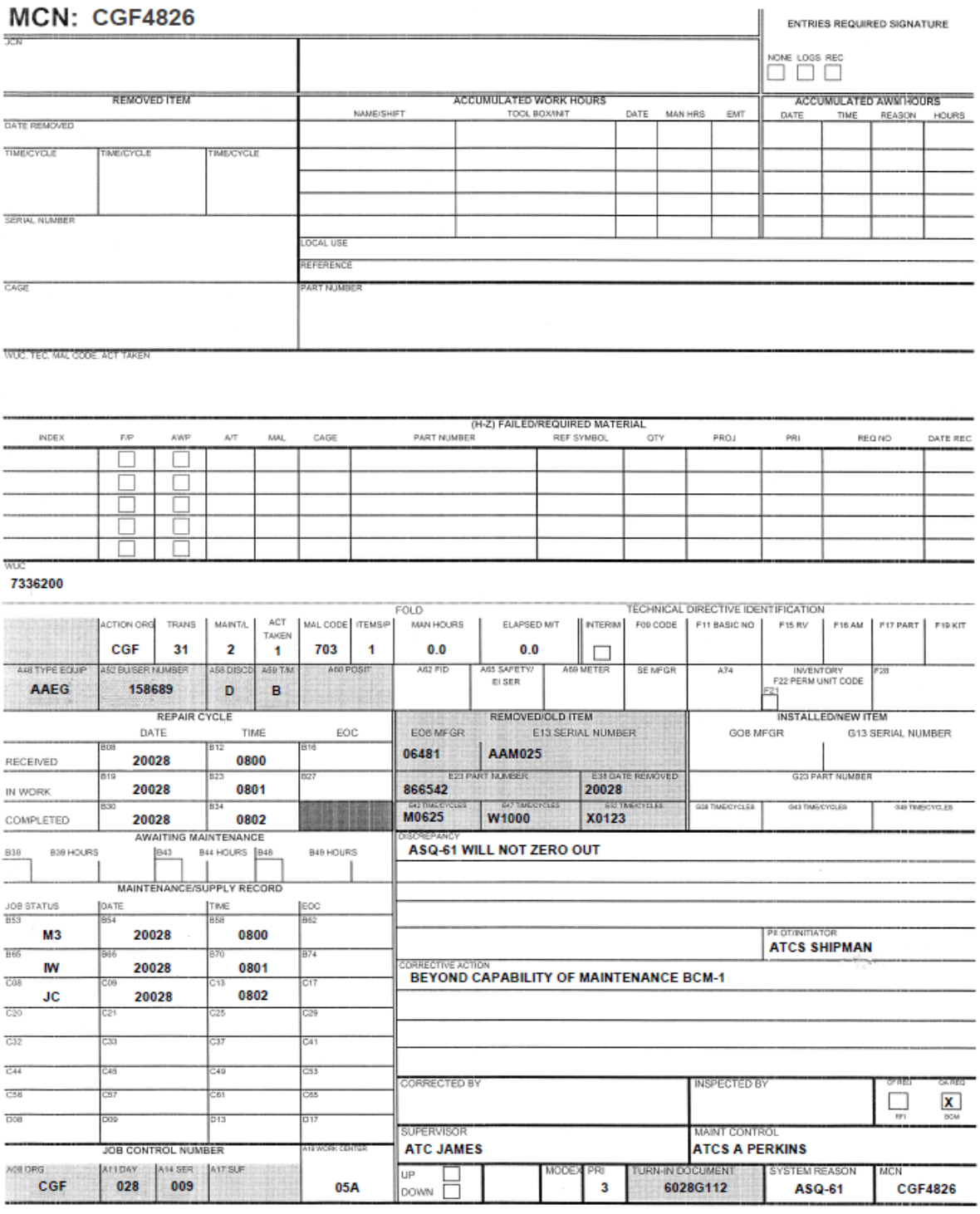


Figure 16-40: BCM Action (AMSU) (Example)

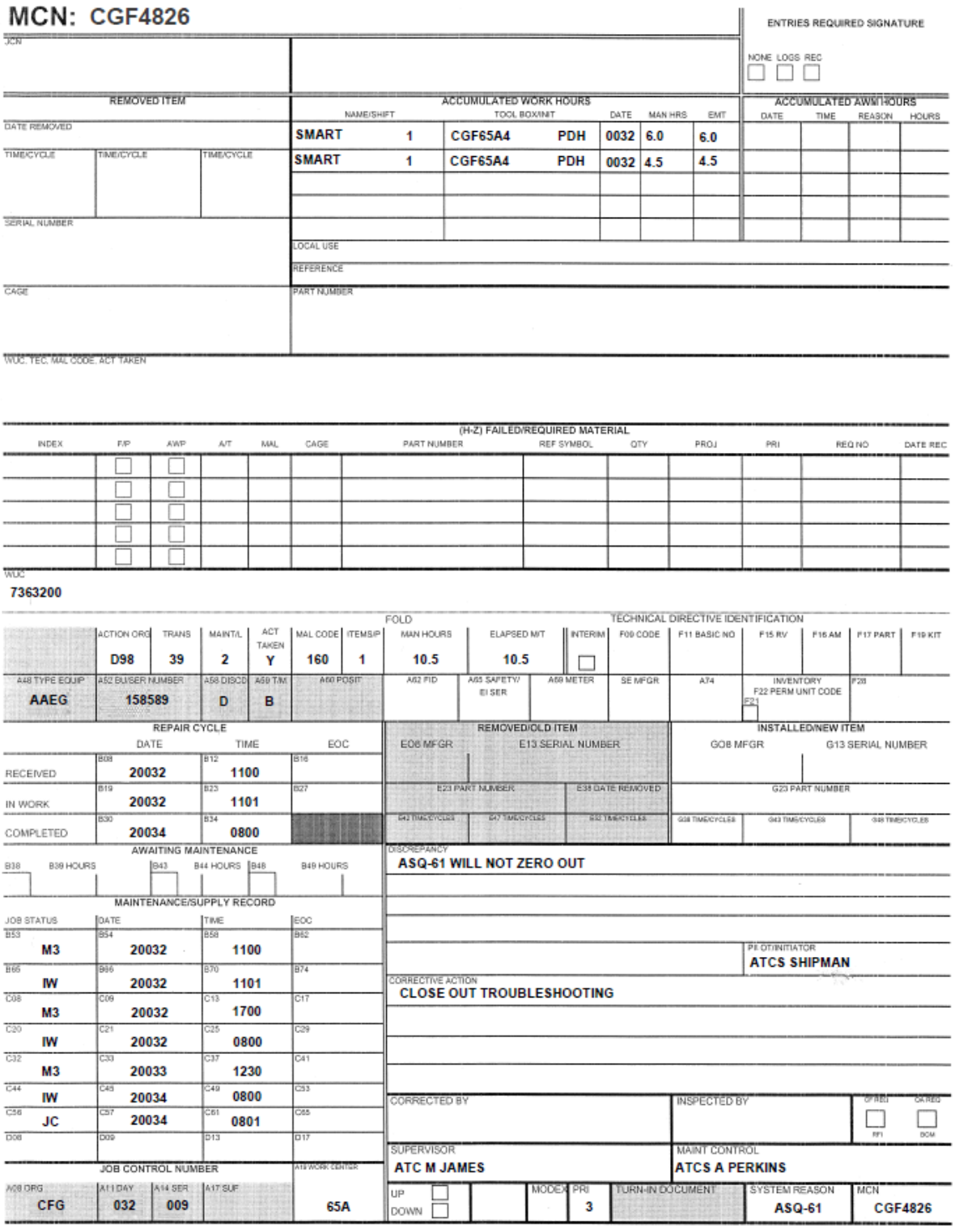
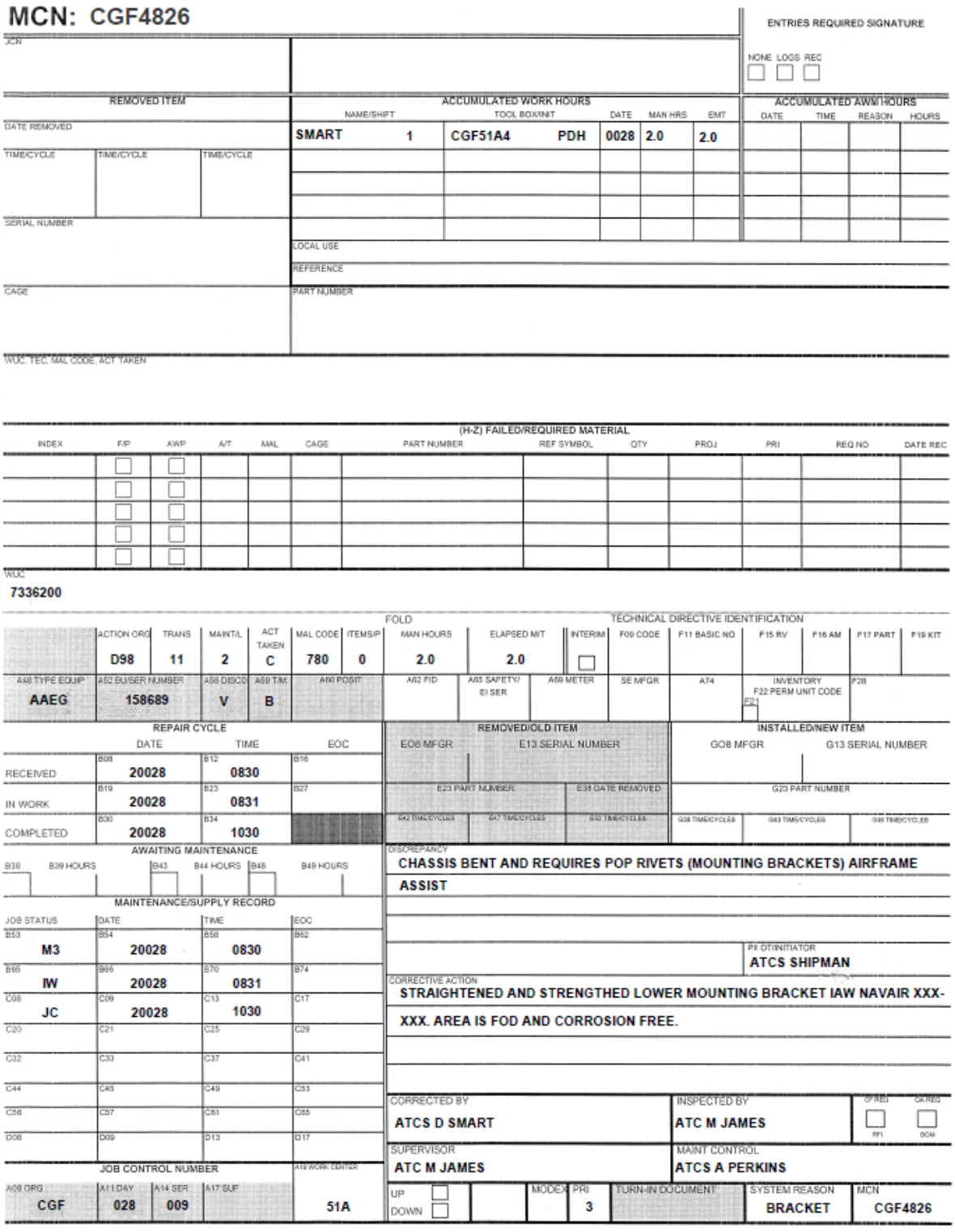


Figure 16-41: Troubleshooting Close Out (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF51A4	PDH	0028	2.0	2.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
7336200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	11	2	C	780	0	2.0	2.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AAEG	158689	V	B								☐	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20028	B12 0830	B16
IN WORK	B19 20028	B23 0831	B27
COMPLETED	B30 20028	B34 0830	

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
CHASSIS BENT AND REQUIRES POP RIVETS (MOUNTING BRACKETS) AIRFRAME ASSIST

PR OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
STRAIGHTENED AND STRENGTHED LOWER MOUNTING BRACKET IAW NAVAIR XXX-XXX. AREA IS FOD AND CORROSION FREE.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20028	B58 0830	B62
B65 IW	B66 20028	B70 0831	B74
C08 JC	C09 20028	C13 1030	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

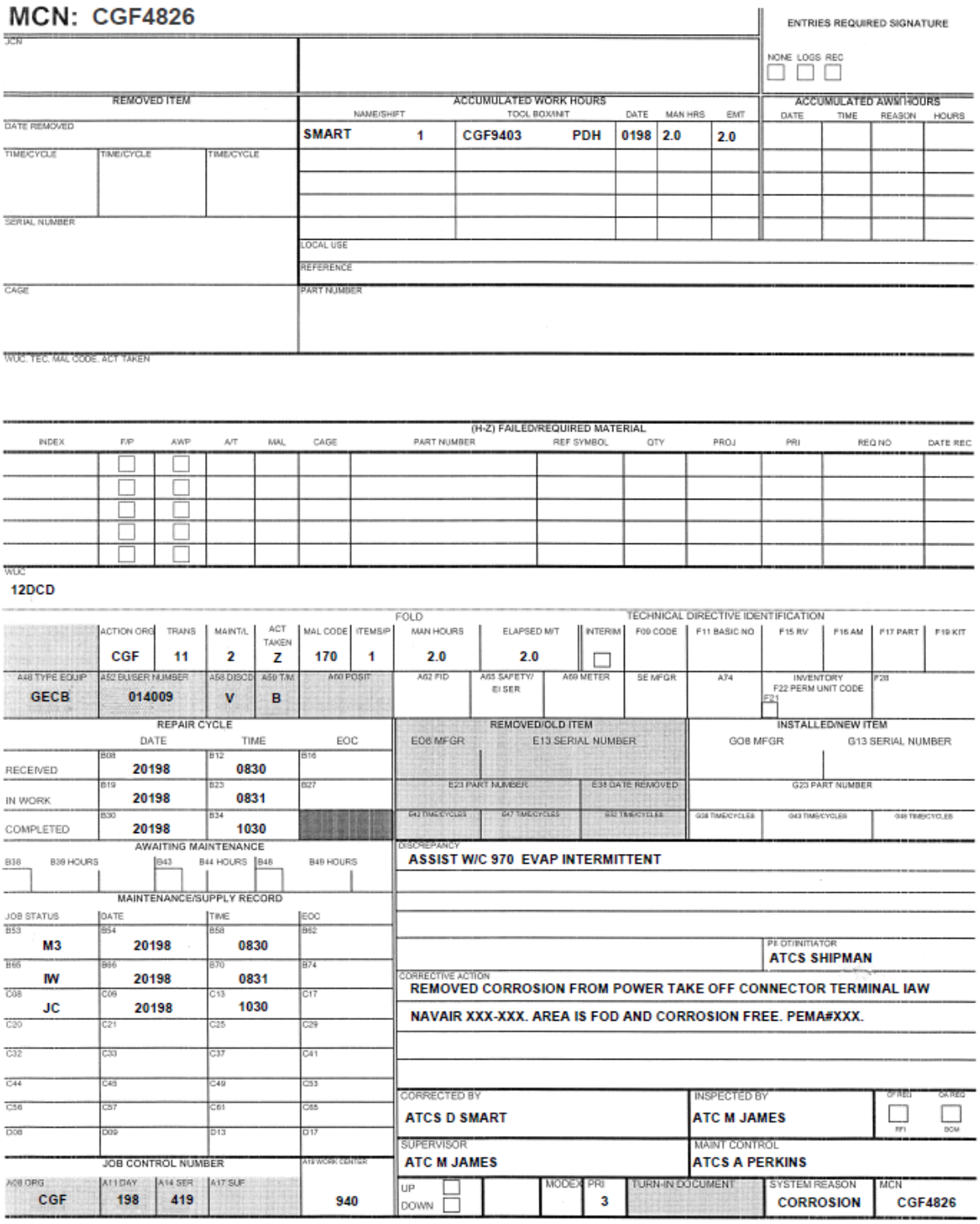
CORRECTED BY: ATCS D SMART
INSPECTED BY: ATC M JAMES
QA REQ ☐ RFI | QA REQ ☐ BOM
SUPERVISOR: ATC M JAMES
MAINT CONTROL: ATCS A PERKINS

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	028	009		51A

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON BRACKET | MCN CGF4826

Figure 16-42: Assisting Work Center (Same WUC) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/INT		DATE	MAN HRS	EMT
SMART	1	CGF9403	PDH	0198	2.0	2.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
12DCD

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	11	2	Z	170	1	2.0	2.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GECB	014009	V	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20198	B12 0830	B16
IN WORK	B19 20198	B23 0831	B27
COMPLETED	B30 20198	B34 1030	

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20198	B58 0830	B62
B66 IW	B66 20198	B70 0831	B74
C08 JC	C09 20198	C13 1030	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A06 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	198	419		940

DISCREPANCY
ASSIST W/C 970 EVAP INTERMITTENT

PR OTI/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REMOVED CORROSION FROM POWER TAKE OFF CONNECTOR TERMINAL IAW
NAVAIR XXX-XXX. AREA IS FOD AND CORROSION FREE. PEMA#XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATC M JAMES

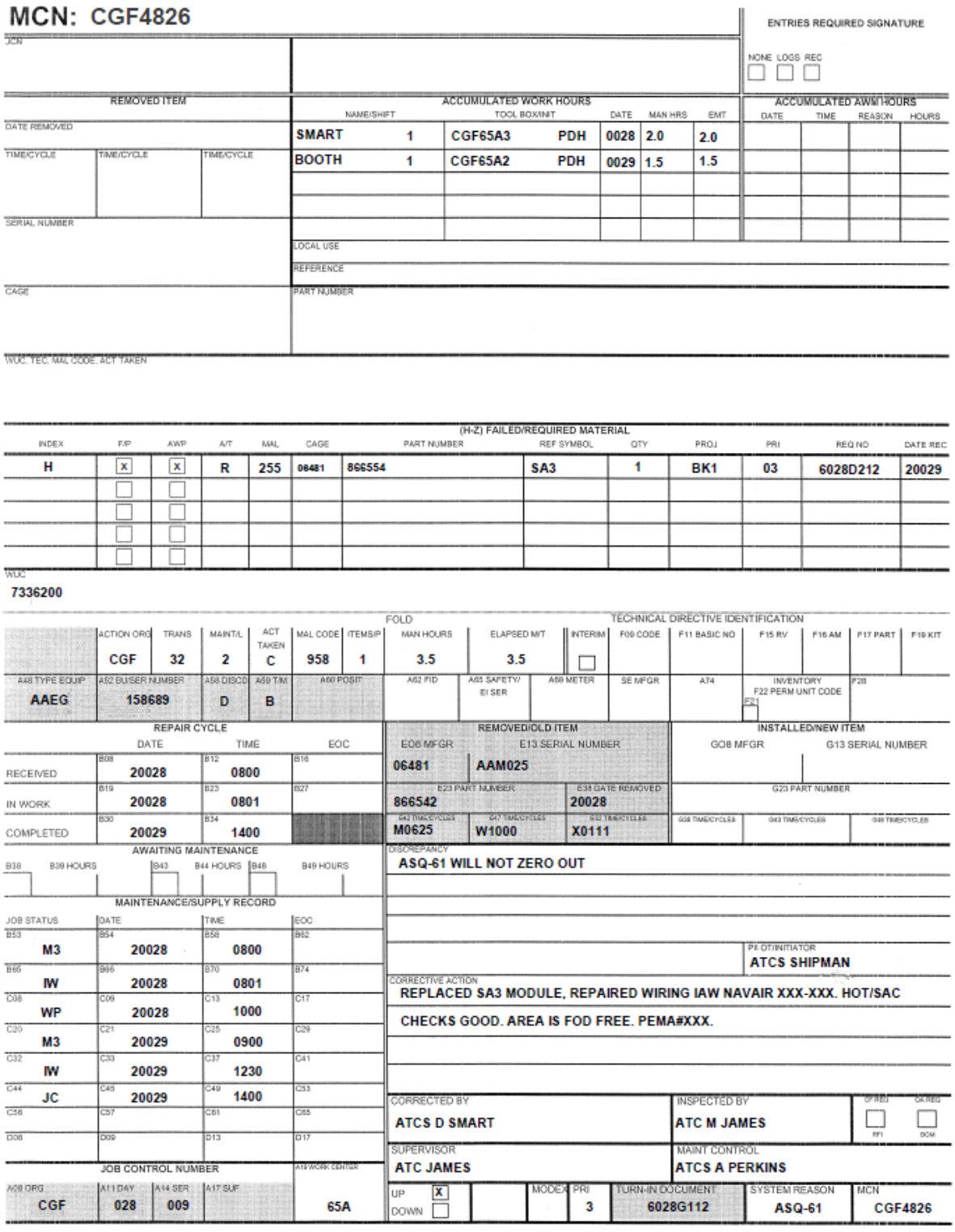
QA REQ: RFI ☐ BOM ☐

SUPERVISOR
ATC M JAMES

MAINT CONTROL
ATCS A PERKINS

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		CORROSION	CGF4826

Figure 16-43: Assisting Work Center (Different WUC) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF65A3	PDH	0028	2.0	2.0
BOOTH	1	CGF65A2	PDH	0029	1.5	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	255	06481	866554	SA3	1	BK1	03	6028D212	20029

WUC
7336200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	958	1	3.5	3.5							

A48 TYPE EQUIP	A52 EU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AAEG	158689	D	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20028	B12 0800	B16
IN WORK	B19 20028	B23 0801	B27
COMPLETED	B30 20029	B34 1400	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20028	B58 0800	B62
B65 IW	B66 20028	B70 0801	B74
C08 WP	C09 20028	C13 1000	C17
C20 M3	C21 20029	C25 0900	C29
C32 IW	C33 20029	C37 1230	C41
C44 JC	C45 20029	C49 1400	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	028	009		65A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06481	AAM025

E23 PART NUMBER	E38 DATE REMOVED
866542	20028

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0625	W1000	X0111

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
ASQ-61 WILL NOT ZERO OUT

PR OTINITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REPLACED SA3 MODULE, REPAIRED WIRING IAW NAVAIR XXX-XXX. HOT/SAC
CHECKS GOOD. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATC M JAMES

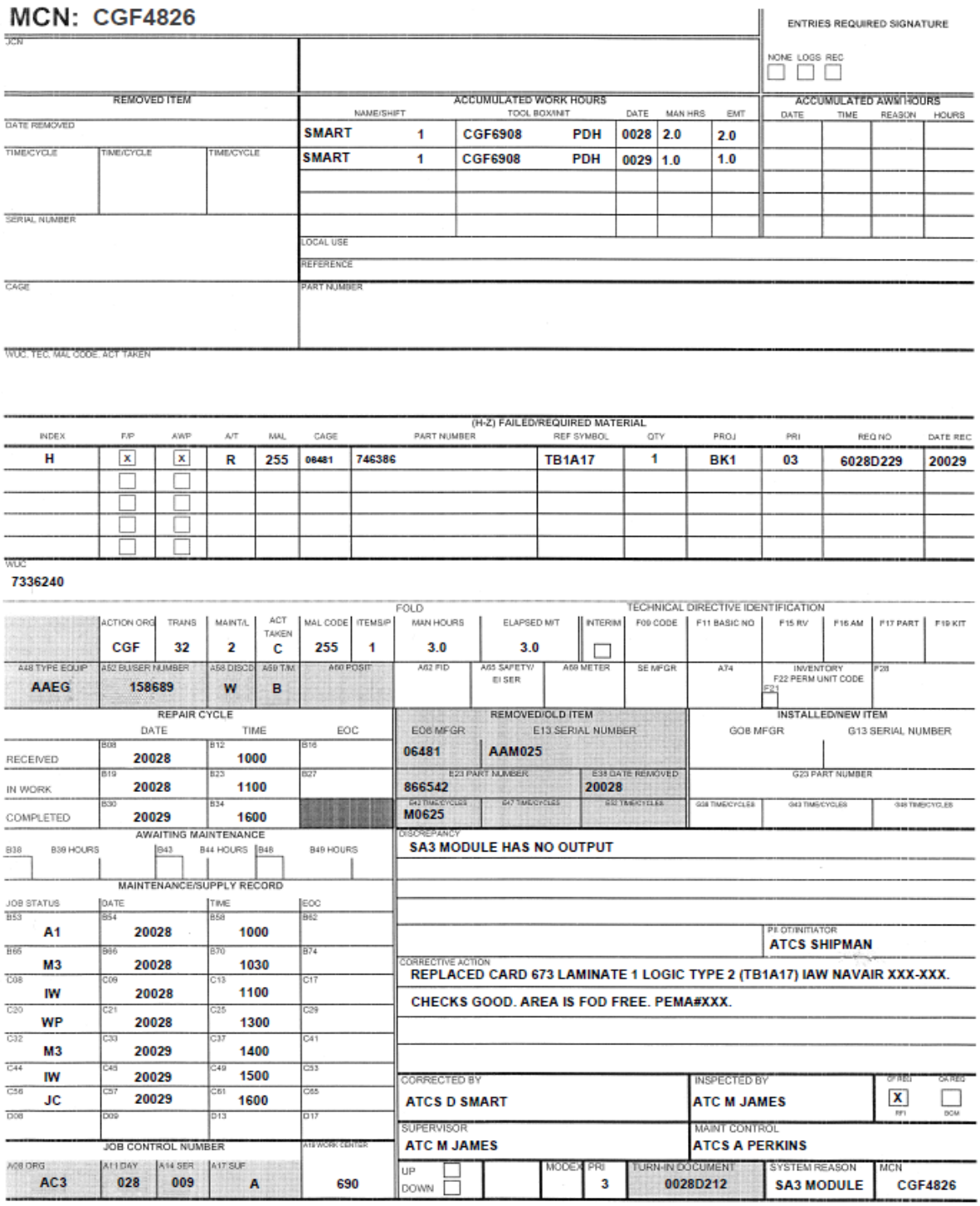
QA REQ: QA RI ☐ QA DCM ☐

SUPERVISOR
ATC JAMES

MAINT CONTROL
ATCS A PERKINS

UP	DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X				3	6028G112	ASQ-61	CGF4826

Figure 16-44: Component Repaired Using a Repairable Subassembly (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF6908	PDH	0028	2.0	2.0
SMART	1	CGF6908	PDH	0029	1.0	1.0

ACCUMULATED AWM/HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	255	06481	746386	TB1A17	1	BK1	03	6028D229	20029

WUC
7336240

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	255	1	3.0	3.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AAEG	158689	W	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20028	B12 1000	B16
IN WORK	B19 20028	B23 1100	B27
COMPLETED	B30 20029	B34 1600	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20028	B58 1000	B62
B66 M3	B66 20028	B70 1030	B74
C08 IW	C09 20028	C13 1100	C17
C20 WP	C21 20028	C25 1300	C29
C32 M3	C33 20029	C37 1400	C41
C44 IW	C45 20029	C49 1500	C53
C56 JC	C57 20029	C61 1600	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	028	009	A	690

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06481	AAM025

E23 PART NUMBER	E38 DATE REMOVED
866542	20028

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0625		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
SA3 MODULE HAS NO OUTPUT

PR OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
REPLACED CARD 673 LAMINATE 1 LOGIC TYPE 2 (TB1A17) IAW NAVAIR XXX-XXX.
CHECKS GOOD. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATC M JAMES

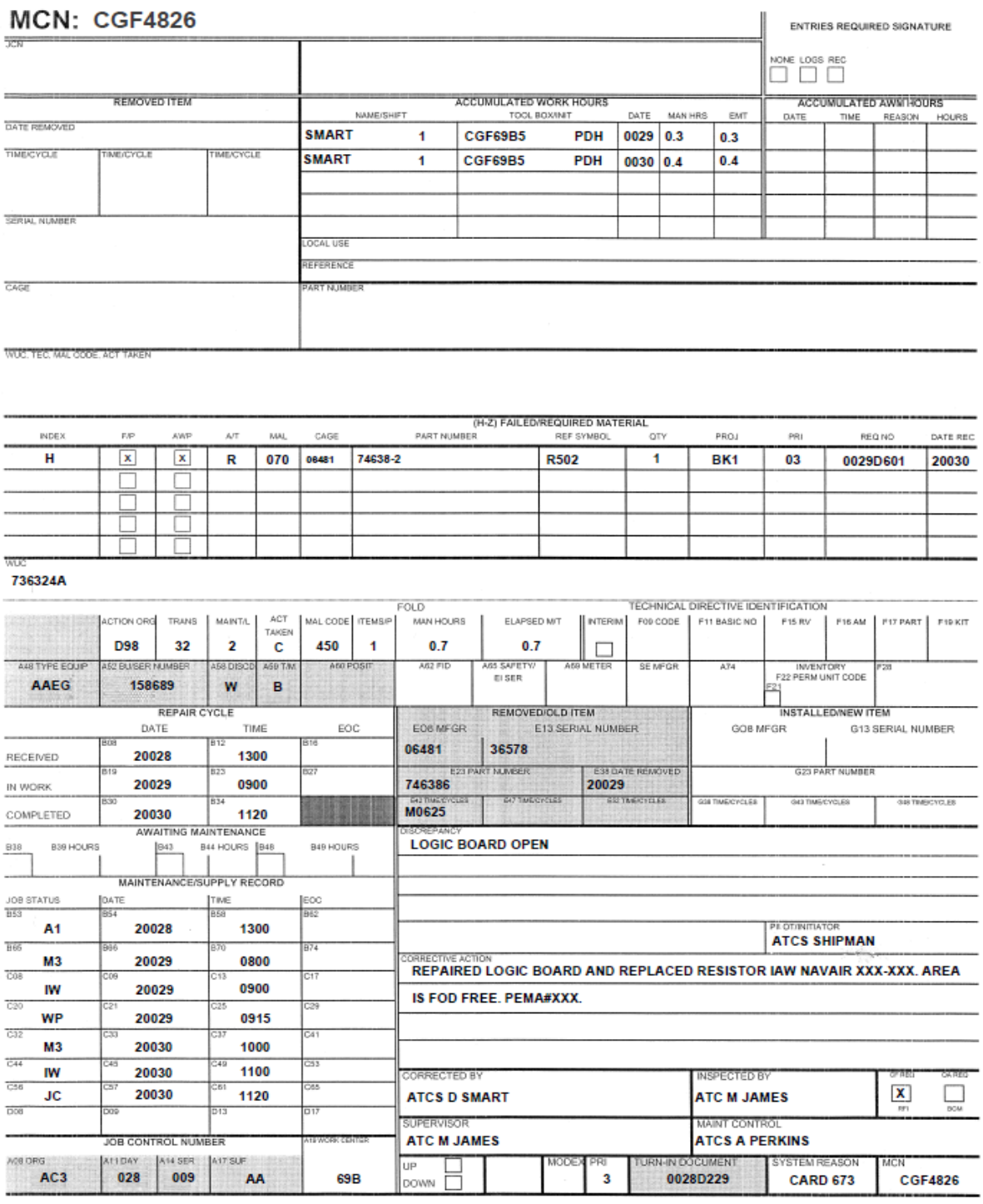
QA REQ: X (RFI) | QA REQ: (BOM)

SUPERVISOR
ATC M JAMES

MAINT CONTROL
ATCS A PERKINS

UP / DOWN | MODEM | PRI 3 | TURN-IN DOCUMENT 0028D212 | SYSTEM REASON SA3 MODULE | MCN CGF4826

Figure 16-45: Subassembly/Module Repair (Suffix) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF69B5	PDH	0029	0.3	0.3
SMART	1	CGF69B5	PDH	0030	0.4	0.4

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	070	06481	74638-2	R502	1	BK1	03	0029D601	20030

WUC
736324A

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98	32	2	C	450	1	0.7	0.7							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POS/T	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AAEG	158689	W	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20028	1300	
IN WORK	20029	0900	
COMPLETED	20030	1120	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20028	1300	
M3	20029	0800	
IW	20029	0900	
WP	20029	0915	
M3	20030	1000	
IW	20030	1100	
JC	20030	1120	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	028	009	AA	69B

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06481	36578

E23 PART NUMBER	E38 DATE REMOVED
746386	20029

E42 TIME/CYCLES: M0625 | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
LOGIC BOARD OPEN

PR OTI INITIATOR
ATCS SHIPMAN

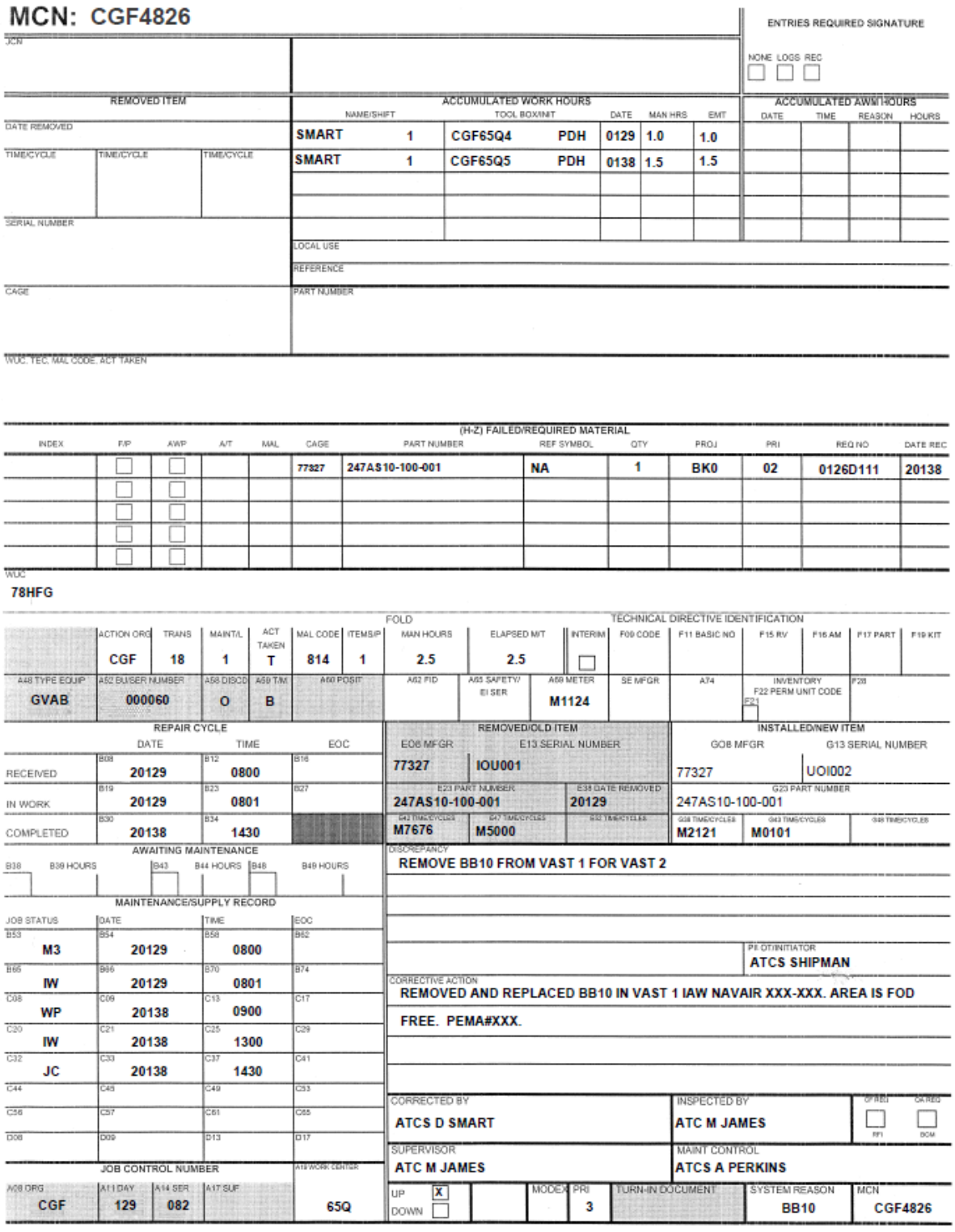
CORRECTIVE ACTION
REPAIRED LOGIC BOARD AND REPLACED RESISTOR IAW NAVAIR XXX-XXX. AREA
IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATC M JAMES	X	

SUPERVISOR: ATC M JAMES
MAINT CONTROL: ATCS A PERKINS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3	0028D229	CARD 673	CGF4826

Figure 16-46: Sub-Subassembly/Module Repair (Double Suffix) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF65Q4	PDH	0129	1.0	1.0
SMART	1	CGF65Q5	PDH	0138	1.5	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			77327	247AS10-100-001	NA	1	BK0	02	0126D111	20138
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
78HFG

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	18	1	T	814	1	2.5	2.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
GVAB	000060	O	B				M1124				

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20129	0800	
IN WORK	20129	0801	
COMPLETED	20138	1430	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20129	0800	
IW	20129	0801	
WP	20138	0900	
IW	20138	1300	
JC	20138	1430	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	129	082		65Q

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77327	IOU001

E23 PART NUMBER	E38 DATE REMOVED
247AS10-100-001	20129

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M7676	M5000	

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
77327	UOI002

G23 PART NUMBER
247AS10-100-001

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
M2121	M0101	

DISCREPANCY
REMOVE BB10 FROM VAST 1 FOR VAST 2

PR OT/INITIATOR
ATCS SHIPMAN

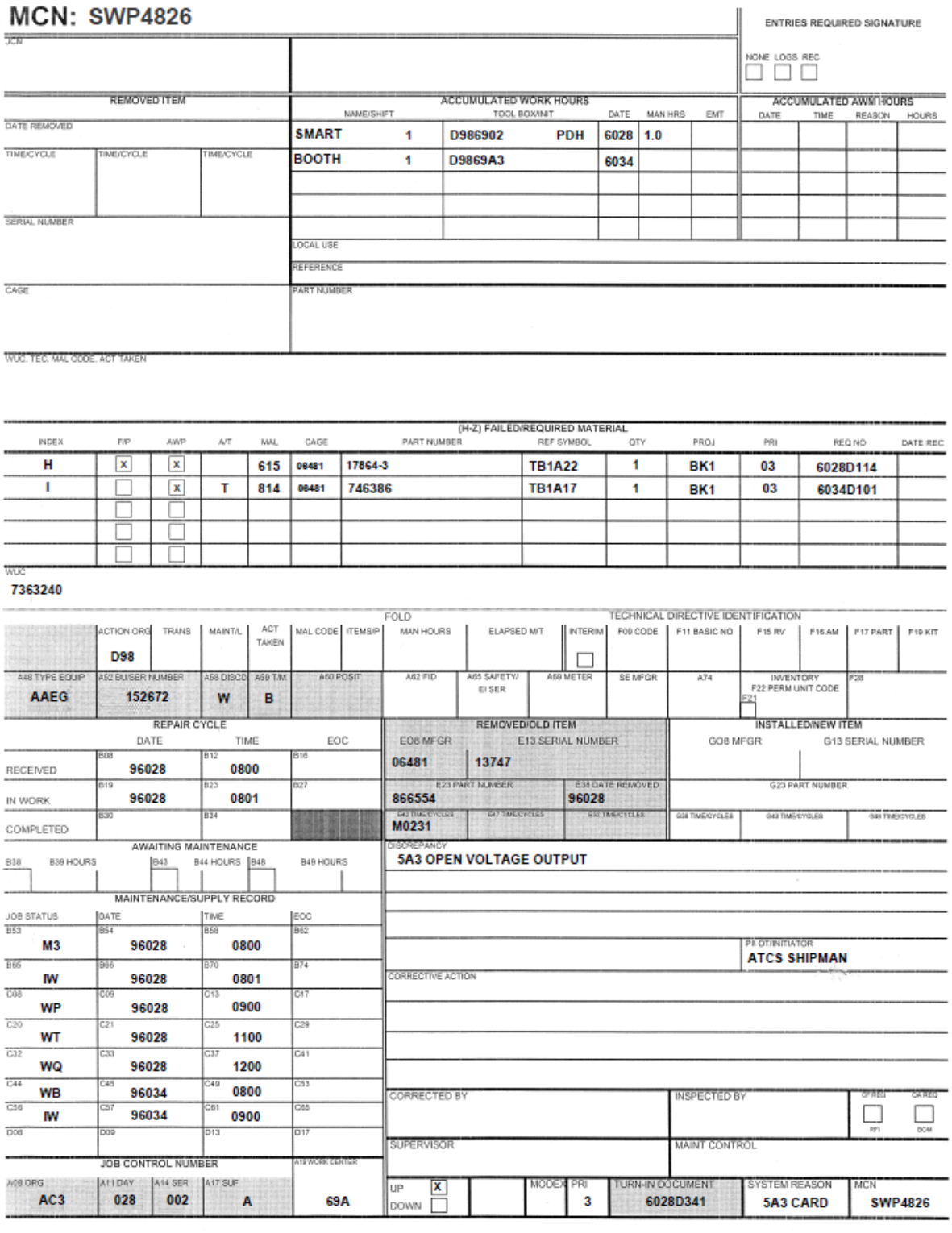
CORRECTIVE ACTION
REMOVED AND REPLACED BB10 IN VAST 1 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATC M JAMES	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATC M JAMES	ATCS A PERKINS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		BB10	CGF4826

Figure 16-47: Cannibalization (End Item) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	D986902	PDH	6028	1.0	
BOOTH	1	D9869A3		6034		

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X		615	06481	17864-3	TB1A22	1	BK1	03	6028D114	
I		X	T	814	06481	746386	TB1A17	1	BK1	03	6034D101	

WUC
7363240

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
D98														

A48 TYPE EQUIP	A52 EU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AAEG	152672	W	B									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	96028	0800	
IN WORK	96028	0801	
COMPLETED			

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	96028	0800	
IW	96028	0801	
WP	96028	0900	
WT	96028	1100	
WQ	96028	1200	
WB	96034	0800	
IW	96034	0900	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	028	002	A	69A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06481	13747

E23 PART NUMBER	E38 DATE REMOVED
866554	96028

E42 TIME/CYCLES: M0231

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
5A3 OPEN VOLTAGE OUTPUT

PR OTINITIATOR
ATCS SHIPMAN

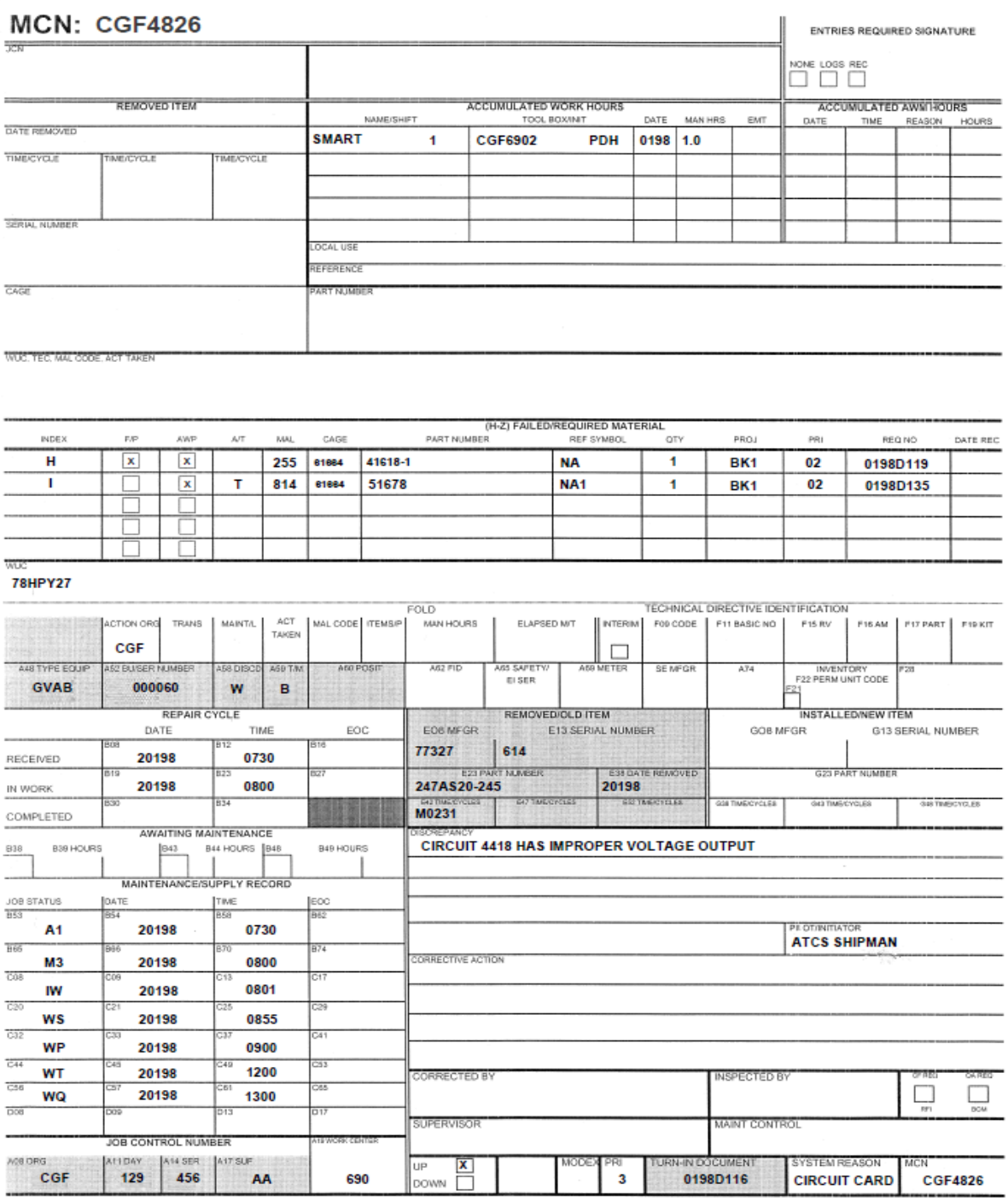
CORRECTIVE ACTION

CORRECTED BY | INSPECTED BY | QA REQ | QA REQ
RFI | BCM

SUPERVISOR | MAINT CONTROL

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			3	6028D341	5A3 CARD	SWP4826

Figure 16-48: Cannibalization (From AWP Component) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/NIT	DATE	MAN HRS	EMT
SMART 1	CGF6902 PDH	0198	1.0	

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X		255	81884	41618-1	NA	1	BK1	02	0198D119	
I		X	T	814	81884	51678	NA1	1	BK1	02	0198D135	

WUC
78HPY27

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF														

A48 TYPE EQUIP	A52 EU/SER NUMBER	A58 DISC	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	AT4	INVENTORY F22 PERM UNIT CODE	F21	F28
GVAB	000060	W	B									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20198	0730	
IN WORK	20198	0800	
COMPLETED			

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77327	614

E23 PART NUMBER	E38 DATE REMOVED
247AS20-245	20198

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0231		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

DISCREPANCY
CIRCUIT 4418 HAS IMPROPER VOLTAGE OUTPUT

PE OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20198	0730	
M3	20198	0800	
IW	20198	0801	
WS	20198	0855	
WP	20198	0900	
WT	20198	1200	
WQ	20198	1300	

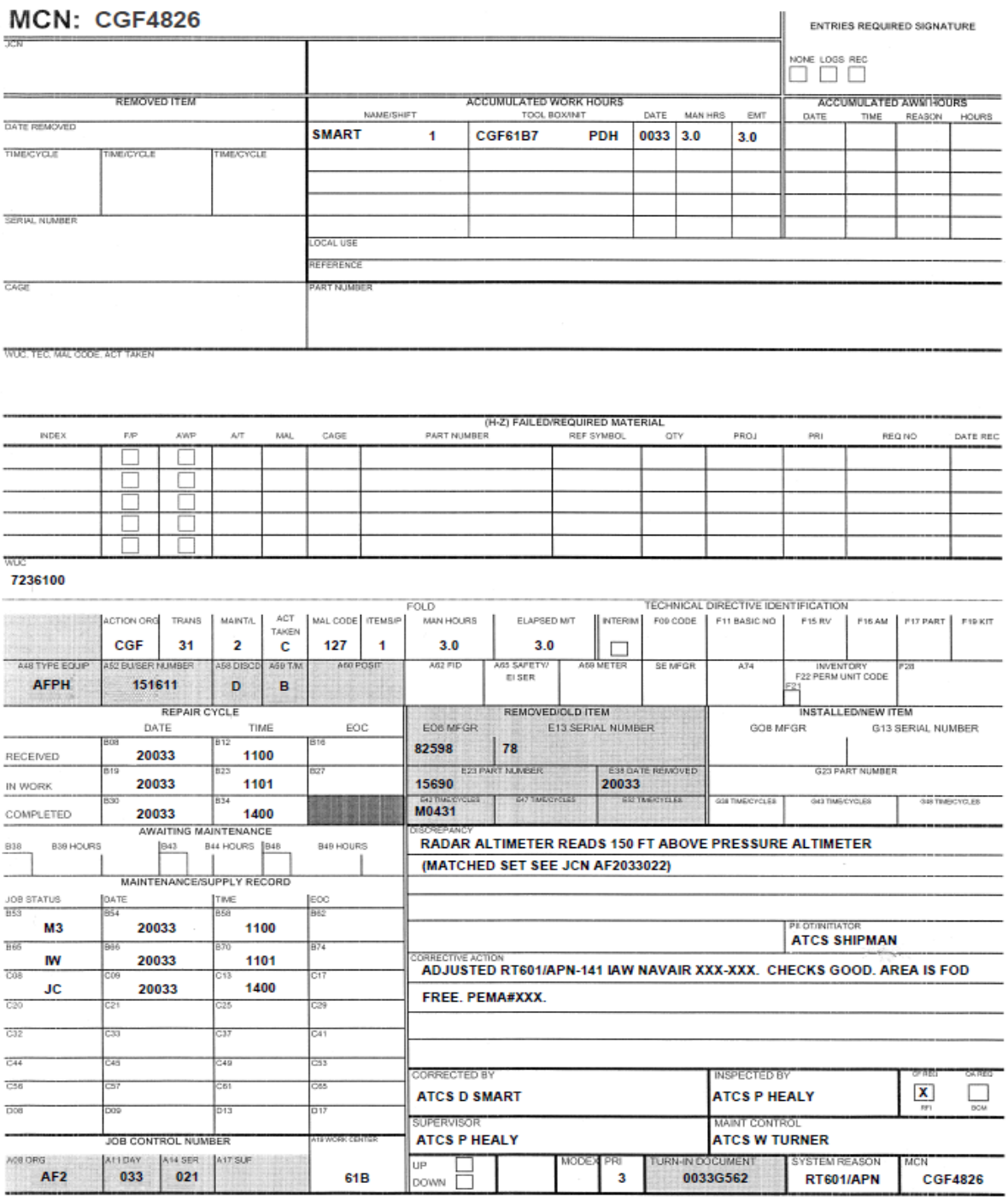
CORRECTED BY
INSPECTED BY
QA REJ
QA RED
RFI
BOM
SUPERVISOR
MAINT CONTROL

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	129	456	AA	690

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			3	0198D116	CIRCUIT CARD	CGF4826

Figure 16-49: Cannibalization (Off-Equipment) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART	1	CGF61B7	PDH	0033	3.0	3.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC

WUC
7236100

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	C	127	1	3.0	3.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AFPH	151611	D	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20033	1100	
IN WORK	20033	1101	
COMPLETED	20033	1400	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20033	1100	
IW	20033	1101	
JC	20033	1400	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AF2	033	021		61B

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
82598	78

E23 PART NUMBER	E38 DATE REMOVED
15690	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0431		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
RADAR ALTIMETER READS 150 FT ABOVE PRESSURE ALTIMETER
(MATCHED SET SEE JCN AF2033022)

PR DT/INITIATOR
ATCS SHIPMAN

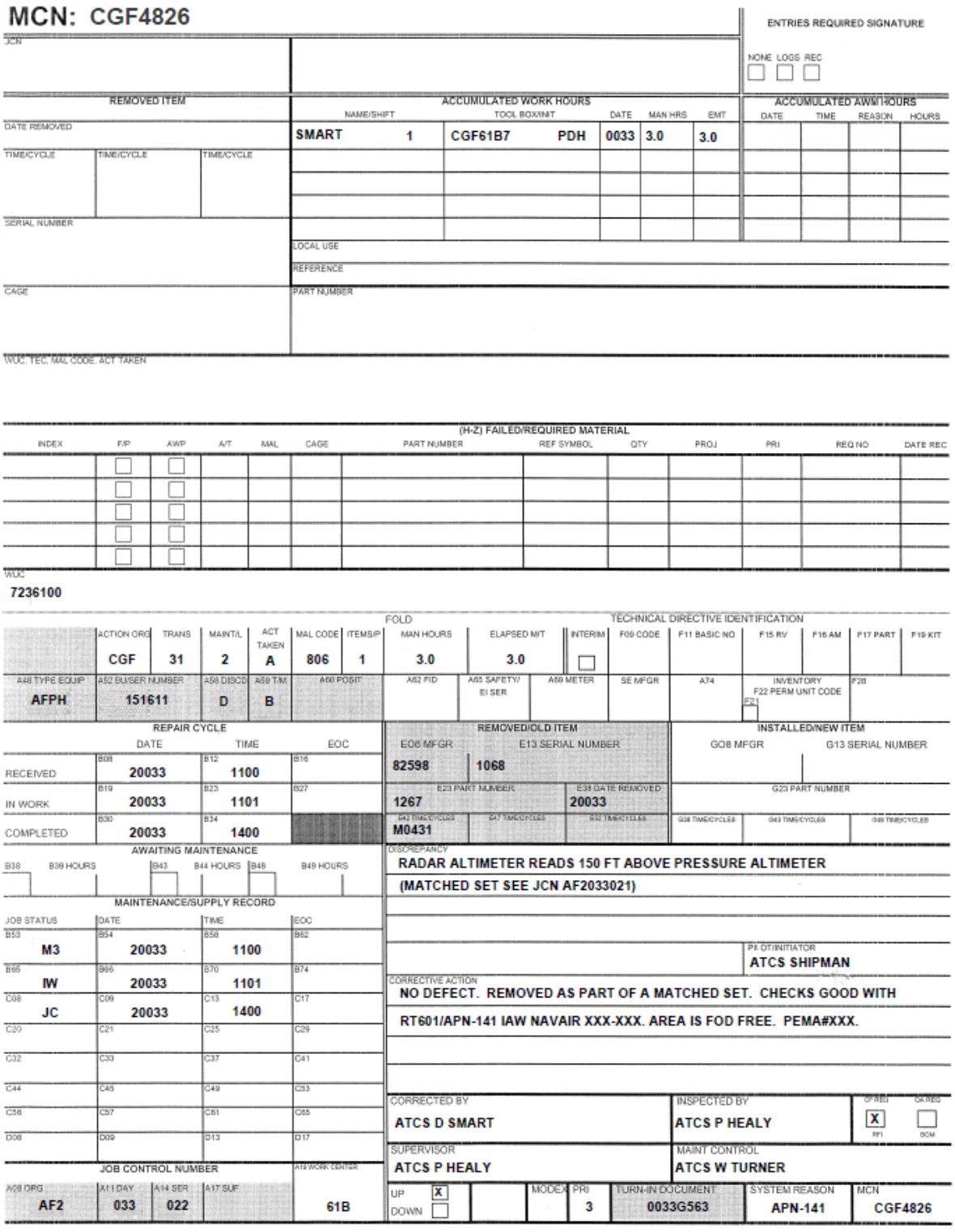
CORRECTIVE ACTION
ADJUSTED RT601/APN-141 IAW NAVAIR XXX-XXX. CHECKS GOOD. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	OF REQ	OA REQ
ATCS D SMART	ATCS P HEALY	X RFI	BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	ATCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3	0033G562	RT601/APN	CGF4826

Figure 16-50: Matched Set (Repair) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT	DATE	MAN HRS	EMT
SMART 1	CGF61B7 PDH	0033	3.0	3.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
7236100

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	A	806	1	3.0	3.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
AFPH	151611	D	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20033	B12 1100	B16
IN WORK	B19 20033	B23 1101	B27
COMPLETED	B30 20033	B34 1400	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20033	B58 1100	B62
B65 IW	B66 20033	B70 1101	B74
C08 JC	C09 20033	C13 1400	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AF2	033	022		61B

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
82598	1068

E23 PART NUMBER	E38 DATE REMOVED
1267	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0431		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
RADAR ALTIMETER READS 150 FT ABOVE PRESSURE ALTIMETER
(MATCHED SET SEE JCN AF2033021)

PR OTINITIATOR
ATCS SHIPMAN

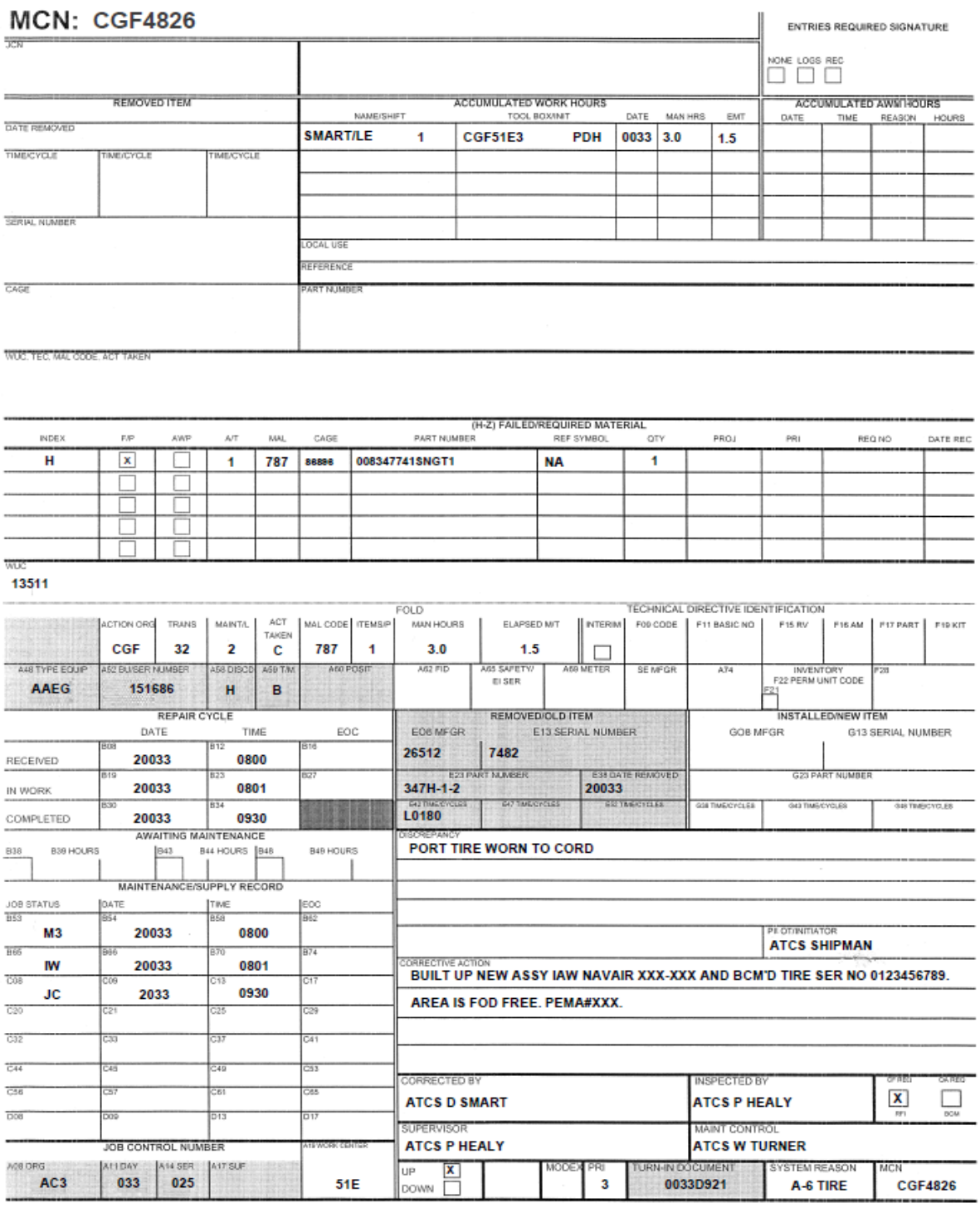
CORRECTIVE ACTION
NO DEFECT. REMOVED AS PART OF A MATCHED SET. CHECKS GOOD WITH
RT601/APN-141 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	OP REQ	QA REQ
ATCS D SMART	ATCS P HEALY	X RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	ATCS W TURNER

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3	0033G563	APN-141	CGF4826

Figure 16-51: Matched Set (No Repair) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART/LE	1	CGF51E3	PDH	0033	3.0	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		1	787	88888	008347741SNGT1	NA	1				

WUC
13511

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	787	1	3.0	1.5							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23
AAEG	151686	H	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20033	0800	
IN WORK	20033	0801	
COMPLETED	20033	0930	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20033	0800	
IW	20033	0801	
JC	2033	0930	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	033	025		51E

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
26512	7482

E23 PART NUMBER	E38 DATE REMOVED
347H-1-2	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
L0180		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER		

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
PORT TIRE WORN TO CORD

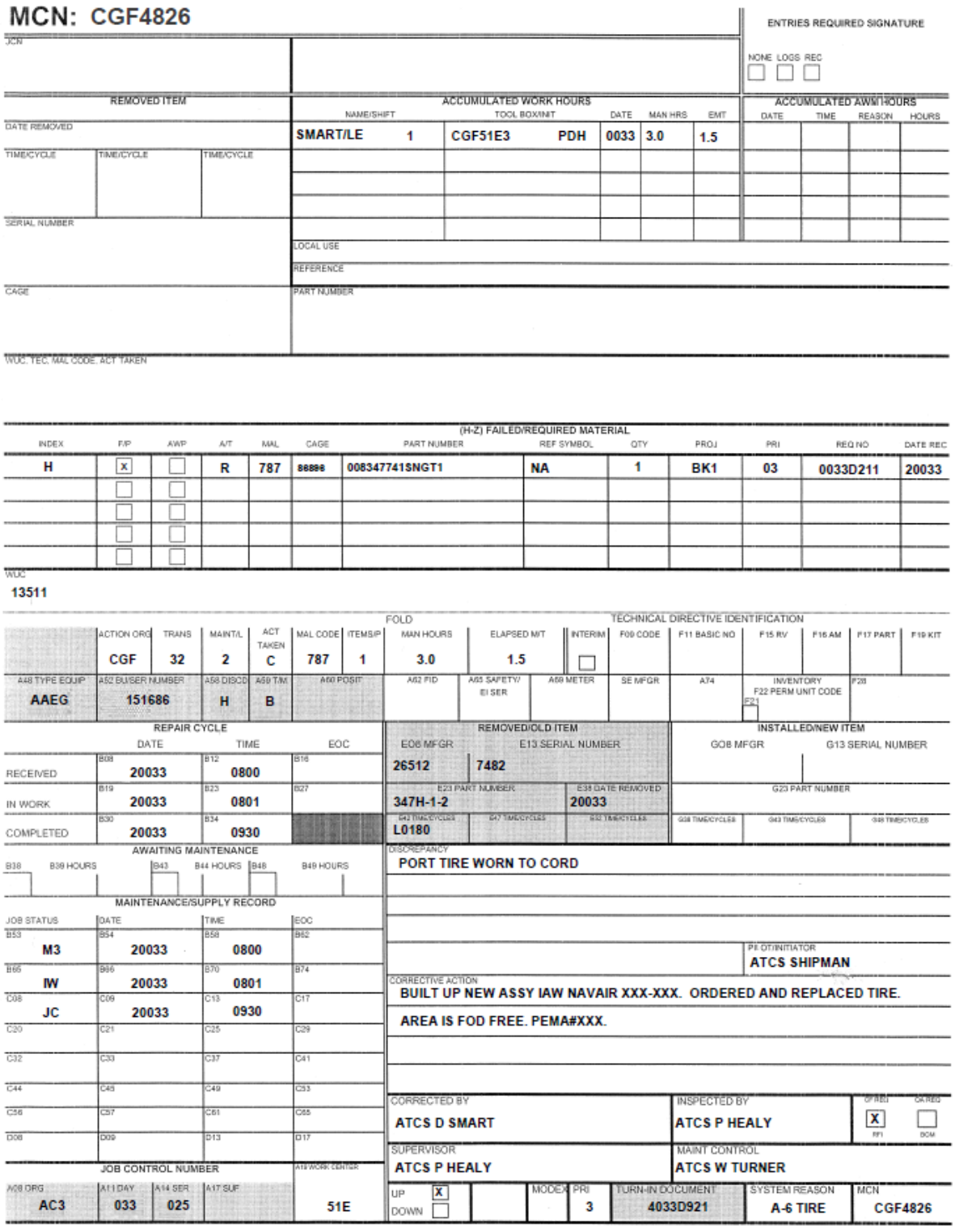
P# OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
BUILT UP NEW ASSY IAW NAVAIR XXX-XXX AND BCM'D TIRE SER NO 0123456789.
AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY: ATCS D SMART
INSPECTED BY: ATCS P HEALY
QA REQ: X
SUPERVISOR: ATCS P HEALY
MAINT CONTROL: ATCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			3	0033D921	A-6 TIRE	CGF4826

Figure 16-52: Tire and Wheel Documentation (Tires Prepositioned in W/C) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT	DATE	MAN HRS	EMT
SMART/LE 1	CGF51E3 PDH	0033	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	787	88888	008347741SNGT1	NA	1	BK1	03	0033D211	20033

WUC
13511

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	787	1	3.0	1.5							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AAEG	151686	H	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20033	B12 0800	B16
IN WORK	B19 20033	B23 0801	B27
COMPLETED	B30 20033	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20033	B58 0800	B62
B65 IW	B66 20033	B70 0801	B74
C08 JC	C09 20033	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	033	025		51E

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
26512	7482

E23 PART NUMBER	E38 DATE REMOVED
347H-1-2	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
L0180		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
PORT TIRE WORN TO CORD

PR OTINITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
BUILT UP NEW ASSY IAW NAVAIR XXX-XXX. ORDERED AND REPLACED TIRE.
AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

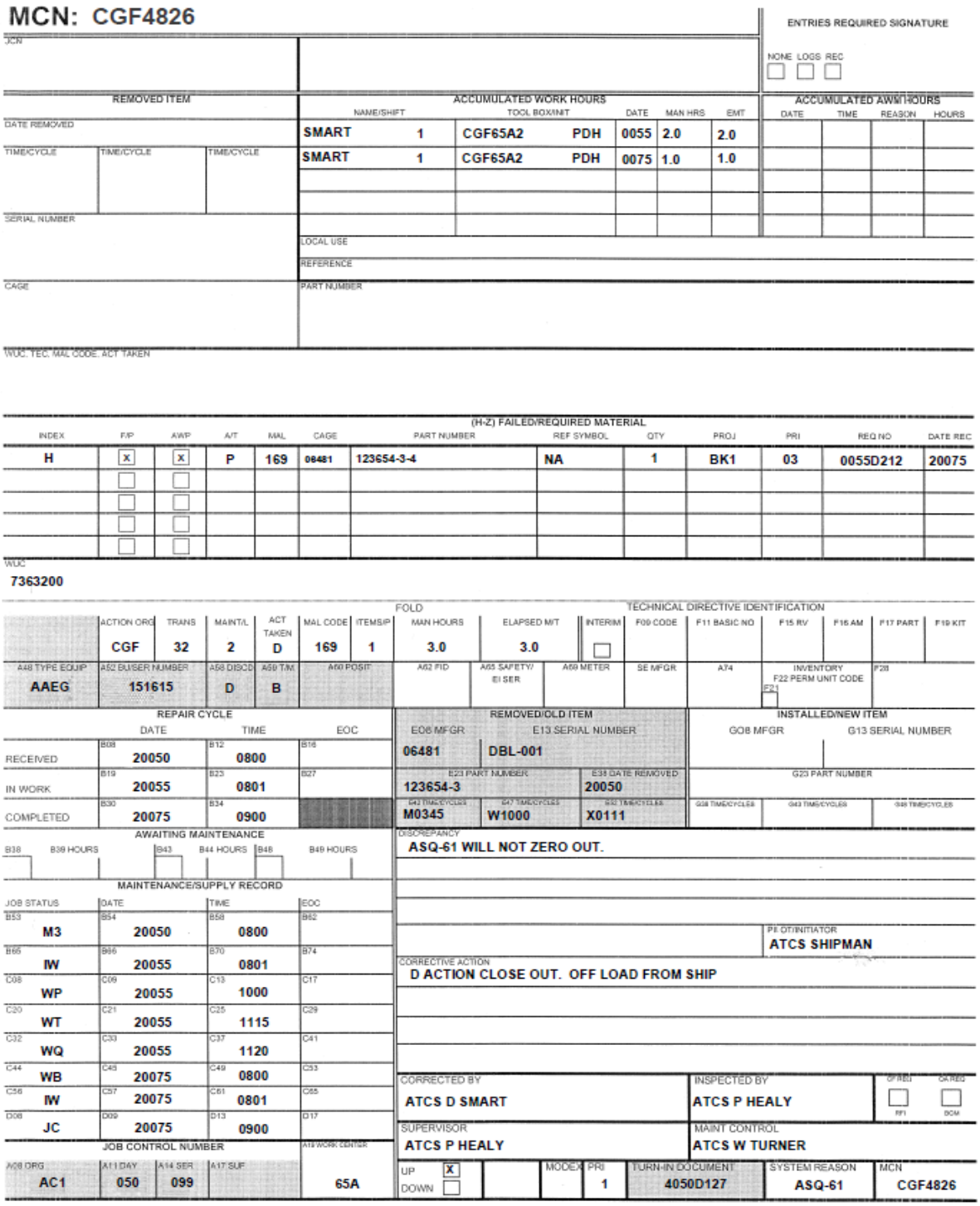
QA REQ: X (RFI) | QA REQ: (BOM)

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
ATCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			3	4033D921	A-6 TIRE	CGF4826

Figure 16-53: Tire and Wheel Documentation (Ordering Replacement Tire) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
SMART	1	CGF65A2	PDH	0055	2.0	2.0
SMART	1	CGF65A2	PDH	0075	1.0	1.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	P	169	06481	123654-3-4	NA	1	BK1	03	0055D212	20075

WUC
7363200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	D	169	1	3.0	3.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
AAEG	151615	D	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20050	B12 0800	B16
IN WORK	B19 20055	B23 0801	B27
COMPLETED	B30 20075	B34 0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20050	B58 0800	B62
B65 IW	B66 20055	B70 0801	B74
C08 WP	C09 20055	C13 1000	C17
C20 WT	C21 20055	C25 1115	C29
C32 WQ	C33 20055	C37 1120	C41
C44 WB	C45 20075	C49 0800	C53
C56 IW	C57 20075	C61 0801	C65
D08 JC	D09 20075	D13 0900	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC1	050	099		65A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06481	DBL-001

E23 PART NUMBER	E38 DATE REMOVED
123654-3	20050

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
M0345	W1000	X0111

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
ASQ-61 WILL NOT ZERO OUT.

PR ORIGINATOR
ATCS SHIPMAN

CORRECTIVE ACTION
D ACTION CLOSE OUT. OFF LOAD FROM SHIP

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

QA REQ: QA RFI | QA COM

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
ATCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			1	4050D127	ASQ-61	CGF4826

Figure 16-54: Transferring IMA Close Out (Post/Predeployment) (Example)

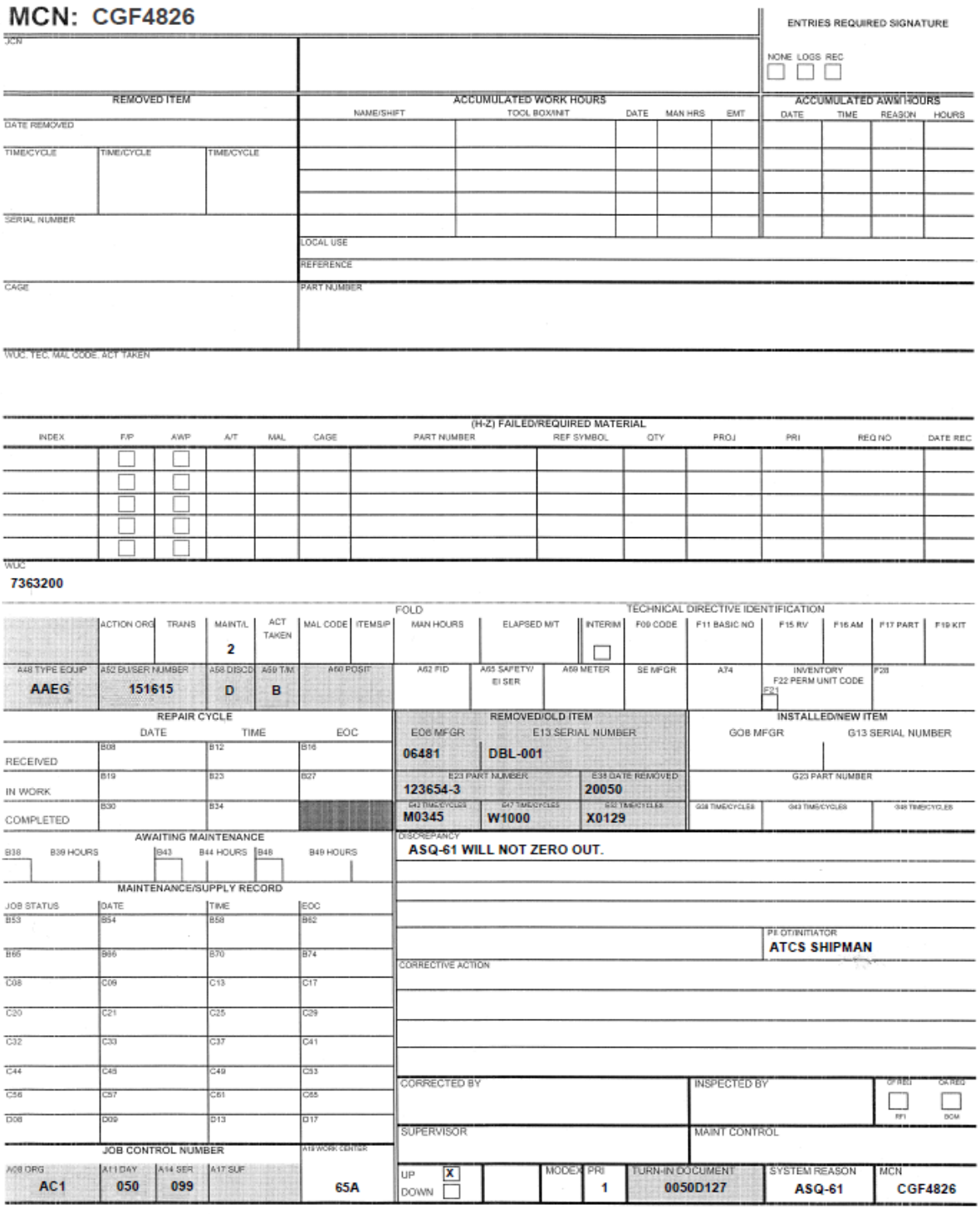


Figure 16-55: Receiving IMA (Reinitiation Documentation) (Example)

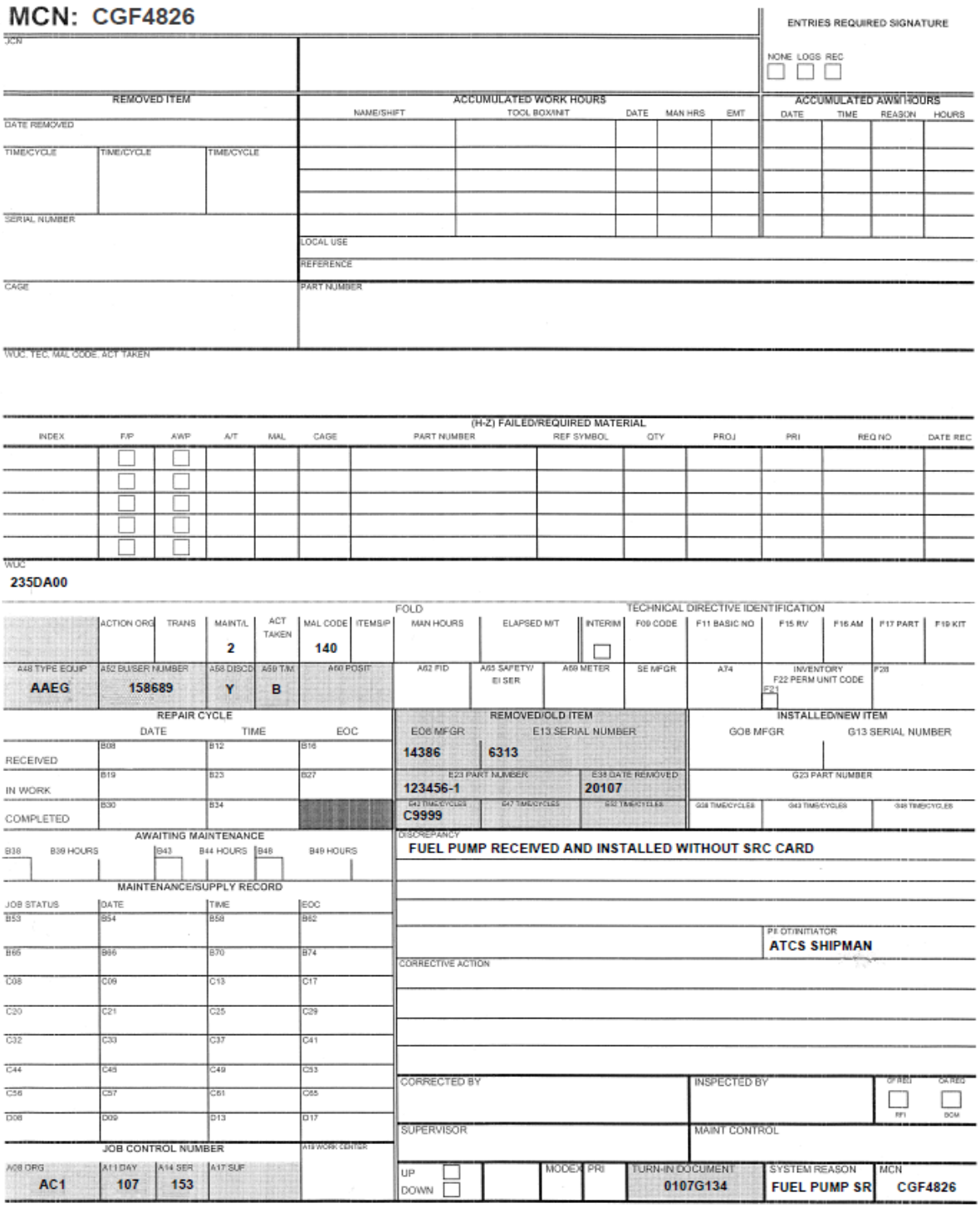
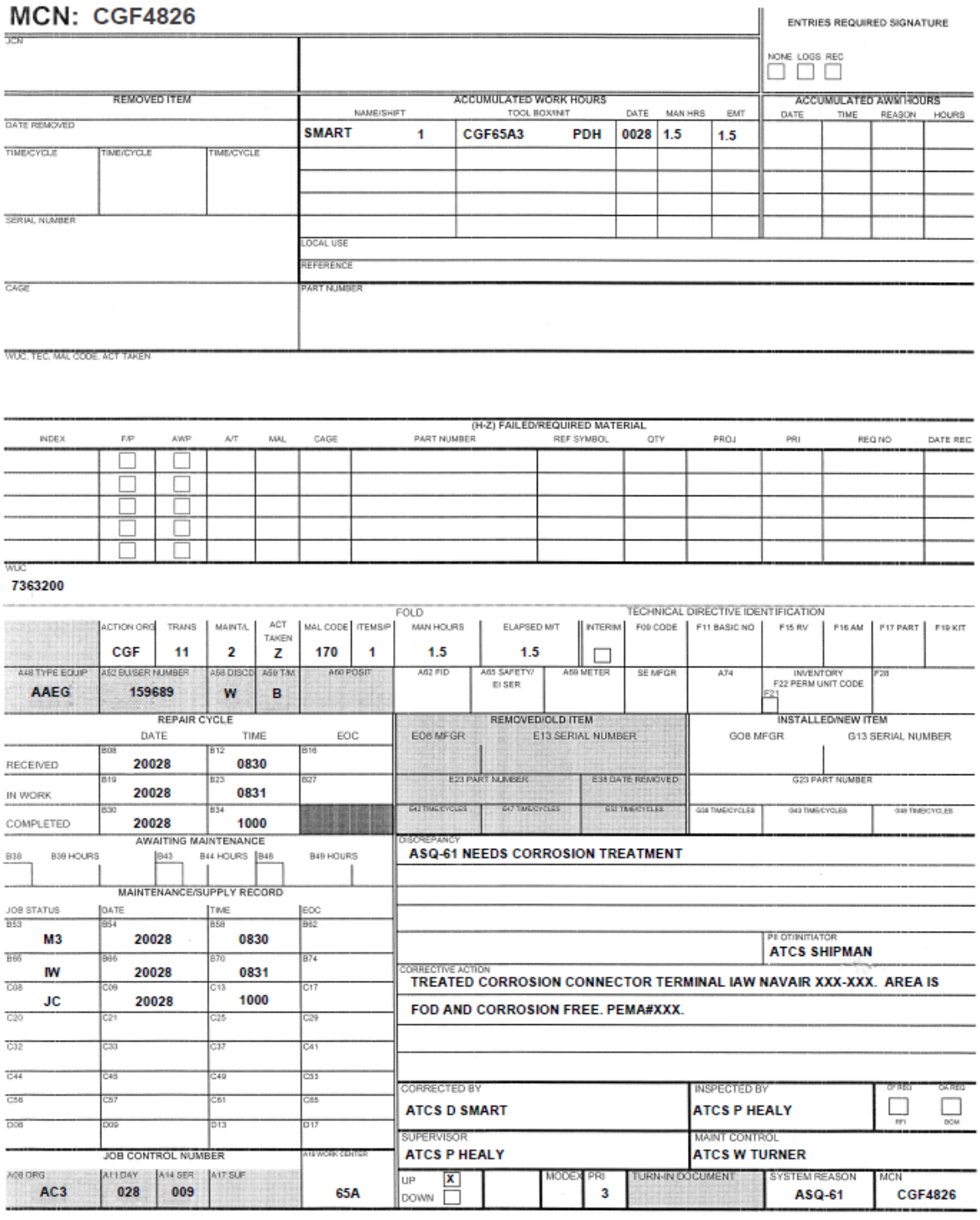


Figure 16-56: Component Missing SRC Card (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
SMART	1	CGF65A3	PDH	0028	1.5	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
7363200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	11	2	Z	170	1	1.5	1.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AAEG	159689	W	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20028	B12 0830	B16
IN WORK	B19 20028	B23 0831	B27
COMPLETED	B30 20028	B34 1000	

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20028	B58 0830	B62
B65 IW	B66 20028	B70 0831	B74
C08 JC	C09 20028	C13 1000	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	028	009		65A

REMOVED/OLD ITEM
E08 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
ASQ-61 NEEDS CORROSION TREATMENT

PE OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
TREATED CORROSION CONNECTOR TERMINAL IAW NAVAIR XXX-XXX. AREA IS FOD AND CORROSION FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATCS P HEALY	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	ATCS W TURNER

UP	DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐			3		ASQ-61	CGF4826

Figure 16-57: Corrosion Supporting MAF (Example)

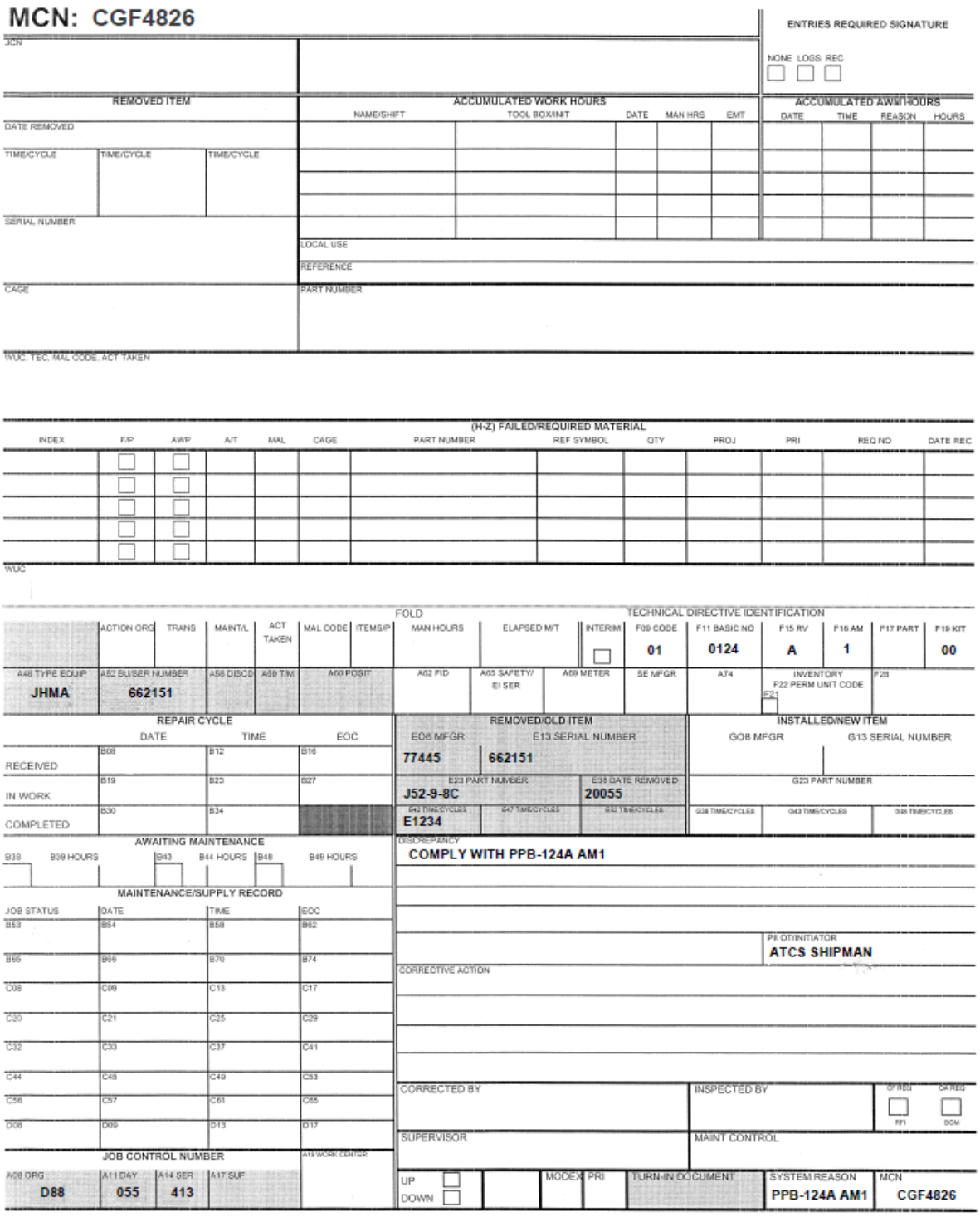


Figure 16-58: Turn-In from Supply for TD Compliance (Example)

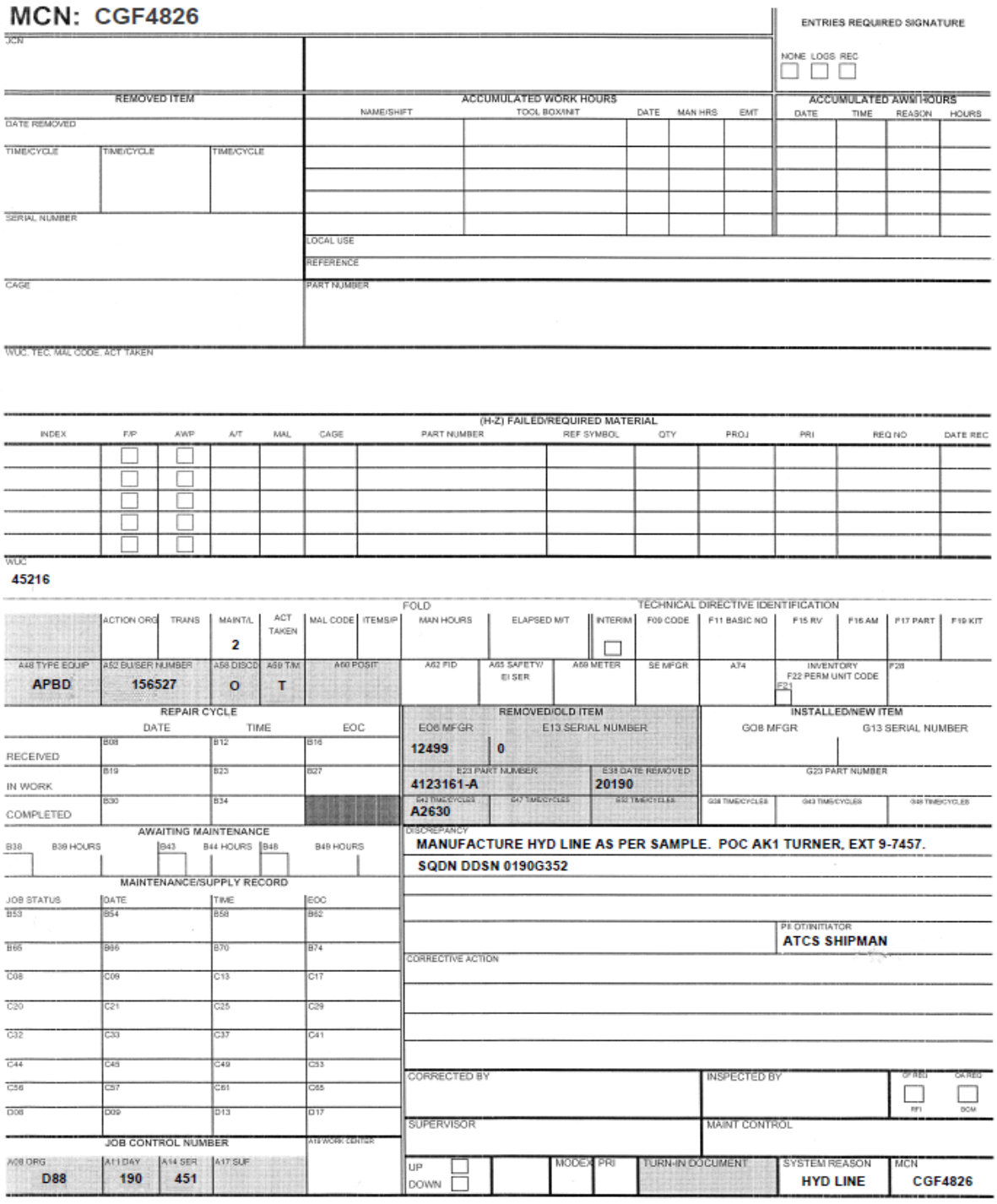


Figure 16-59: VIDS/MAF Work Request (Production Control Entries) (Example)

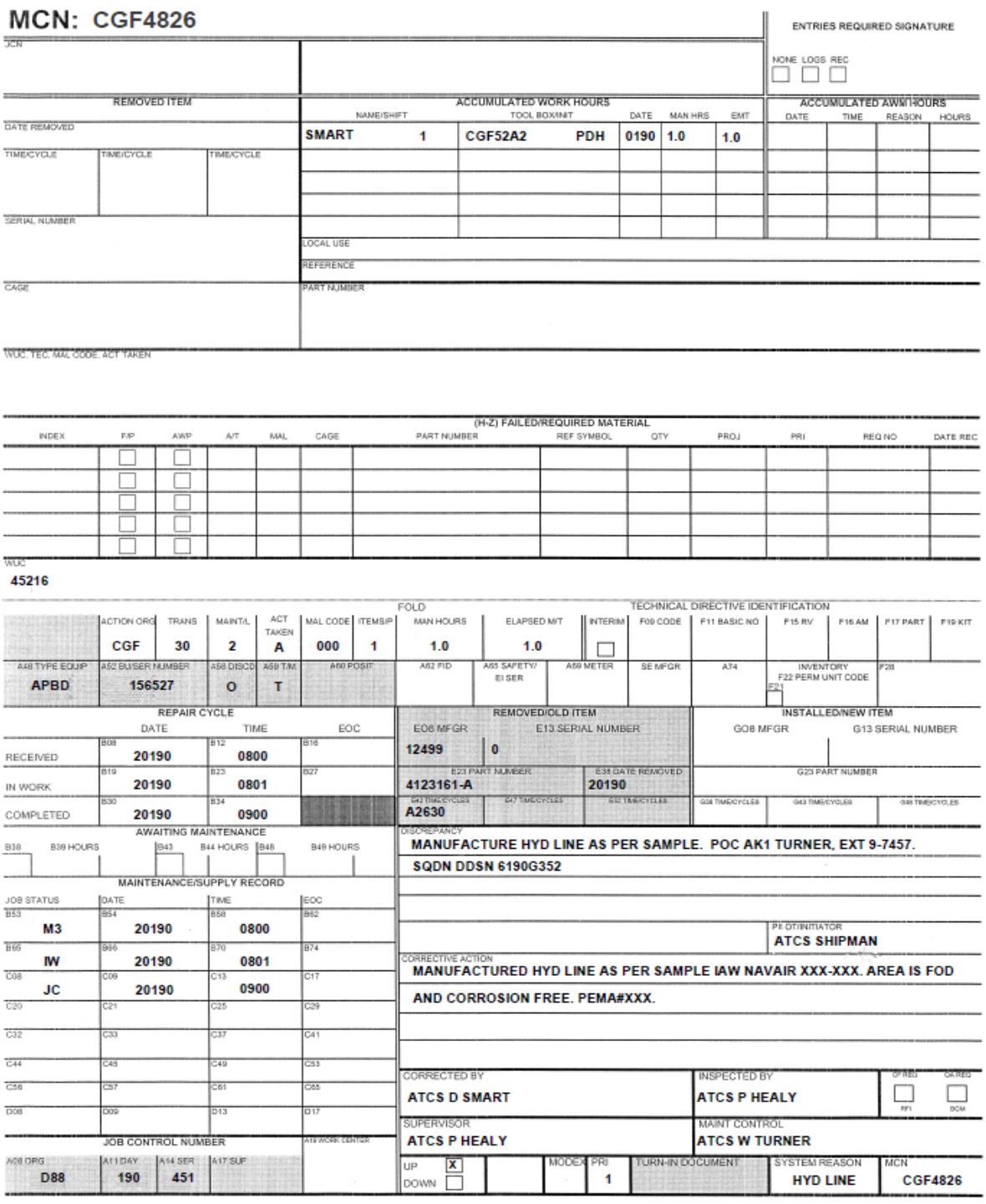


Figure 16-60: VIDS/MAF Work Request (Local Manufacture/Fabrication) (Example)

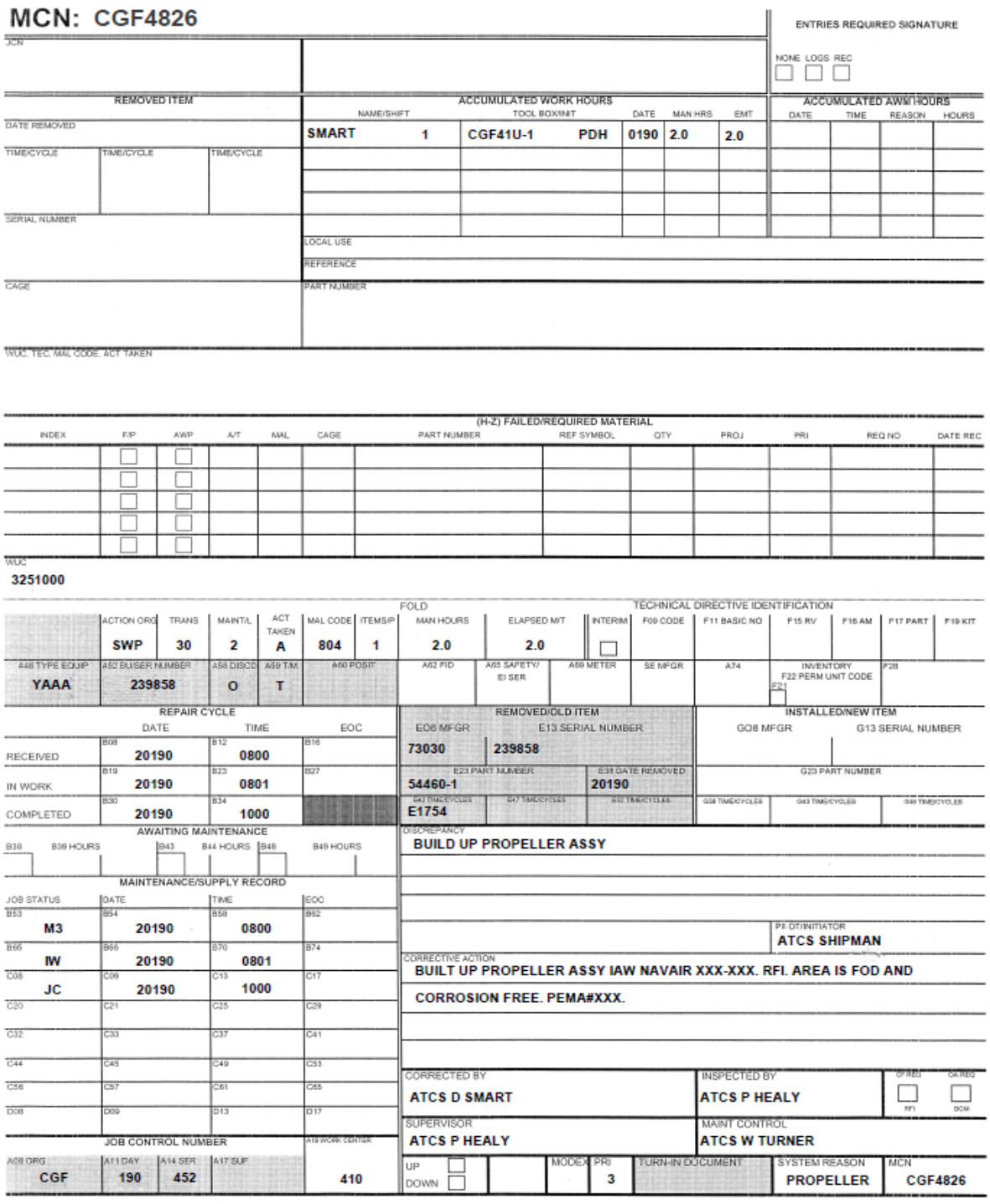
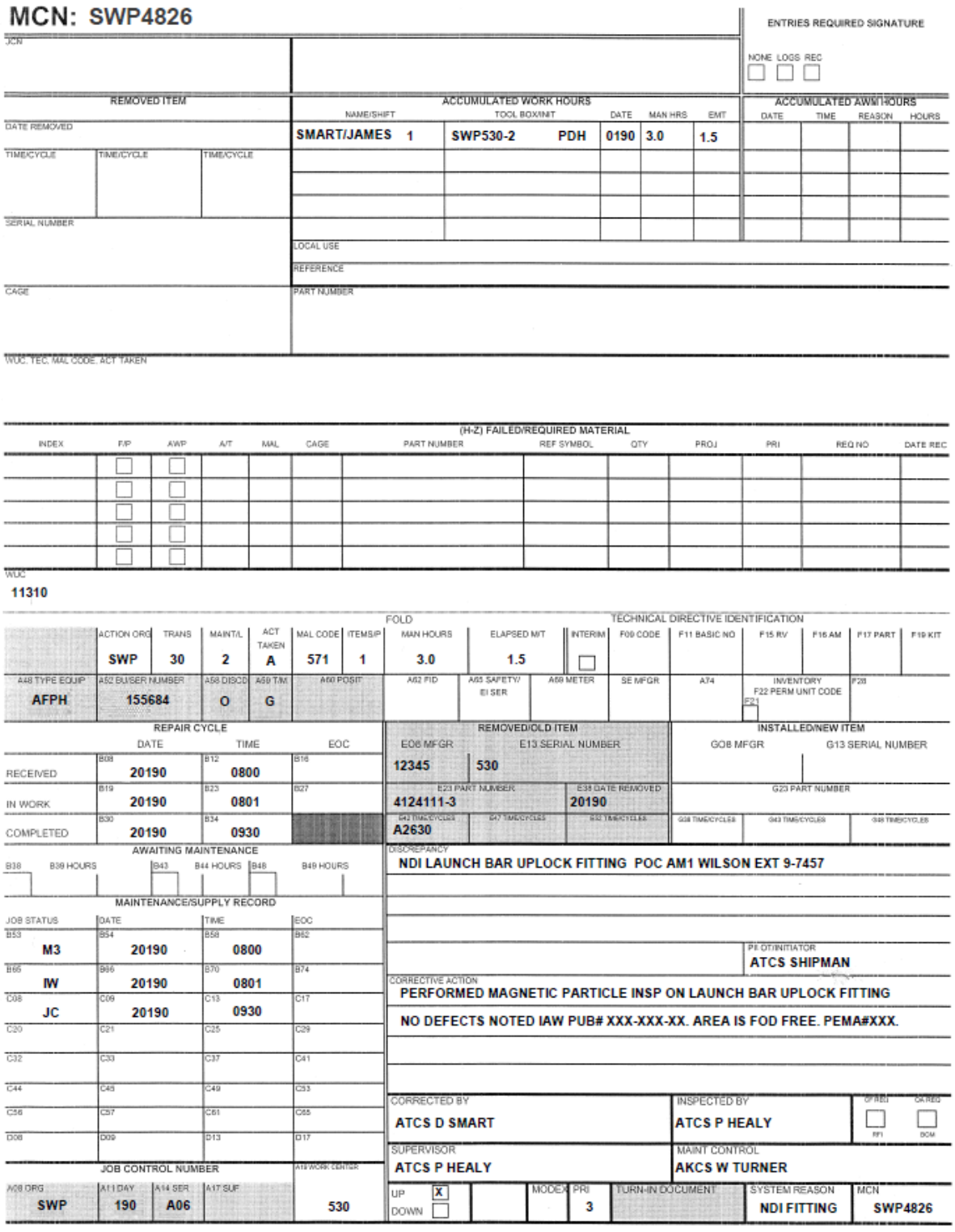


Figure 16-61: VIDS/MAF Work Request (Supply Asset Build-Up Induction) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART/JAMES 1	SWP530-2	PDH	0190	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
11310

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	A	571	1	3.0	1.5	☐						

A48 TYPE EQUIP	A52 EQUIP NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AFPH	155684	O	G								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20190	B12 0800	B16
IN WORK	B19 20190	B23 0801	B27
COMPLETED	B30 20190	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20190	B58 0800	B62
B65 IW	B66 20190	B70 0801	B74
C08 JC	C09 20190	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	190	A06		530

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
12345	530

E23 PART NUMBER	E38 DATE REMOVED
4124111-3	20190

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A2630		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
NDI LAUNCH BAR UPLOCK FITTING POC AM1 WILSON EXT 9-7457

PR OT/INITIATOR
ATCS SHIPMAN

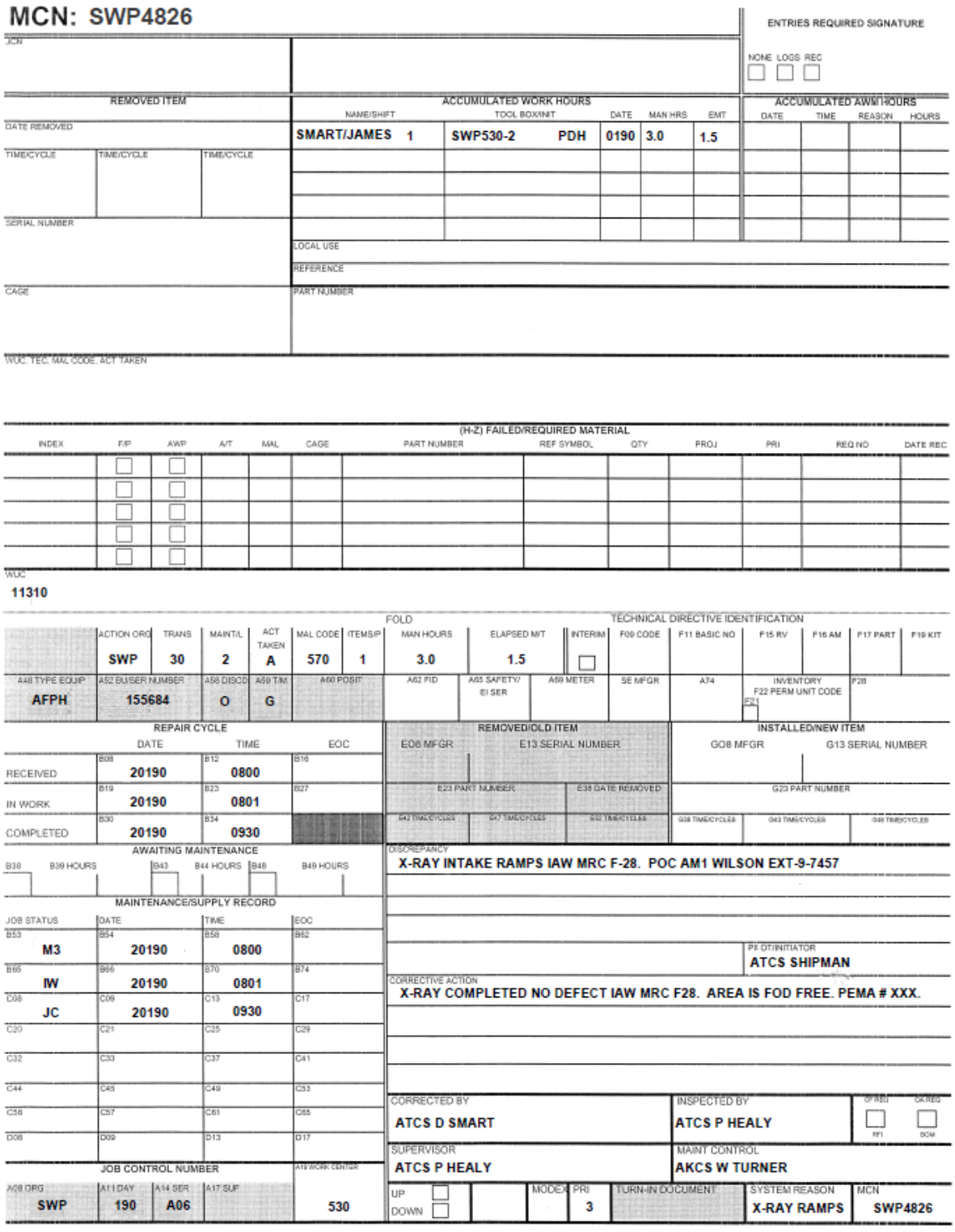
CORRECTIVE ACTION
PERFORMED MAGNETIC PARTICLE INSP ON LAUNCH BAR UPLOCK FITTING
NO DEFECTS NOTED IAW PUB# XXX-XXX-XX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATCS P HEALY	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	AKCS W TURNER

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		NDI FITTING	SWP4826

Figure 16-62: Scheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART/JAMES 1	SWP530-2	PDH	0190	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
11310

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	A	570	1	3.0	1.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AFPH	155684	O	G									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20190	B12 0800	B16
IN WORK	B19 20190	B23 0801	B27
COMPLETED	B30 20190	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20190	B58 0800	B62
B65 IW	B66 20190	B70 0801	B74
C08 JC	C09 20190	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	190	A06		530

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
X-RAY INTAKE RAMPS IAW MRC F-28. POC AM1 WILSON EXT-9-7457

PR OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
X-RAY COMPLETED NO DEFECT IAW MRC F28. AREA IS FOD FREE. PEMA # XXX.

CORRECTED BY
ATCS D SMART

INSPECTED BY
ATCS P HEALY

QA REQ ☐ | QA REQ ☐

SUPERVISOR
ATCS P HEALY

MAINT CONTROL
AKCS W TURNER

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON X-RAY RAMPS | MCN SWP4826

Figure 16-63: **Scheduled Maintenance Work Request (NDI On-Site) (Passed Inspection) (Example)**

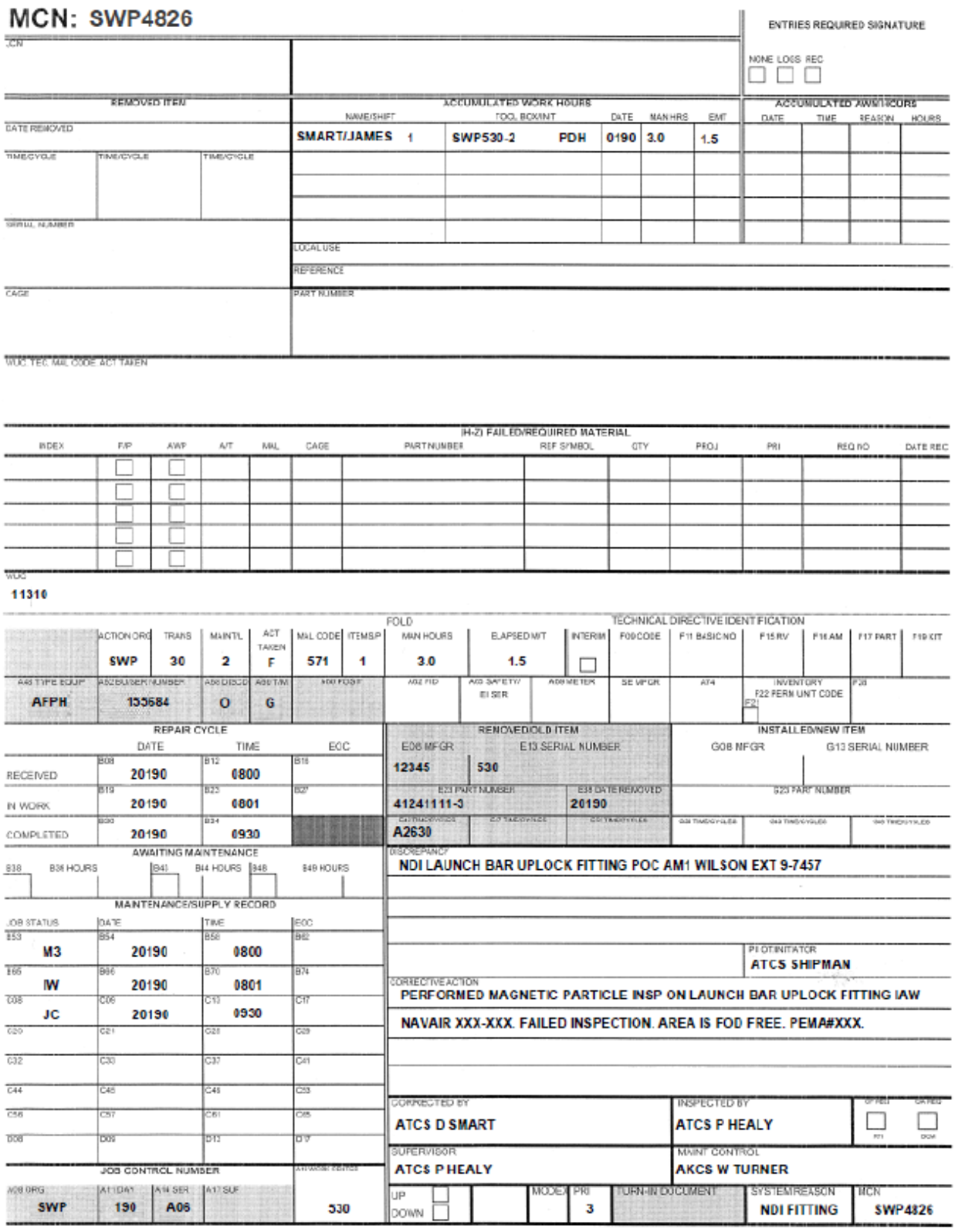
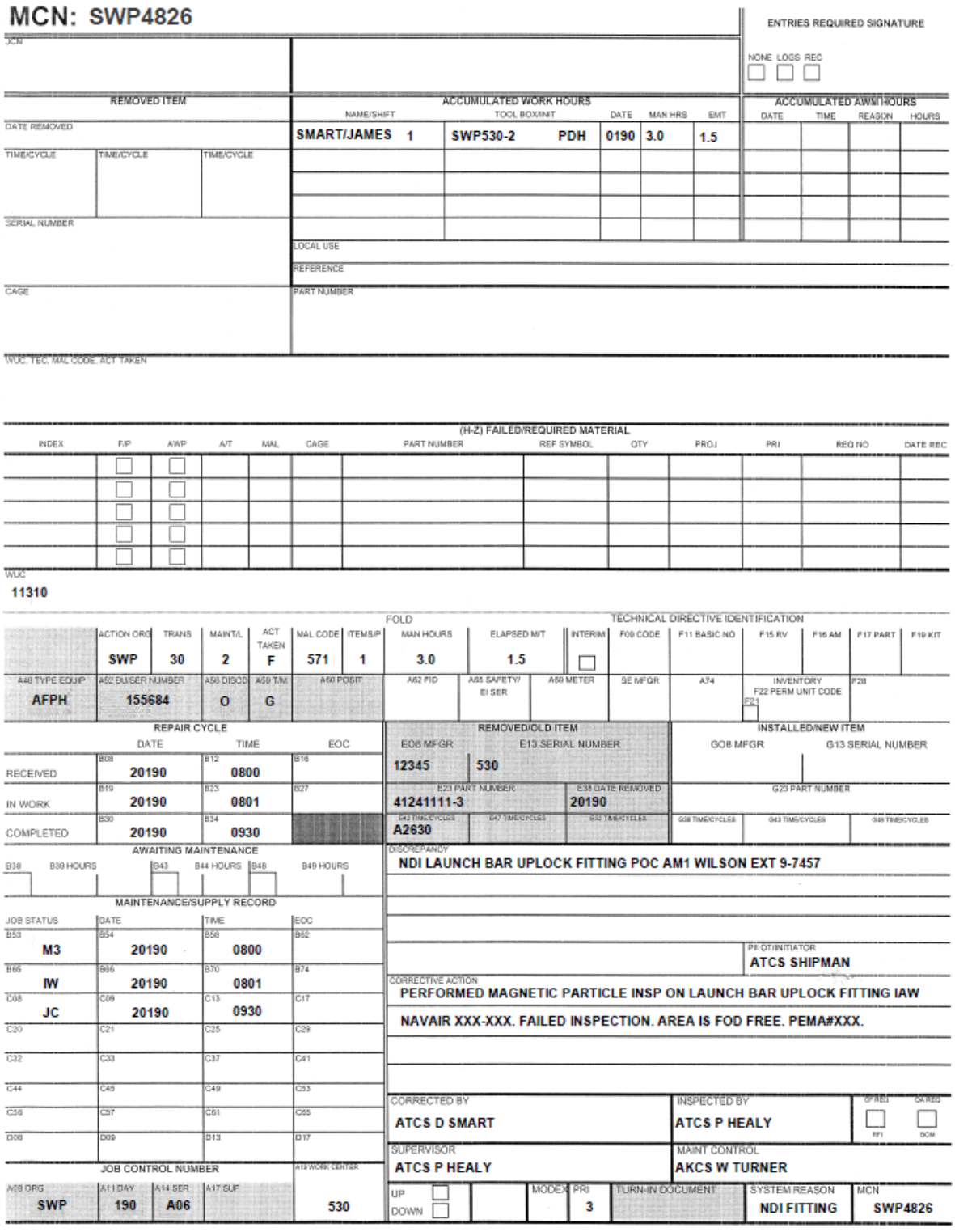


Figure 16-64: Scheduled Maintenance Work Request (NDI On-Site) (Failed Inspection) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/UNIT		DATE	MAN HRS	EMT
SMART/JAMES 1	SWP530-2	PDH	0190	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
11310

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	F	571	1	3.0	1.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
AFPH	155684	O	G								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20190	B12 0800	B16
IN WORK	B19 20190	B23 0801	B27
COMPLETED	B30 20190	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20190	B58 0800	B62
B65 IW	B66 20190	B70 0801	B74
C08 JC	C09 20190	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	190	A06		530

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
12345	530

E23 PART NUMBER	E38 DATE REMOVED
41241111-3	20190

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A2630		

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
NDI LAUNCH BAR UPLOCK FITTING POC AM1 WILSON EXT 9-7457

PR OT/INITIATOR
ATCS SHIPMAN

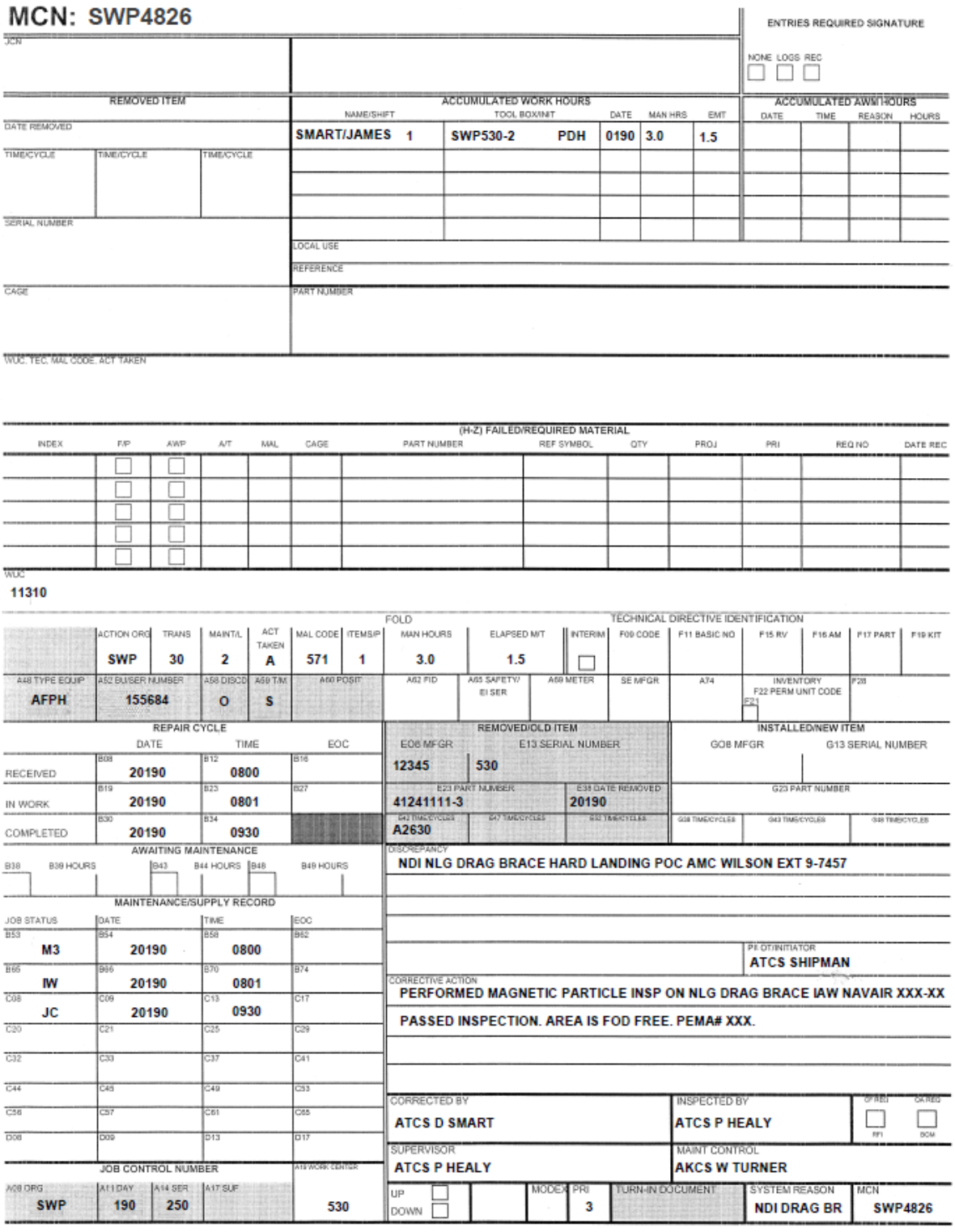
CORRECTIVE ACTION
PERFORMED MAGNETIC PARTICLE INSP ON LAUNCH BAR UPLOCK FITTING IAW
NAVAIR XXX-XXX. FAILED INSPECTION. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATCS P HEALY	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	AKCS W TURNER

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		NDI FITTING	SWP4826

Figure 16-65: **Scheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) (Example)**



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT		DATE	MAN HRS	EMT
SMART/JAMES 1	SWP530-2	PDH	0190	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
11310

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	A	571	1	3.0	1.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
AFPH	155684	O	S								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20190	B12 0800	B16
IN WORK	B19 20190	B23 0801	B27
COMPLETED	B30 20190	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20190	B58 0800	B62
B65 IW	B66 20190	B70 0801	B74
C08 JC	C09 20190	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	190	250		530

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
12345	530

E23 PART NUMBER	E38 DATE REMOVED
41241111-3	20190

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A2630		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
NDI NLG DRAG BRACE HARD LANDING POC AMC WILSON EXT 9-7457

PR OT/INITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
PERFORMED MAGNETIC PARTICLE INSP ON NLG DRAG BRACE IAW NAVAIR XXX-XX

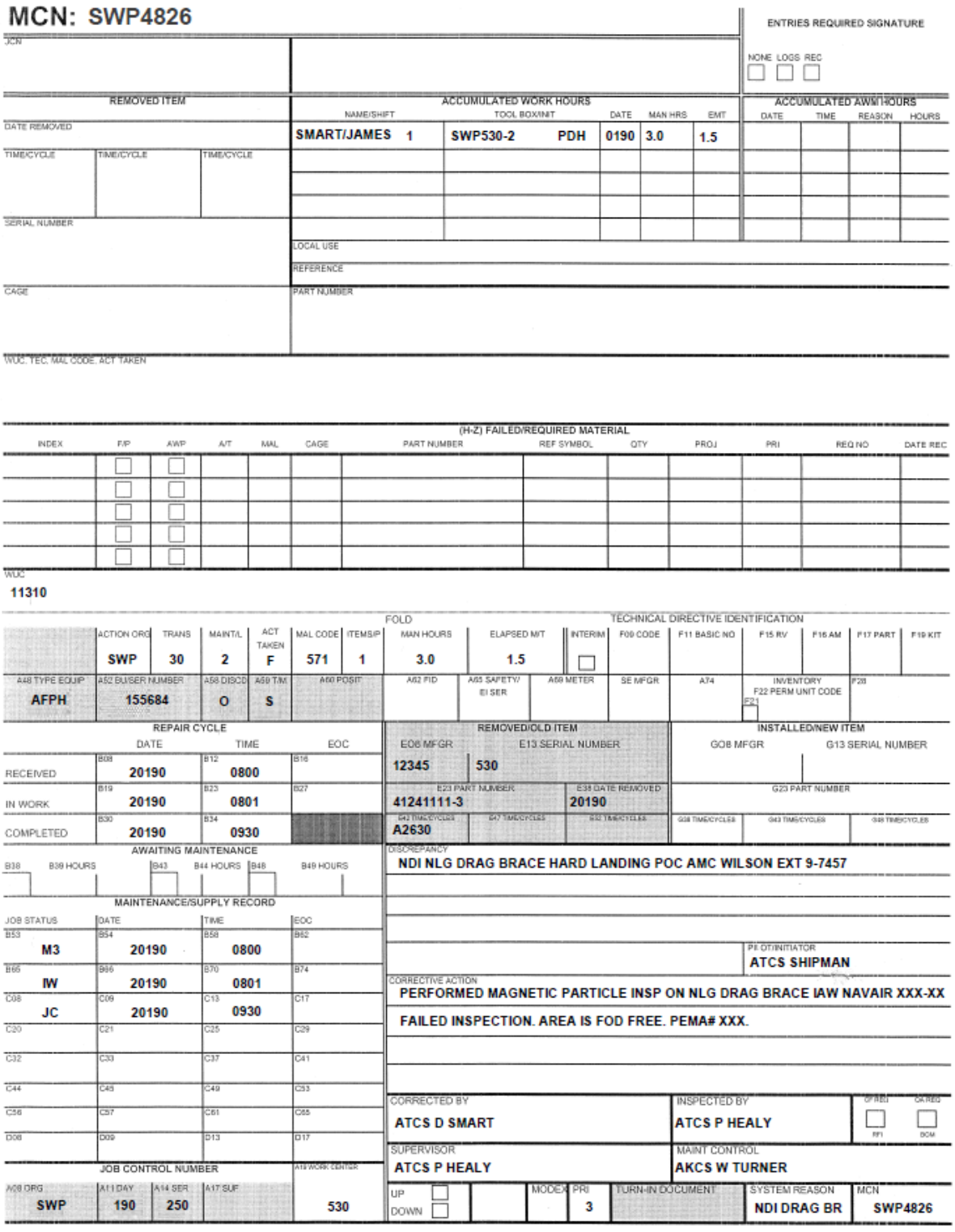
PASSED INSPECTION. AREA IS FOD FREE. PEMA# XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATCS P HEALY	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	AKCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ UP ☐ DOWN			3		NDI DRAG BR	SWP4826

Figure 16-66: Unscheduled Maintenance Work Request (NDI In-Shop) (Passed Inspection) (Example)



MCN: SWP4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/UNIT		DATE	MAN HRS	EMT
SMART/JAMES 1	SWP530-2	PDH	0190	3.0	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
11310

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	F	571	1	3.0	1.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AFPH	155684	O	S								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20190	B12 0800	B16
IN WORK	B19 20190	B23 0801	B27
COMPLETED	B30 20190	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20190	B58 0800	B62
B65 IW	B66 20190	B70 0801	B74
C08 JC	C09 20190	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	190	250		530

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
12345	530

E23 PART NUMBER	E38 DATE REMOVED
41241111-3	20190

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A2630		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
NDI NLG DRAG BRACE HARD LANDING POC AMC WILSON EXT 9-7457

PR OTINITIATOR
ATCS SHIPMAN

CORRECTIVE ACTION
PERFORMED MAGNETIC PARTICLE INSP ON NLG DRAG BRACE IAW NAVAIR XXX-XX

FAILED INSPECTION. AREA IS FOD FREE. PEMA# XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SMART	ATCS P HEALY	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS P HEALY	AKCS W TURNER

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		NDI DRAG BR	SWP4826

Figure 16-67: Unscheduled Maintenance Work Request (NDI In-Shop) (Failed Inspection) (Example)

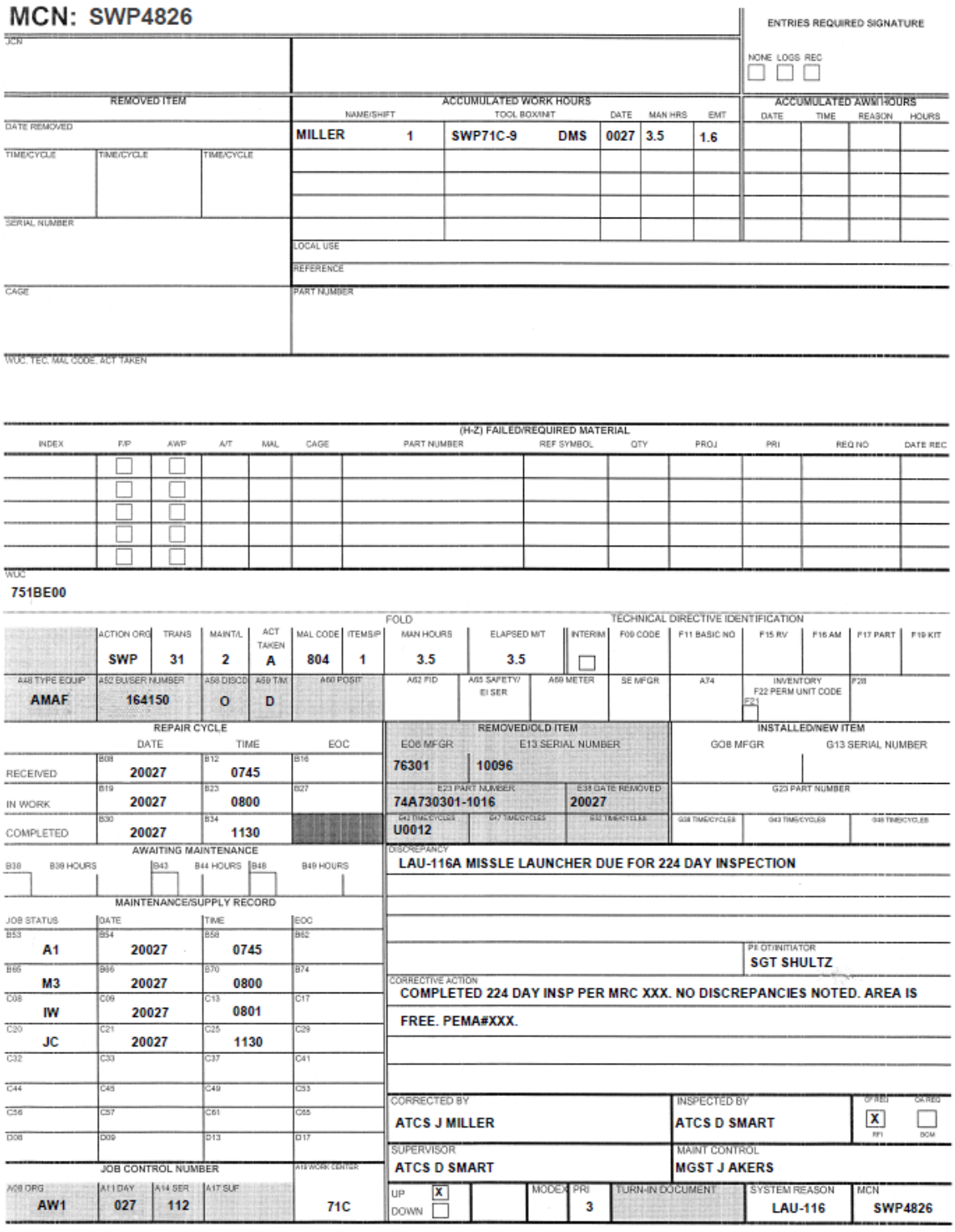
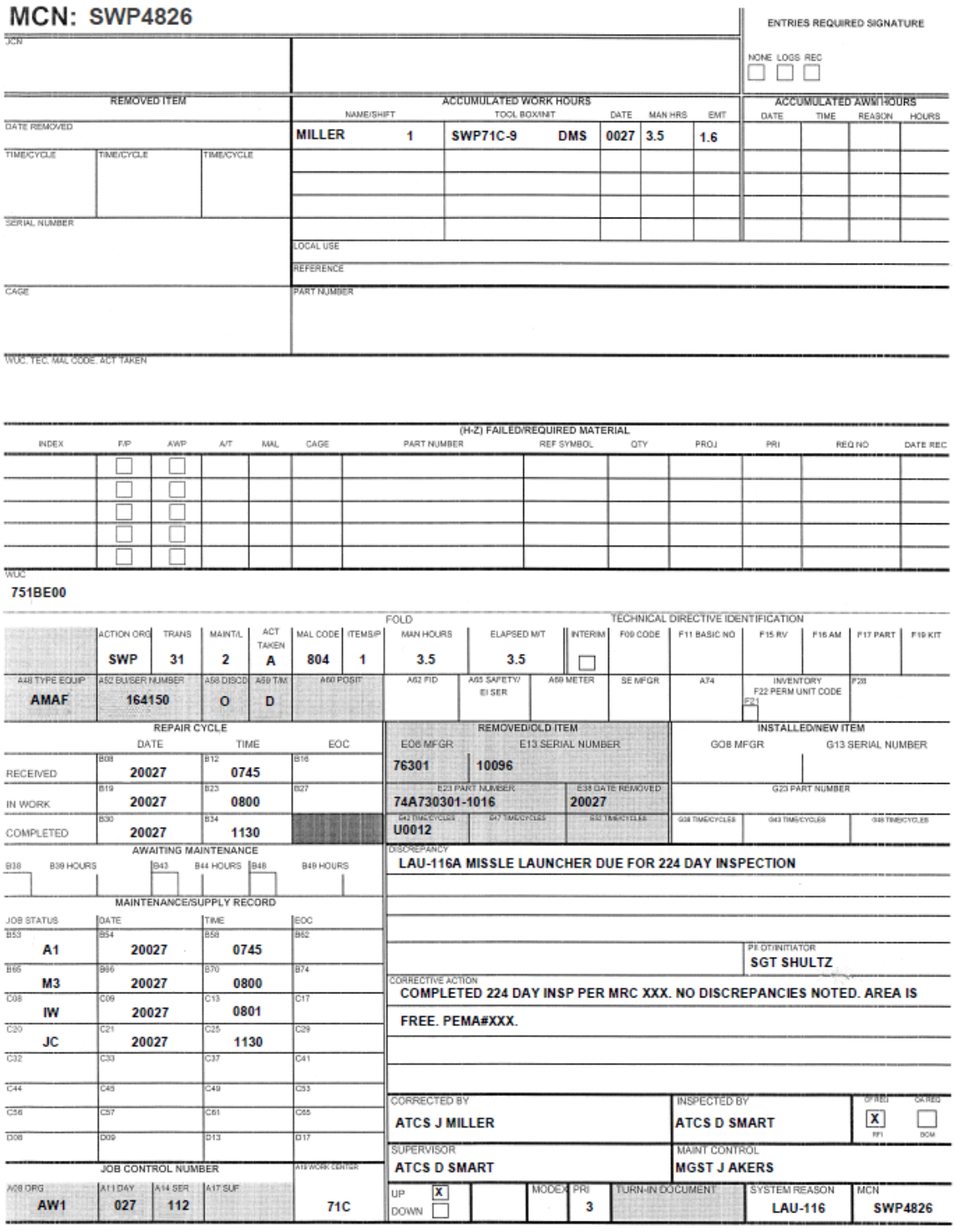


Figure 16-68: O-Level Armament Equipment Turn-In for Scheduled Maintenance (Example)



MCN: SWP4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP71C-9	DMS	0027	3.5	1.6

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
751BE00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	31	2	A	804	1	3.5	3.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AMAF	164150	O	D									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0745	B16
IN WORK	B19 20027	B23 0800	B27
COMPLETED	B30 20027	B34 0800	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20027	B58 0745	B62
B65 M3	B66 20027	B70 0800	B74
C08 IW	C09 20027	C13 0801	C17
C20 JC	C21 20027	C25 1130	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AW1	027	112		71C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
76301	10096

E23 PART NUMBER	E38 DATE REMOVED
74A730301-1016	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
U0012		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
LAU-116A MISSLE LAUNCHER DUE FOR 224 DAY INSPECTION

PI OT/INITIATOR
SGT SHULTZ

CORRECTIVE ACTION
COMPLETED 224 DAY INSP PER MRC XXX. NO DISCREPANCIES NOTED. AREA IS FREE. PEMA#XXX.

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

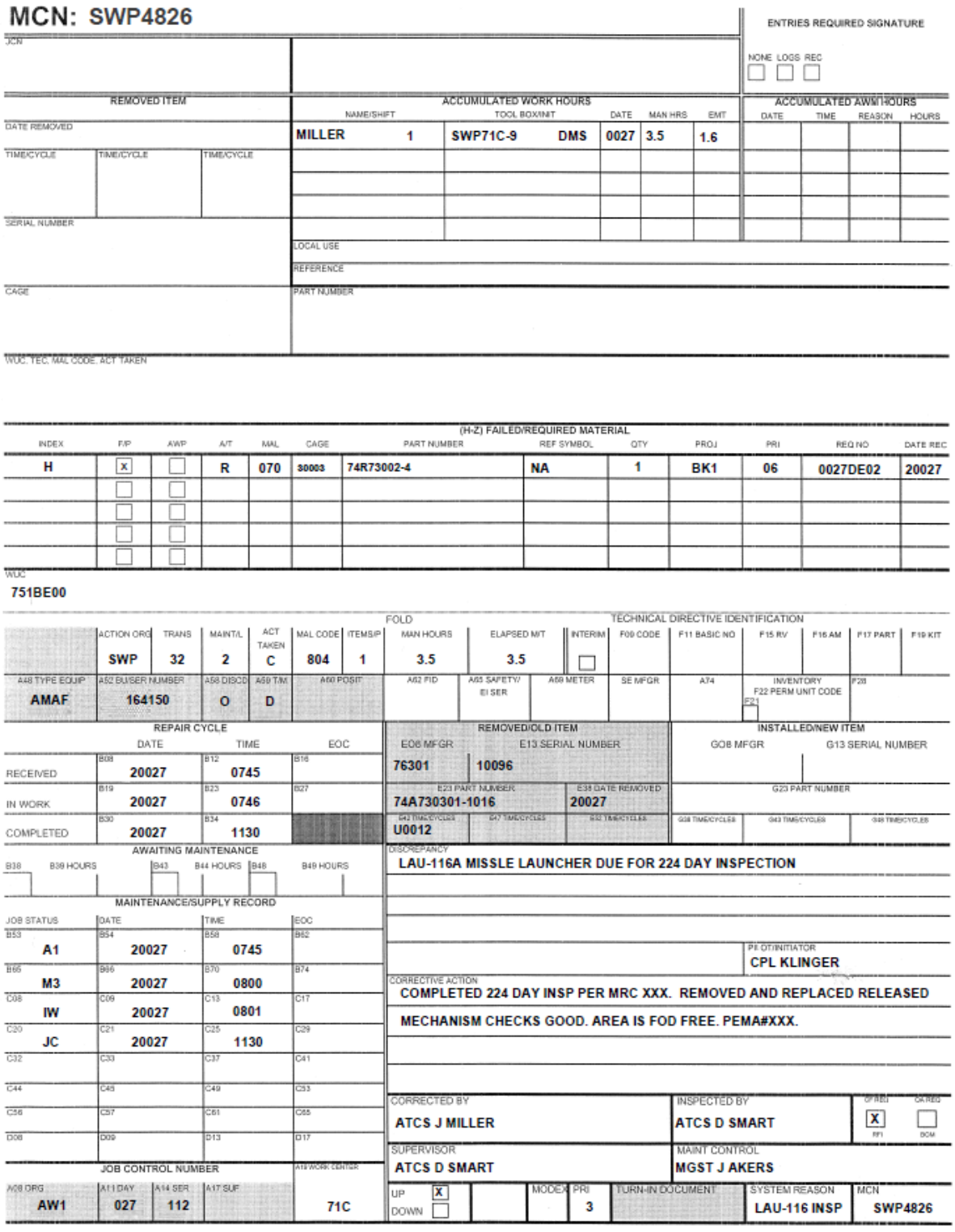
QA REQ: X | QA NOT REQ: ☐

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		LAU-116	SWP4826

Figure 16-69: O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (No Material Required) (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP71C-9	DMS	0027	3.5	1.6

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	070	30003	74R73002-4	NA	1	BK1	06	0027DE02	20027

WUC
751BE00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	32	2	C	804	1	3.5	3.5							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AMAF	164150	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20027	0745	
IN WORK	20027	0746	
COMPLETED	20027	1130	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20027	0745	
M3	20027	0800	
IW	20027	0801	
JC	20027	1130	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AW1	027	112		71C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
76301	10096

E23 PART NUMBER	E38 DATE REMOVED
74A730301-1016	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
U0012		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
LAU-116A MISSLE LAUNCHER DUE FOR 224 DAY INSPECTION

PR OTINITIATOR
CPL KLINGER

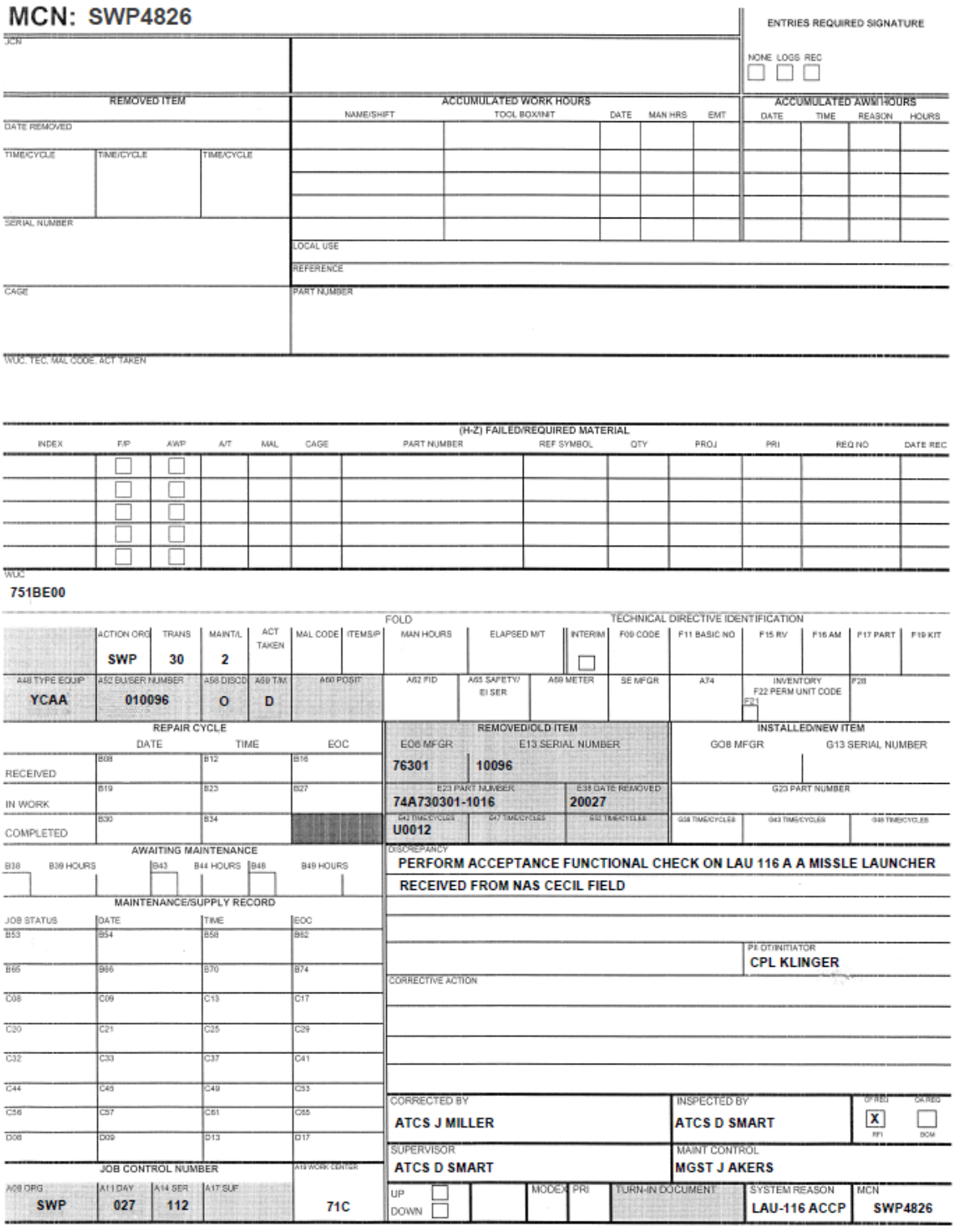
CORRECTIVE ACTION
COMPLETED 224 DAY INSP PER MRC XXX. REMOVED AND REPLACED RELEASED
MECHANISM CHECKS GOOD. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X RFI	BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X			3		LAU-116 INSP	SWP4826

Figure 16-70: O-Level Armament Equipment Component Turn-In for Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS
NAME/SHIFT | TOOL BOX/KIT | DATE | MAN HRS | EMT
LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS
DATE | TIME | REASON | HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL
INDEX | F/P | AWP | A/T | MAL | CAGE | PART NUMBER | REF SYMBOL | QTY | PROJ | PRI | REQ NO | DATE REC

WUC
751BE00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2												

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
YCAA	010096	O	D									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08	B12	B16
IN WORK	B19	B23	B27
COMPLETED	B30	B34	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53	B54	B58	B62
B65	B66	B70	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	112		71C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
76301	10096

E23 PART NUMBER	E38 DATE REMOVED
74A730301-1016	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
U0012		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
PERFORM ACCEPTANCE FUNCTIONAL CHECK ON LAU 116 A A MISSLE LAUNCHER
RECEIVED FROM NAS CECIL FIELD

PR OT/INITIATOR
CPL KLINGER

CORRECTIVE ACTION

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

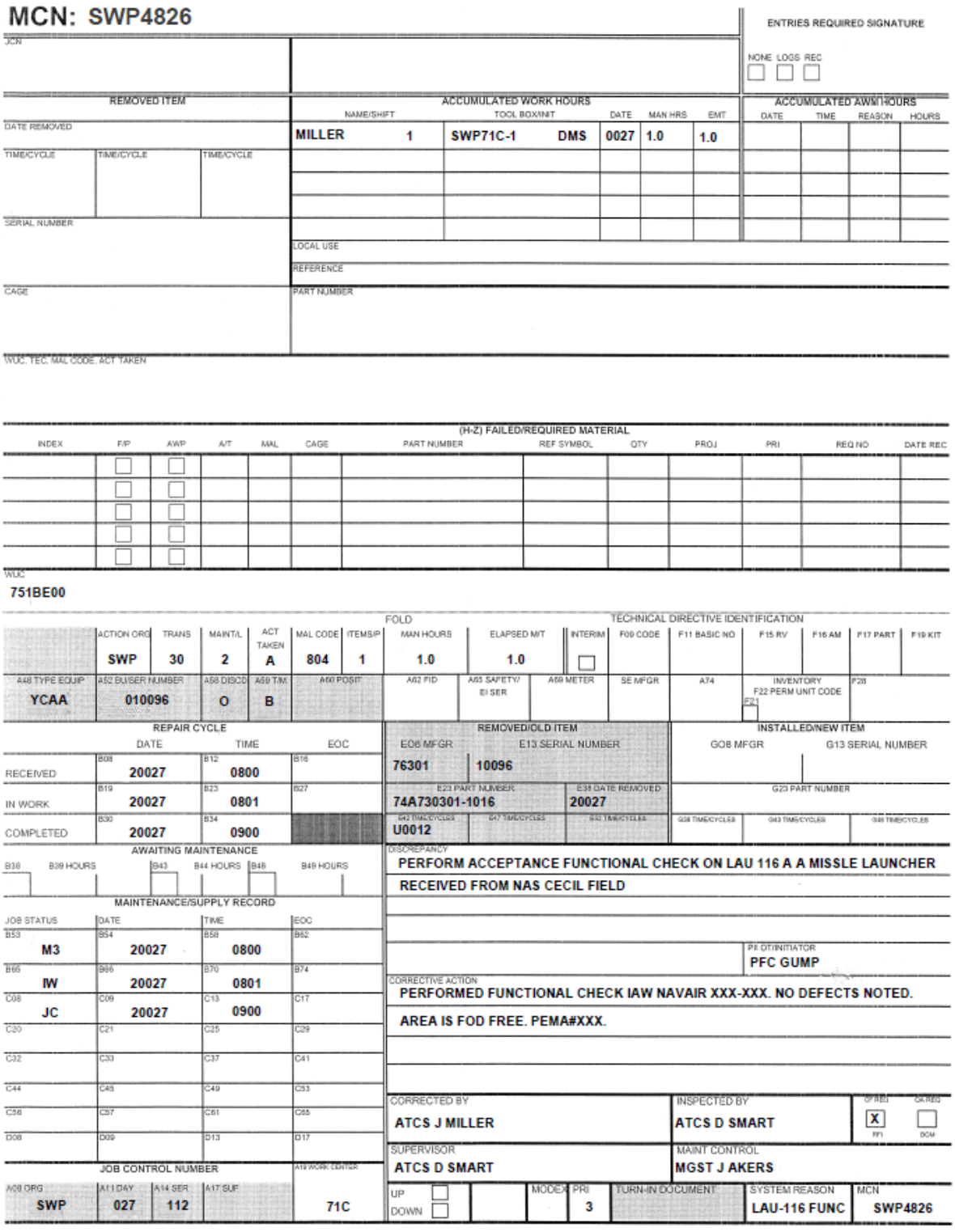
OP REQ: X (RFI) | QA REQ: (BOM)

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP / DOWN | MODEX | PRI | TURN-IN DOCUMENT | SYSTEM REASON: LAU-116 ACCP | MCN: SWP4826

Figure 16-71: Turn-In Acceptance/Functional Check on Armament Equipment (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP71C-1	DMS	0027	1.0	1.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
751BE00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	30	2	A	804	1	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
YCAA	010096	O	B									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0800	B16
IN WORK	B19 20027	B23 0801	B27
COMPLETED	B30 20027	B34 0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20027	B58 0800	B62
B65 IW	B66 20027	B70 0801	B74
C08 JC	C09 20027	C13 0900	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	112		71C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
76301	10096

E23 PART NUMBER	E38 DATE REMOVED
74A730301-1016	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
U0012		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
PERFORM ACCEPTANCE FUNCTIONAL CHECK ON LAU 116 A A MISSLE LAUNCHER
RECEIVED FROM NAS CECIL FIELD

PR OT/INITIATOR
PFC GUMP

CORRECTIVE ACTION
PERFORMED FUNCTIONAL CHECK IAW NAVAIR XXX-XXX. NO DEFECTS NOTED.
AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		LAU-116 FUNC	SWP4826

Figure 16-72: Turn-In Acceptance/Functional Check on Armament Equipment (Completed) (Example)

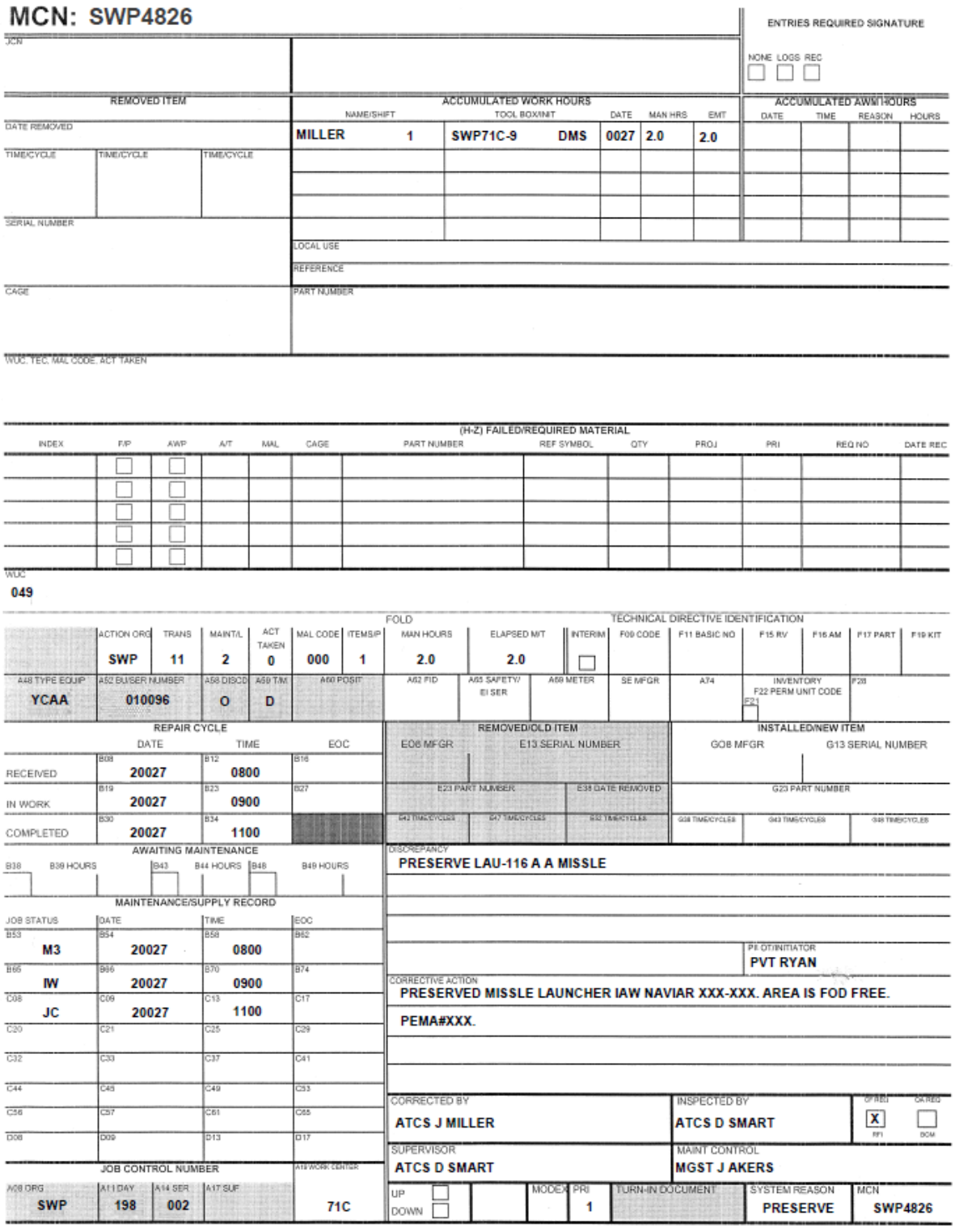
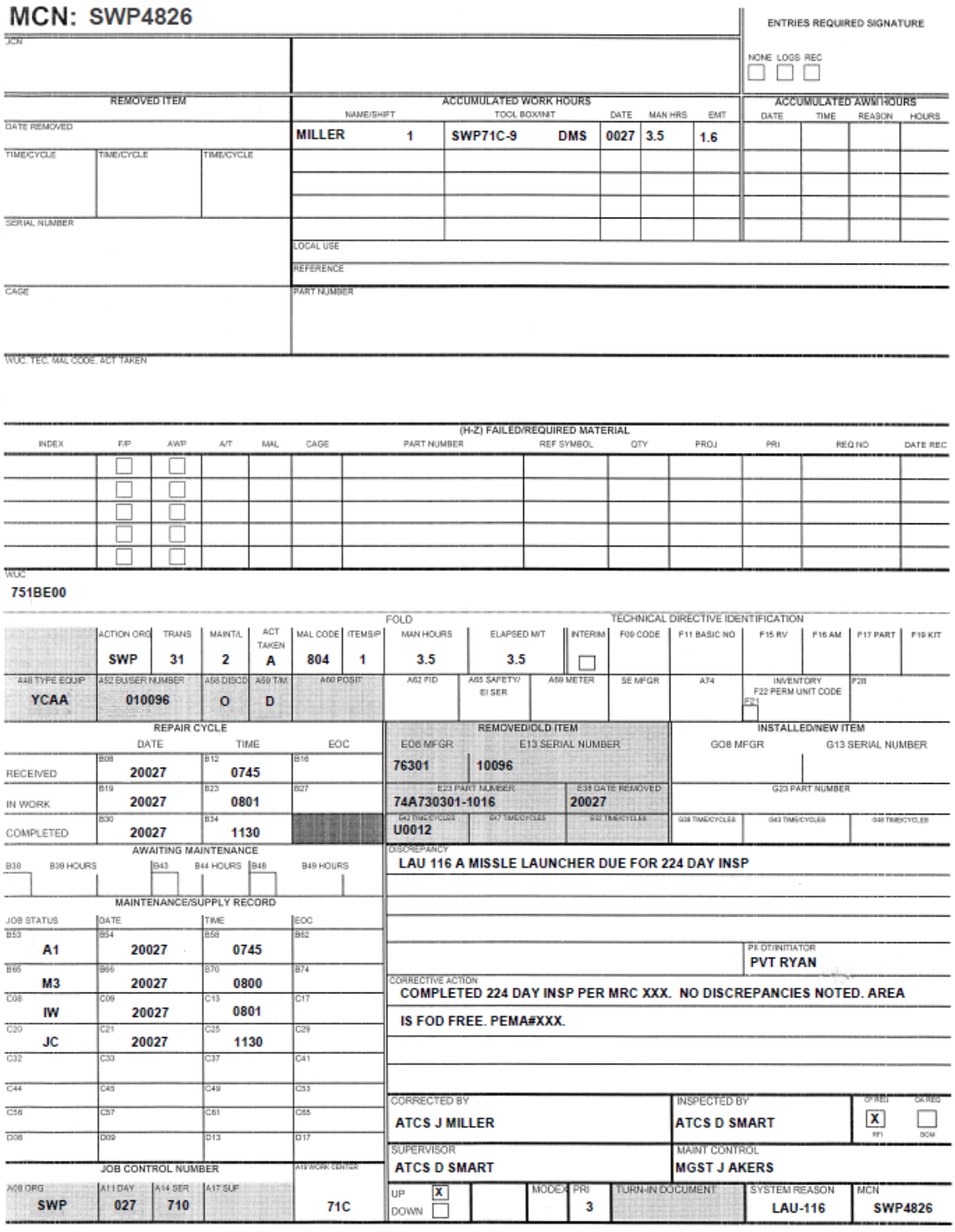


Figure 16-73: Armament Equipment Pool Preservation/Depreservation Control Document (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP71C-9	DMS	0027	3.5	1.6

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
751BE00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	31	2	A	804	1	3.5	3.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YCAA	010096	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0745	B16
IN WORK	B19 20027	B23 0801	B27
COMPLETED	B30 20027	B34 1130	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20027	B58 0745	B62
B65 M3	B66 20027	B70 0800	B74
C08 IW	C09 20027	C13 0801	C17
C20 JC	C21 20027	C25 1130	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	710		71C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
76301	10096

E23 PART NUMBER	E38 DATE REMOVED
74A730301-1016	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
U0012		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
LAU 116 A MISSLE LAUNCHER DUE FOR 224 DAY INSP

PR OTINITIATOR
PVT RYAN

CORRECTIVE ACTION
COMPLETED 224 DAY INSP PER MRC XXX. NO DISCREPANCIES NOTED. AREA
IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

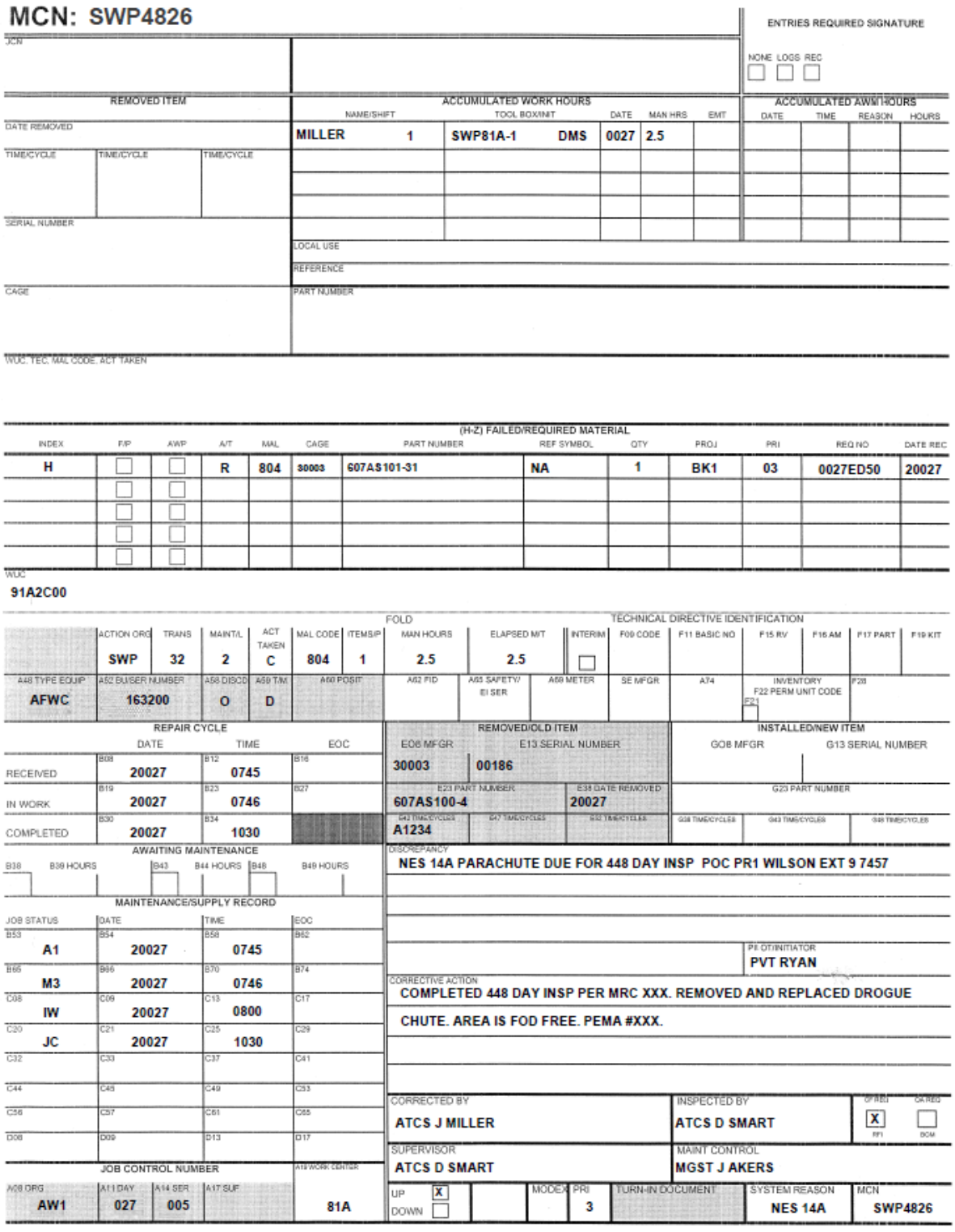
QA REQ: RFI [X] | QA REQ: BOM [ ]

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
[X]	[ ]		3		LAU-116	SWP4826

Figure 16-74: I-Level Armament Equipment Pool Component Due for Scheduled Maintenance (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP81A-1	DMS	0027	2.5	

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H			R	804	30003	607AS101-31	NA	1	BK1	03	0027ED50	20027

WUC
91A2C00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	32	2	C	804	1	2.5	2.5							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
AFWC	163200	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20027	0745	
IN WORK	20027	0746	
COMPLETED	20027	1030	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20027	0745	
M3	20027	0746	
IW	20027	0800	
JC	20027	1030	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AW1	027	005		81A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
30003	00186

E23 PART NUMBER	E39 DATE REMOVED
607AS100-4	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A1234		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
NES 14A PARACHUTE DUE FOR 448 DAY INSP POC PR1 WILSON EXT 9 7457

PR OT/INITIATOR
PVT RYAN

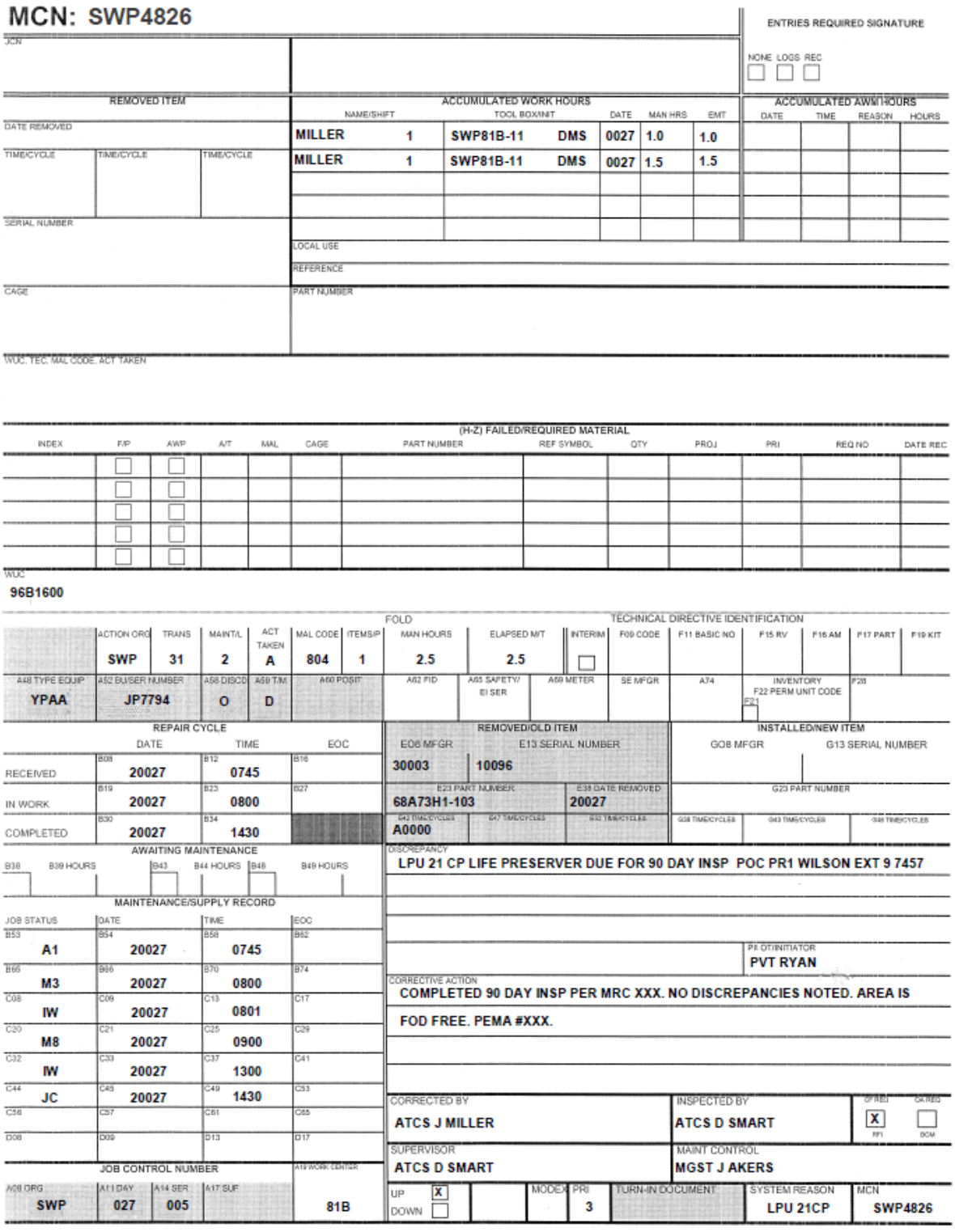
CORRECTIVE ACTION
COMPLETED 448 DAY INSP PER MRC XXX. REMOVED AND REPLACED DROGUE
CHUTE. AREA IS FOD FREE. PEMA #XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X	

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X			3		NES 14A	SWP4826

Figure 16-75: O-Level ALSS Equipment Due for Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP81B-11	DMS	0027	1.0	1.0
MILLER	1	SWP81B-11	DMS	0027	1.5	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
96B1600

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	31	2	A	804	1	2.5	2.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YPAA	JP7794	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0745	B16
IN WORK	B19 20027	B23 0800	B27
COMPLETED	B30 20027	B34 0800	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20027	B58 0745	B62
B65 M3	B66 20027	B70 0800	B74
C08 IW	C09 20027	C13 0801	C17
C20 M8	C21 20027	C25 0900	C29
C32 IW	C33 20027	C37 1300	C41
C44 JC	C45 20027	C49 1430	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	005		81B

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
30003	10096

E23 PART NUMBER	E38 DATE REMOVED
68A73H1-103	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A0000		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
LPU 21 CP LIFE PRESERVER DUE FOR 90 DAY INSP POC PR1 WILSON EXT 9 7457

PR OT/INITIATOR
PVT RYAN

CORRECTIVE ACTION
COMPLETED 90 DAY INSP PER MRC XXX. NO DISCREPANCIES NOTED. AREA IS FOD FREE. PEMA #XXX.

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

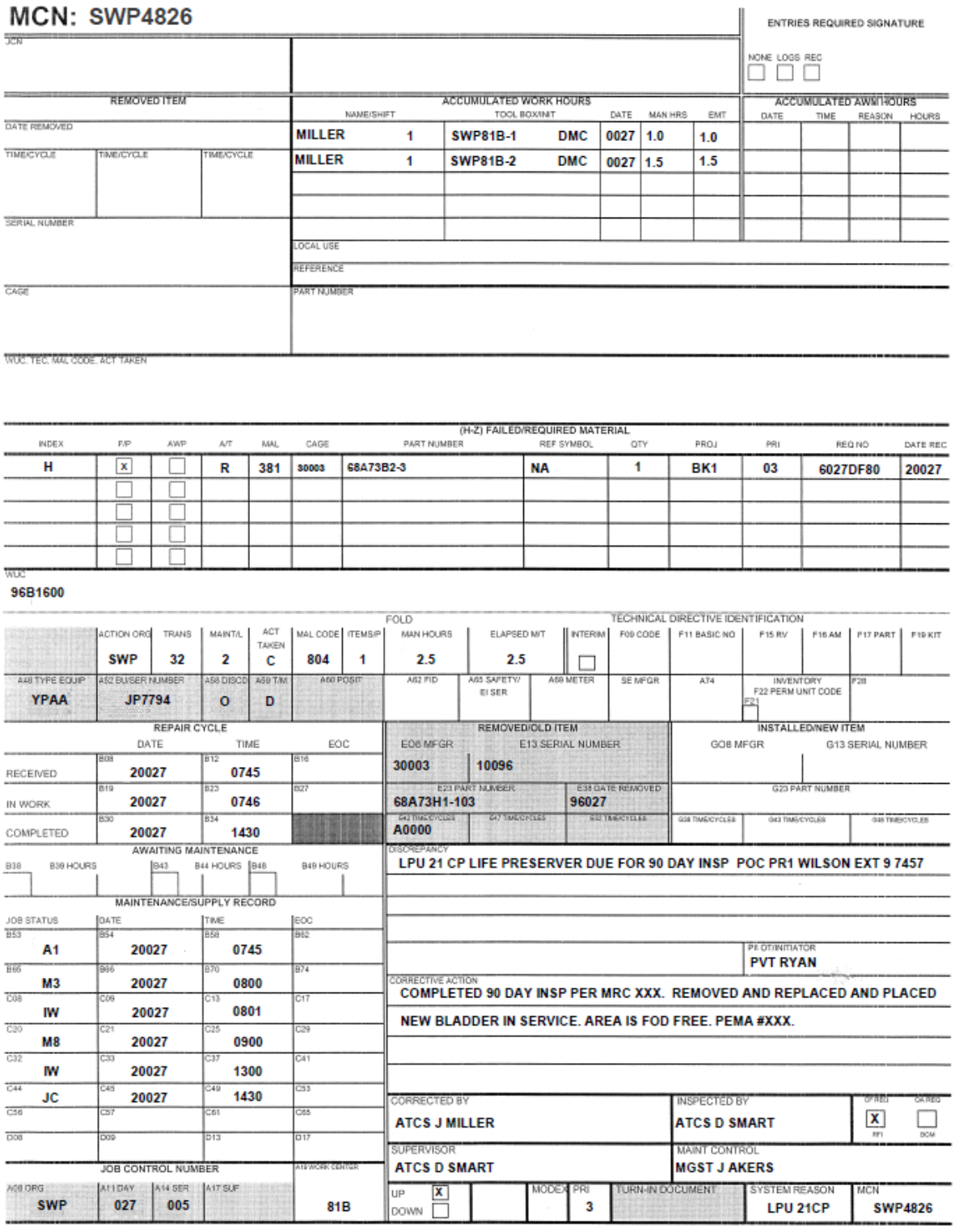
QA REQ: RFI ☒ | BOM ☐

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP ☒ / DOWN ☐			3		LPU 21CP	SWP4826

Figure 16-76: O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP81B-1	DMC	0027	1.0	1.0
MILLER	1	SWP81B-2	DMC	0027	1.5	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	381	30003	68A73B2-3	NA	1	BK1	03	6027DF80	20027

WUC
96B1600

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	32	2	C	804	1	2.5	2.5							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YPAA	JP7794	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20027	0745	
IN WORK	20027	0746	
COMPLETED	20027	1430	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20027	0745	
M3	20027	0800	
IW	20027	0801	
M8	20027	0900	
IW	20027	1300	
JC	20027	1430	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	005		81B

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
30003	10096

E23 PART NUMBER	E38 DATE REMOVED
68A73H1-103	96027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A0000		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
LPU 21 CP LIFE PRESERVER DUE FOR 90 DAY INSP POC PR1 WILSON EXT 9 7457

PR ORIGINATOR
PVT RYAN

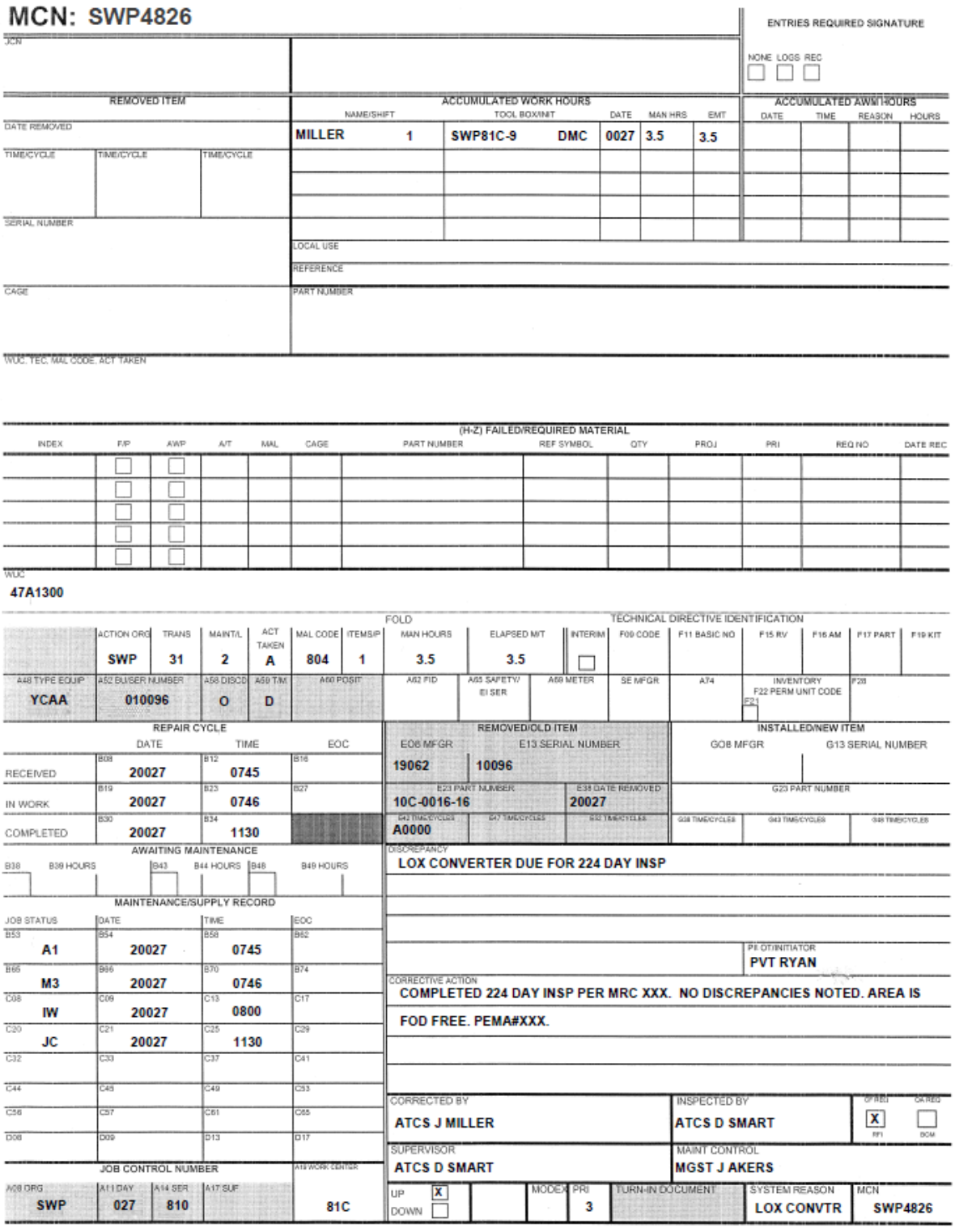
CORRECTIVE ACTION
COMPLETED 90 DAY INSP PER MRC XXX. REMOVED AND REPLACED AND PLACED
NEW BLADDER IN SERVICE. AREA IS FOD FREE. PEMA #XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X (RFI)	(BOM)

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X			3		LPU 21CP	SWP4826

Figure 16-77: O-Level ALSS Personal Equipment Due For Scheduled Maintenance (Maintenance and Material Required) (Completed) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	SWP81C-9	DMC	0027	3.5	3.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
47A1300

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	31	2	A	804	1	3.5	3.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YCAA	010096	O	D								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0745	B16
IN WORK	B19 20027	B23 0746	B27
COMPLETED	B30 20027	B34 1130	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20027	B58 0745	B62
B65 M3	B66 20027	B70 0746	B74
C08 IW	C09 20027	C13 0800	C17
C20 JC	C21 20027	C25 1130	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	810		81C

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
19062	10096

E23 PART NUMBER	E38 DATE REMOVED
10C-0016-16	20027

E42 TIME/CYCLES: A0000 | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER
G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
LOX CONVERTER DUE FOR 224 DAY INSP

PR OT/INITIATOR
PVT RYAN

CORRECTIVE ACTION
COMPLETED 224 DAY INSP PER MRC XXX. NO DISCREPANCIES NOTED. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY: ATCS J MILLER
INSPECTED BY: ATCS D SMART
QA REQ: X | QA NOT REQ: ☐
SUPERVISOR: ATCS D SMART
MAINT CONTROL: MGST J AKERS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN ☐			3		LOX CONVTR	SWP4826

Figure 16-78: I-Level ALSS Pool Component Due for Scheduled Maintenance (Completed) (Example)

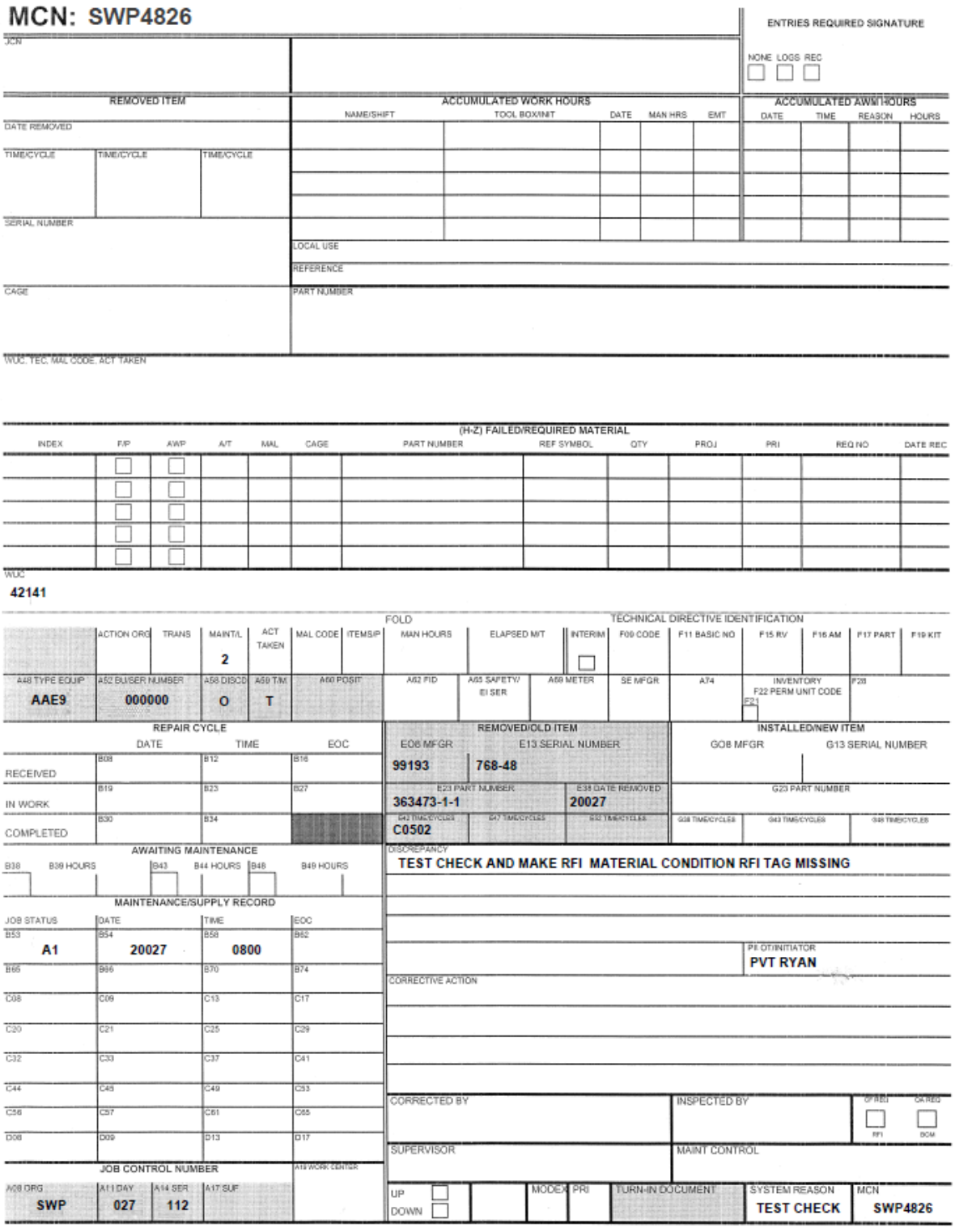
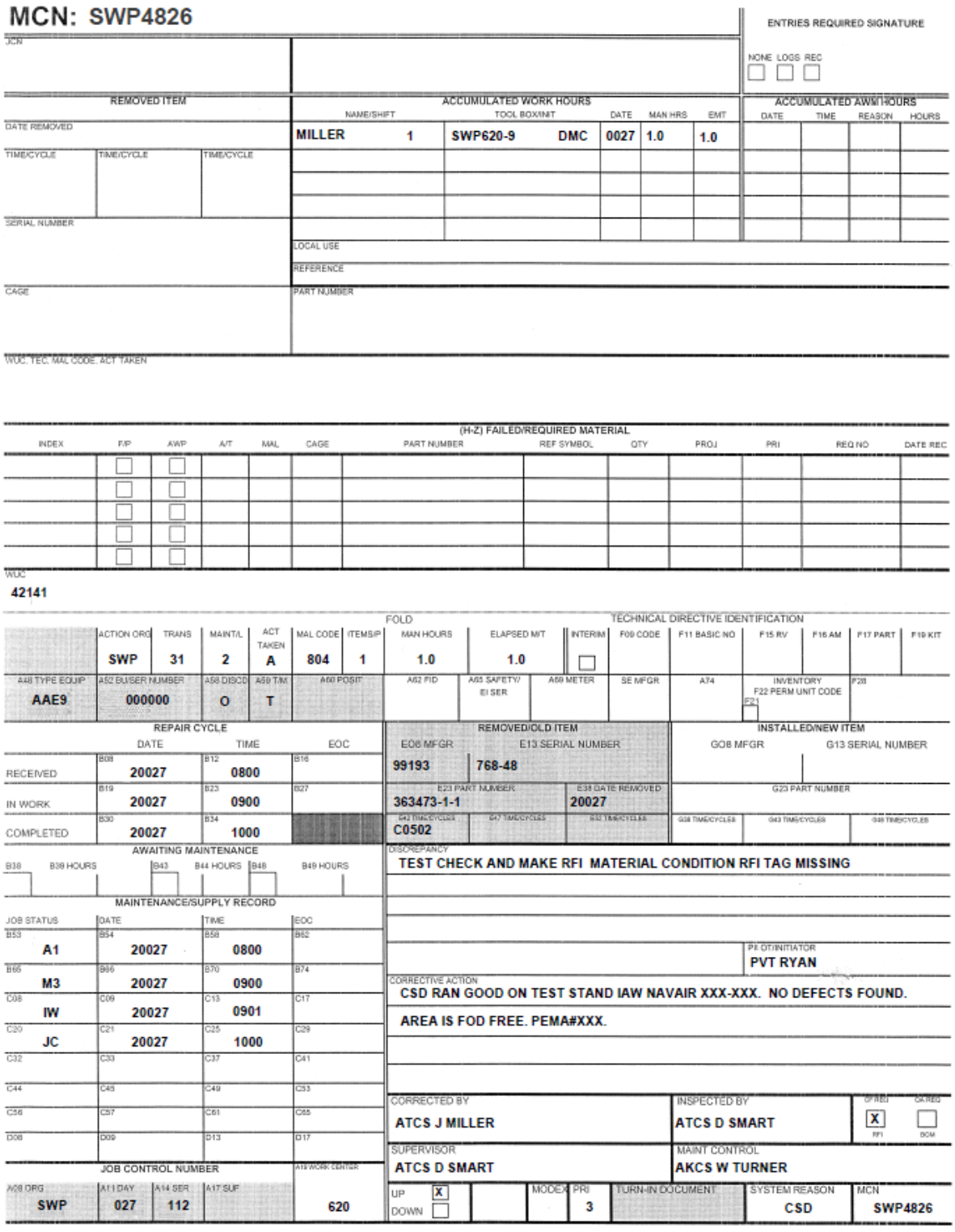


Figure 16-79: VIDS/MAF Discrepancy (Supply Asset Induction Document) (Material Condition Tag Missing) (Example)



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/UNIT		DATE	MAN HRS	EMT
MILLER	1	SWP620-9	DMC	0027	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
42141

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	SWP	31	2	A	804	1	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AAE9	000000	O	T									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20027	B12 0800	B16
IN WORK	B19 20027	B23 0900	B27
COMPLETED	B30 20027	B34 0800	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20027	B58 0800	B62
B65 M3	B66 20027	B70 0900	B74
C08 IW	C09 20027	C13 0901	C17
C20 JC	C21 20027	C25 1000	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	027	112		620

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99193	768-48

E23 PART NUMBER	E38 DATE REMOVED
363473-1-1	20027

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0502		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
TEST CHECK AND MAKE RFI MATERIAL CONDITION RFI TAG MISSING

PR OTINITIATOR
PVT RYAN

CORRECTIVE ACTION
CSD RAN GOOD ON TEST STAND IAW NAVAIR XXX-XXX. NO DEFECTS FOUND.
AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	OP REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X RFI	☐ BCM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	AKCS W TURNER

UP	DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐			3		CSD	SWP4826

Figure 16-80: Completed Discrepancy VIDS/MAF (Supply Asset Induction Document) (Material Condition Tag Missing) (Example)

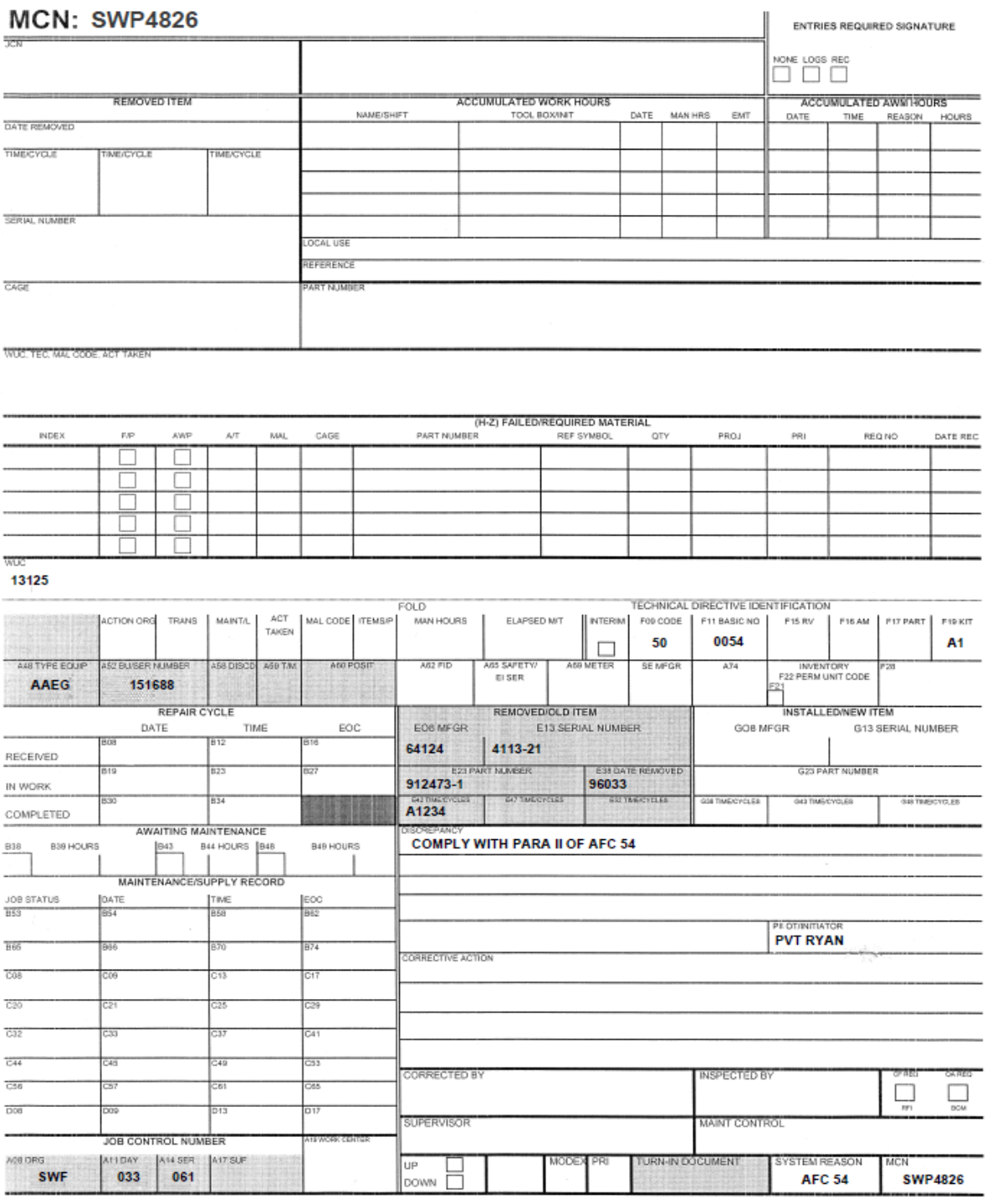
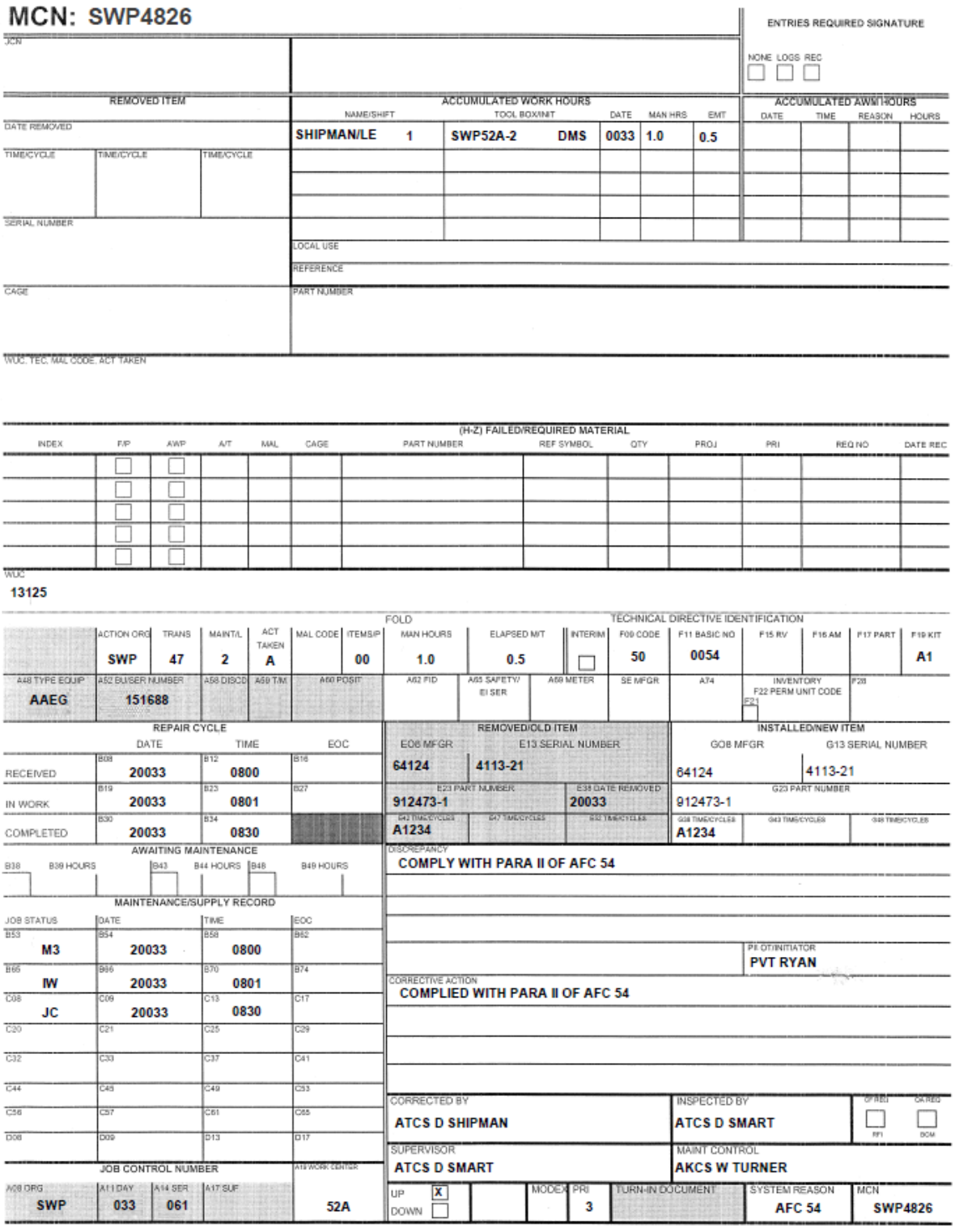


Figure 16-81: **TD Compliance Turn-In Document (O-Level) (Example)**



MCN: SWP4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT	DATE	MAN HRS	EMT
SHIPMAN/LE 1	SWP52A-2 DMS	0033	1.0	0.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC

WUC
13125

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
SWP	47	2	A		00	1.0	0.5		50	0054				A1

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
AAEG	151688											

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20033	0800	
IN WORK	20033	0801	
COMPLETED	20033	0830	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20033	0800	
IW	20033	0801	
JC	20033	0830	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
SWP	033	061		52A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
64124	4113-21

E23 PART NUMBER	E38 DATE REMOVED
912473-1	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A1234		

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER
64124	4113-21

G23 PART NUMBER
912473-1

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
A1234		

DISCREPANCY
COMPLY WITH PARA II OF AFC 54

PR OT/INITIATOR
PVT RYAN

CORRECTIVE ACTION
COMPLIED WITH PARA II OF AFC 54

CORRECTED BY
ATCS D SHIPMAN

INSPECTED BY
ATCS D SMART

QA REQ | QA REQ
RFI | BOM

SUPERVISOR
ATCS D SMART

MAINT CONTROL
AKCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
UP X / DOWN			3		AFC 54	SWP4826

Figure 16-82: TD Compliance (IMA Assist) (Example)

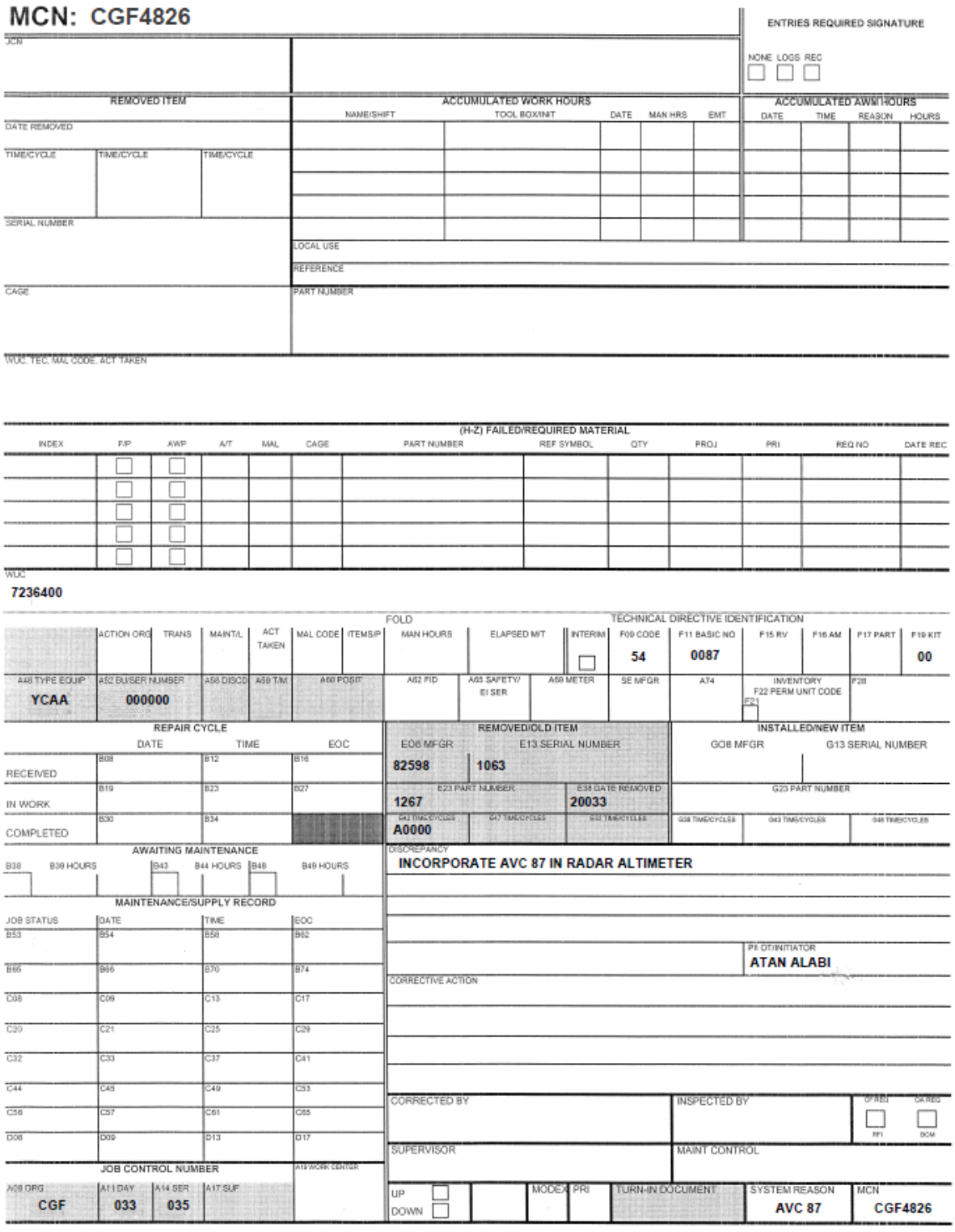
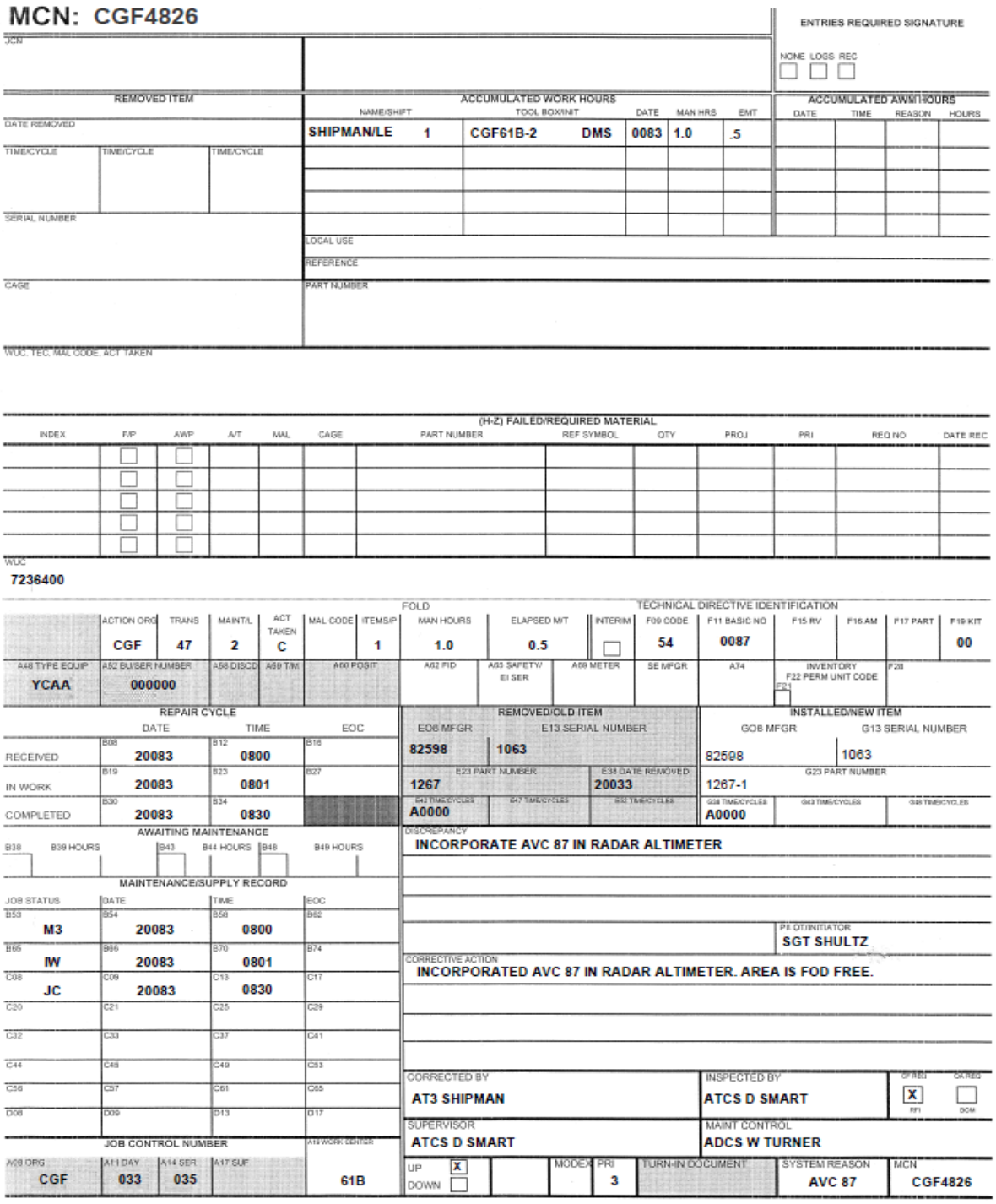


Figure 16-83: Turn-In for TD Compliance (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN/LE	1	CGF61B-2	DMS	0083	1.0	.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC

WUC
7236400

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2	C		1	1.0	0.5		54	0087				00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YCAA	000000										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20083	0800	
IN WORK	20083	0801	
COMPLETED	20083	0830	

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
82598	1063

E23 PART NUMBER	E38 DATE REMOVED
1267	20033

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
A0000		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
82598	1063

G23 PART NUMBER
1267-1

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
A0000		

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

DISCREPANCY
INCORPORATE AVC 87 IN RADAR ALTIMETER

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20083	0800	
IW	20083	0801	
JC	20083	0830	

PE OT/INITIATOR
SGT SHULTZ

CORRECTIVE ACTION
INCORPORATED AVC 87 IN RADAR ALTIMETER. AREA IS FOD FREE.

CORRECTED BY
AT3 SHIPMAN

INSPECTED BY
ATCS D SMART

QA REQ: RFI [X] DOM [ ]

SUPERVISOR
ATCS D SMART

MAINT CONTROL
ADCS W TURNER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	033	035		61B

UP [X] DOWN [ ] | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON AVC 87 | MCN CGF4826

Figure 16-84: IMA TD Compliance (Example)

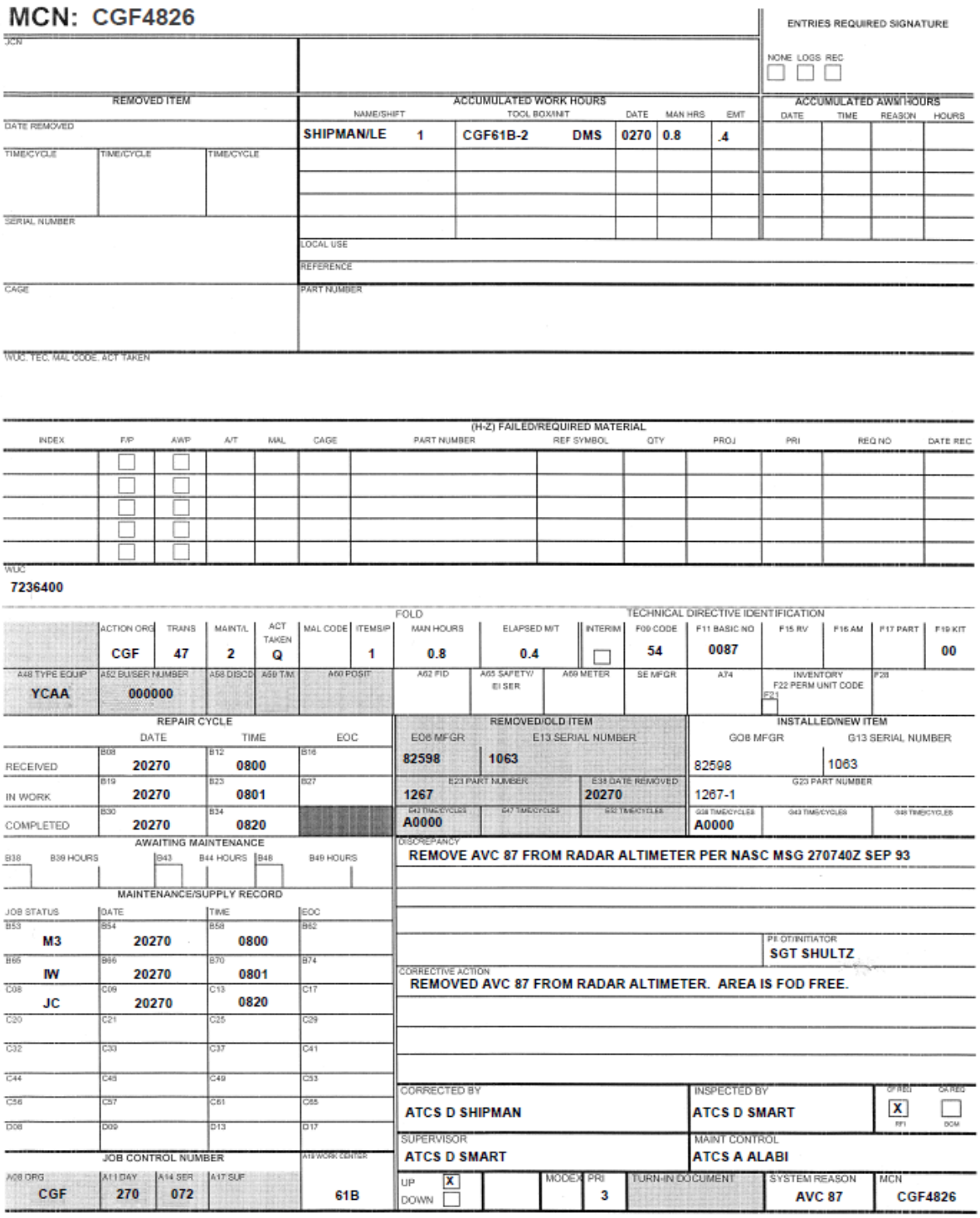


Figure 16-85: TD Compliance Removal (Example)

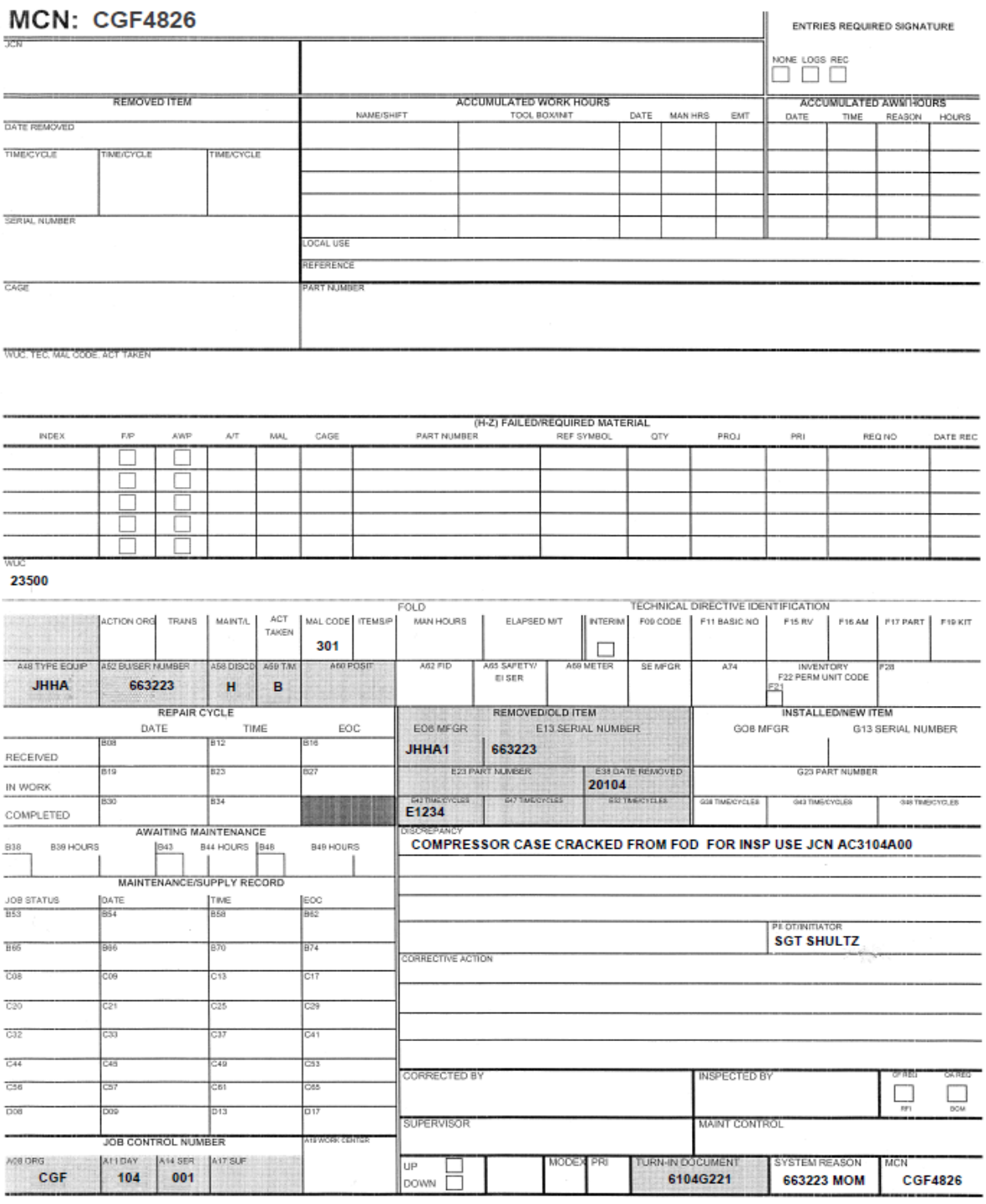


Figure 16-86: O-Level Turn-In Control Document for Engine Repair (Example)

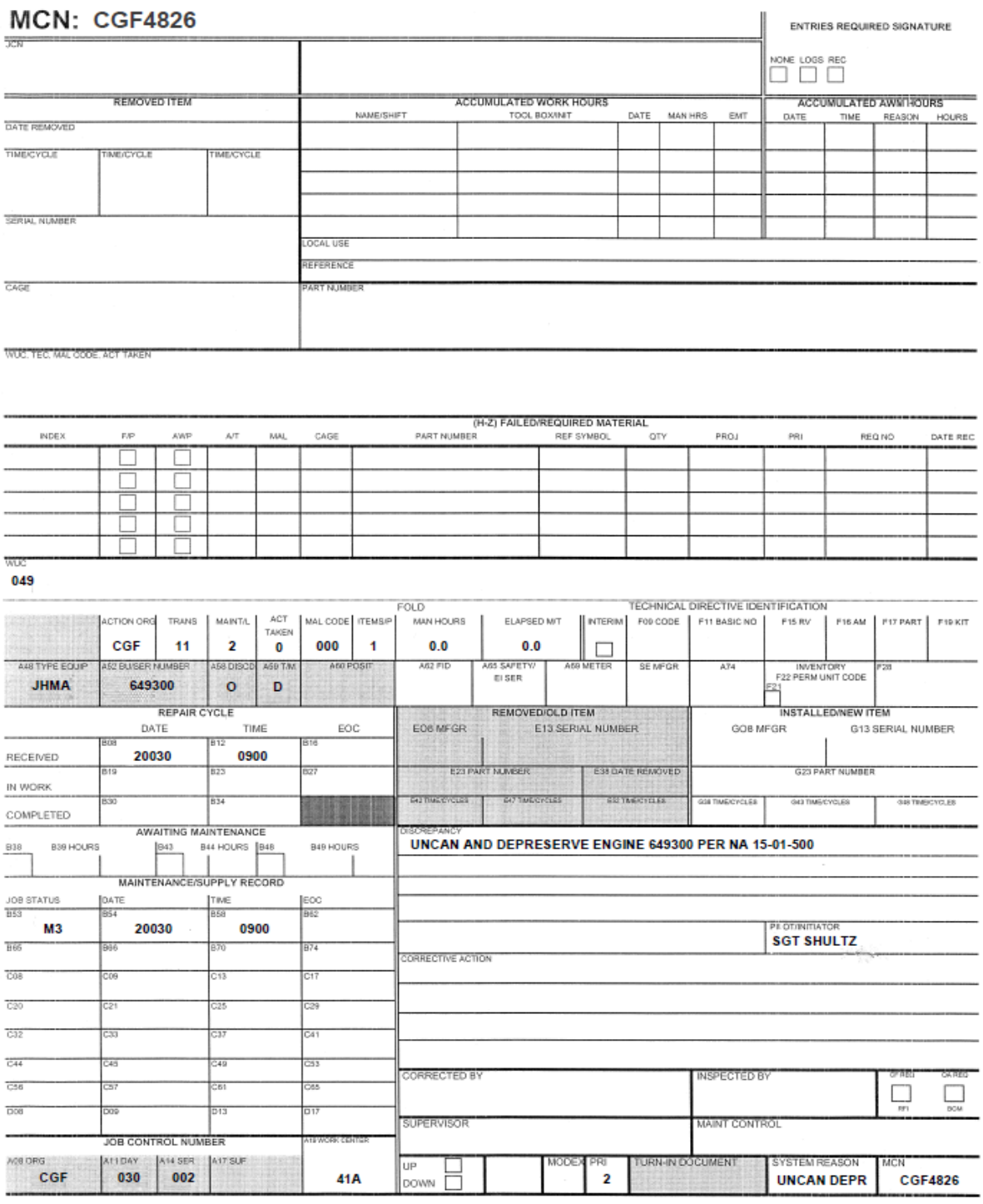


Figure 16-87: **Supply Asset Engine Depreservation (Example)**

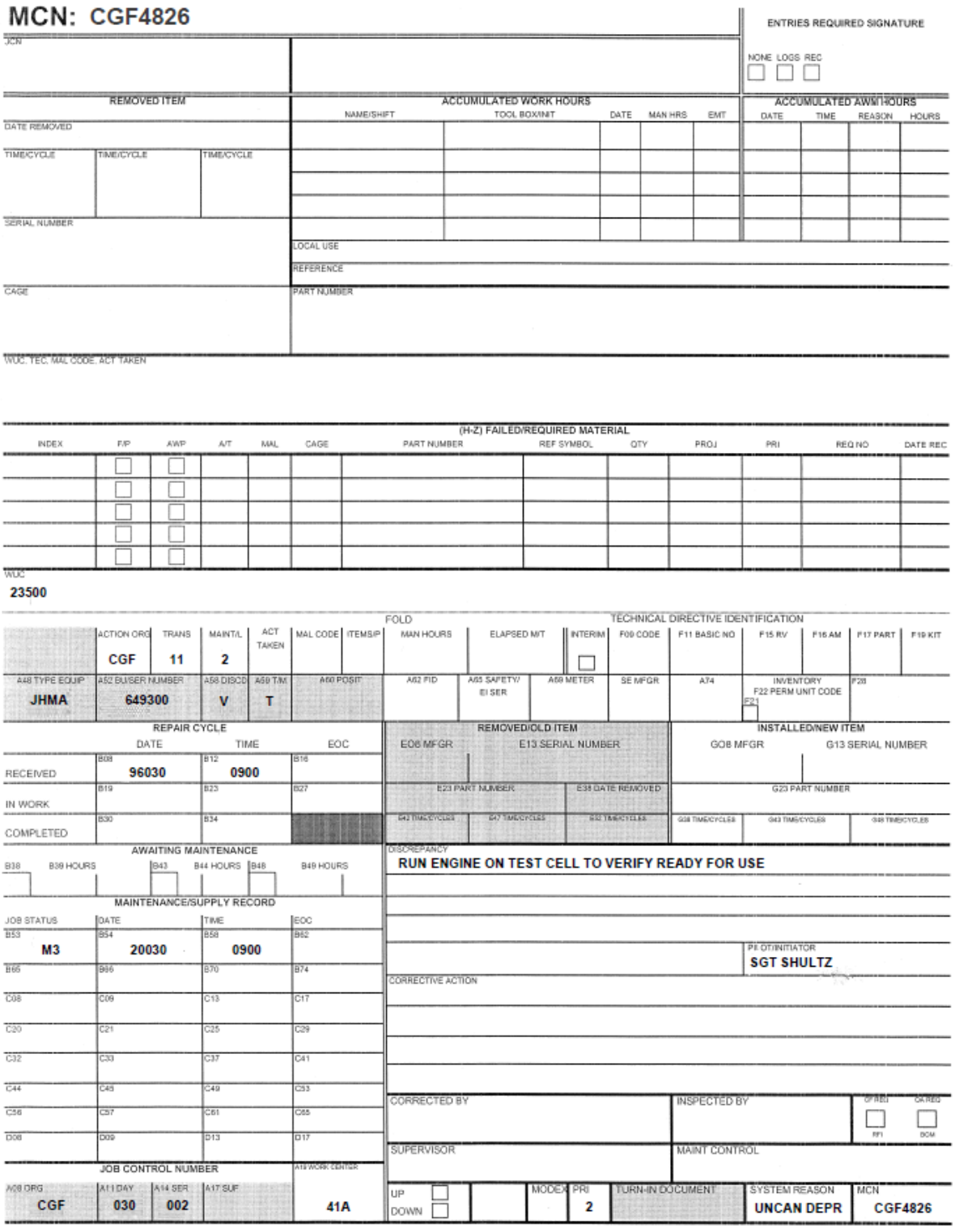


Figure 16-88: Supply Asset Engine (Assist VIDS/MAF) Test Cell Run (Example)

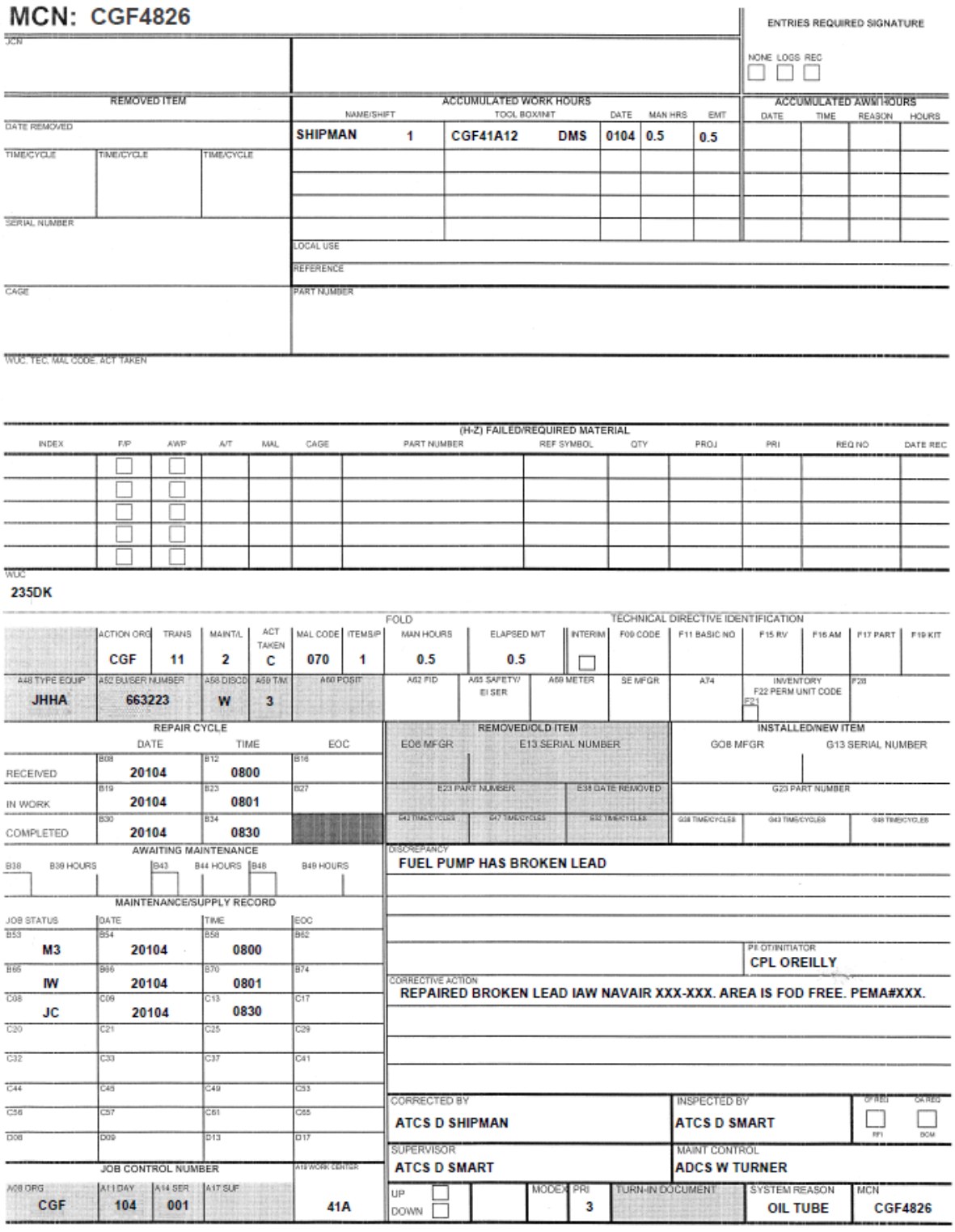
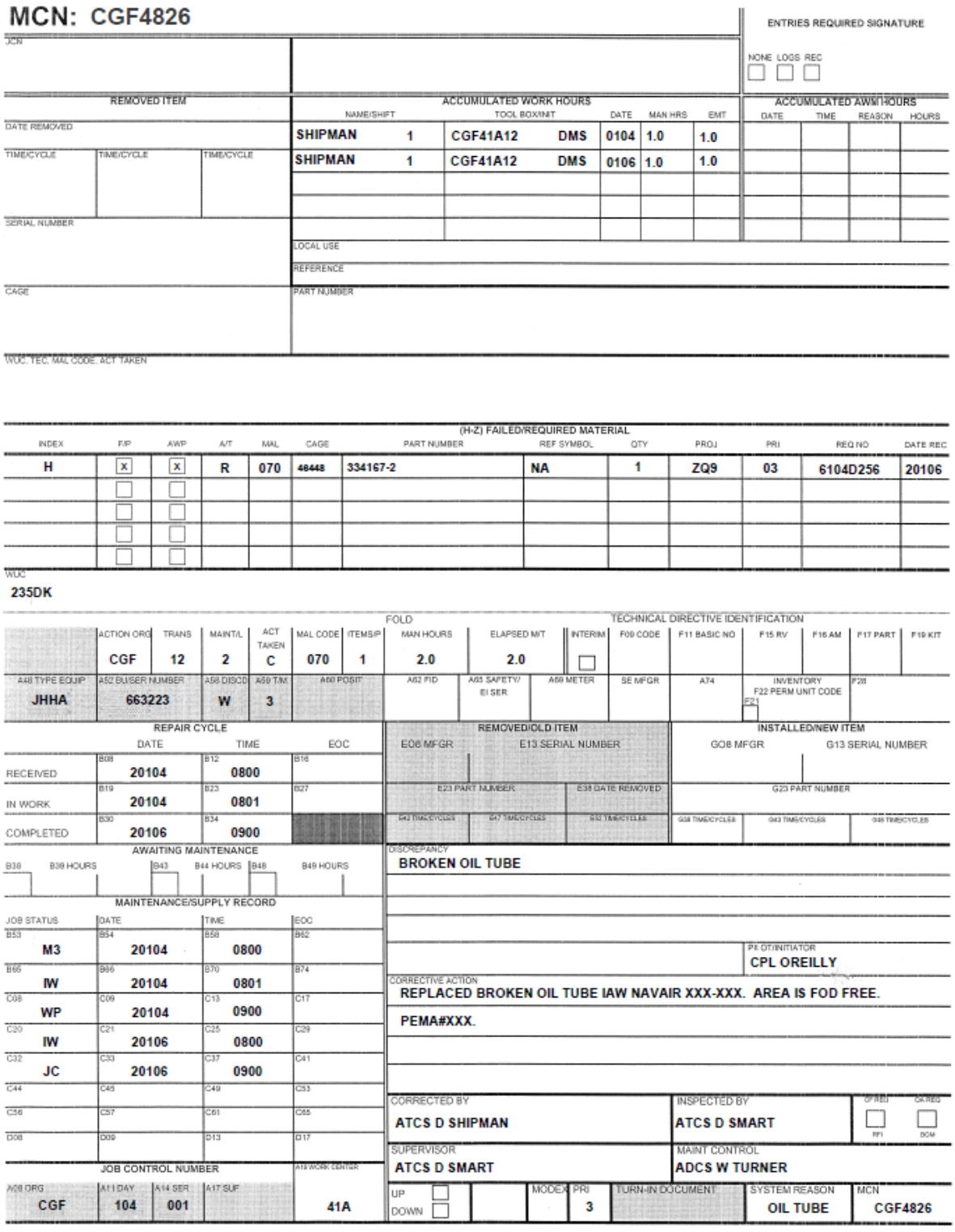


Figure 16-89: Fix-In-Place (Material Not Required) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN	1	CGF41A12	DMS	0104	1.0	1.0
SHIPMAN	1	CGF41A12	DMS	0106	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	070	48448	334167-2	NA	1	ZQ9	03	6104D256	20106

WUC
235DK

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	12	2	C	070	1	2.0	2.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	W	3								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0800	B16
IN WORK	B19 20104	B23 0801	B27
COMPLETED	B30 20106	B34 0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0800	B62
B65 IW	B66 20104	B70 0801	B74
C08 WP	C09 20104	C13 0900	C17
C20 IW	C21 20106	C25 0800	C29
C32 JC	C33 20106	C37 0900	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	001		41A

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
BROKEN OIL TUBE

PR OT/INITIATOR
CPL OREILLY

CORRECTIVE ACTION
REPLACED BROKEN OIL TUBE IAW NAVAIR XXX-XXX. AREA IS FOD FREE.
PEMA#XXX.

CORRECTED BY
ATCS D SHIPMAN

INSPECTED BY
ATCS D SMART

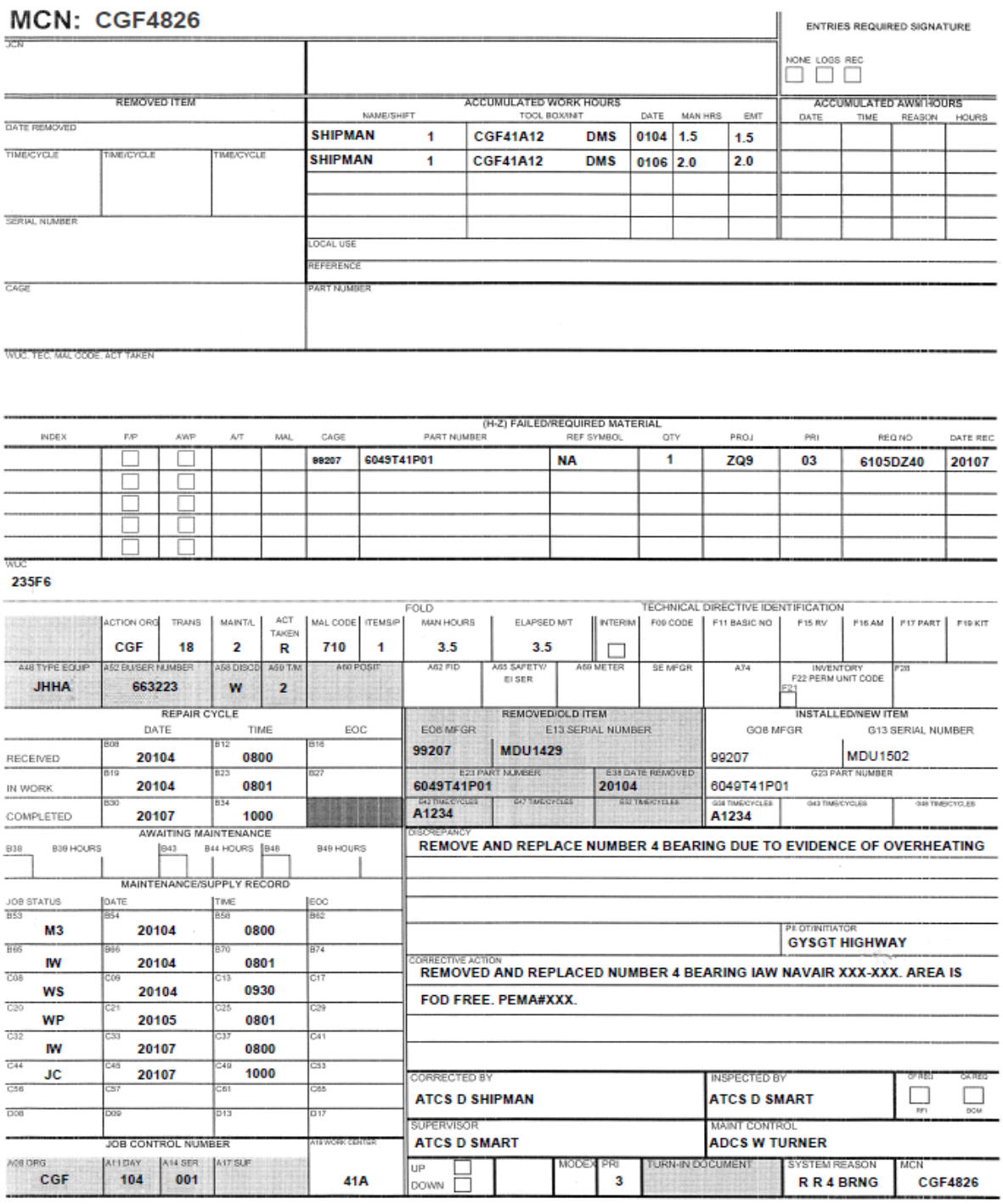
QA REQ: QA | DCMA

SUPERVISOR
ATCS D SMART

MAINT CONTROL
ADCS W TURNER

UP | DOWN | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON OIL TUBE | MCN CGF4826

Figure 16-90: Fix-In-Place (Material Required) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE — NONE ☐ LOGS ☐ REC ☐

JCN

REMOVED ITEM

DATE REMOVED

TIME/CYCLE | TIME/CYCLE | TIME/CYCLE

SERIAL NUMBER

CAGE

WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN	1	CGF41A12	DMS	0104	1.5	1.5
SHIPMAN	1	CGF41A12	DMS	0106	2.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE

REFERENCE

PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			99207	6049T41P01	NA	1	ZQ9	03	6105DZ40	20107

WUC
235F6

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	18	2	R	710	1	3.5	3.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	W	2								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20104	0800	
IN WORK	20104	0801	
COMPLETED	20107	1000	

AWAITING MAINTENANCE

B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20104	0800	
IW	20104	0801	
WS	20104	0930	
WP	20105	0801	
IW	20107	0800	
JC	20107	1000	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	001		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	MDU1429

E23 PART NUMBER: 6049T41P01 — E38 DATE REMOVED: 20104

E43 TIME/CYCLES: A1234 — E47 TIME/CYCLES — E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	MDU1502

G23 PART NUMBER: 6049T41P01

G34 TIME/CYCLES: A1234 — G43 TIME/CYCLES — G48 TIME/CYCLES

DISCREPANCY
REMOVE AND REPLACE NUMBER 4 BEARING DUE TO EVIDENCE OF OVERHEATING

PE DT/INITIATOR
GYSGT HIGHWAY

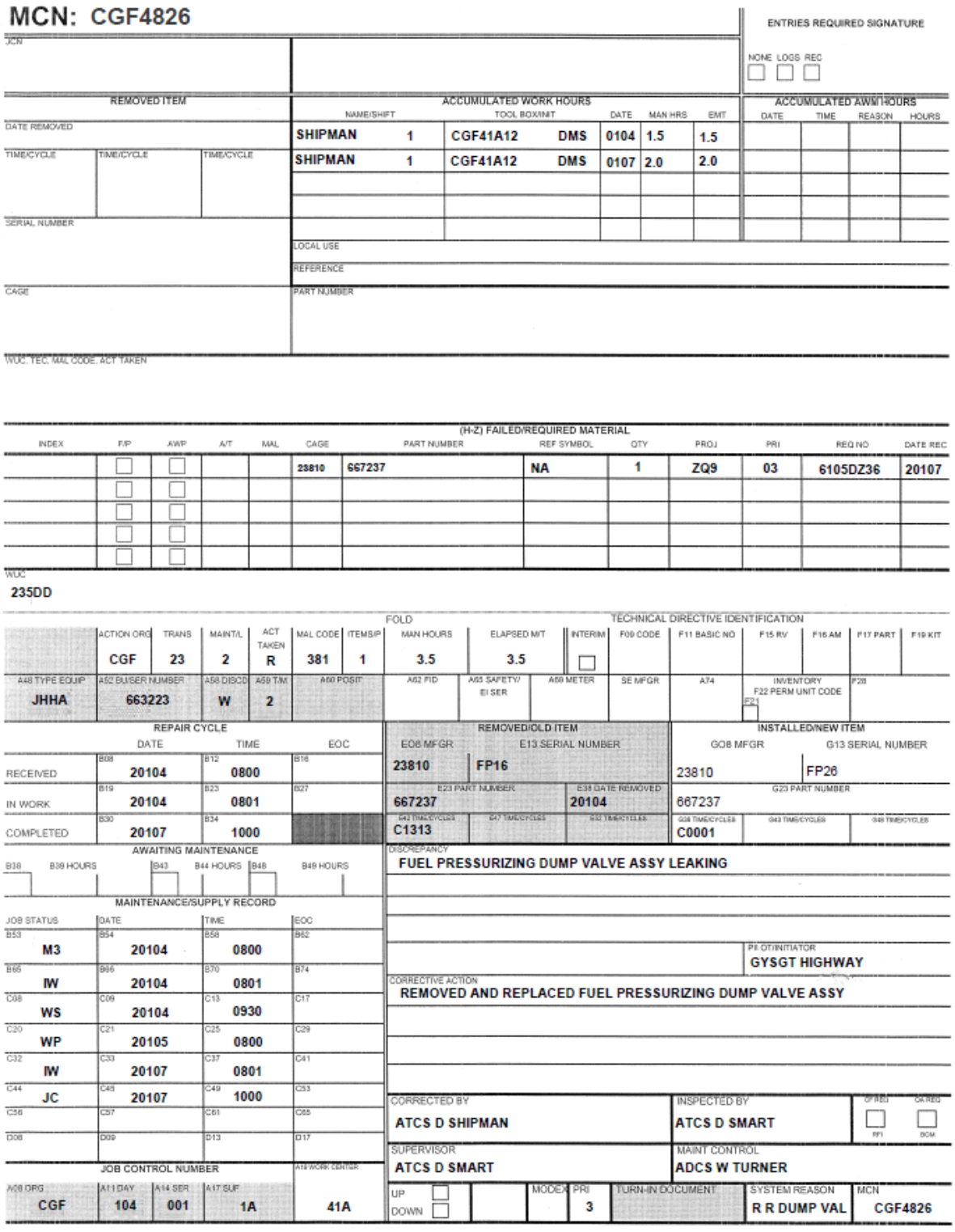
CORRECTIVE ACTION
REMOVED AND REPLACED NUMBER 4 BEARING IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REJ	QA REQ
ATCS D SHIPMAN	ATCS D SMART	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	ADCS W TURNER

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		R R 4 BRNG	CGF4826

Figure 16-91: Removal/Replacement of a Tracked Consumable Component (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN	1	CGF41A12	DMS	0104	1.5	1.5
SHIPMAN	1	CGF41A12	DMS	0107	2.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			23810	667237	NA	1	ZQ9	03	6105DZ36	20107

WUC
235DD

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	381	1	3.5	3.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
JHHA	663223	W	2								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0800	B16
IN WORK	B19 20104	B23 0801	B27
COMPLETED	B30 20107	B34 1000	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0800	B62
B65 IW	B66 20104	B70 0801	B74
C08 WS	C09 20104	C13 0930	C17
C20 WP	C21 20105	C25 0800	C29
C32 IW	C33 20107	C37 0801	C41
C44 JC	C45 20107	C49 1000	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	001	1A	41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
23810	FP16

E23 PART NUMBER	E38 DATE REMOVED
667237	20104

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C1313		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
23810	FP26

G23 PART NUMBER: 667237

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0001		

DISCREPANCY
FUEL PRESSURIZING DUMP VALVE ASSY LEAKING

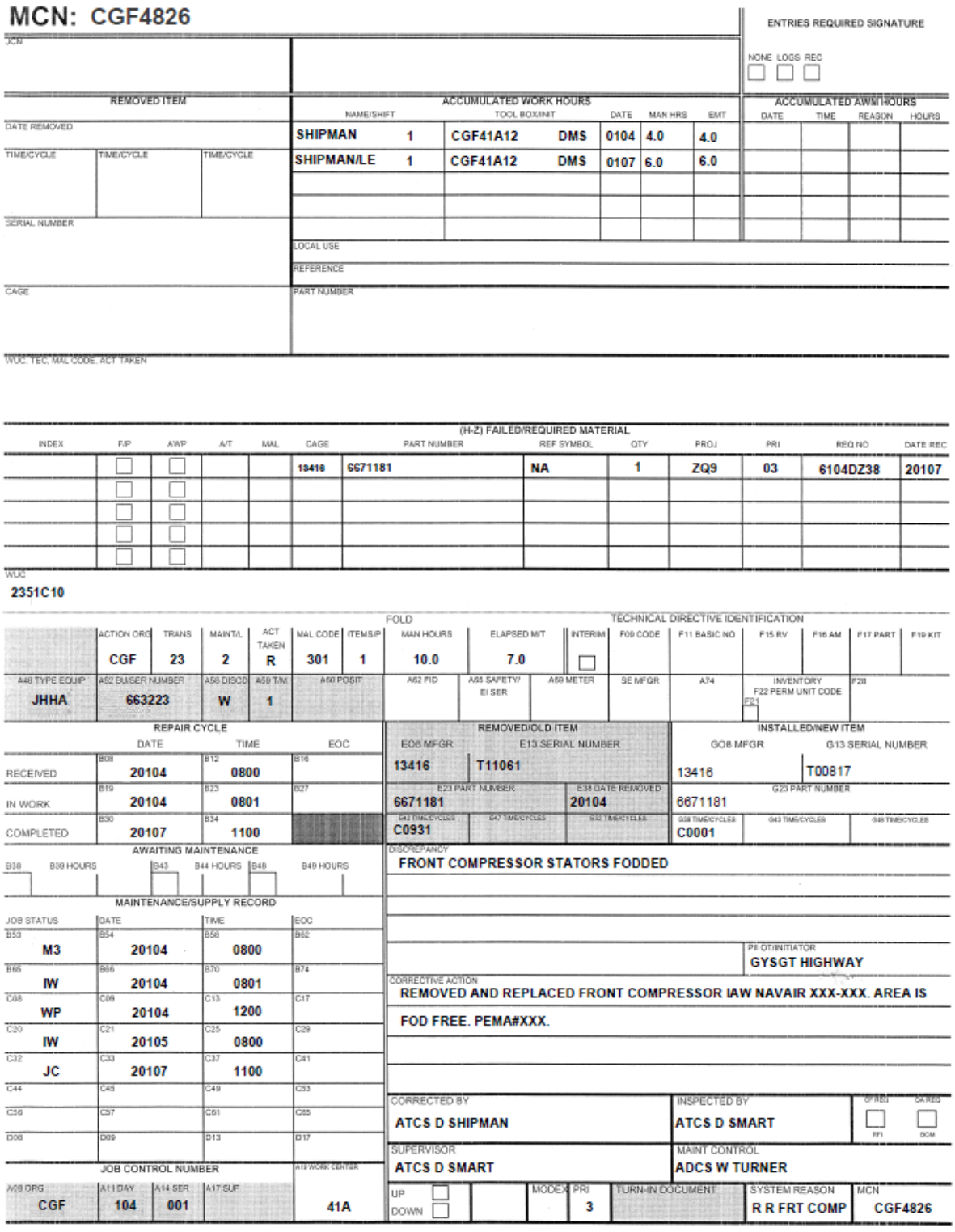
PR OTINITIATOR
GYSGT HIGHWAY

CORRECTIVE ACTION
REMOVED AND REPLACED FUEL PRESSURIZING DUMP VALVE ASSY

CORRECTED BY: ATCS D SHIPMAN
INSPECTED BY: ATCS D SMART
QA REQ ☐ QA REQ ☐
SUPERVISOR: ATCS D SMART
MAINT CONTROL: ADCS W TURNER

UP ☐ DOWN ☐ | MODEX | PRI: 3 | TURN-IN DOCUMENT | SYSTEM REASON: R R DUMP VAL | MCN: CGF4826

Figure 16-92: Removal/Replacement of a Repairable Component with No Repairable Sub-Subassemblies (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN	1	CGF41A12	DMS	0104	4.0	4.0
SHIPMAN/LE	1	CGF41A12	DMS	0107	6.0	6.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			13416	6671181	NA	1	ZQ9	03	6104DZ38	20107

WUC
2351C10

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	301	1	10.0	7.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0800	B16
IN WORK	B19 20104	B23 0801	B27
COMPLETED	B30 20107	B34 1100	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0800	B62
B65 IW	B66 20104	B70 0801	B74
C08 WP	C09 20104	C13 1200	C17
C20 IW	C21 20105	C25 0800	C29
C32 JC	C33 20107	C37 1100	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	001		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
13416	T11061

E23 PART NUMBER	E38 DATE REMOVED
6671181	20104

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0931		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
13416	T00817

G23 PART NUMBER
6671181

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0001		

DISCREPANCY
FRONT COMPRESSOR STATORS FODDED

PLOT/INITIATOR
GYSGT HIGHWAY

CORRECTIVE ACTION
REMOVED AND REPLACED FRONT COMPRESSOR IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS D SHIPMAN

INSPECTED BY
ATCS D SMART

QA REQ: RFI ☐ BOM ☐

SUPERVISOR
ATCS D SMART

MAINT CONTROL
ADCS W TURNER

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON R R FRT COMP | MCN CGF4826

Figure 16-93: Removal/Replacement of a Repairable Component with Repairable Sub-Subassemblies (Example)

MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN	1	CGF62A3	DMS	0104	2.0	2.0
SHIPMAN	1	CGF62A3	DMS	0109	3.0	3.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2351C00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	11	2	S	800	2	5.0	5.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
JHHA	663223	O	3									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0800	B16
IN WORK	B19 20104	B23 0801	B27
COMPLETED	B30 20109	B34 1000	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0800	B62
B65 IW	B66 20104	B70 0801	B74
C08 M8	C09 20104	C13 1000	C17
C20 IW	C21 20109	C25 0800	C29
C32 JC	C33 20109	C37 1100	C41
C44	C48	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	001		62A

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
REMOVE AND REPLACE WIRING HARNESS TO FACILITATE REPAIR

PR OT/INITIATOR
GYSGT HIGHWAY

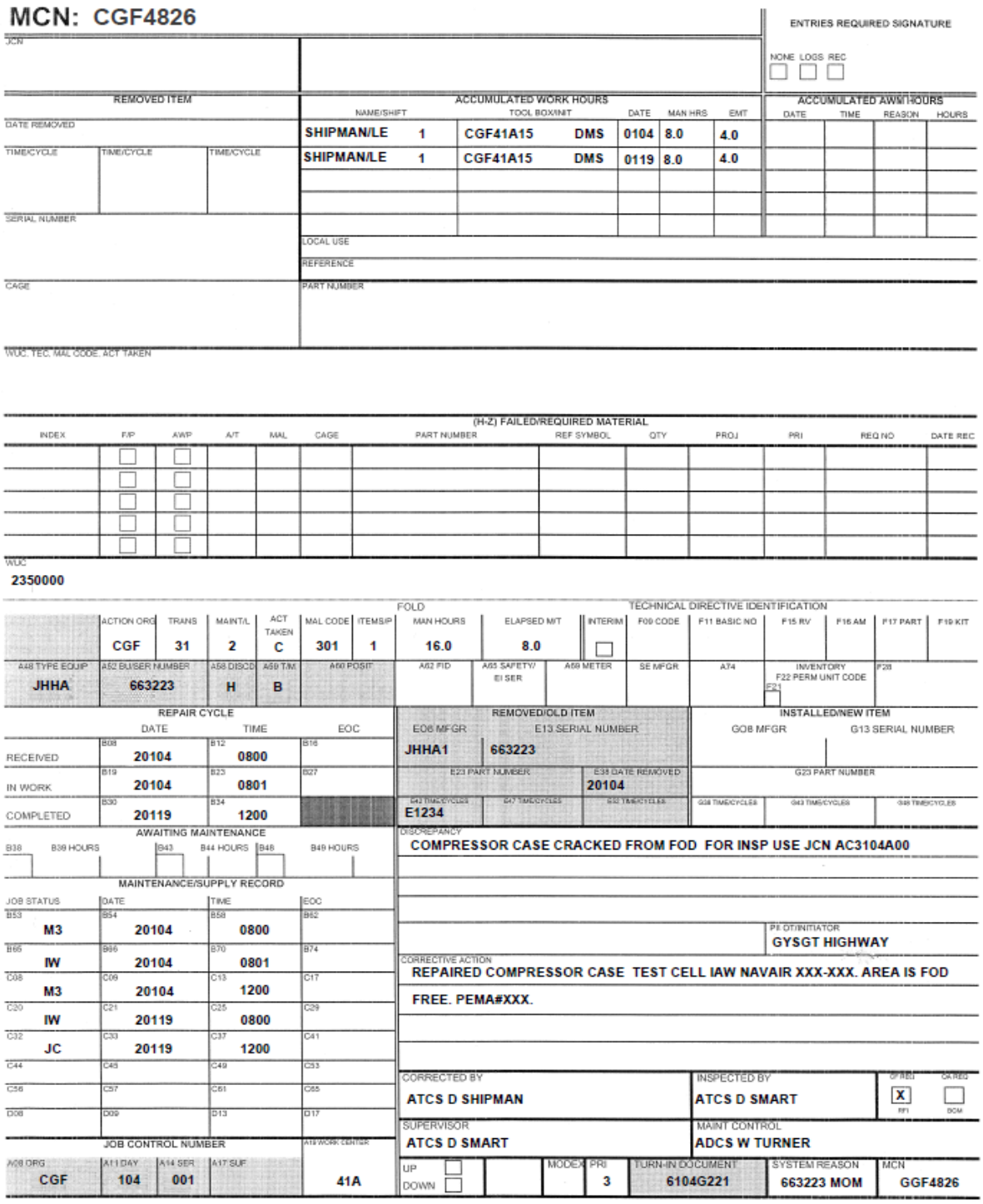
CORRECTIVE ACTION
REMOVED AND REPLACED WIRING HARNESS IAW NAVAIR XXX-XXX TO FACILITATE
REPAIR. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ RFI	QA REQ BOM
ATCS D SHIPMAN	ATCS D SMART	☐	☐

SUPERVISOR	MAINT CONTROL
ATCS D SMART	ADCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ ☐			3		HARNES FOM	CGF4826

Figure 16-94: Facilitate Other Maintenance (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIPMAN/LE	1	CGF41A15	DMS	0104	8.0	4.0
SHIPMAN/LE	1	CGF41A15	DMS	0119	8.0	4.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2350000

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	C	301	1	16.0	8.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	AT4	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	H	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20104	0800	
IN WORK	20104	0801	
COMPLETED	20119	1200	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20104	0800	
IW	20104	0801	
M3	20104	1200	
IW	20119	0800	
JC	20119	1200	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A18 WORK CENTER
CGF	104	001		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
JHHA1	663223

E23 PART NUMBER | E38 DATE REMOVED: 20104
E42 TIME/CYCLES: E1234 | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER
G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
COMPRESSOR CASE CRACKED FROM FOD FOR INSP USE JCN AC3104A00

PE OT/INITIATOR
GYSGT HIGHWAY

CORRECTIVE ACTION
REPAIRED COMPRESSOR CASE TEST CELL IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS D SHIPMAN	ATCS D SMART	X	☐

SUPERVISOR	MAINT CONTROL
ATCS D SMART	ADCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ ☐			3	6104G221	663223 MOM	GGF4826

Figure 16-95: Engine Repair Control Document (Completed VIDS/MAF) (Example)

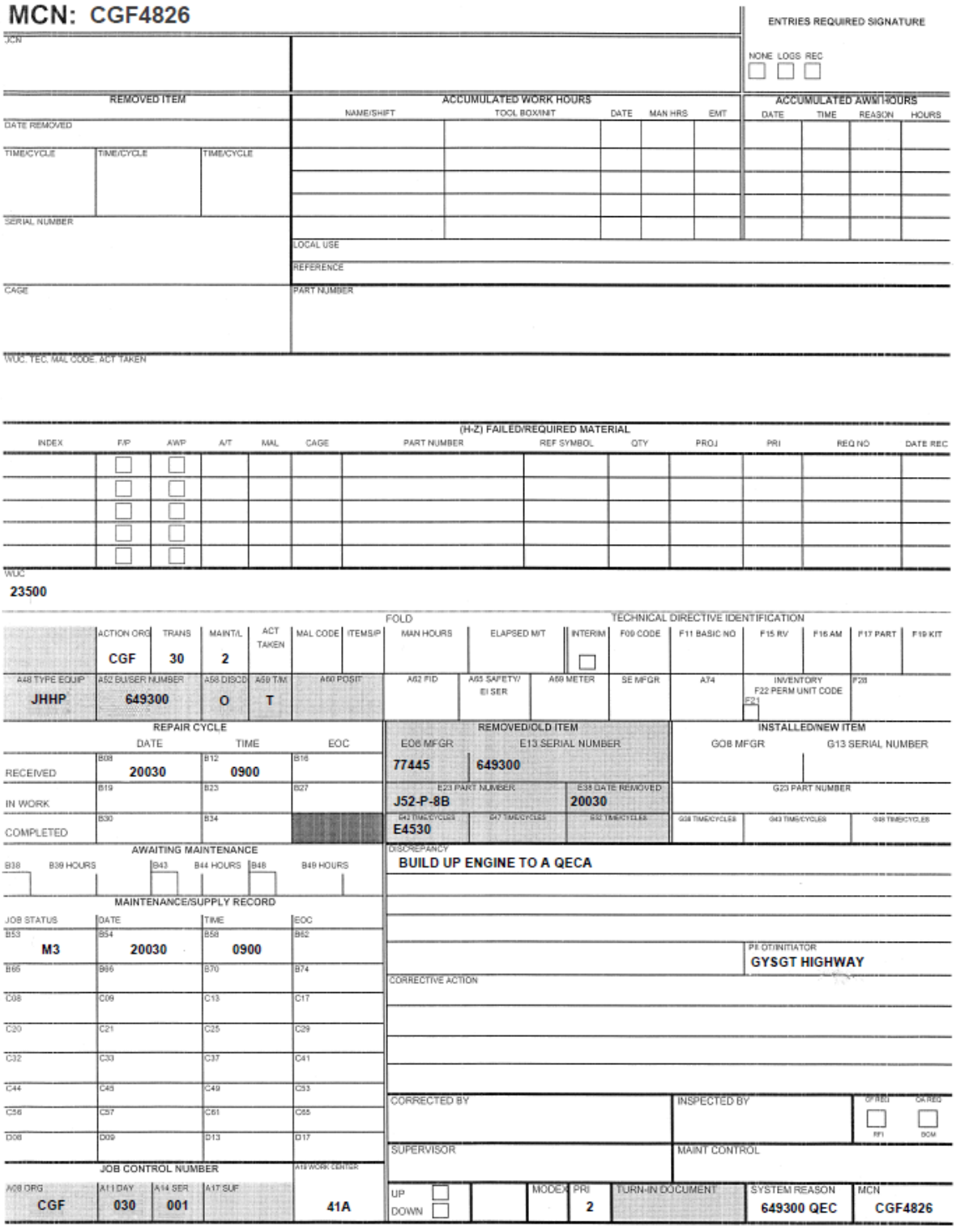


Figure 16-96: **Supply Asset Engine Build-Up (Example)**

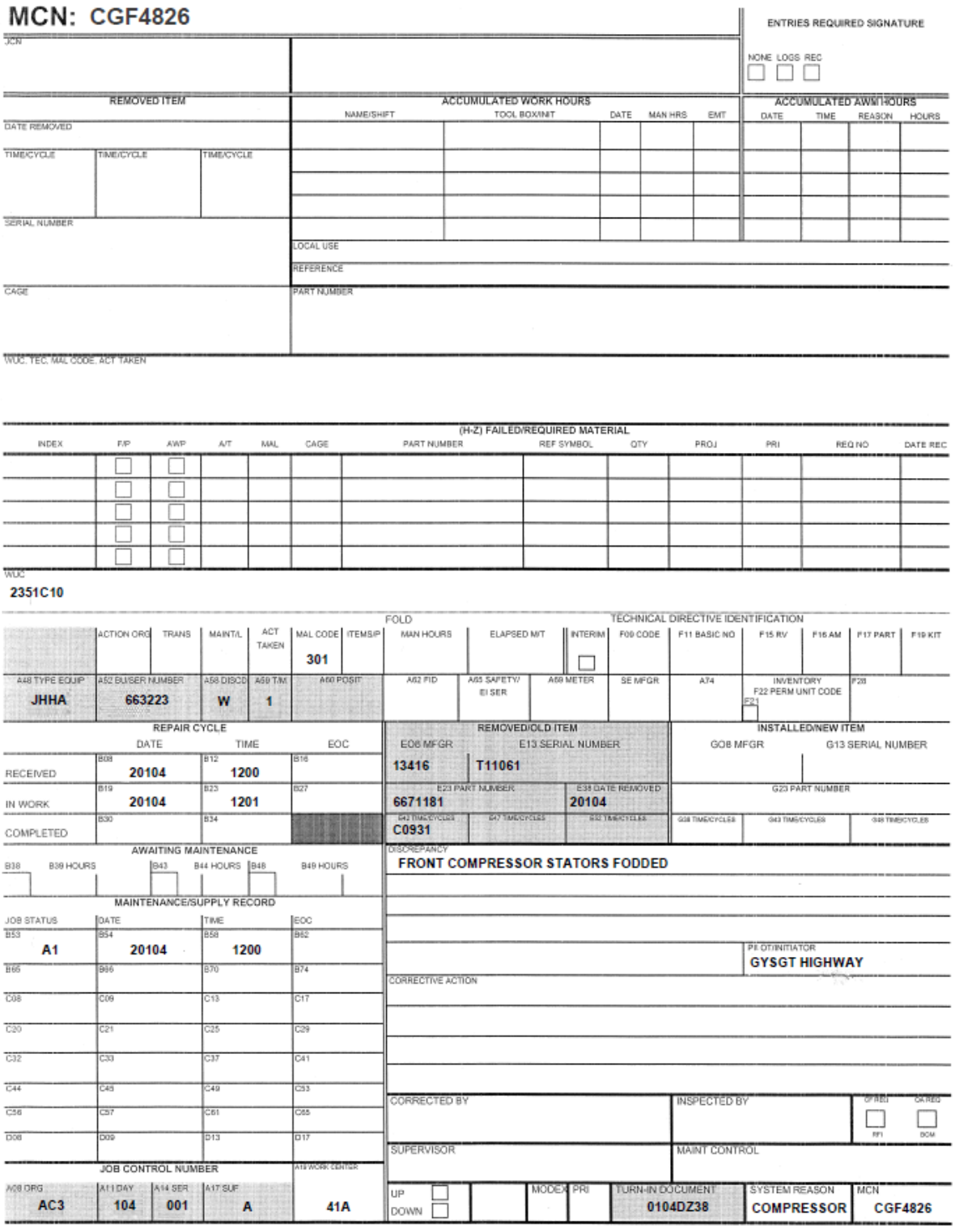
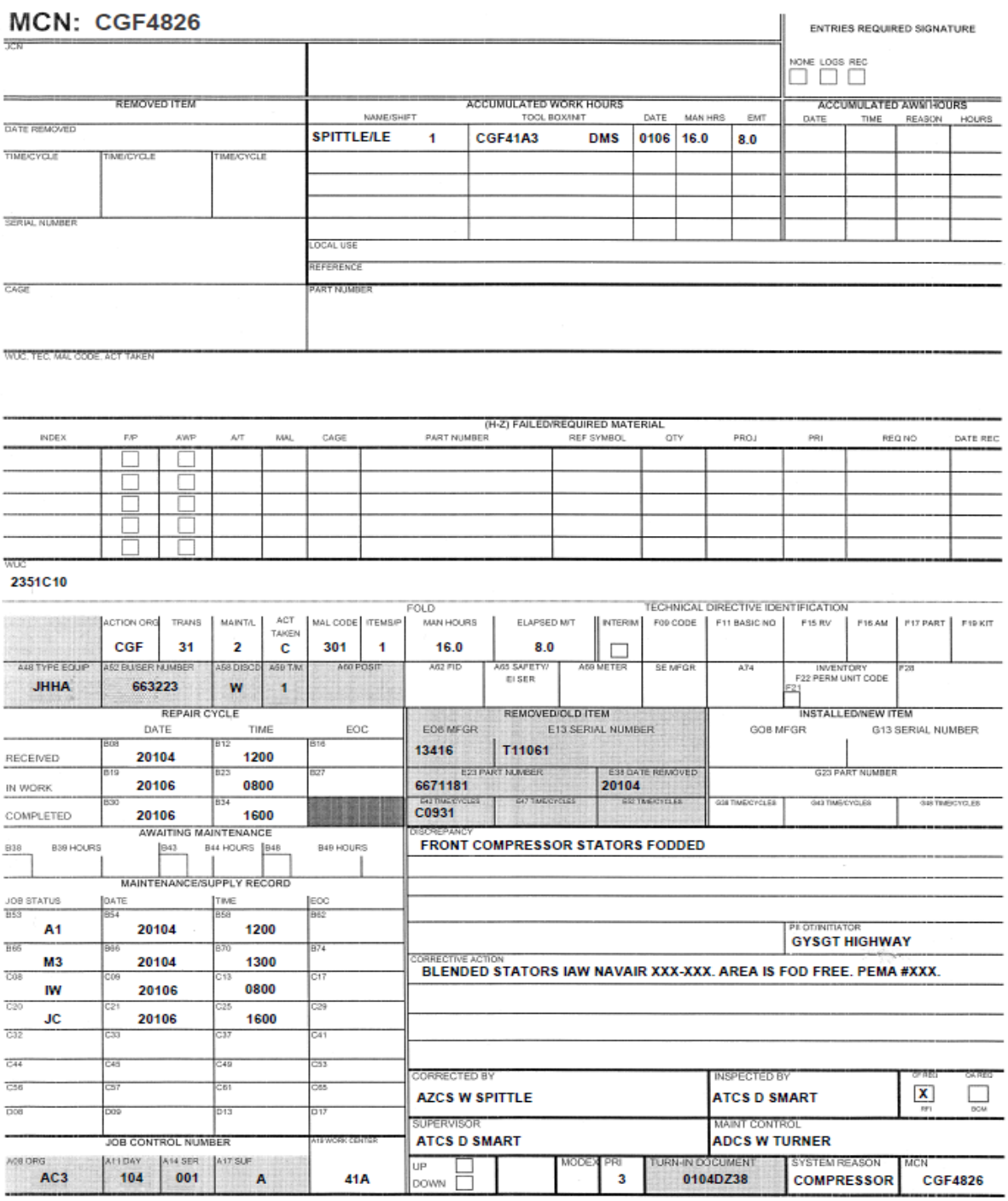


Figure 16-97: Engine Component Turn-In for Repair (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
SPITTLE/LE	1	CGF41A3	DMS	0106	16.0	8.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2351C10

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	C	301	1	16.0	8.0	☐						

A48 TYPE EQUIP	A52 EU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	AT4	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20104	1200	
IN WORK	20106	0800	
COMPLETED	20106	1600	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20104	1200	
M3	20104	1300	
IW	20106	0800	
JC	20106	1600	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	104	001	A	41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
13416	T11061

E23 PART NUMBER	E38 DATE REMOVED
6671181	20104

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0931		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
FRONT COMPRESSOR STATORS FODDED

PR OTHINITIATOR
GYSGT HIGHWAY

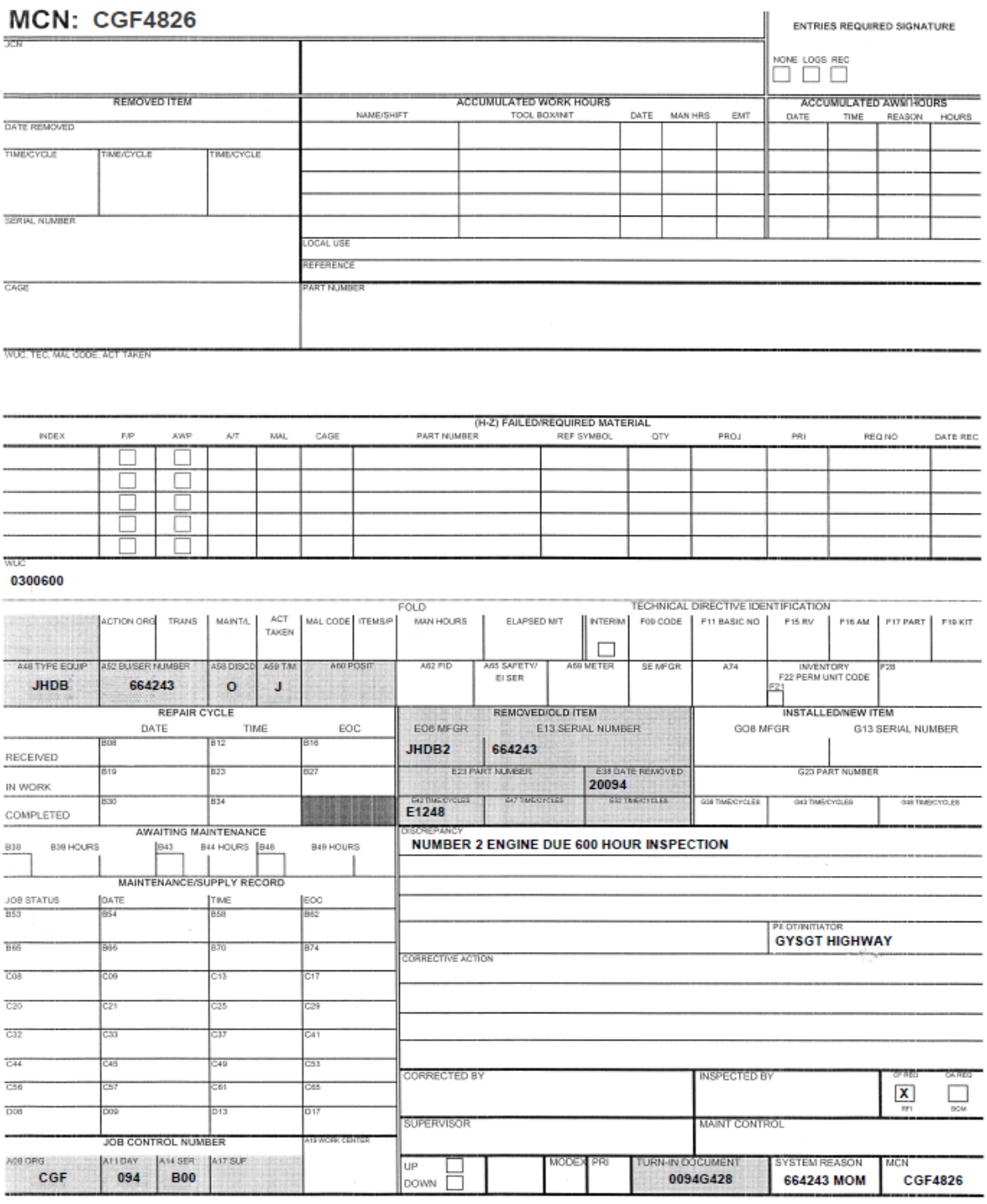
CORRECTIVE ACTION
BLENDED STATORS IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA #XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
AZCS W SPITTLE	ATCS D SMART	X RFI	☐ BCM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	ADCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ / ☐			3	0104DZ38	COMPRESSOR	CGF4826

Figure 16-98: Engine Component Repair (Completed) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS
NAME/SHIFT | TOOL BOX/MT | DATE | MAN HRS | EMT

ACCUMULATED AWM HOURS
DATE | TIME | REASON | HOURS

LOCAL USE
REFERENCE
PART NUMBER

WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0300600

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
								☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
JHDB	664243	O	J								☐	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08	B12	B16
IN WORK	B19	B23	B27
COMPLETED	B30	B34	

REMOVED/OLD ITEM
E08 MFGR: JHDB2
E13 SERIAL NUMBER: 664243
E23 PART NUMBER
E38 DATE REMOVED: 20094
E42 TIME/CYCLES: E1248
E47 TIME/CYCLES
E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR
G13 SERIAL NUMBER
G23 PART NUMBER
G38 TIME/CYCLES
G43 TIME/CYCLES
G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 B39 HOURS | B43 B44 HOURS | B48 B49 HOURS

DISCREPANCY
NUMBER 2 ENGINE DUE 600 HOUR INSPECTION

PE OT/INITIATOR
GYSGT HIGHWAY

CORRECTIVE ACTION

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53	B54	B58	B62
B65	B66	B70	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

CORRECTED BY
INSPECTED BY
QA REQ: X (RFI)
QA REQ: ☐ (BOM)
SUPERVISOR
MAINT CONTROL

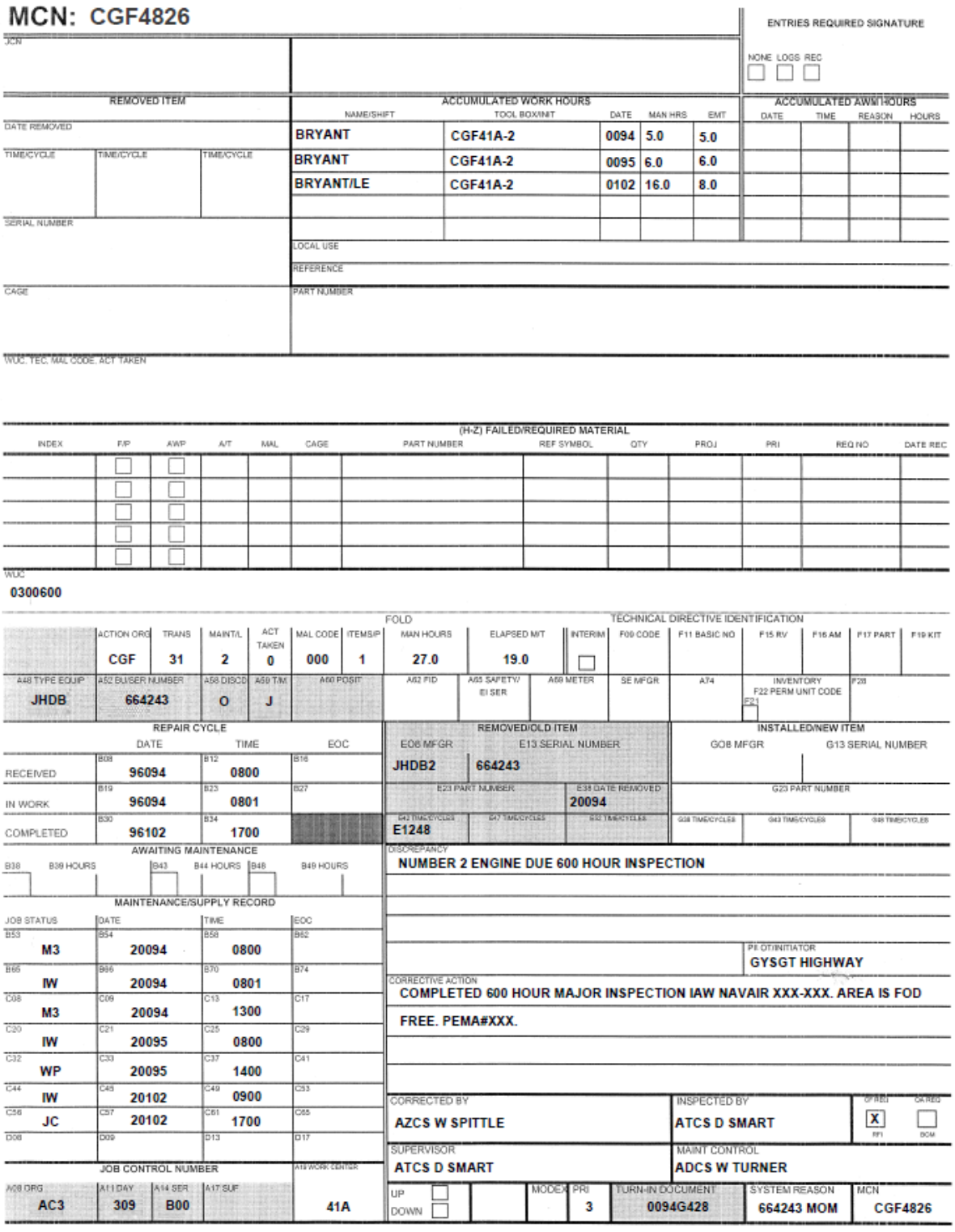
JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	094	B00		

UP ☐
DOWN ☐

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
		0094G428	664243 MOM	CGF4826

Figure 16-99: Turn-In Document Solely for Major Engine Inspection (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT	TOOL BOX/KIT	DATE	MAN HRS	EMT
BRYANT	CGF41A-2	0094	5.0	5.0
BRYANT	CGF41A-2	0095	6.0	6.0
BRYANT/LE	CGF41A-2	0102	16.0	8.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0300600

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	0	000	1	27.0	19.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE / F21	F28
JHDB	664243	O	J								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 96094	B12 0800	B16
IN WORK	B19 96094	B23 0801	B27
COMPLETED	B30 96102	B34 1700	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20094	B58 0800	B62
B65 IW	B66 20094	B70 0801	B74
C08 M3	C09 20094	C13 1300	C17
C20 IW	C21 20095	C25 0800	C29
C32 WP	C33 20095	C37 1400	C41
C44 IW	C45 20102	C49 0900	C53
C56 JC	C57 20102	C61 1700	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
AC3	309	B00		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
JHDB2	664243

E23 PART NUMBER | E38 DATE REMOVED: 20094

E42 TIME/CYCLES: E1248 | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
NUMBER 2 ENGINE DUE 600 HOUR INSPECTION

PR OTINITIATOR
GYSGT HIGHWAY

CORRECTIVE ACTION
COMPLETED 600 HOUR MAJOR INSPECTION IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA NOT REQ
AZCS W SPITTLE	ATCS D SMART	X RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	ADCS W TURNER

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ UP ☐ DOWN			3	0094G428	664243 MOM	CGF4826

Figure 16-100: Control Document Solely for Major Engine Inspection (Completed) (Example)

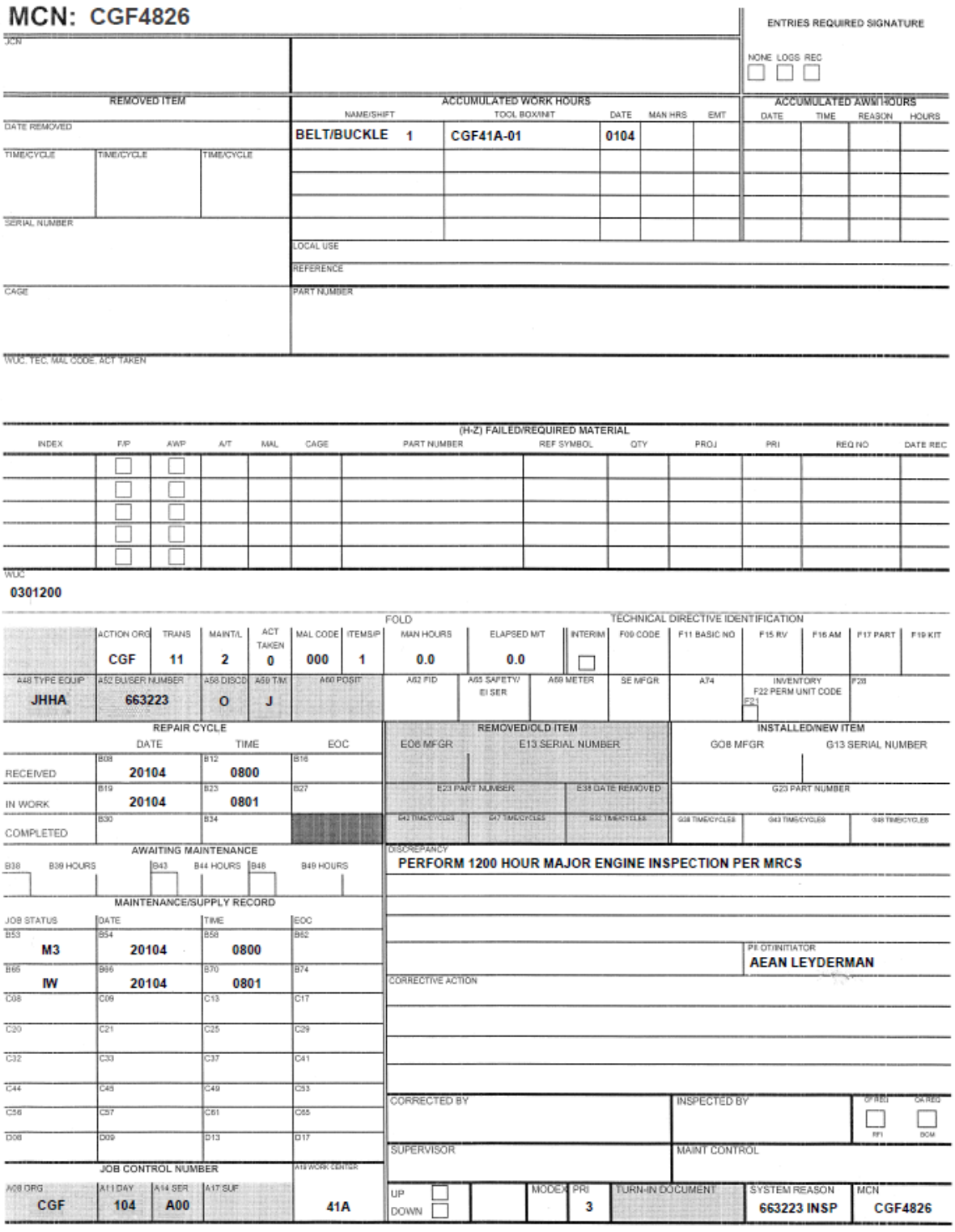
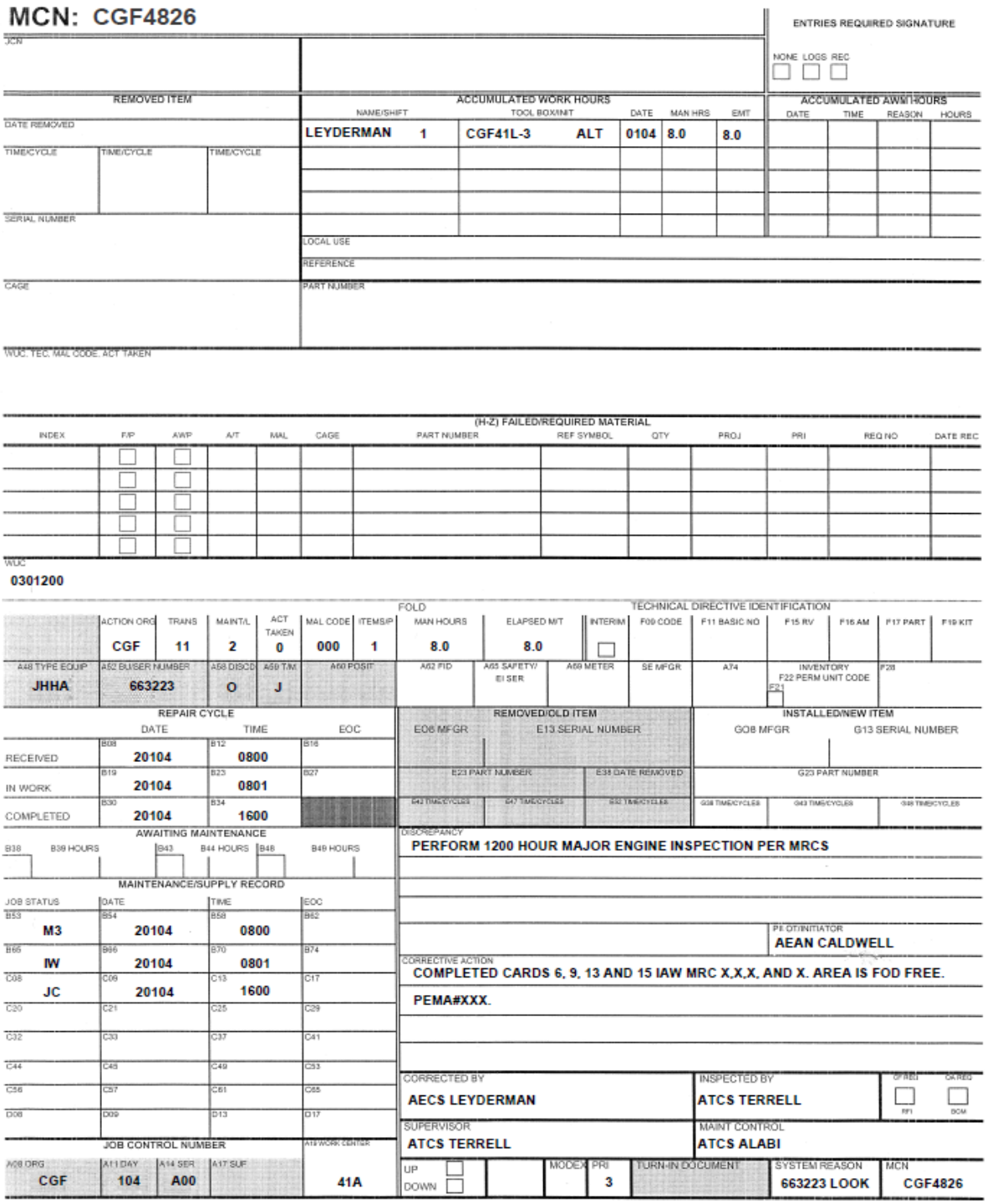


Figure 16-101: Control Document for Major Engine Inspection (Engine Undergoing Repair) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
LEYDERMAN	1	CGF41L-3	ALT	0104	8.0	8.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0301200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	11	2	0	000	1	8.0	8.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	O	J								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20104	0800	
IN WORK	20104	0801	
COMPLETED	20104	1600	

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

DISCREPANCY
PERFORM 1200 HOUR MAJOR ENGINE INSPECTION PER MRCS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20104	0800	
IW	20104	0801	
JC	20104	1600	

PE OT/INITIATOR
AEAN CALDWELL

CORRECTIVE ACTION
COMPLETED CARDS 6, 9, 13 AND 15 IAW MRC X,X,X, AND X. AREA IS FOD FREE.
PEMA#XXX.

CORRECTED BY
AECS LEYDERMAN

INSPECTED BY
ATCS TERRELL

QA REJ ☐ | QA REQ ☐

SUPERVISOR
ATCS TERRELL

MAINT CONTROL
ATCS ALABI

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	A00		41A

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON 663223 LOOK | MCN CGF4826

Figure 16-102: Major Engine Inspection (Look Phase Supporting Work Center) (Example)

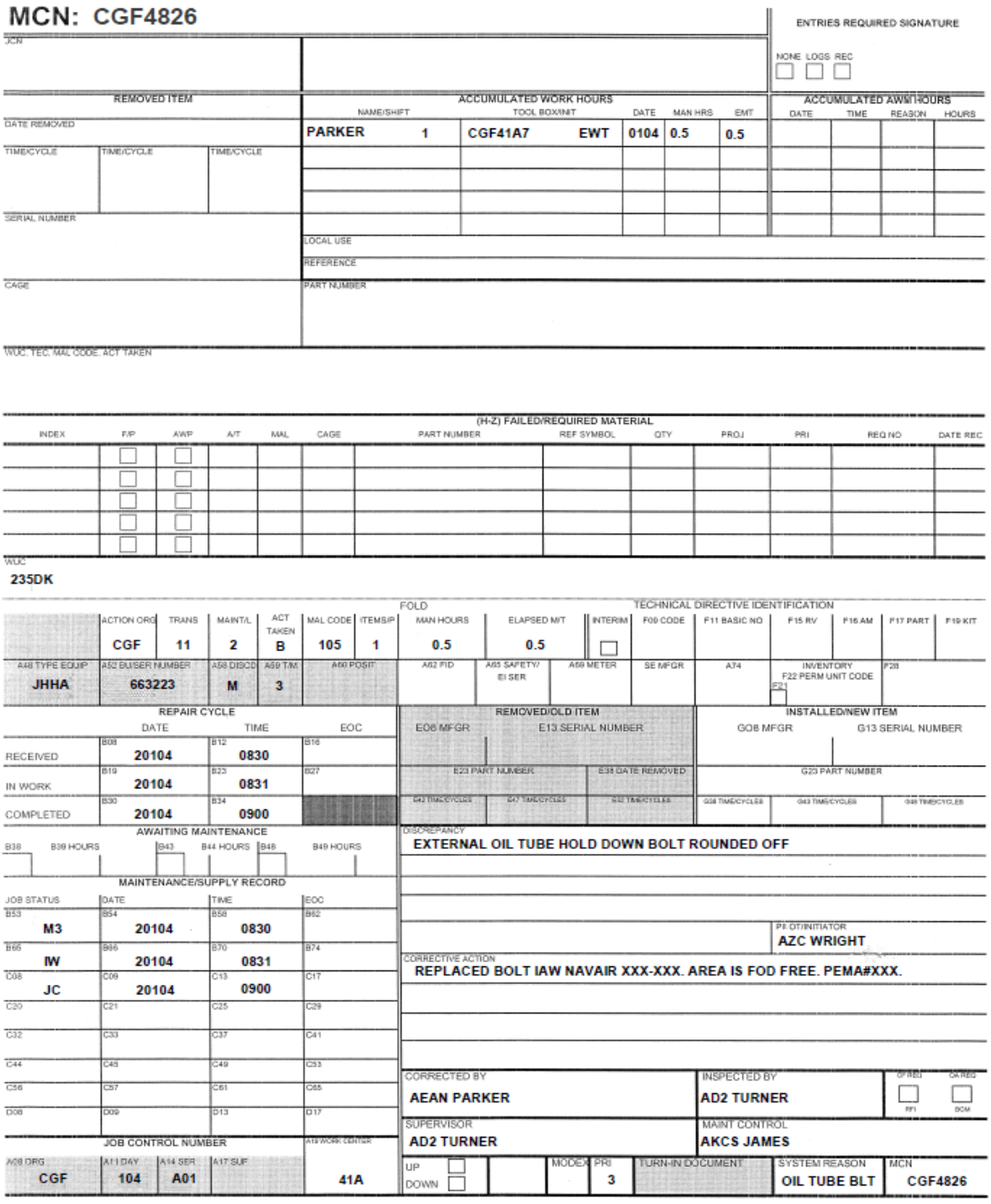
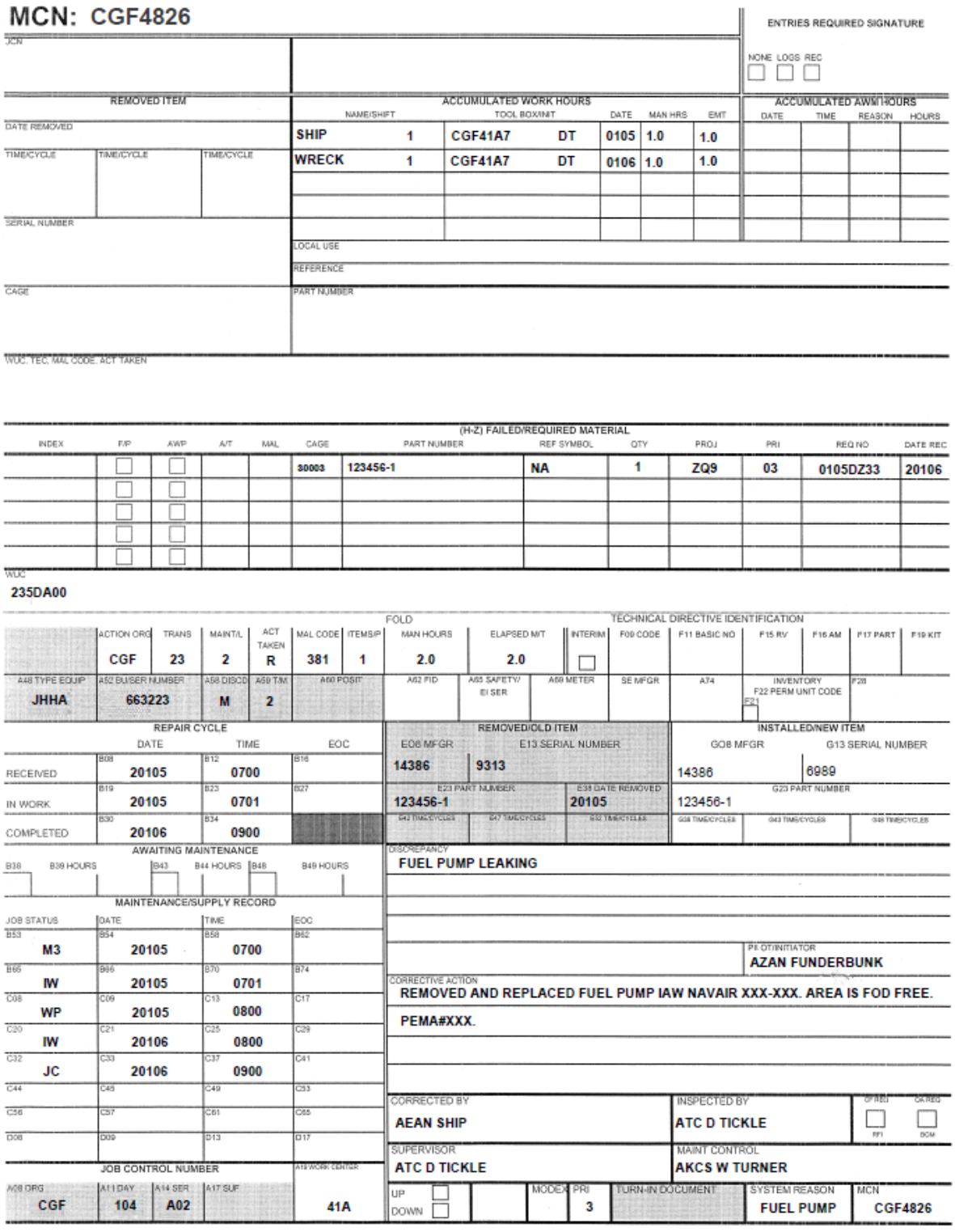


Figure 16-103: Major Engine Inspection (Fix-In-Place) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIP	1	CGF41A7	DT	0105	1.0	1.0
WRECK	1	CGF41A7	DT	0106	1.0	1.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			30003	123456-1	NA	1	ZQ9	03	0105DZ33	20106

WUC
235DA00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	381	1	2.0	2.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHHA	663223	M	2								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20105	B12 0700	B16
IN WORK	B19 20105	B23 0701	B27
COMPLETED	B30 20106	B34 0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20105	B58 0700	B62
B65 IW	B66 20105	B70 0701	B74
C08 WP	C09 20105	C13 0800	C17
C20 IW	C21 20106	C25 0800	C29
C32 JC	C33 20106	C37 0900	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	A02		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
14386	9313

E23 PART NUMBER: 123456-1
E38 DATE REMOVED: 20105

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
14386	6989

G23 PART NUMBER: 123456-1

DISCREPANCY
FUEL PUMP LEAKING

PR OTINITIATOR
AZAN FUNDERBUNK

CORRECTIVE ACTION
REMOVED AND REPLACED FUEL PUMP IAW NAVAIR XXX-XXX. AREA IS FOD FREE.

PEMA#XXX.

CORRECTED BY
AEAN SHIP

INSPECTED BY
ATC D TICKLE

QA REQ: QA RI ☐ QA COM ☐

SUPERVISOR
ATC D TICKLE

MAINT CONTROL
AKCS W TURNER

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON FUEL PUMP | MCN CGF4826

Figure 16-104: Major Engine Inspection (Fix Phase Removal and Replacement of a Repairable Component) (Example)

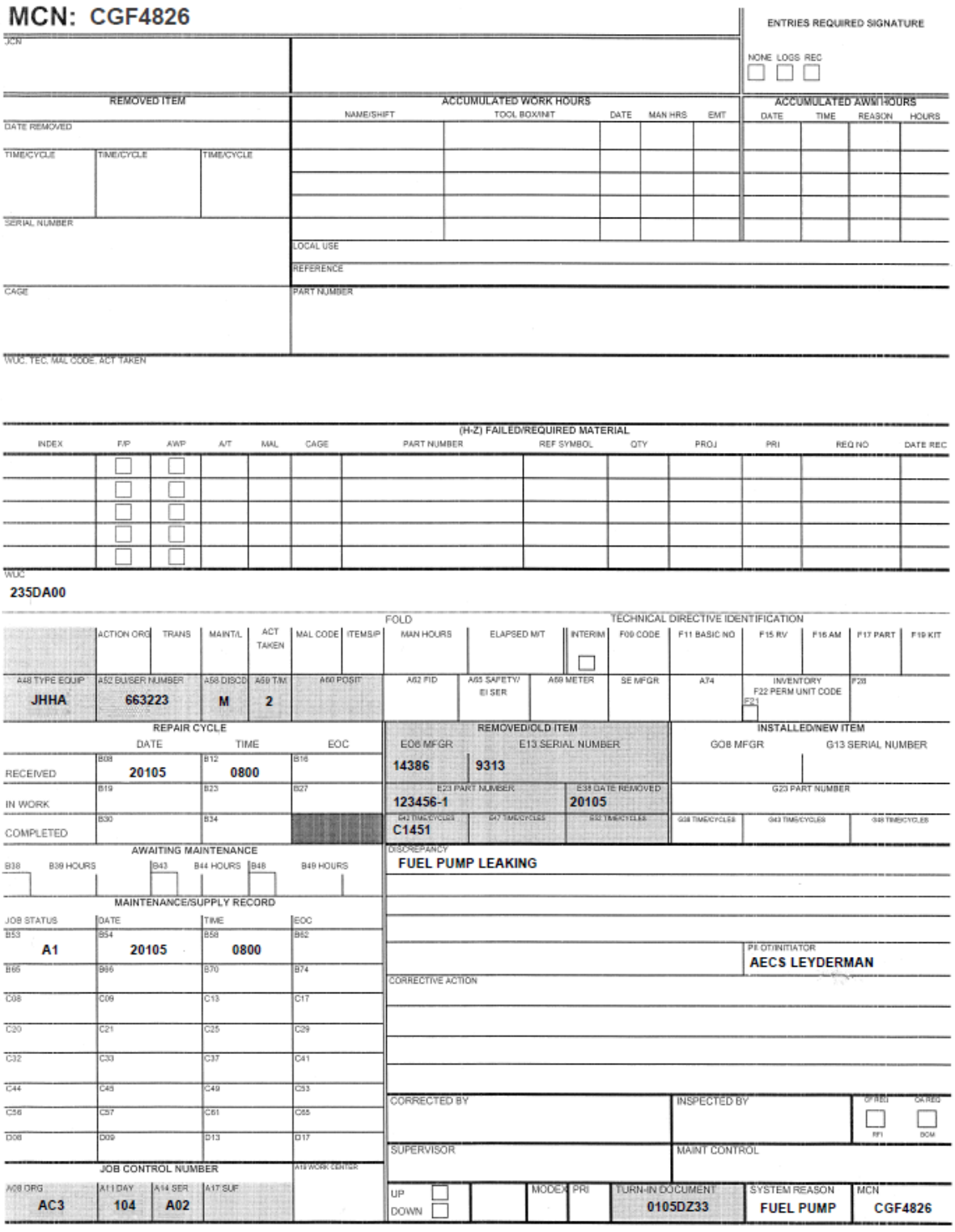


Figure 16-105: Major Engine Inspection (Component Turn-In) (Example)

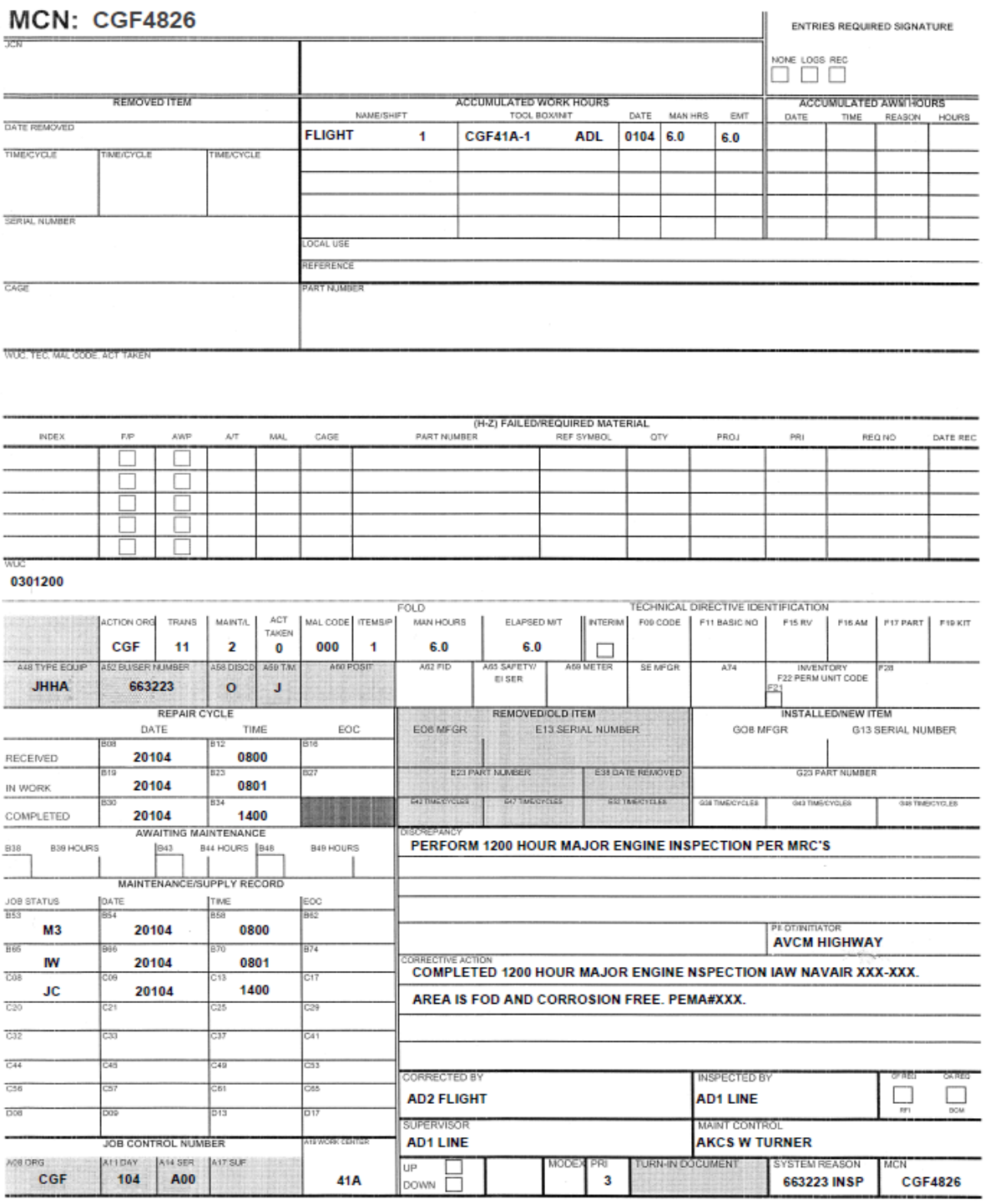


Figure 16-106: Major Engine Inspection Completed After Repair Action (Example)

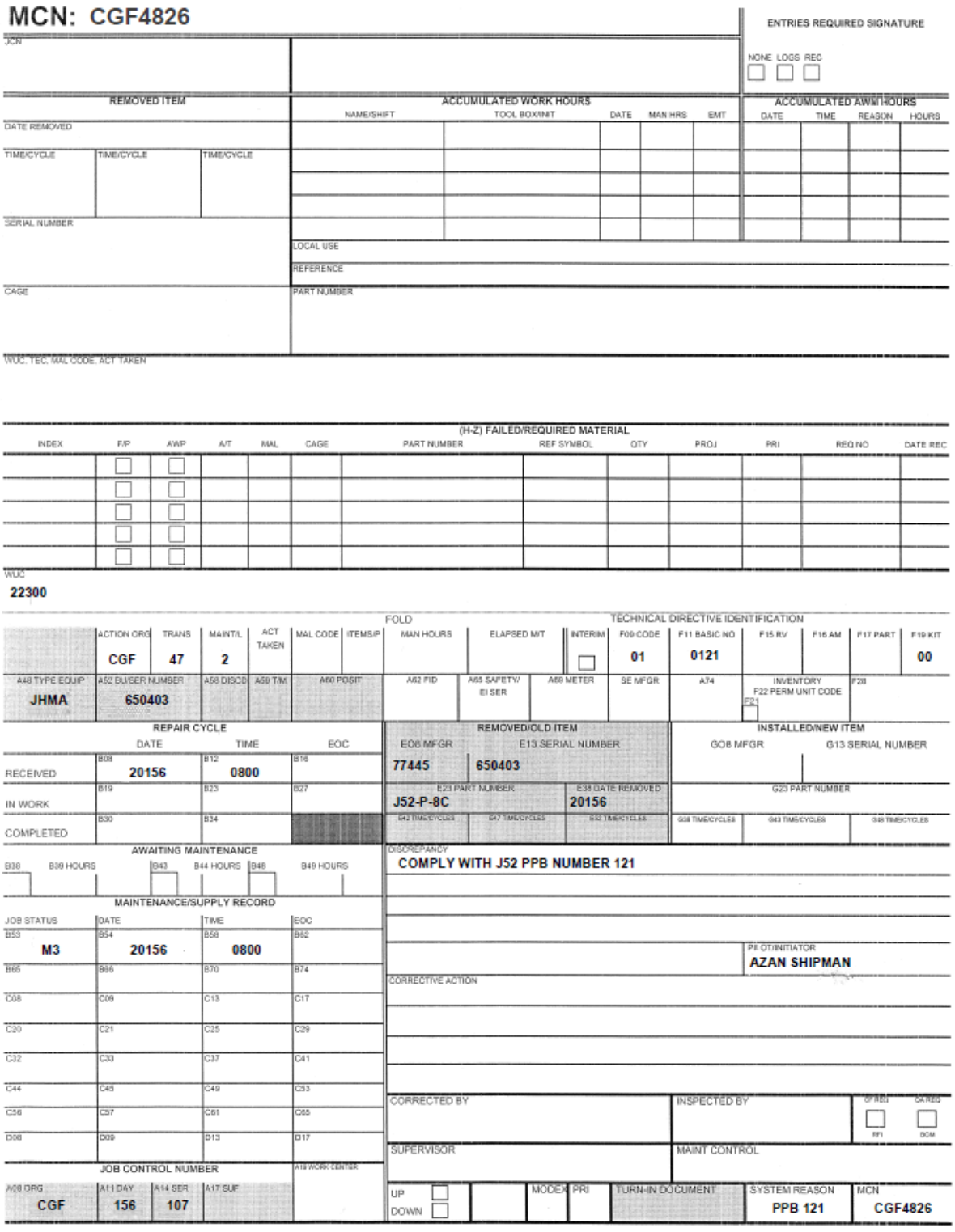


Figure 16-107: Supply Asset (TD Compliance Request) (Example)

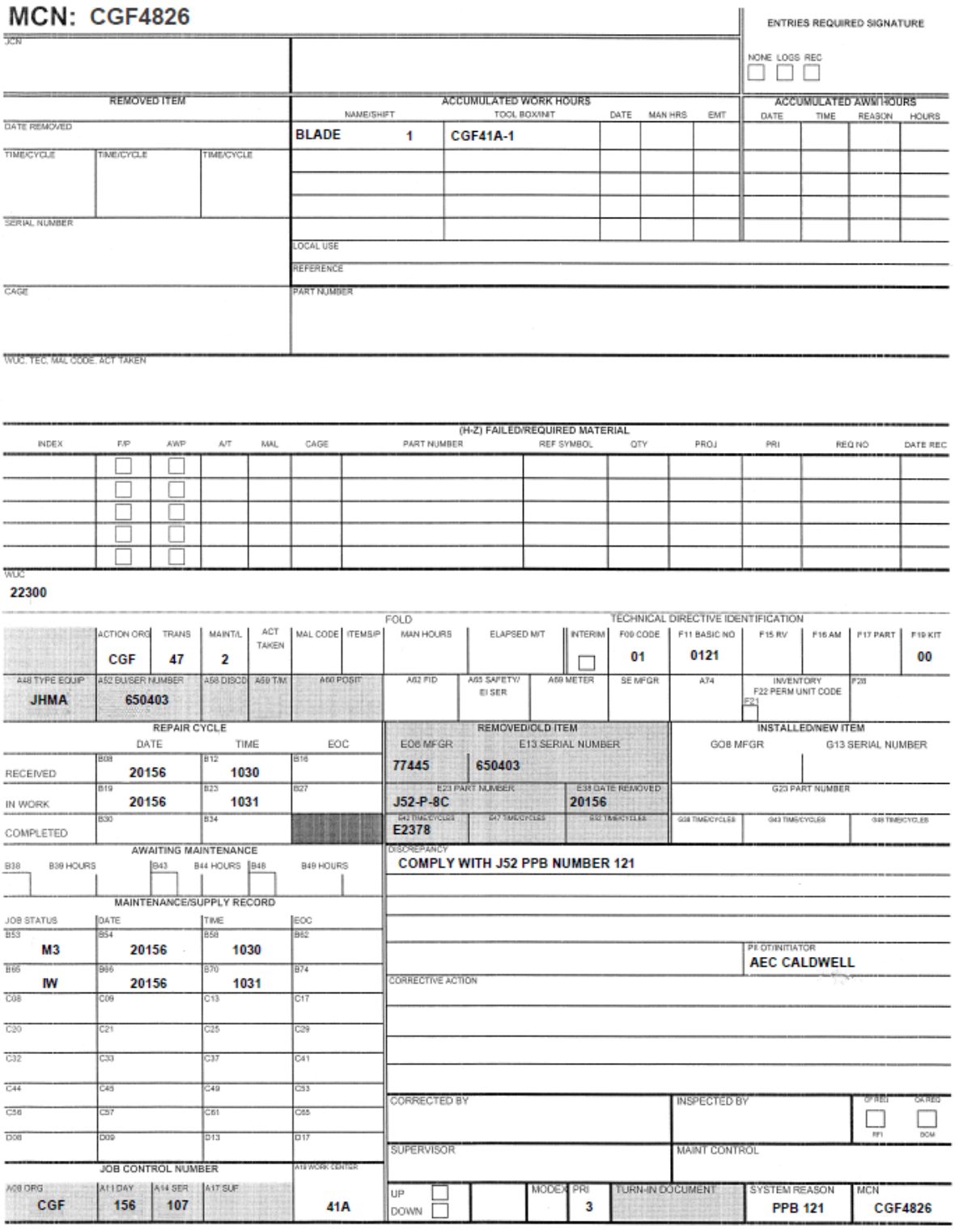


Figure 16-108: Supply Asset TD Compliance Request (IMA Production Control Entries) (Example)

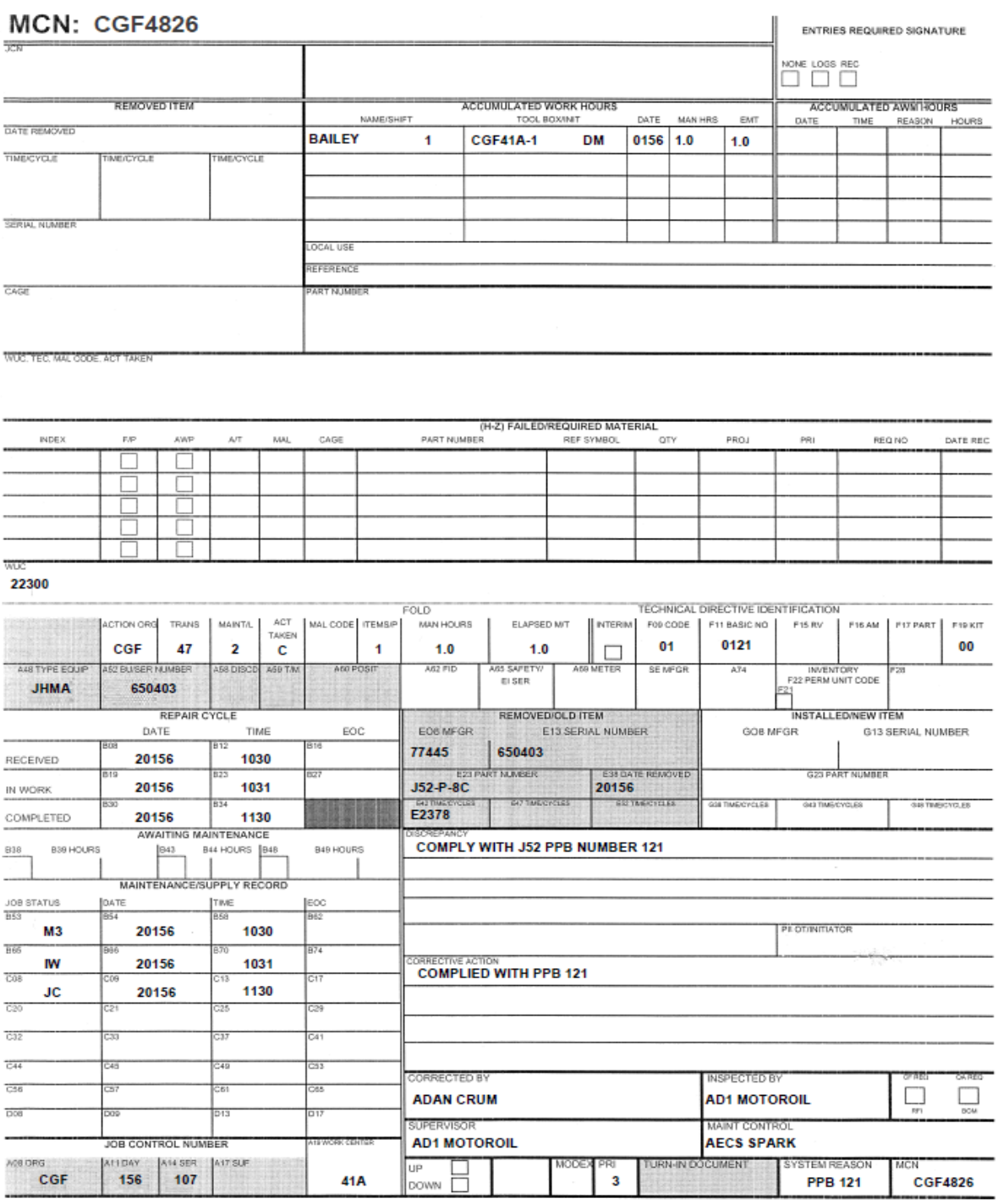
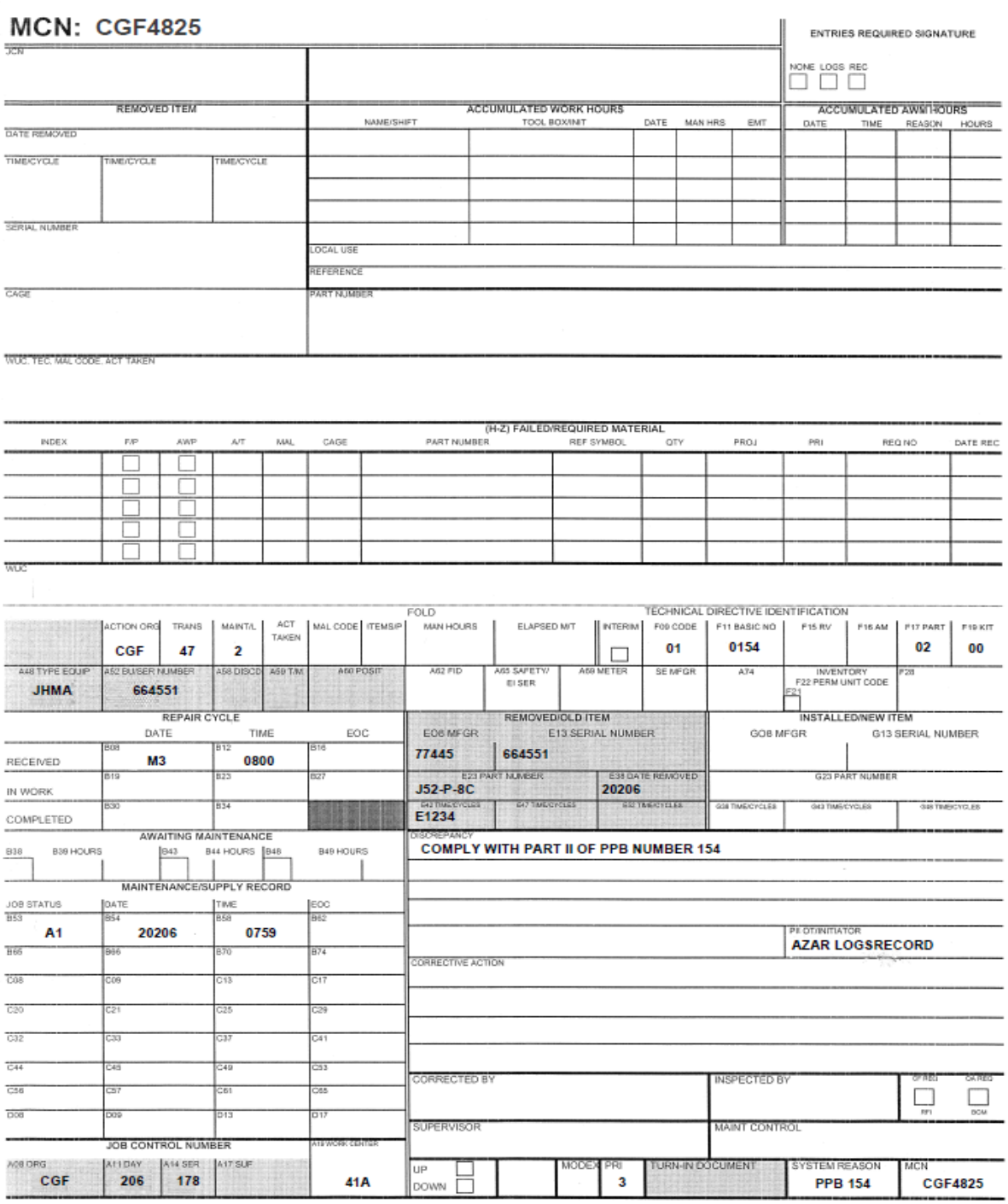


Figure 16-109: **Supply Asset (TD Compliance Completed) (Example)**



MCN: CGF4825

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS
NAME/SHIFT | TOOL BOX/INIT | DATE | MAN HRS | EMT

ACCUMULATED AWM HOURS
DATE | TIME | REASON | HOURS

LOCAL USE
REFERENCE
PART NUMBER

WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL
INDEX | F/P | AWP | A/T | MAL | CAGE | PART NUMBER | REF SYMBOL | QTY | PROJ | PRI | REQ NO | DATE REC

WUC

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2							01	0154			02	00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISC	A59 T/M	A60 POS/T	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F28
JHMA	664551										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	M3	0800	
IN WORK			
COMPLETED			

REMOVED/OLD ITEM

EO6 MFGR	E13 SERIAL NUMBER		
77445	664551		
E23 PART NUMBER		E38 DATE REMOVED	
J52-P-8C		20206	
E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES	
E1234			

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER	
G23 PART NUMBER		
G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

DISCREPANCY
COMPLY WITH PART II OF PPB NUMBER 154

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20206	B58 0759	B62
B66	B66	B70	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C48	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

PE OT/INITIATOR
AZAR LOGSRECORD

CORRECTIVE ACTION

CORRECTED BY | INSPECTED BY | QA REJ | QA REQ

SUPERVISOR | MAINT CONTROL

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	206	178		41A

UP / DOWN | MODEX | PRI | TURN-IN DOCUMENT | SYSTEM REASON | MCN

	3		PPB 154	CGF4825

Figure 16-110: O-Level Engine TD Compliance Request (Example)

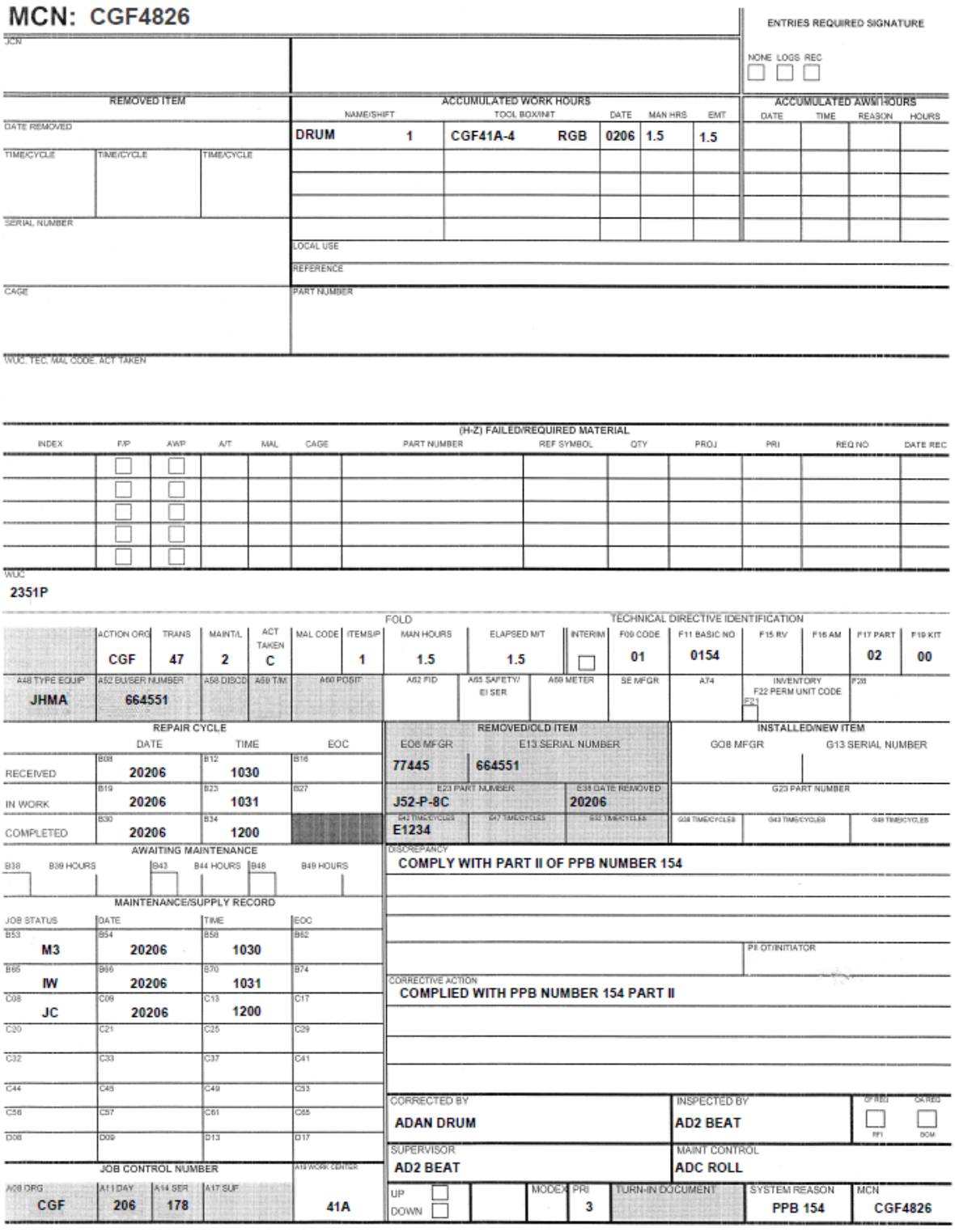
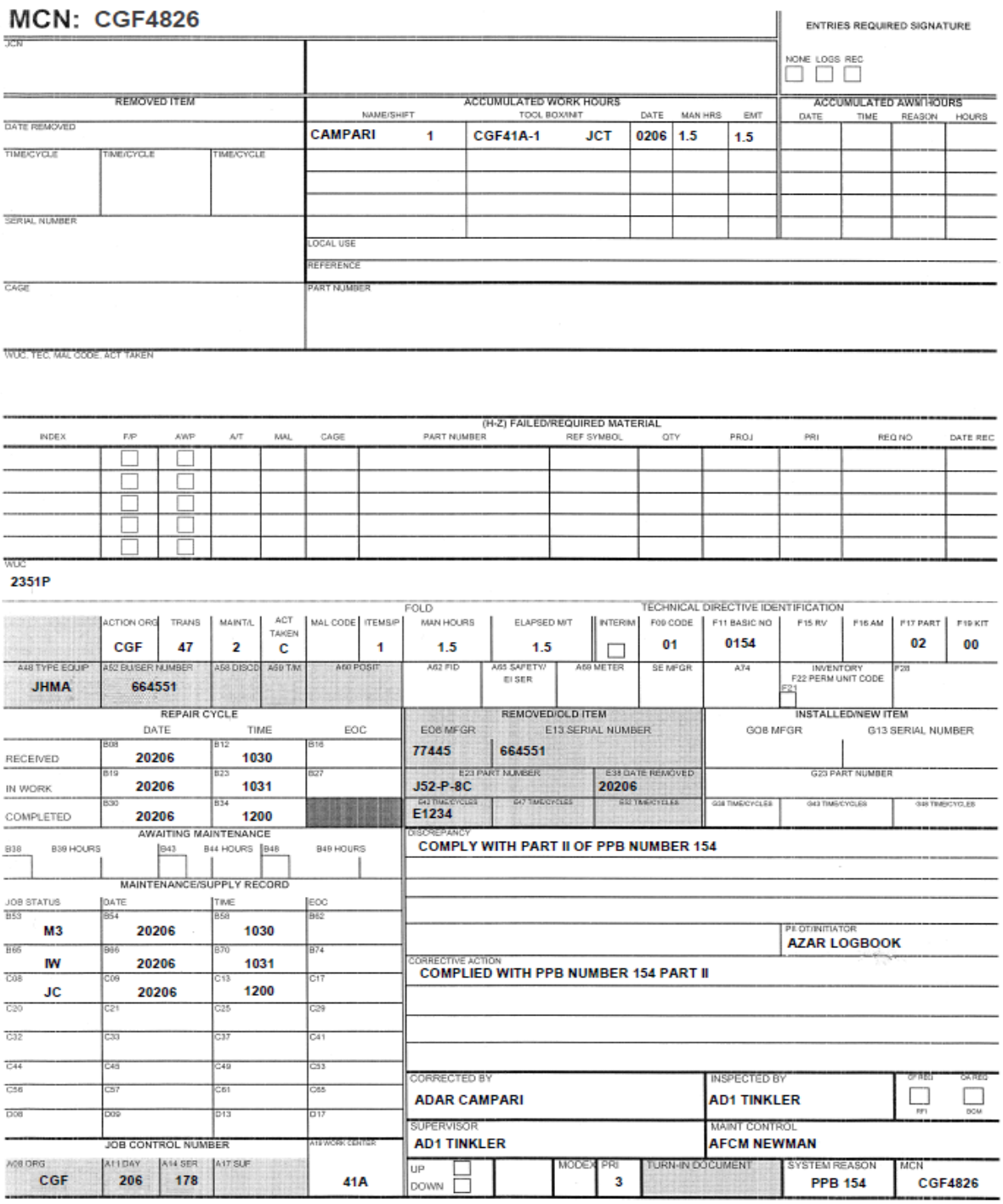


Figure 16-111: O-Level Engine TD Compliance Request (Production Control Entries) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
CAMPARI	1	CGF41A-1	JCT	0206	1.5	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2351P

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2	C		1	1.5	1.5	☐	01	0154			02	00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POS/T	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHMA	664551										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20206	1030	
IN WORK	20206	1031	
COMPLETED	20206	1200	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20206	1030	
IW	20206	1031	
JC	20206	1200	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	206	178		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77445	664551

E23 PART NUMBER	E38 DATE REMOVED
J52-P-8C	20206

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
E1234		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
COMPLY WITH PART II OF PPB NUMBER 154

PE OT/INITIATOR
AZAR LOGBOOK

CORRECTIVE ACTION
COMPLIED WITH PPB NUMBER 154 PART II

CORRECTED BY
ADAR CAMPARI

INSPECTED BY
AD1 TINKLER

QA REQ: QA REI ☐ QA REQ ☐

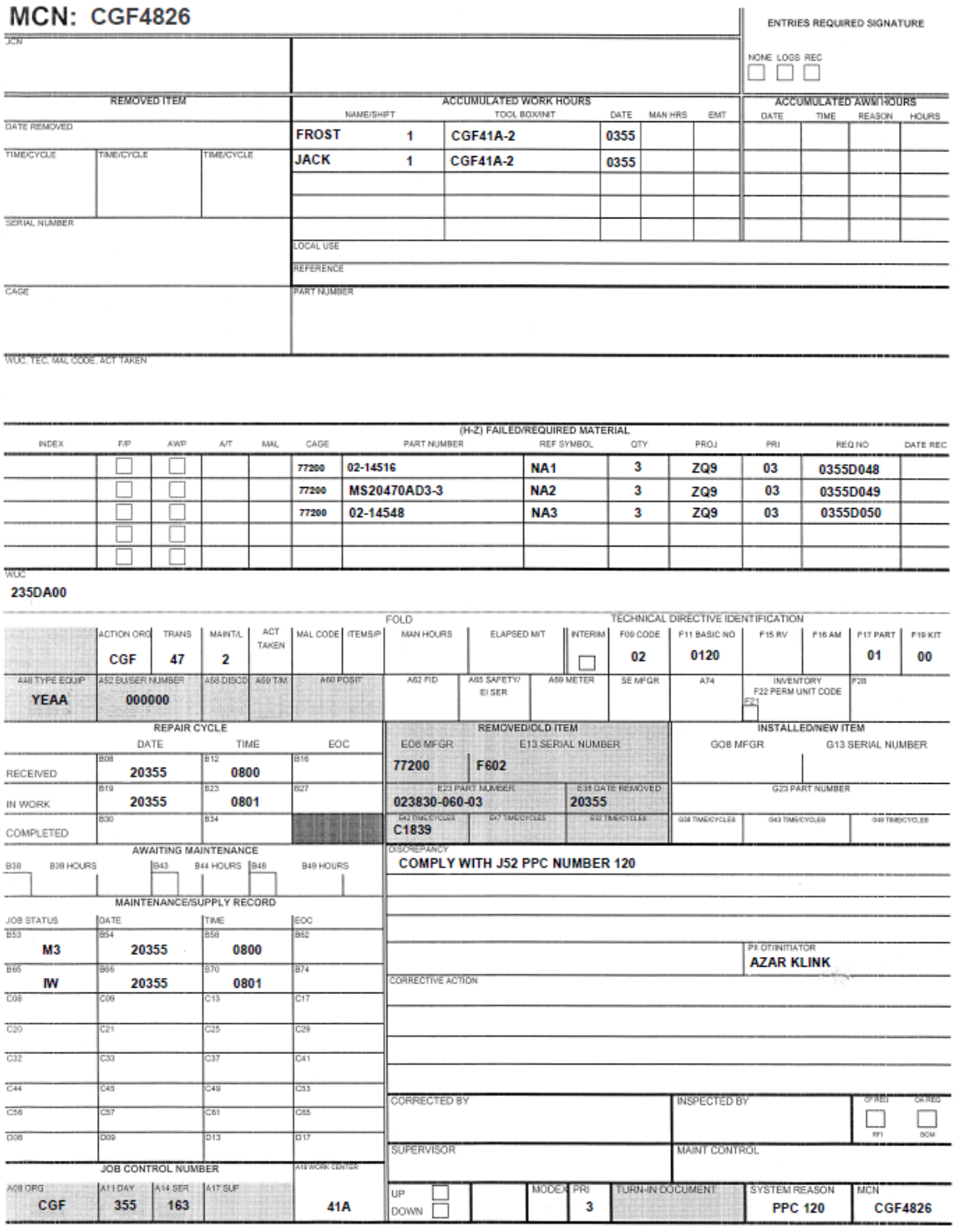
SUPERVISOR
AD1 TINKLER

MAINT CONTROL
AFCM NEWMAN

UP ☐ DOWN ☐

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
	3		PPB 154	CGF4826

Figure 16-112: O-Level Engine TD Compliance Request (Completed) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT	DATE	MAN HRS	EMT
FROST	1	CGF41A-2	0355		
JACK	1	CGF41A-2	0355		

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			77200	02-14516	NA1	3	ZQ9	03	0355D048	
	☐	☐			77200	MS20470AD3-3	NA2	3	ZQ9	03	0355D049	
	☐	☐			77200	02-14548	NA3	3	ZQ9	03	0355D050	
	☐	☐										
	☐	☐										

WUC
235DA00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2						☐	02	0120			01	00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YEAA	000000										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20355	B12 0800	B16
IN WORK	B19 20355	B23 0801	B27
COMPLETED	B30	B34	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20355	B58 0800	B62
B65 IW	B66 20355	B70 0801	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	355	163		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77200	F602

E23 PART NUMBER	E38 DATE REMOVED
023830-060-03	20355

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C1839		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
COMPLY WITH J52 PPC NUMBER 120

PR OTINITIATOR
AZAR KLINK

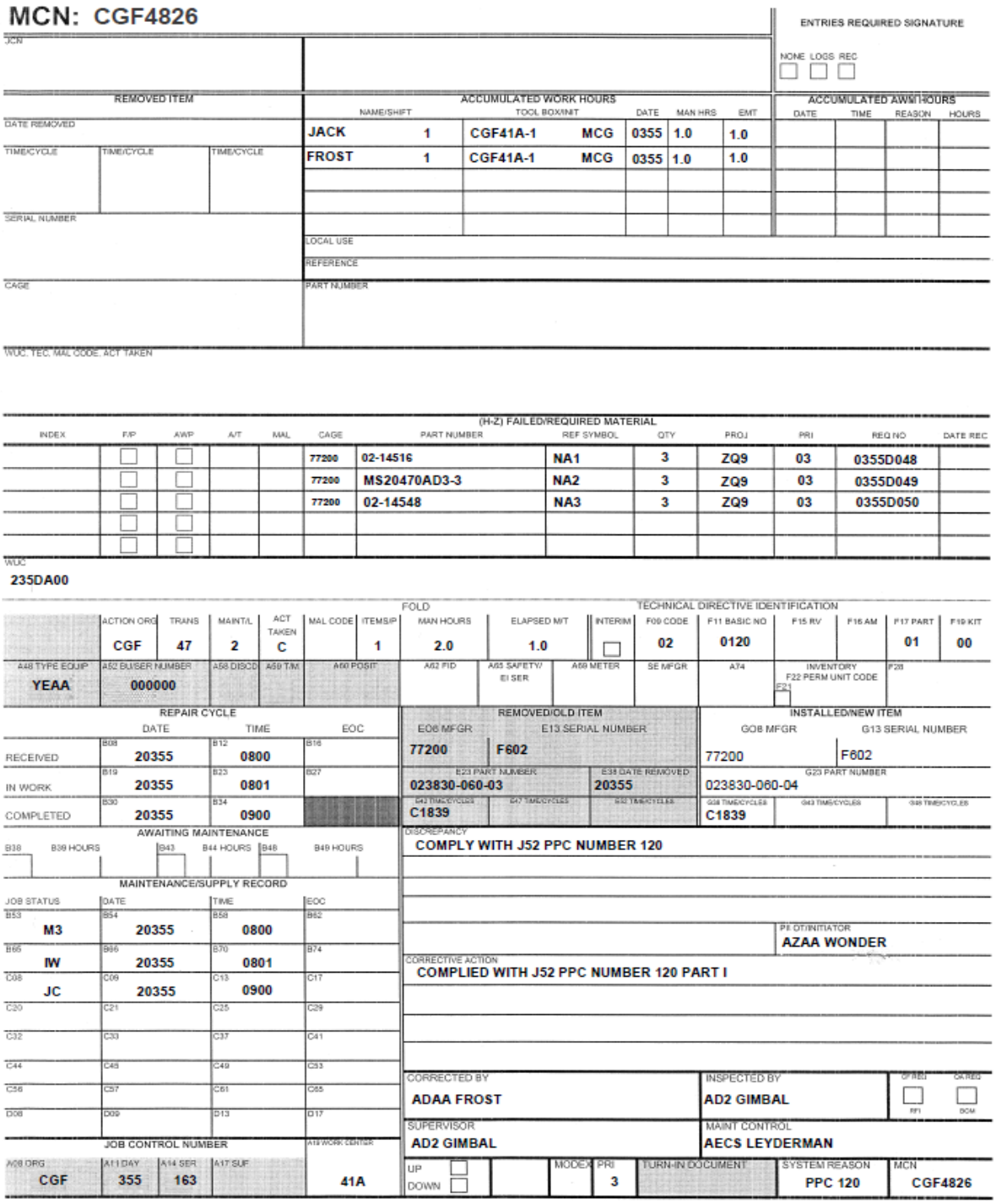
CORRECTIVE ACTION

CORRECTED BY | INSPECTED BY | QA REQ ☐ RFI | QA REQ ☐ BOM

SUPERVISOR | MAINT CONTROL

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON PPC 120 | MCN CGF4826

Figure 16-113: I-Level Originated TD Compliance Request (Engine Component) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
JACK	1	CGF41A-1	MCG	0355	1.0	1.0
FROST	1	CGF41A-1	MCG	0355	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC TEC MAL CODE ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
					77200	02-14516	NA1	3	ZQ9	03	0355D048	
					77200	MS20470AD3-3	NA2	3	ZQ9	03	0355D049	
					77200	02-14548	NA3	3	ZQ9	03	0355D050	

WUC
235DA00

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2	C		1	2.0	1.0		02	0120			01	00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
YEAA	000000										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20355	B12 0800	B16
IN WORK	B19 20355	B23 0801	B27
COMPLETED	B30 20355	B34 0900	

AWAITING MAINTENANCE
B38 B39 HOURS B43 B44 HOURS B48 B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20355	B58 0800	B62
B66 IW	B66 20355	B70 0801	B74
C08 JC	C09 20355	C13 0900	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C48	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	355	163		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77200	F602

E23 PART NUMBER	E38 DATE REMOVED
023830-060-03	20355

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C1839		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
77200	F602

G23 PART NUMBER
023830-060-04

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C1839		

DISCREPANCY
COMPLY WITH J52 PPC NUMBER 120

PE OT/INITIATOR
AZAA WONDER

CORRECTIVE ACTION
COMPLIED WITH J52 PPC NUMBER 120 PART I

CORRECTED BY
ADAA FROST

INSPECTED BY
AD2 GIMBAL

QA REJ RFI | QA REJ BOM

SUPERVISOR
AD2 GIMBAL

MAINT CONTROL
AECS LEYDERMAN

UP | DOWN | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON PPC 120 | MCN CGF4826

Figure 16-114: I-Level Originated TD Compliance (Completed) (Example)

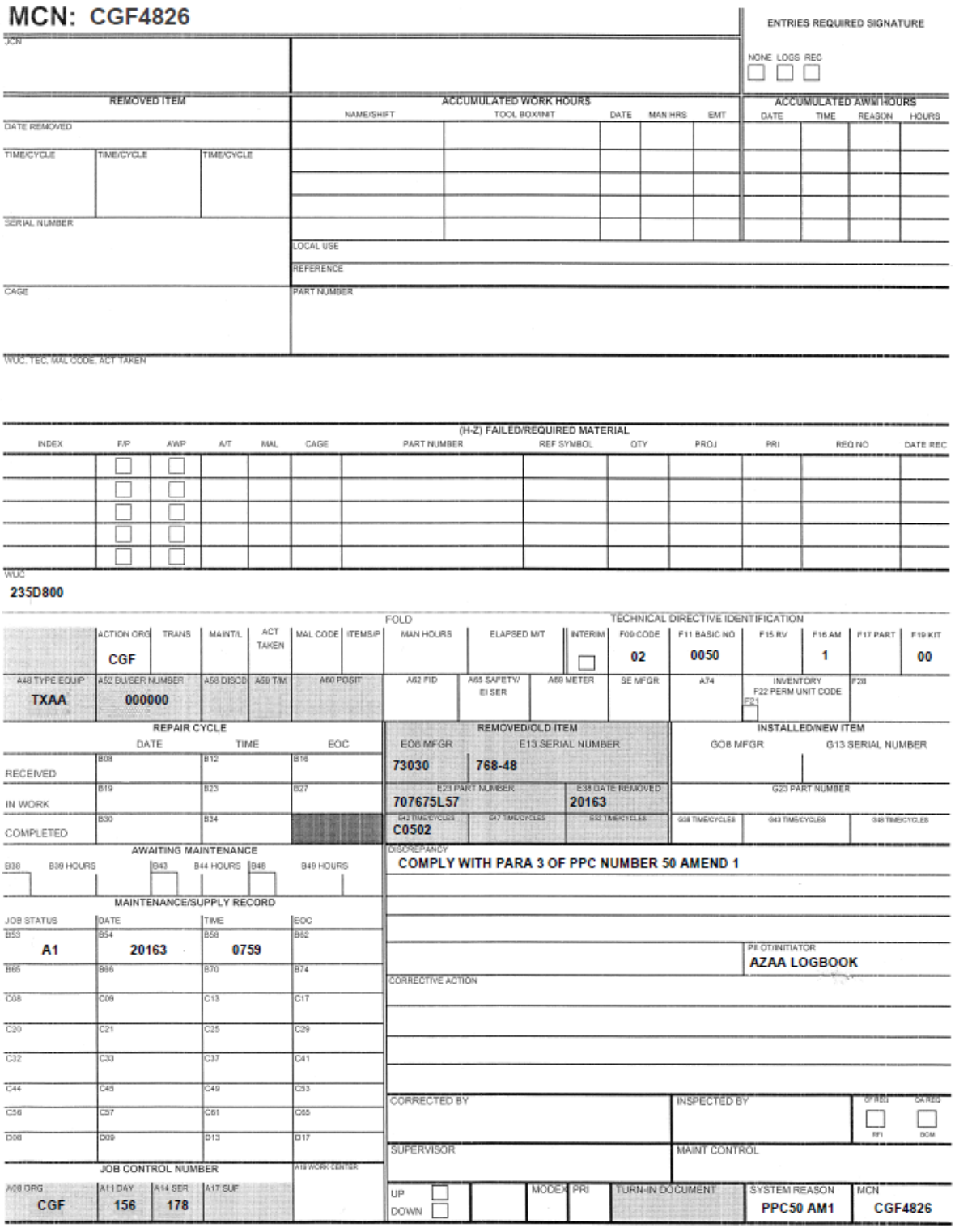


Figure 16-115: O-Level Request for TD Compliance Assist (Engine Component) (Example)

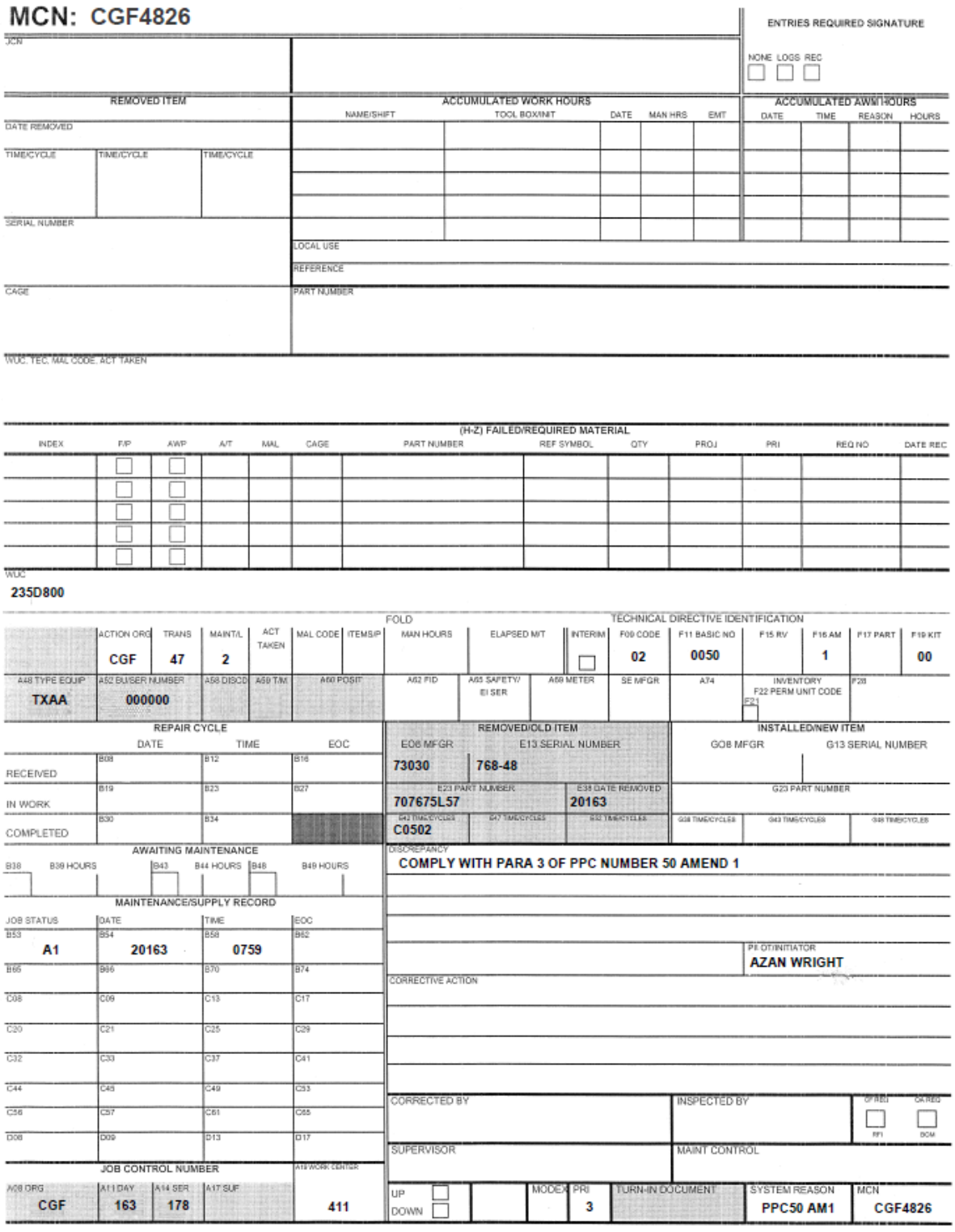
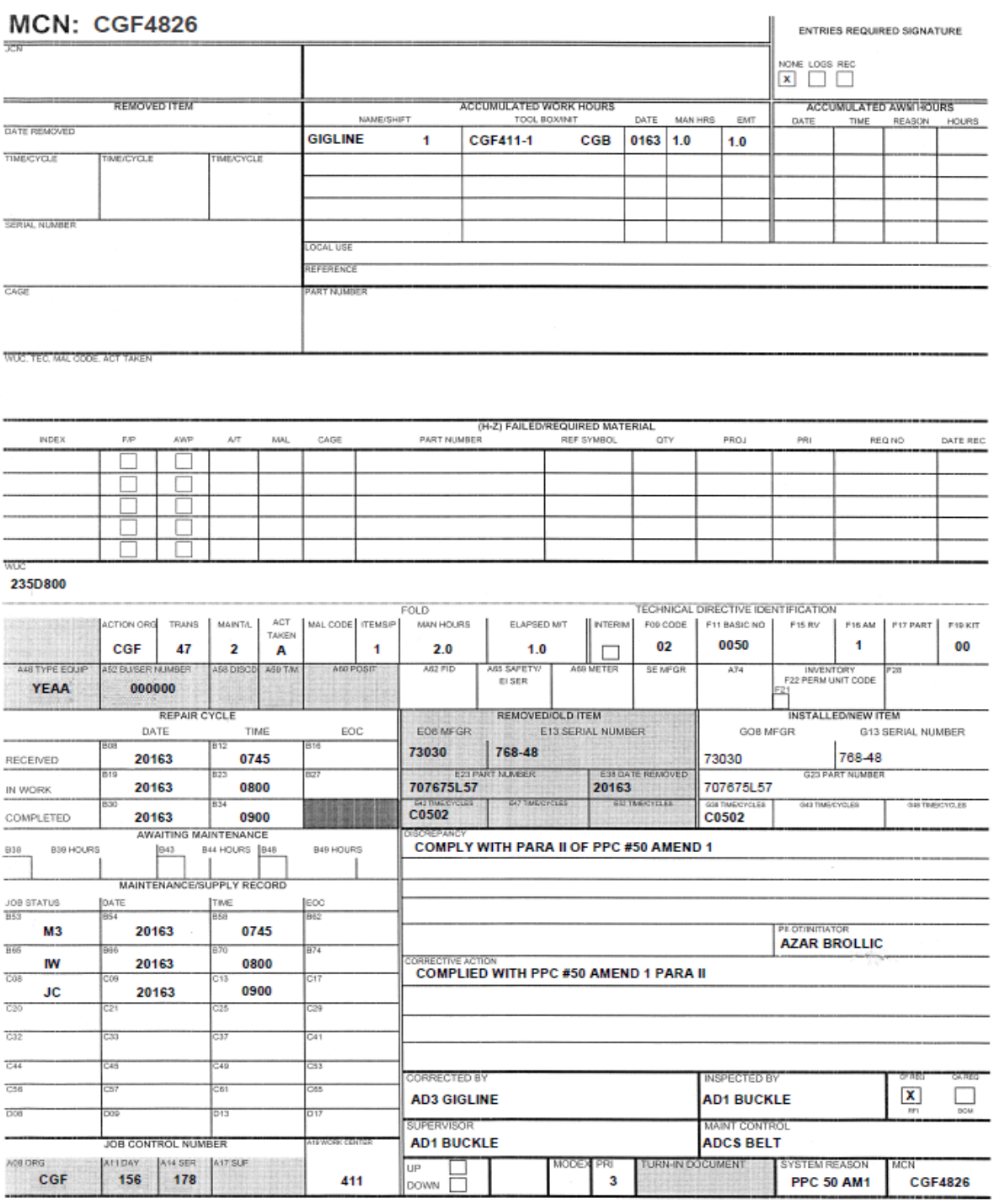


Figure 16-116: O-Level Request for TD Compliance Assist (AMSU/Production Control Entries) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC
X

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
GIGLINE	1	CGF411-1	CGB	0163	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
235D800

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2	A		1	2.0	1.0	☐	02	0050		1		00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 PID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23
YEAA	000000									F21	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20163	B12 0745	B16
IN WORK	B19 20163	B23 0800	B27
COMPLETED	B30 20163	B34 0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20163	B58 0745	B62
B65 IW	B66 20163	B70 0800	B74
C08 JC	C09 20163	C13 0900	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	156	178		411

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
73030	768-48

E23 PART NUMBER: 707675L57
E38 DATE REMOVED: 20163
E42 TIME/CYCLES: C0502
E47 TIME/CYCLES:
E52 TIME/CYCLES:

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
73030	768-48

G23 PART NUMBER: 707675L57
G38 TIME/CYCLES: C0502
G43 TIME/CYCLES:
G48 TIME/CYCLES:

DISCREPANCY
COMPLY WITH PARA II OF PPC #50 AMEND 1

PR ORIGINATOR
AZAR BROLLIC

CORRECTIVE ACTION
COMPLIED WITH PPC #50 AMEND 1 PARA II

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
AD3 GIGLINE	AD1 BUCKLE	X	☐

SUPERVISOR: AD1 BUCKLE
MAINT CONTROL: ADCS BELT

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ ☐			3		PPC 50 AM1	CGF4826

Figure 16-117: O-Level Request for TD Compliance Assist (Completed) (Example)

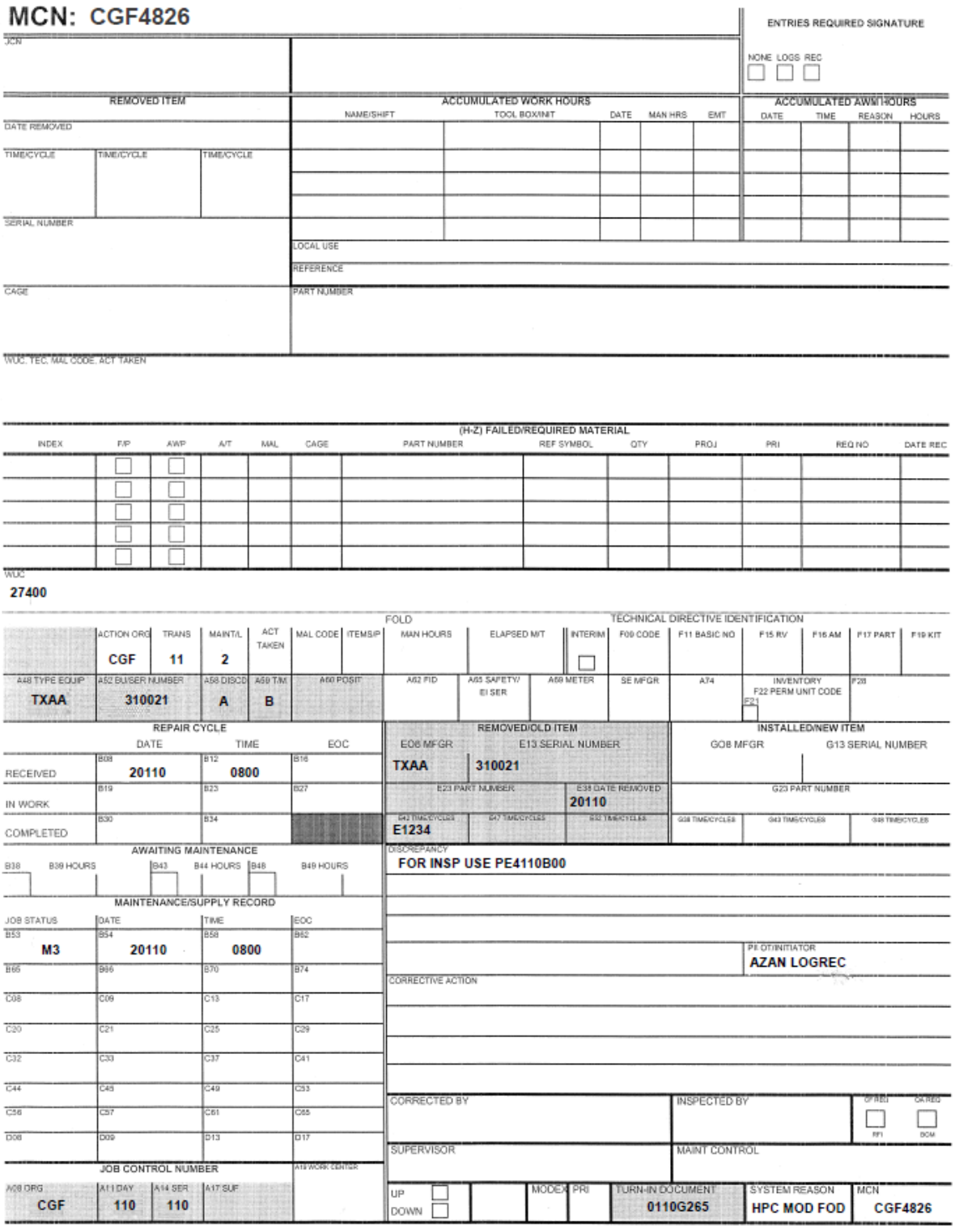
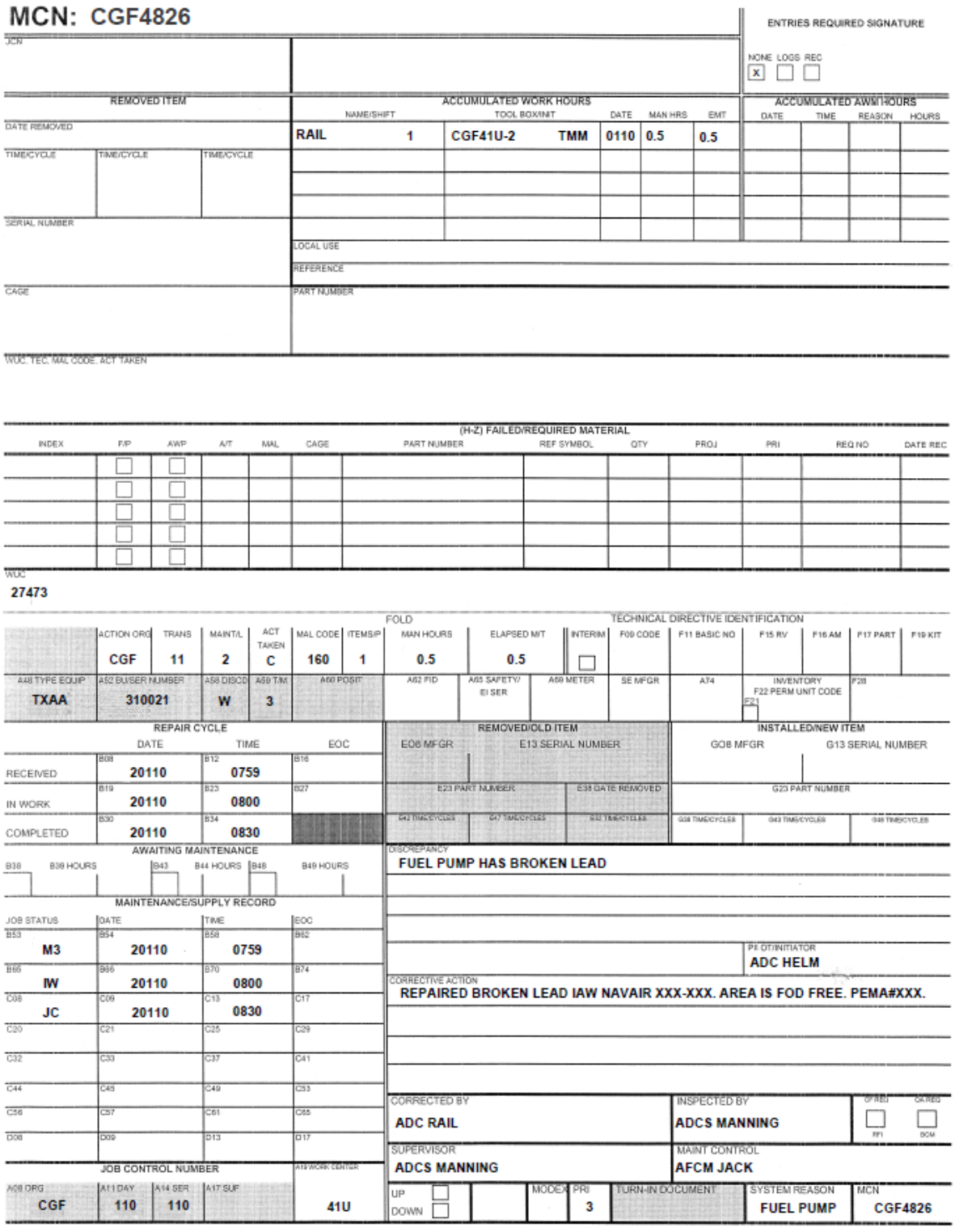


Figure 16-118: O-Level Turn-In Control Document for Engine Repair (Modular Engine) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE X | LOGS | REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
RAIL	1	CGF41U-2	TMM	0110	0.5	0.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
27473

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	11	2	C	160	1	0.5	0.5	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAA	310021	W	3								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20110	0759	
IN WORK	20110	0800	
COMPLETED	20110	0830	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20110	0759	
IW	20110	0800	
JC	20110	0830	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110		41U

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
FUEL PUMP HAS BROKEN LEAD

PR OT/INITIATOR
ADC HELM

CORRECTIVE ACTION
REPAIRED BROKEN LEAD IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ADC RAIL

INSPECTED BY
ADCS MANNING

QA REQ | QA REQ
RFI | BOM

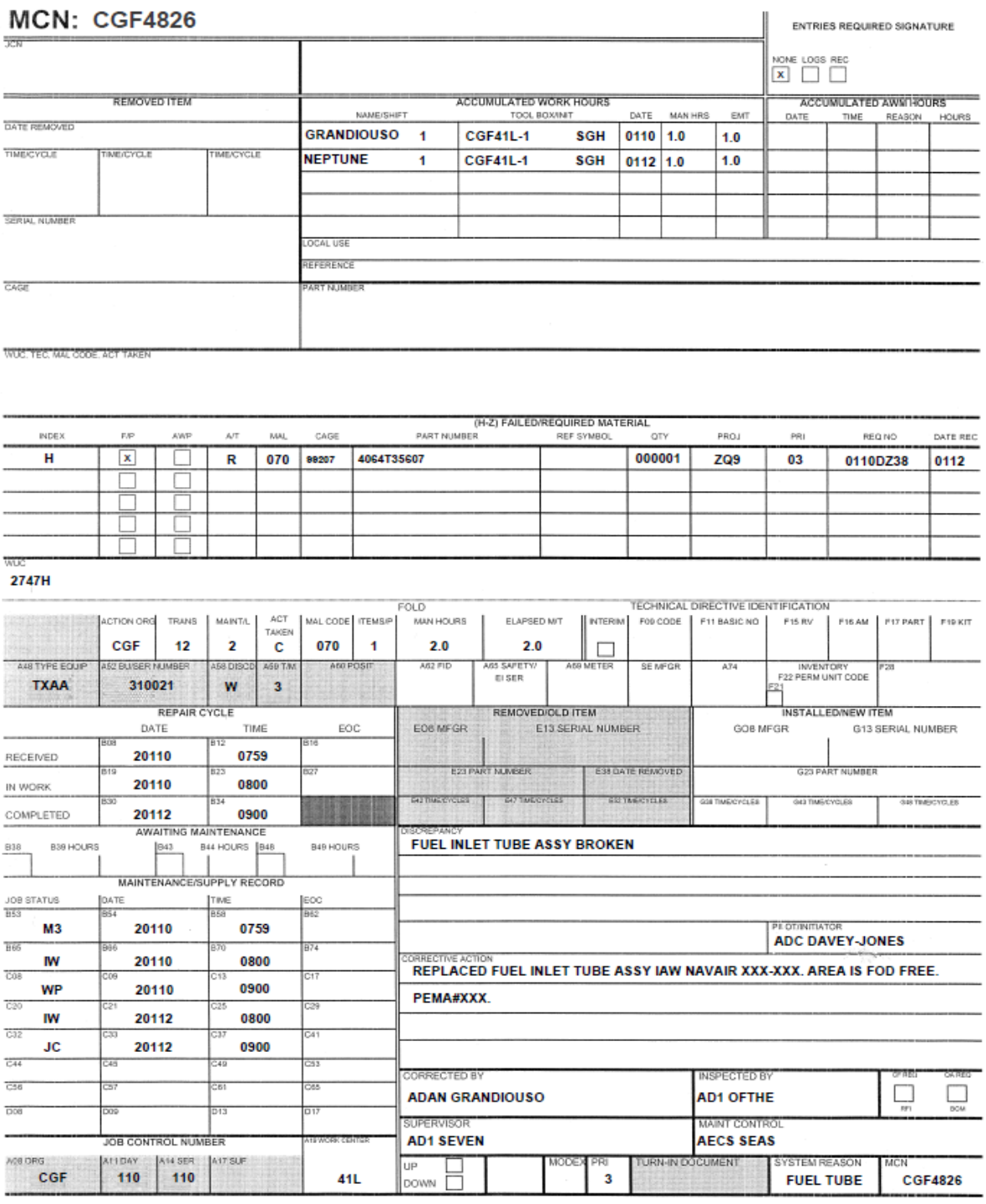
SUPERVISOR
ADCS MANNING

MAINT CONTROL
AFCM JACK

UP ☐
DOWN ☐

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
	3		FUEL PUMP	CGF4826

Figure 16-119: Fix-In-Place (Not Requiring Material) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC
X

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC TEC MAL CODE ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
GRANDIOUSO	1	CGF41L-1	SGH	0110	1.0	1.0
NEPTUNE	1	CGF41L-1	SGH	0112	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	070	88207	4064T35607		000001	ZQ9	03	0110DZ38	0112

WUC
2747H

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	12	2	C	070	1	2.0	2.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAA	310021	W	3									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20110	0759	
IN WORK	20110	0800	
COMPLETED	20112	0900	

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20110	0759	
IW	20110	0800	
WP	20110	0900	
IW	20112	0800	
JC	20112	0900	

JOB CONTROL NUMBER

A06 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110		41L

DISCREPANCY
FUEL INLET TUBE ASSY BROKEN

PR OT/INITIATOR
ADC DAVEY-JONES

CORRECTIVE ACTION
REPLACED FUEL INLET TUBE ASSY IAW NAVAIR XXX-XXX. AREA IS FOD FREE.
PEMA#XXX.

CORRECTED BY
ADAN GRANDIOUSO

INSPECTED BY
AD1 OFTHE

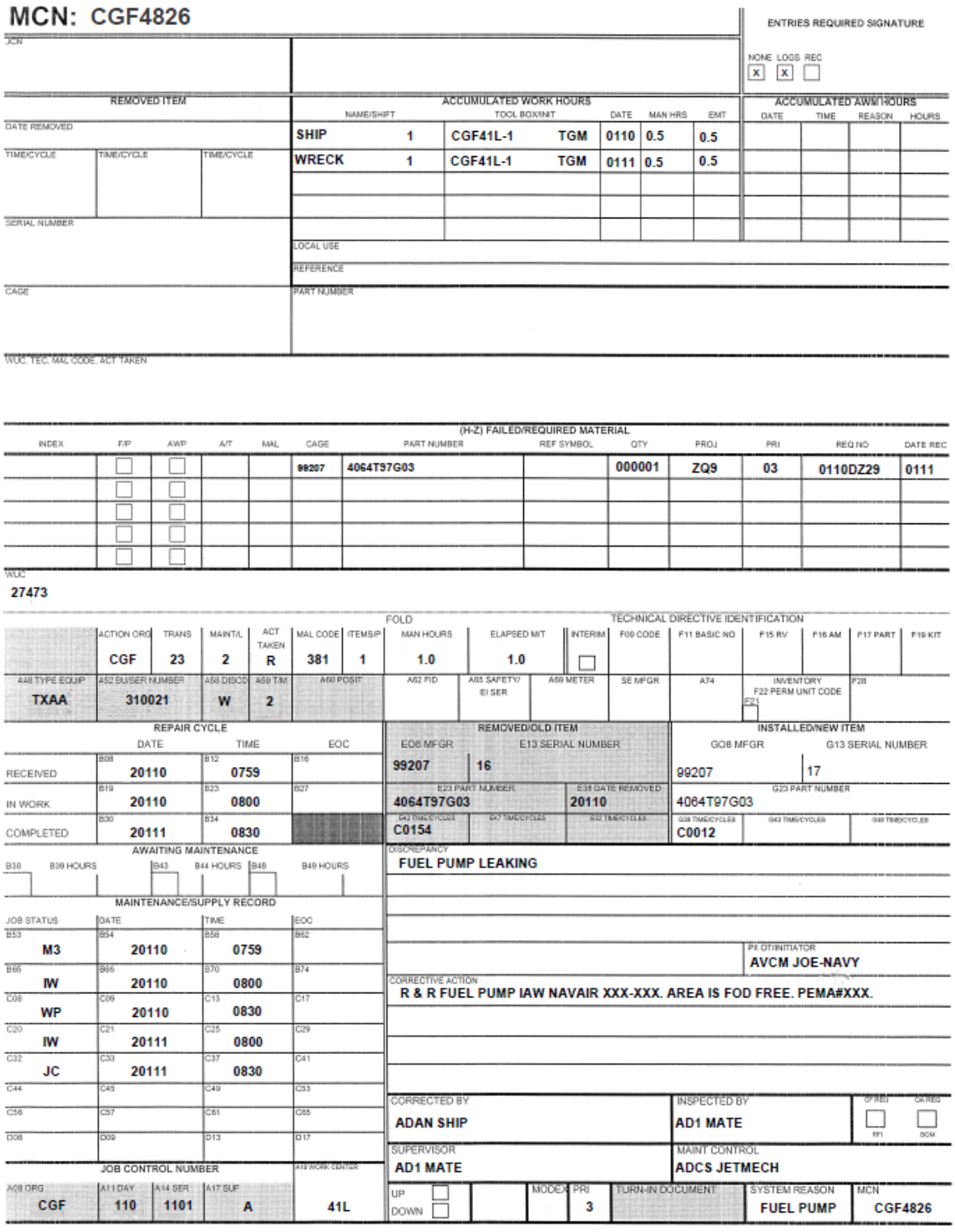
QA REQ | QA REQ
RFI | BOM

SUPERVISOR
AD1 SEVEN

MAINT CONTROL
AECS SEAS

UP | DOWN | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON FUEL TUBE | MCN CGF4826

Figure 16-120: Fix-In-Place (Requiring Material) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X | LOGS: X | REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SHIP	1	CGF41L-1	TGM	0110	0.5	0.5
WRECK	1	CGF41L-1	TGM	0111	0.5	0.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			99207	4064T97G03		000001	ZQ9	03	0110DZ29	0111

WUC
27473

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	381	1	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAA	310021	W	2									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20110	B12 0759	B16
IN WORK	B19 20110	B23 0800	B27
COMPLETED	B30 20111	B34 0830	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20110	B58 0759	B62
B65 IW	B66 20110	B70 0800	B74
C08 WP	C09 20110	C13 0830	C17
C20 IW	C21 20111	C25 0800	C29
C32 JC	C33 20111	C37 0830	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	1101	A	41L

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	16

E23 PART NUMBER	E38 DATE REMOVED
4064T97G03	20110

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0154		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	17

G23 PART NUMBER: 4064T97G03

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0012		

DISCREPANCY
FUEL PUMP LEAKING

PR OTINITIATOR
AVCM JOE-NAVY

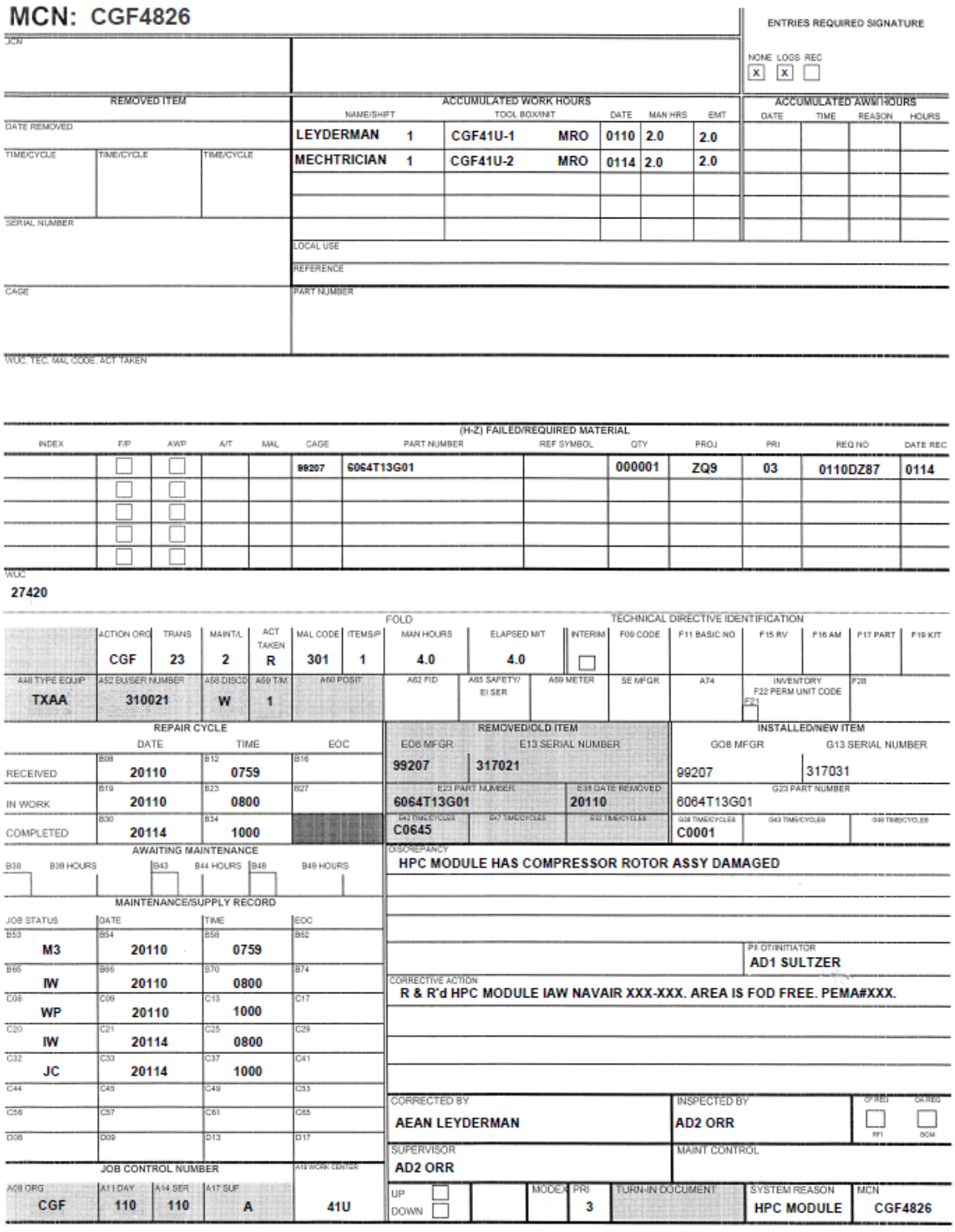
CORRECTIVE ACTION
R & R FUEL PUMP IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ADAN SHIP	AD1 MATE	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
AD1 MATE	ADCS JETMECH

UP	DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐	☐			3		FUEL PUMP	CGF4826

Figure 16-121: Removal/Replacement of a Repairable Subassembly with No Repairable Sub-Subassemblies (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X | LOGS: X | REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
LEYDERMAN	1	CGF41U-1	MRO	0110	2.0	2.0
MECHTRICIAN	1	CGF41U-2	MRO	0114	2.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			99207	6064T13G01		000001	ZQ9	03	0110DZ87	0114
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
27420

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	301	1	4.0	4.0	☐						

A48 TYPE EQUIP	A52 EUI/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAA	310021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20110	B12 0759	B16
IN WORK	B19 20110	B23 0800	B27
COMPLETED	B30 20114	B34 1000	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20110	B58 0759	B62
B65 IW	B66 20110	B70 0800	B74
C08 WP	C09 20110	C13 1000	C17
C20 IW	C21 20114	C25 0800	C29
C32 JC	C33 20114	C37 1000	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110	A	41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	317021

E23 PART NUMBER	E38 DATE REMOVED
6064T13G01	20110

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0645		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	317031

G23 PART NUMBER
6064T13G01

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0001		

DISCREPANCY
HPC MODULE HAS COMPRESSOR ROTOR ASSY DAMAGED

PR OTINITIATOR
AD1 SULTZER

CORRECTIVE ACTION
R & R'd HPC MODULE IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
AEAN LEYDERMAN

INSPECTED BY
AD2 ORR

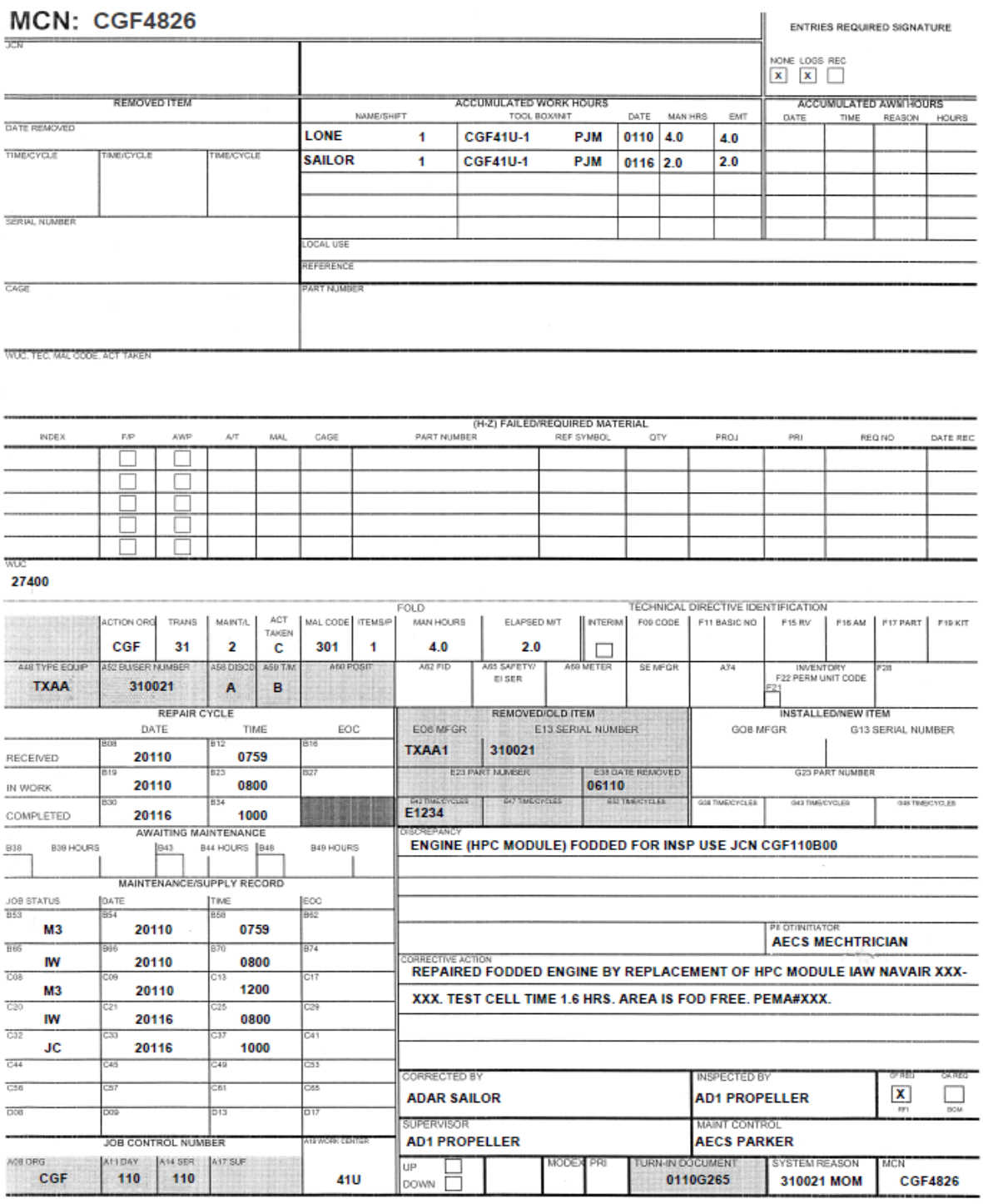
QA REQ: QA ☐ | RFI ☐ | BOM ☐

SUPERVISOR
AD2 ORR

MAINT CONTROL

UP ☐ DOWN ☐ | MODEX | PRI 3 | TURN-IN DOCUMENT | SYSTEM REASON HPC MODULE | MCN CGF4826

Figure 16-122: Removal/Replacement of a Repairable Module/Component with Repairable Sub-Subassemblies (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC
X X

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
LONE	1	CGF41U-1	PJM	0110	4.0	4.0
SAILOR	1	CGF41U-1	PJM	0116	2.0	2.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
27400

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	31	2	C	301	1	4.0	2.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAA	310021	A	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20110	B12 0759	B16
IN WORK	B19 20110	B23 0800	B27
COMPLETED	B30 20116	B34 1000	

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER	E23 PART NUMBER	E38 DATE REMOVED	E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
TXAA1	310021		06110	E1234		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER	G23 PART NUMBER	G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

DISCREPANCY
ENGINE (HPC MODULE) FODDED FOR INSP USE JCN CGF110B00

PR OTINITIATOR
AECS MECHTRICIAN

CORRECTIVE ACTION
REPAIRED FODDED ENGINE BY REPLACEMENT OF HPC MODULE IAW NAVAIR XXX-
XXX. TEST CELL TIME 1.6 HRS. AREA IS FOD FREE. PEMA#XXX.

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20110	B58 0759	B62
B65 IW	B66 20110	B70 0800	B74
C08 M3	C09 20110	C13 1200	C17
C20 IW	C21 20116	C25 0800	C29
C32 JC	C33 20116	C37 1000	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

CORRECTED BY
ADAR SAILOR

INSPECTED BY
AD1 PROPELLER

QA REQ: X (RFI) ☐ (DCMA)

SUPERVISOR
AD1 PROPELLER

MAINT CONTROL
AECS PARKER

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110		41U

UP ☐
DOWN ☐

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
		0110G265	310021 MOM	CGF4826

Figure 16-123: Engine Repair Control Document (Completed) (Example)

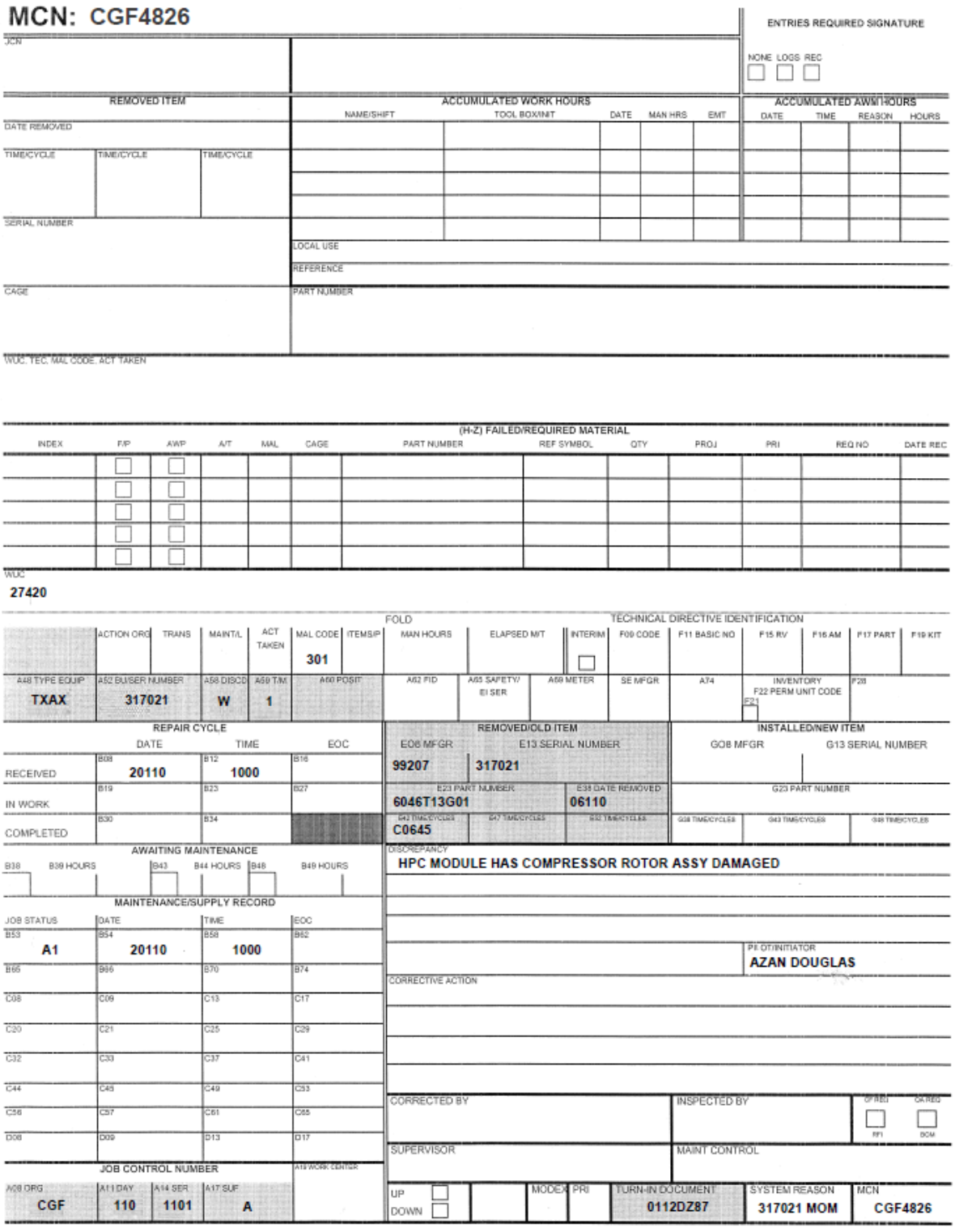
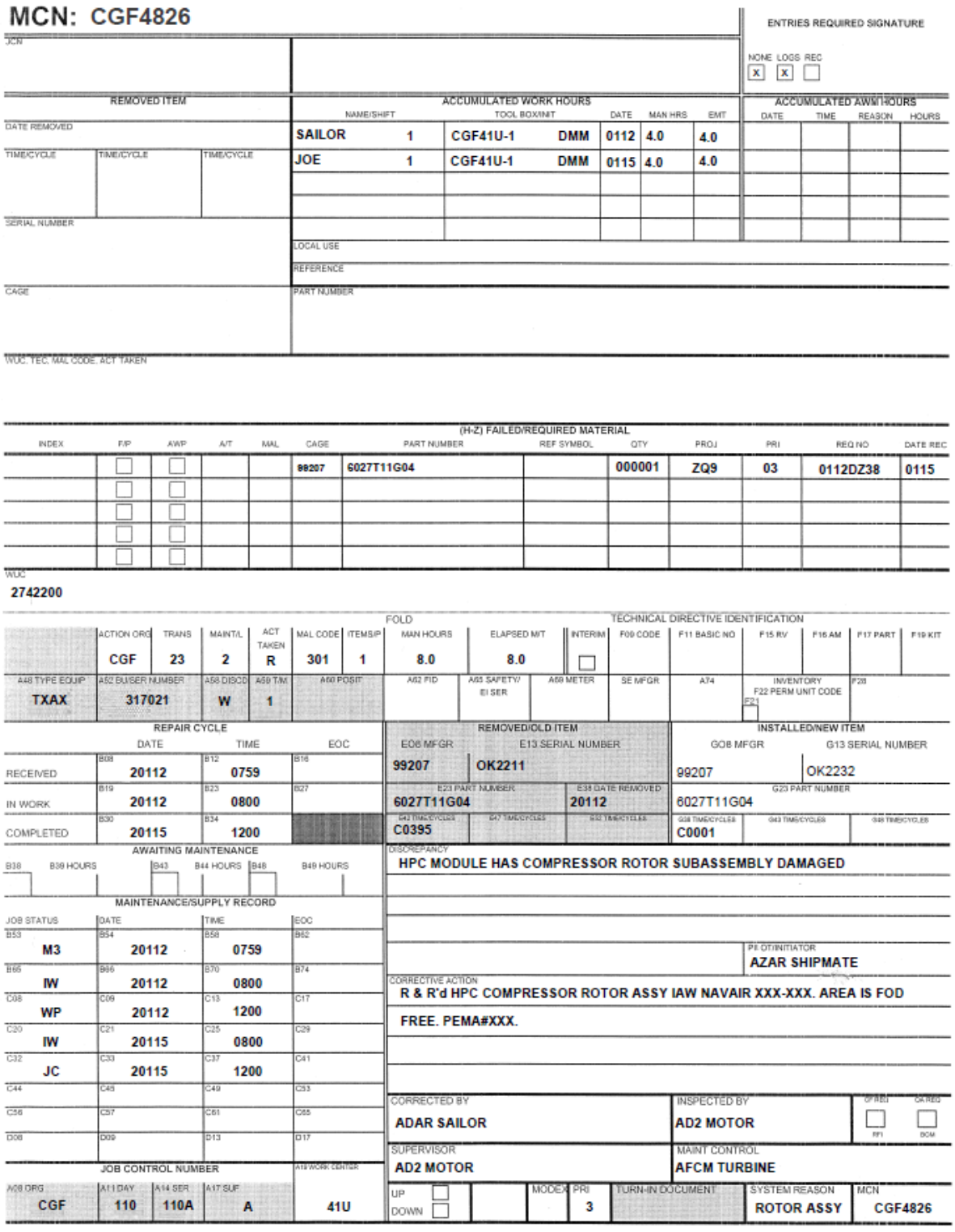


Figure 16-124: Turn-In of Repairable Module with Repairable Sub-Subassemblies (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X LOGS: X REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
SAILOR	1	CGF41U-1	DMM	0112	4.0	4.0
JOE	1	CGF41U-1	DMM	0115	4.0	4.0

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
					99207	6027T11G04		000001	ZQ9	03	0112DZ38	0115

WUC
2742200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	301	1	8.0	8.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	317021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20112	0759	
IN WORK	20112	0800	
COMPLETED	20115	1200	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20112	0759	
IW	20112	0800	
WP	20112	1200	
IW	20115	0800	
JC	20115	1200	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110A	A	41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	OK2211

E23 PART NUMBER: 6027T11G04
E38 DATE REMOVED: 20112
E42 TIME/CYCLES: C0395
E47 TIME/CYCLES
E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	OK2232

G23 PART NUMBER: 6027T11G04
G38 TIME/CYCLES: C0001
G43 TIME/CYCLES
G48 TIME/CYCLES

DISCREPANCY
HPC MODULE HAS COMPRESSOR ROTOR SUBASSEMBLY DAMAGED

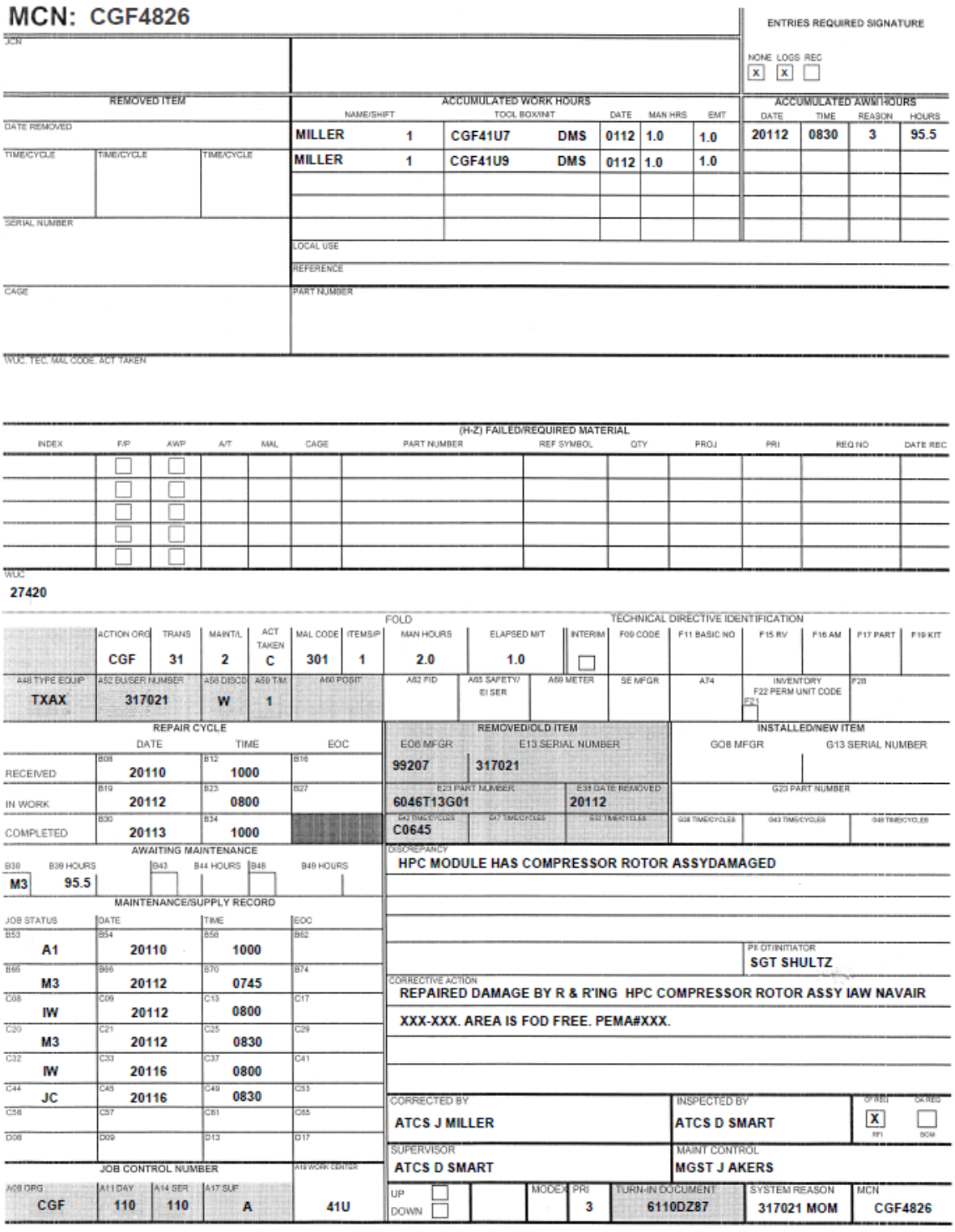
PR OT/INITIATOR
AZAR SHIPMATE

CORRECTIVE ACTION
R & R'd HPC COMPRESSOR ROTOR ASSY IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY: ADAR SAILOR
INSPECTED BY: AD2 MOTOR
QA REQ | QA REQ
RFI | BOM
SUPERVISOR: AD2 MOTOR
MAINT CONTROL: AFCM TURBINE

UP | DOWN | MODEX | PRI: 3 | TURN-IN DOCUMENT | SYSTEM REASON: ROTOR ASSY | MCN: CGF4826

Figure 16-125: Removal/Replacement of a Repairable Sub-Subassembly from a Module (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X | LOGS: X | REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U7	DMS	0112	1.0	1.0
MILLER	1	CGF41U9	DMS	0112	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS
20112	0830	3	95.5

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
27420

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	C	301	1	2.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	317021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20110	1000	
IN WORK	20112	0800	
COMPLETED	20113	1000	

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS
M3	95.5				

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20110	1000	
M3	20112	0745	
IW	20112	0800	
M3	20112	0830	
IW	20116	0800	
JC	20116	0830	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110	A	41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	317021

E23 PART NUMBER	E38 DATE REMOVED
6046T13G01	20112

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0645		

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
HPC MODULE HAS COMPRESSOR ROTOR ASSYDAMAGED

PR OTINITIATOR
SGT SHULTZ

CORRECTIVE ACTION
REPAIRED DAMAGE BY R & R'ING HPC COMPRESSOR ROTOR ASSY IAW NAVAIR
XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X	☐
		RFI	BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3	6110DZ87	317021 MOM	CGF4826

Figure 16-126: Module Repair (Completed) (Example)

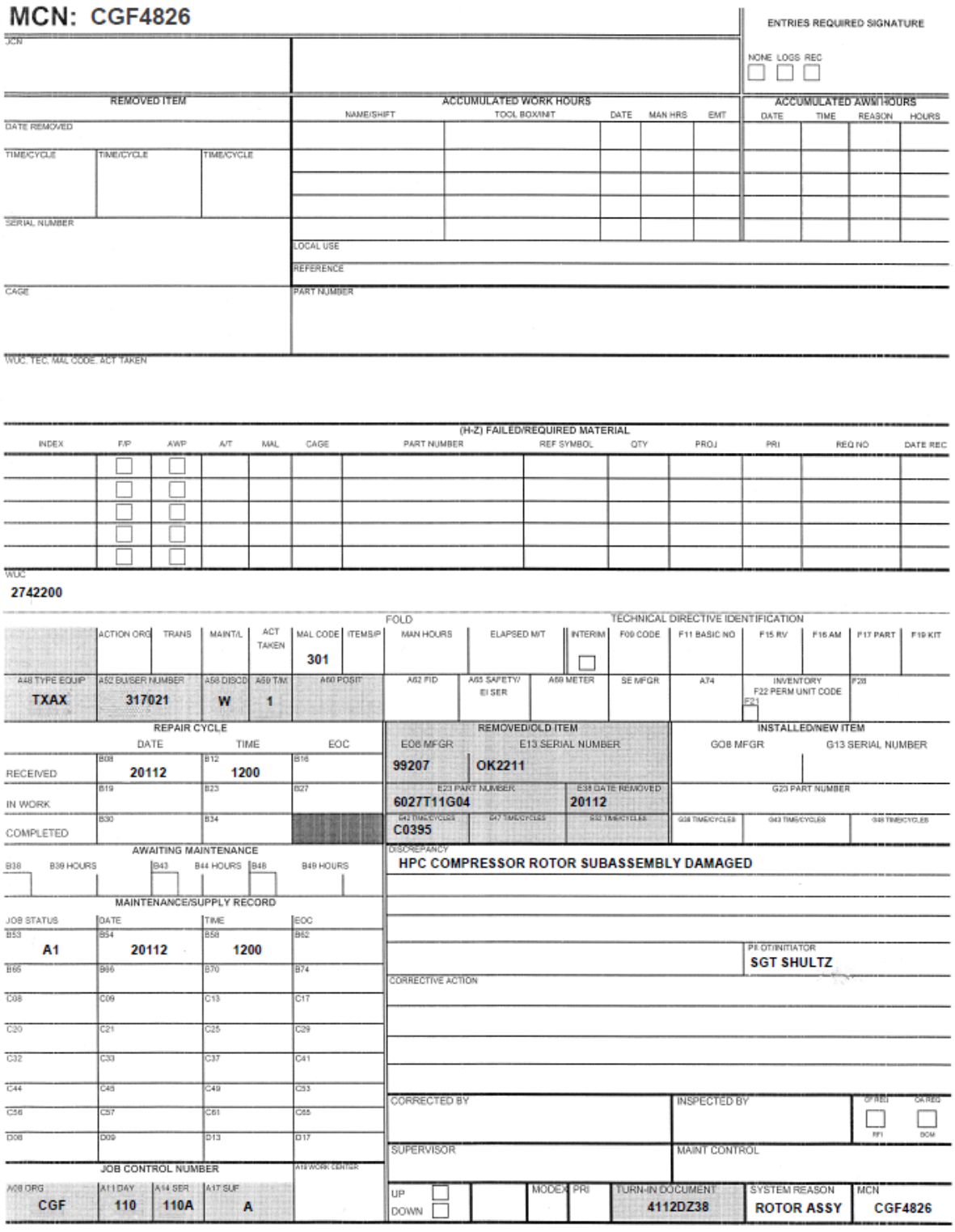
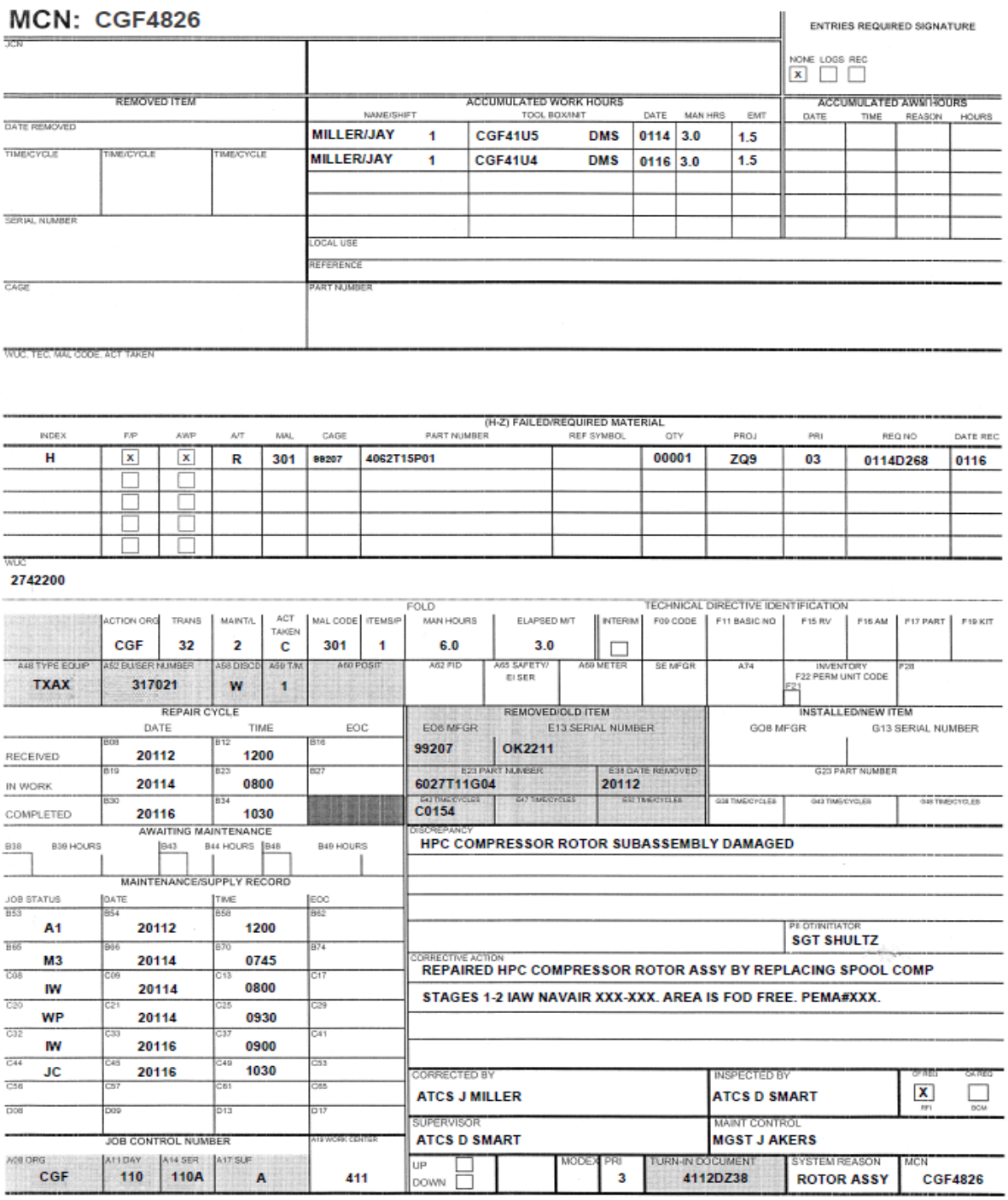


Figure 16-127: Turn-In of Repairable Sub-Subassembly from a Repairable Component (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE X | LOGS | REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE
WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER/JAY	1	CGF41U5	DMS	0114	3.0	1.5
MILLER/JAY	1	CGF41U4	DMS	0116	3.0	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	301	99207	4062T15P01		00001	ZQ9	03	0114D268	0116

WUC
2742200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	301	1	6.0	3.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	317021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20112	1200	
IN WORK	20114	0800	
COMPLETED	20116	1034	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20112	1200	
M3	20114	0745	
IW	20114	0800	
WP	20114	0930	
IW	20116	0900	
JC	20116	1030	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A18 WORK CENTER
CGF	110	110A	A	411

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	OK2211

B23 PART NUMBER: 6027T11G04
B38 DATE REMOVED: 20112
B42 TIME/CYCLES: C0154
B47 TIME/CYCLES
B52 TIME/CYCLES

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER
G28 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
HPC COMPRESSOR ROTOR SUBASSEMBLY DAMAGED

PE OTI/INITIATOR
SGT SHULTZ

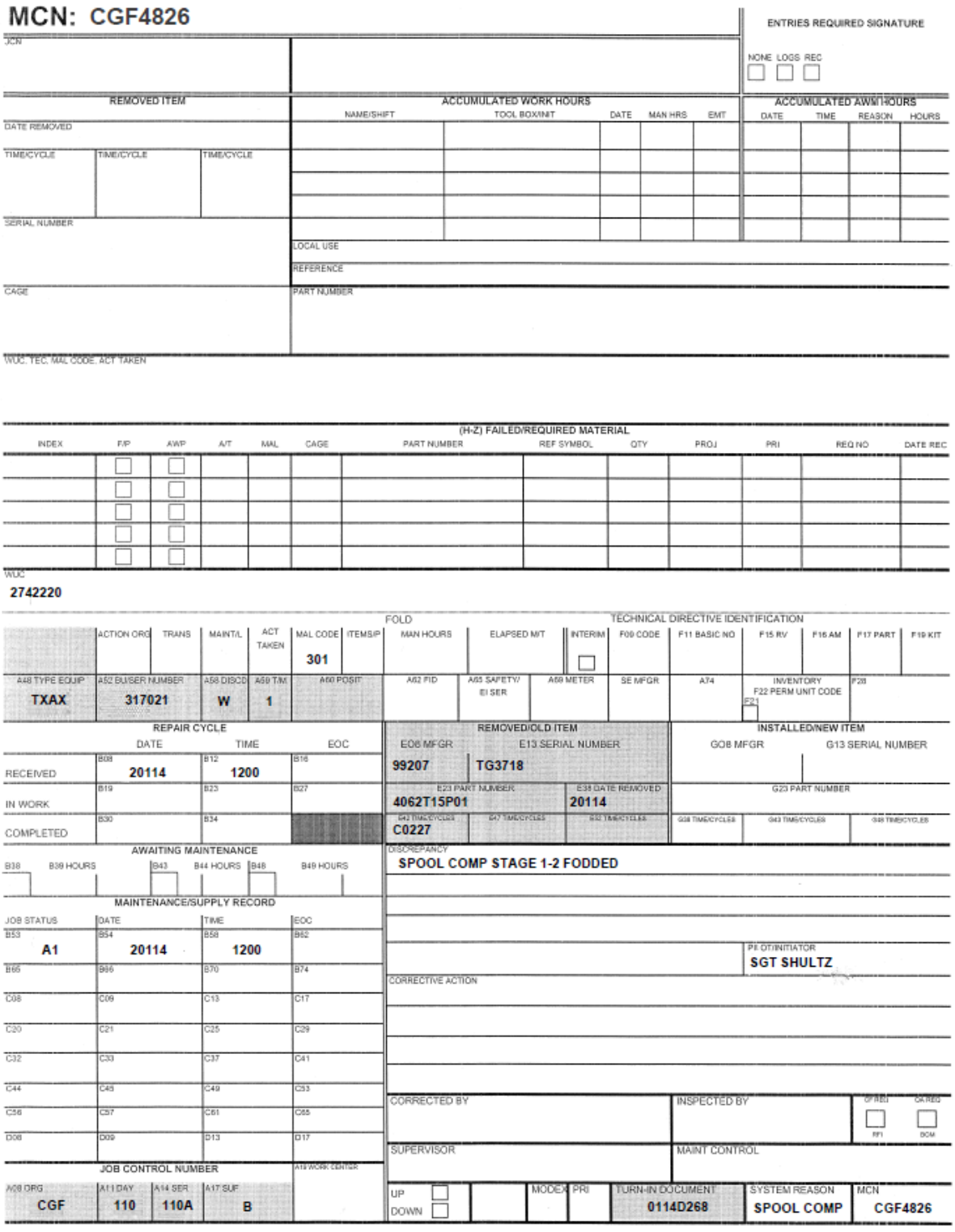
CORRECTIVE ACTION
REPAIRED HPC COMPRESSOR ROTOR ASSY BY REPLACING SPOOL COMP
STAGES 1-2 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS J MILLER	ATCS D SMART	X RFI	BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3	4112DZ38	ROTOR ASSY	CGF4826

Figure 16-128: Repair of a Repairable Component with Required Material (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE LOGS REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS
NAME/SHIFT | TOOL BOX/KIT | DATE | MAN HRS | EMT

ACCUMULATED AWM HOURS
DATE | TIME | REASON | HOURS

LOCAL USE
REFERENCE
PART NUMBER

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2742220

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
				301				☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAX	317021	W	1									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20114	B12 1200	B16
IN WORK	B19	B23	B27
COMPLETED	B30	B34	

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	TG3718

E23 PART NUMBER	E38 DATE REMOVED
4062T15P01	20114

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0227		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

DISCREPANCY
SPOOL COMP STAGE 1-2 FODDED

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 A1	B54 20114	B58 1200	B62
B65	B66	B70	B74
C08	C09	C13	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

PR OTIINITIATOR
SGT SHULTZ

CORRECTIVE ACTION

CORRECTED BY | INSPECTED BY | QA REQ ☐ | QA REQ ☐

SUPERVISOR | MAINT CONTROL

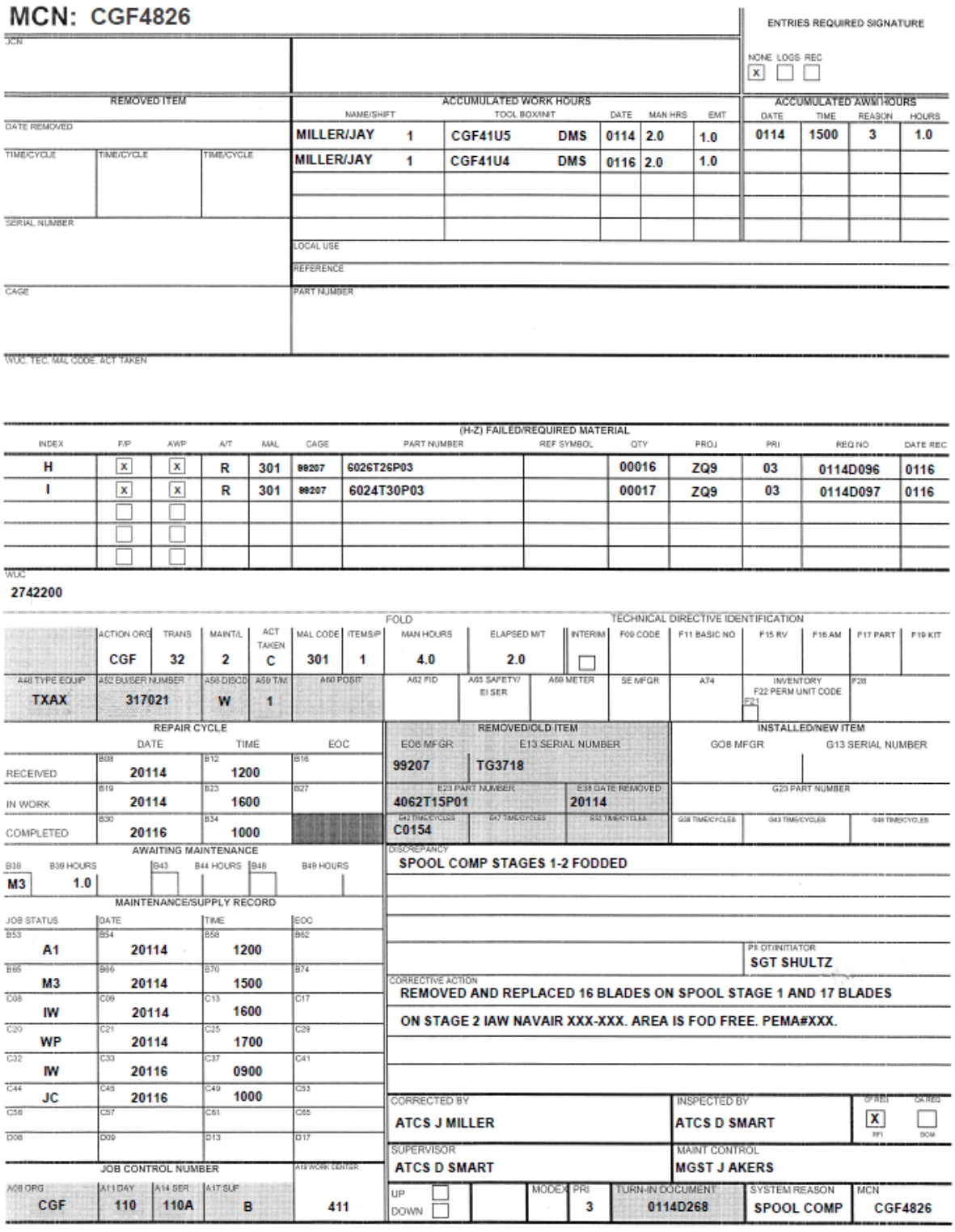
JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110A	B	

UP ☐ DOWN ☐ | MODEX | PRI | TURN-IN DOCUMENT | SYSTEM REASON | MCN

TURN-IN DOCUMENT	SYSTEM REASON	MCN
0114D268	SPOOL COMP	CGF4826

Figure 16-129: Turn-In of a Repairable Component Sub-Subassemblies (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE [X] LOGS [ ] REC [ ]

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER/JAY	1	CGF41U5	DMS	0114	2.0	1.0
MILLER/JAY	1	CGF41U4	DMS	0116	2.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS
0114	1500	3	1.0

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X	X	R	301	99207	6026T26P03		00016	ZQ9	03	0114D096	0116
I	X	X	R	301	99207	6024T30P03		00017	ZQ9	03	0114D097	0116

WUC
2742200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	C	301	1	4.0	2.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	317021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20114	1200	
IN WORK	20114	1600	
COMPLETED	20116	1000	

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS
M3	1.0				

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
A1	20114	1200	
M3	20114	1500	
IW	20114	1600	
WP	20114	1700	
IW	20116	0900	
JC	20116	1000	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	110A	B	411

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	TG3718

E23 PART NUMBER	E38 DATE REMOVED
4062T15P01	20114

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0154		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G28 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES

DISCREPANCY
SPOOL COMP STAGES 1-2 FODDED

PR OTINITIATOR
SGT SHULTZ

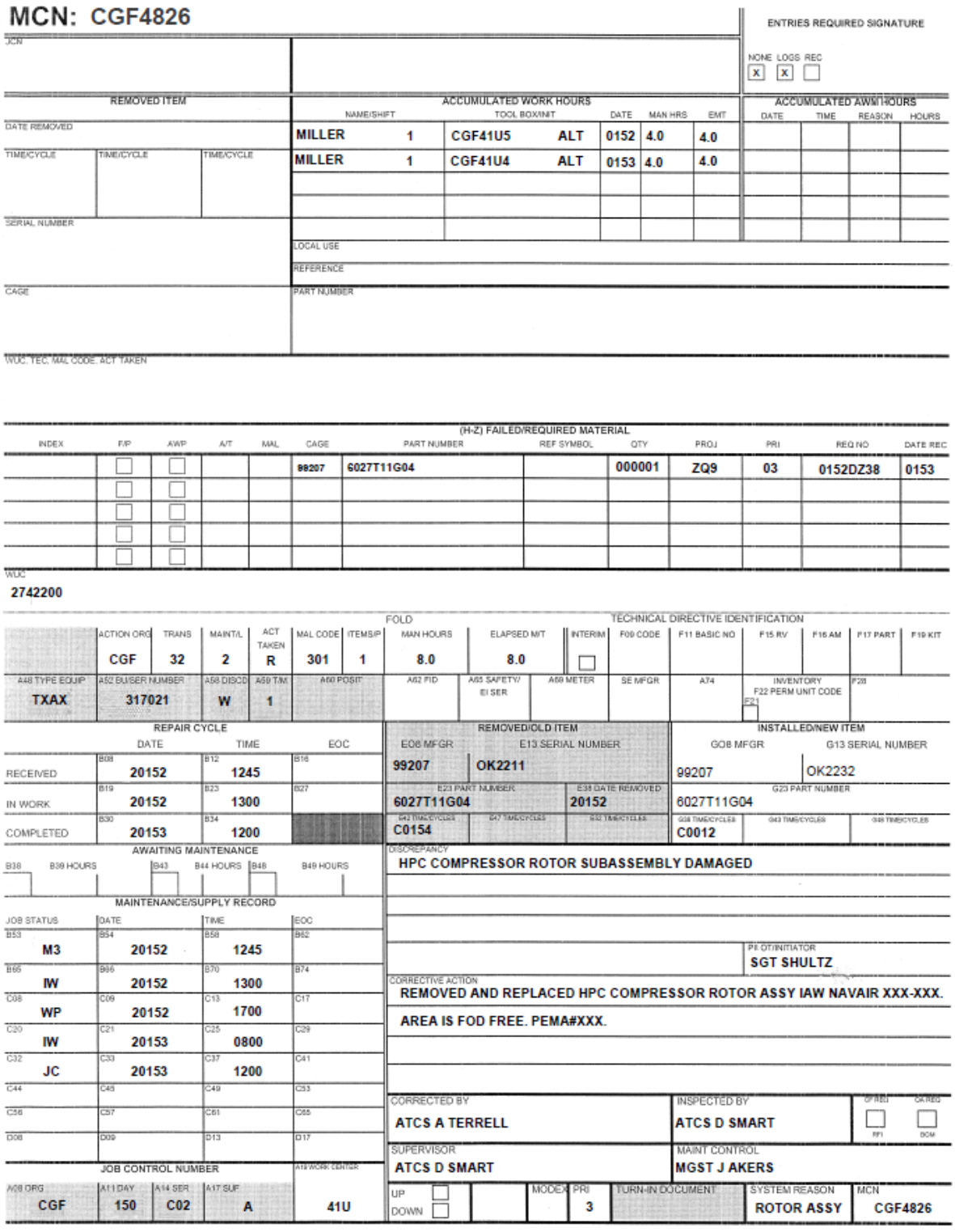
CORRECTIVE ACTION
REMOVED AND REPLACED 16 BLADES ON SPOOL STAGE 1 AND 17 BLADES
ON STAGE 2 IAW NAVAIR XXX-XXX. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA NOT REQ
ATCS J MILLER	ATCS D SMART	[X] RFI	[ ] BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
[ ] UP [ ] DOWN			3	0114D268	SPOOL COMP	CGF4826

Figure 16-130: Repair of a Sub-Subassembly from a Component Subassembly (Completed) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X LOGS: X REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/UNIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U5	ALT	0152	4.0	4.0
MILLER	1	CGF41U4	ALT	0153	4.0	4.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
					99207	6027T11G04		000001	ZQ9	03	0152DZ38	0153

WUC
2742200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	32	2	R	301	1	8.0	8.0							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	317021	W	1								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20152	B12 1245	B16
IN WORK	B19 20152	B23 1300	B27
COMPLETED	B30 20153	B34 1200	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20152	B58 1245	B62
B65 IW	B66 20152	B70 1300	B74
C08 WP	C09 20152	C13 1700	C17
C20 IW	C21 20153	C25 0800	C29
C32 JC	C33 20153	C37 1200	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	150	C02	A	41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	OK2211

E23 PART NUMBER	E38 DATE REMOVED
6027T11G04	20152

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0154		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	OK2232

G23 PART NUMBER
6027T11G04

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0012		

DISCREPANCY
HPC COMPRESSOR ROTOR SUBASSEMBLY DAMAGED

PI OT/INITIATOR
SGT SHULTZ

CORRECTIVE ACTION
REMOVED AND REPLACED HPC COMPRESSOR ROTOR ASSY IAW NAVAIR XXX-XXX.
AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ATCS A TERRELL	ATCS D SMART	RFI	BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP	DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
				3		ROTOR ASSY	CGF4826

Figure 16-131: Removal/Replacement of a Repairable Sub-Subassembly from a Module (Example)

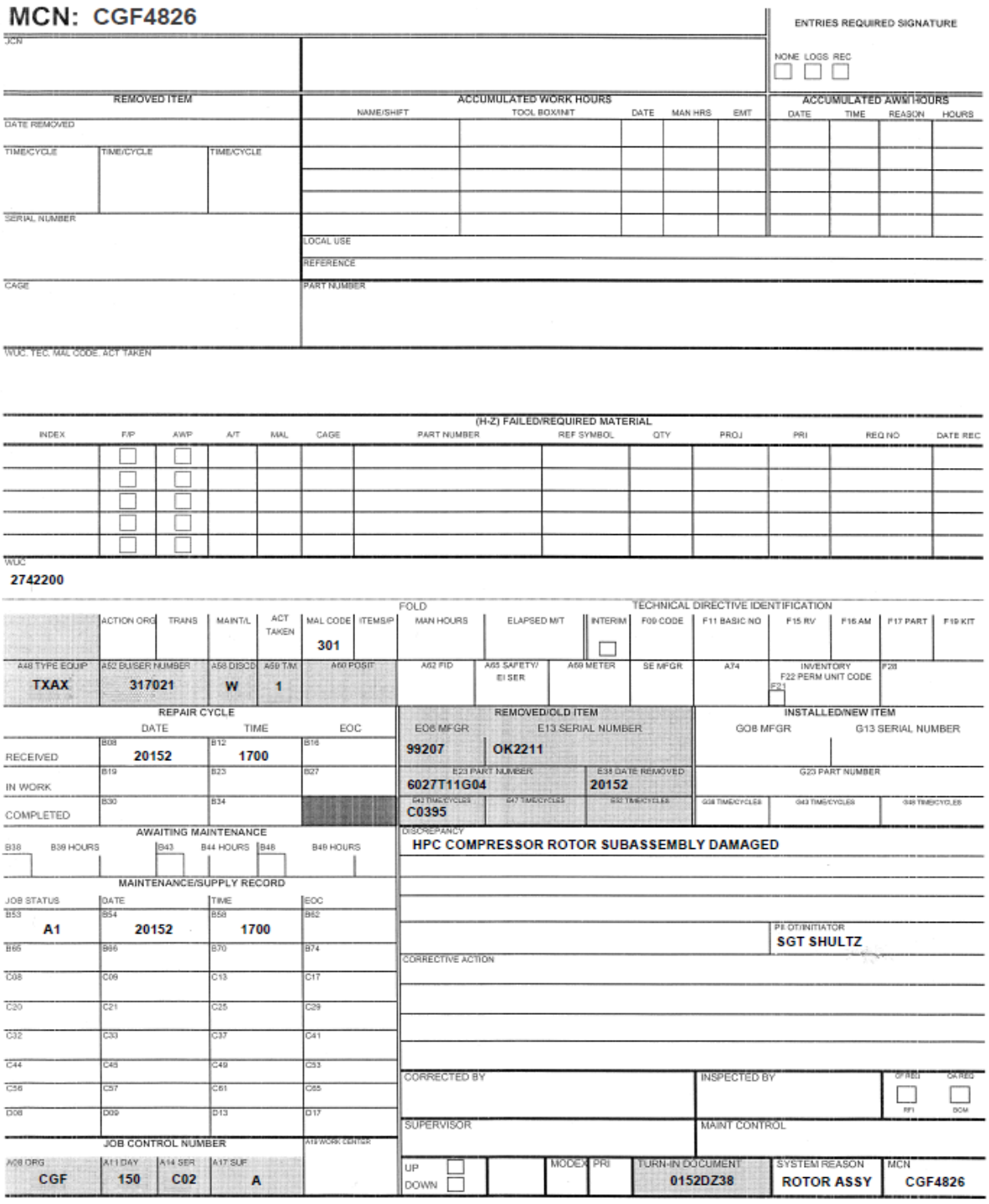


Figure 16-132: Turn-In of a Repairable Sub-Subassembly from a Module (Example)

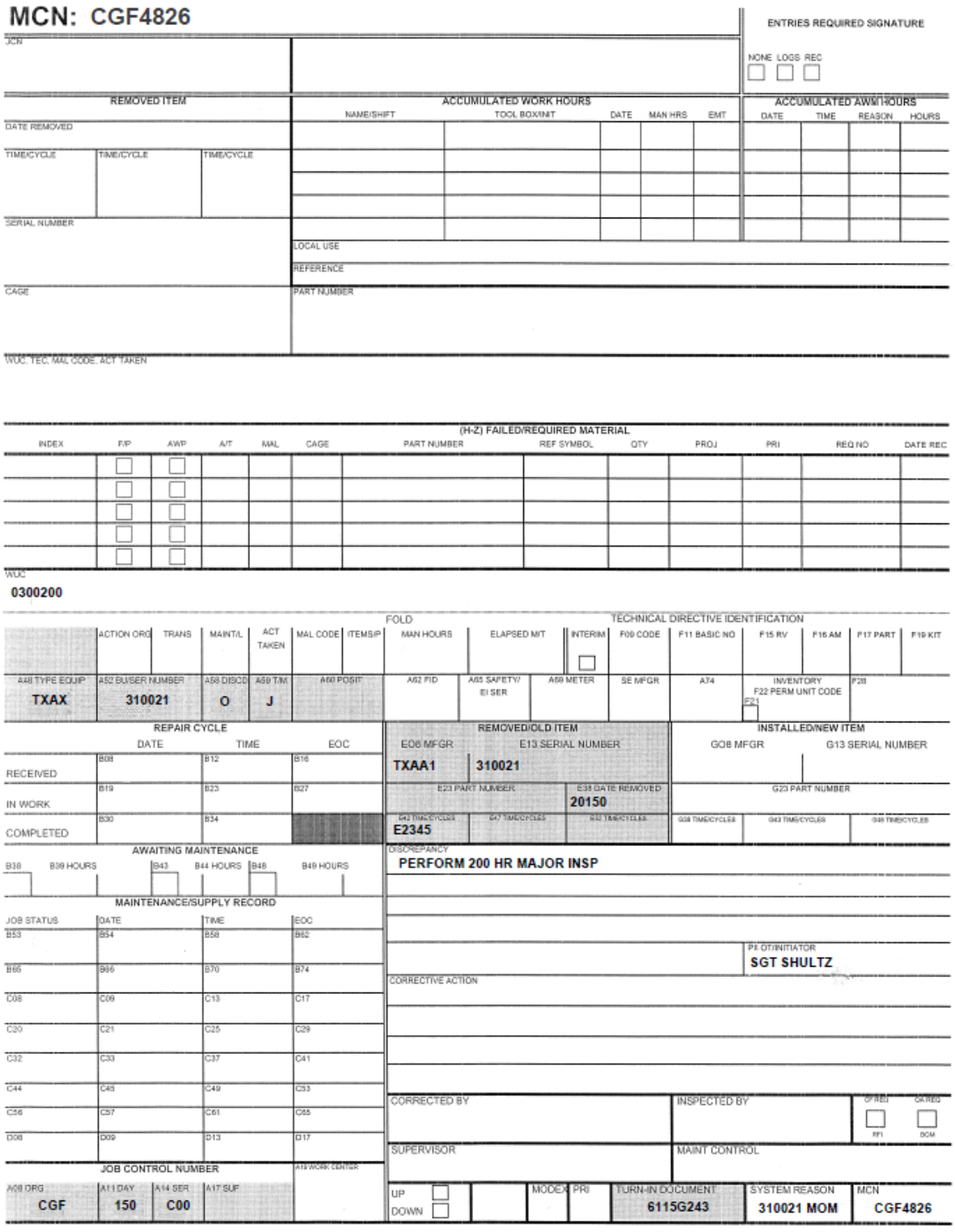


Figure 16-133: O-Level Turn-In Control Document Modular Engine Turn-In (Solely for Major Engine Inspection) (Example)

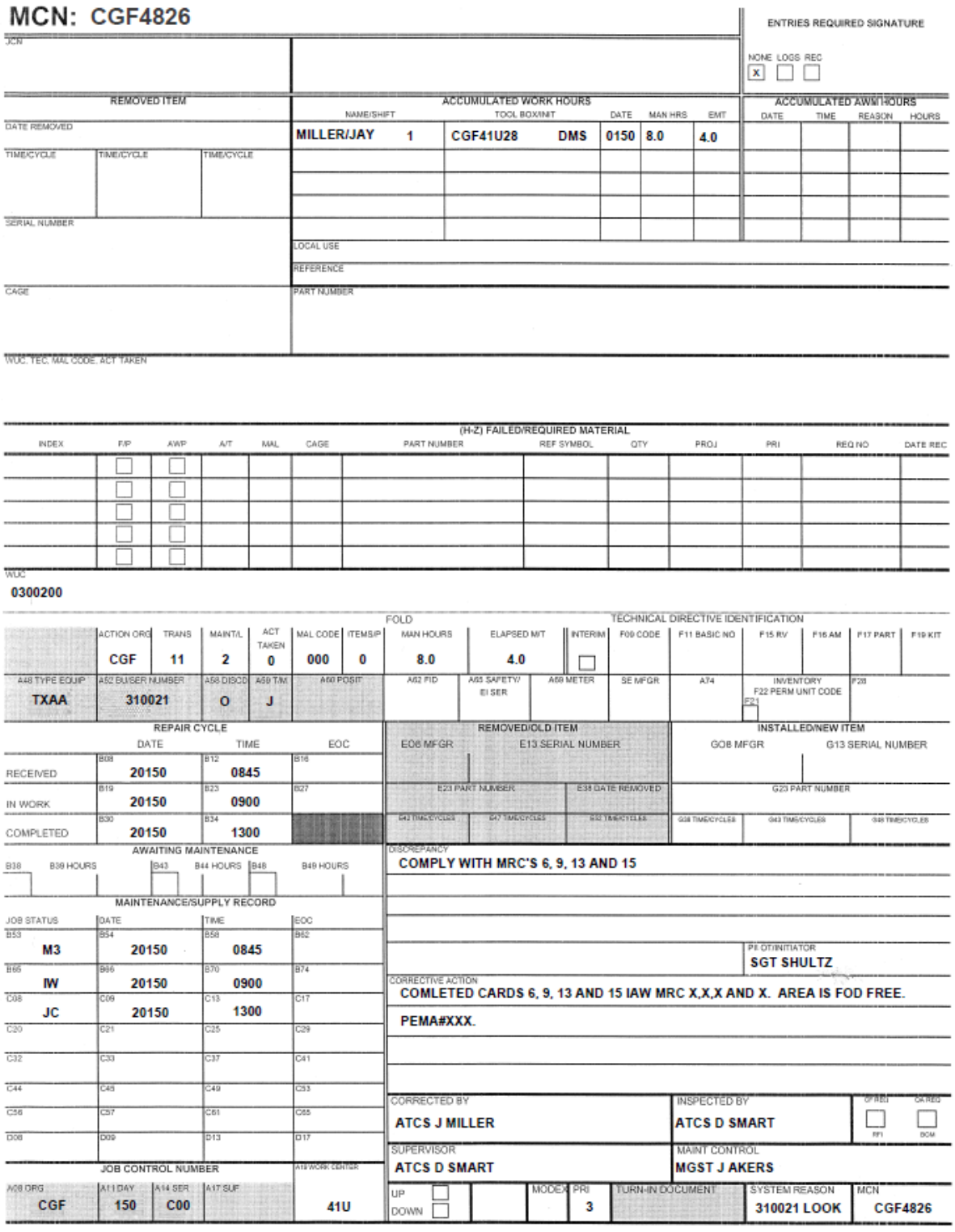


Figure 16-134: Major Modular Engine Inspection (Look Phase Supporting Work Center) (Example)

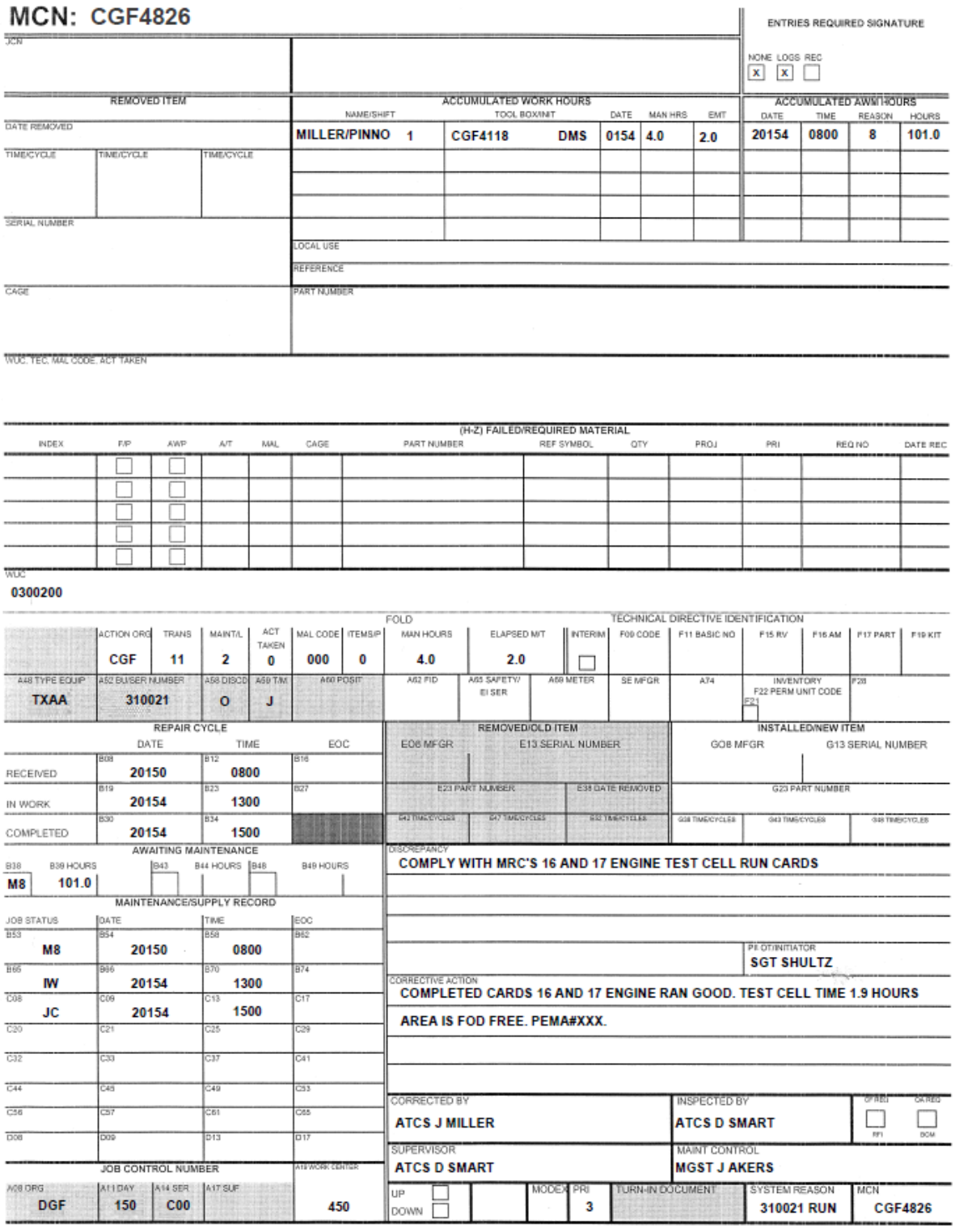
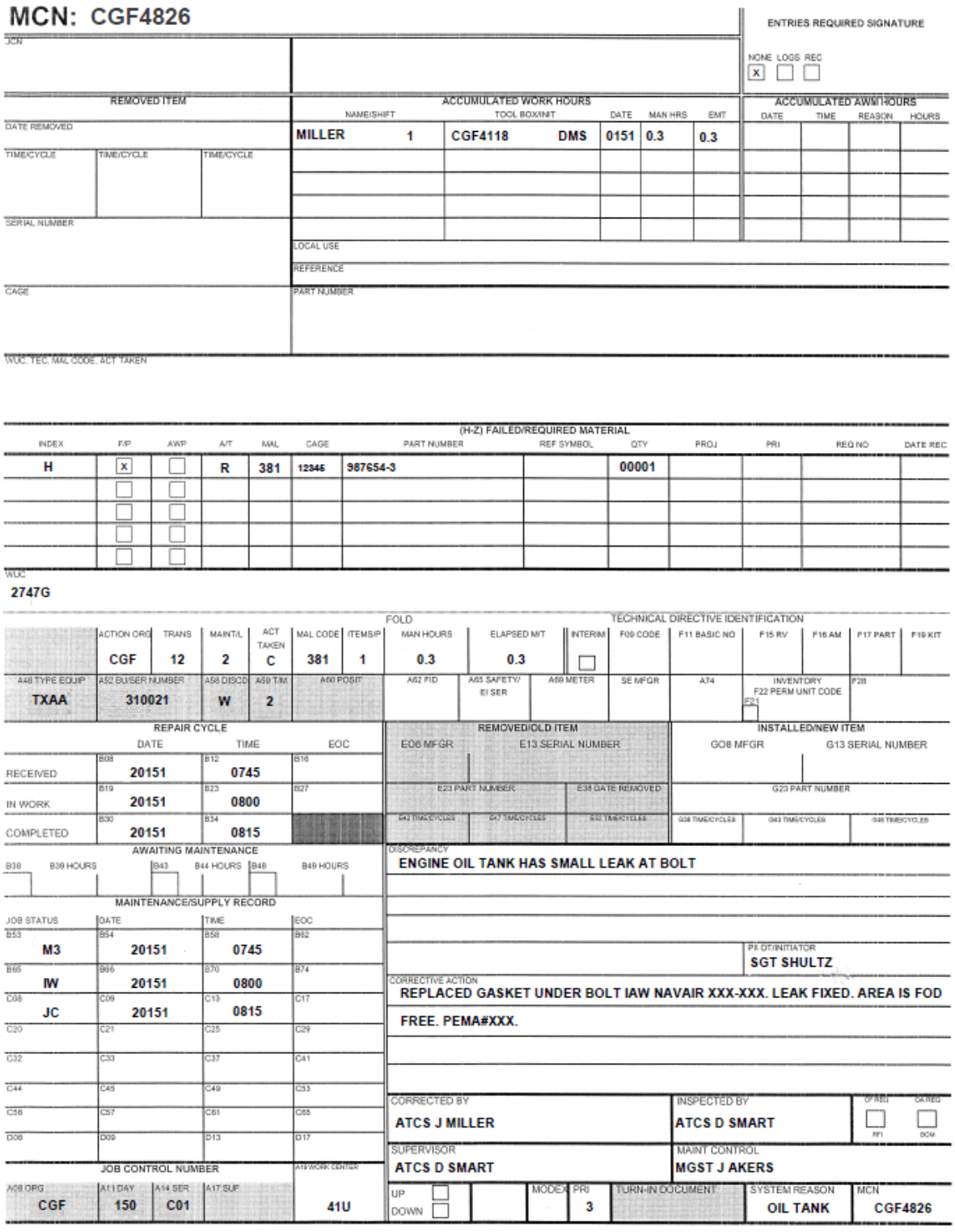


Figure 16-135: Major Modular Engine Inspection (Look Phase Supporting Work Center) (Engine Test Cell Run) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE X | LOGS | REC

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/UNIT		DATE	MAN HRS	EMT
MILLER	1	CGF4118	DMS	0151	0.3	0.3

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
H	X		R	381	12345	987654-3		00001				

WUC
2747G

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	12	2	C	381	1	0.3	0.3							

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAA	310021	W	2									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20151	0745	
IN WORK	20151	0800	
COMPLETED	20151	0815	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20151	0745	
IW	20151	0800	
JC	20151	0815	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	150	C01		41U

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G08 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
ENGINE OIL TANK HAS SMALL LEAK AT BOLT

PR OT/INITIATOR
SGT SHULTZ

CORRECTIVE ACTION
REPLACED GASKET UNDER BOLT IAW NAVAIR XXX-XXX. LEAK FIXED. AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

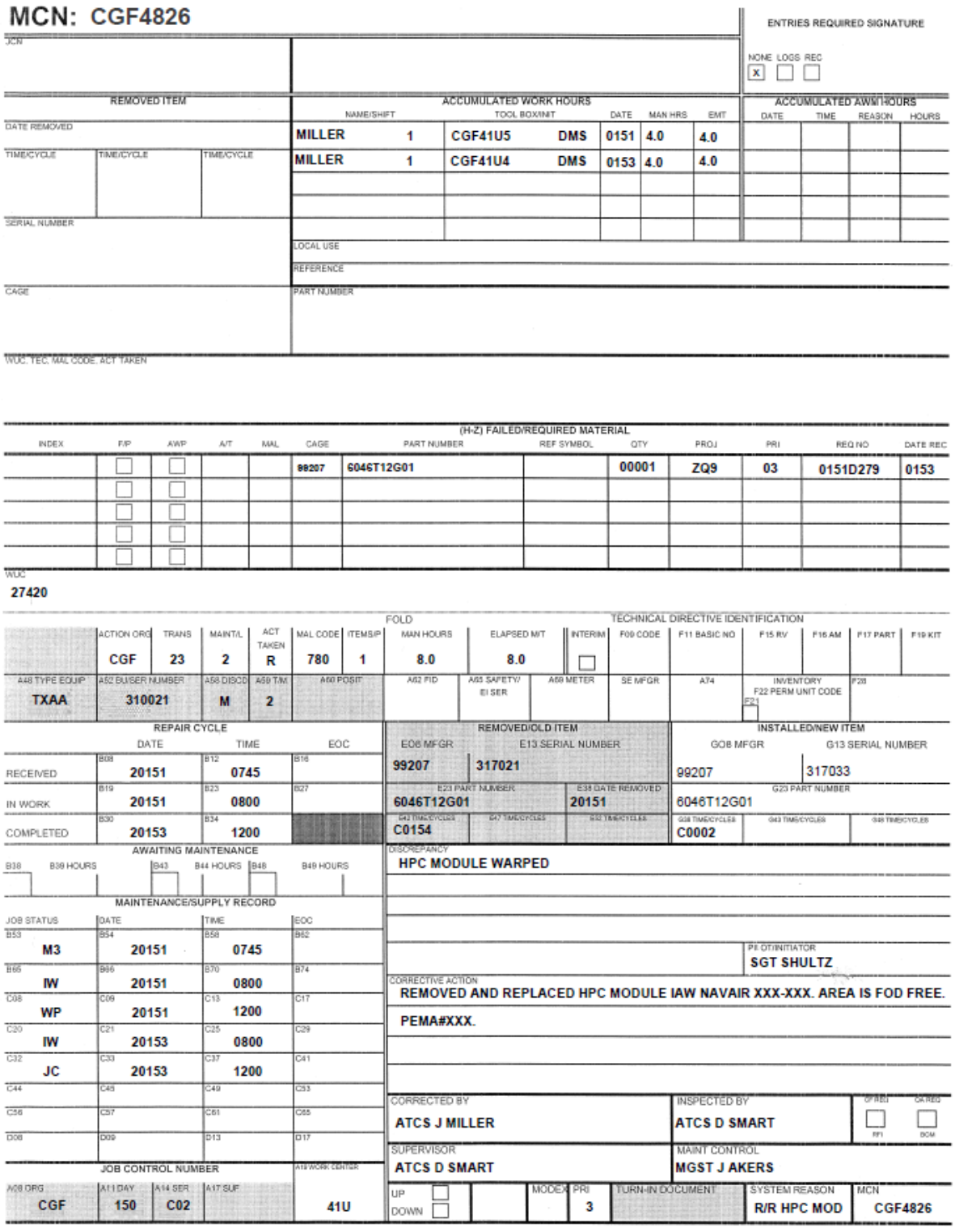
QA REQ | QA REQ
RFI | BOM

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		OIL TANK	CGF4826

Figure 16-136: Major Engine Inspection (Fix-In-Place) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE: NONE [X] LOGS [ ] REC [ ]

JCN

REMOVED ITEM: DATE REMOVED; TIME/CYCLE; TIME/CYCLE; TIME/CYCLE; SERIAL NUMBER; CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U5	DMS	0151	4.0	4.0
MILLER	1	CGF41U4	DMS	0153	4.0	4.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE

REFERENCE

PART NUMBER

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]			99207	6046T12G01		00001	ZQ9	03	0151D279	0153

WUC: 27420

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	780	1	8.0	8.0	[ ]						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAA	310021	M	2								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20151	B12 0745	B16
IN WORK	B19 20151	B23 0800	B27
COMPLETED	B30 20153	B34 1200	

AWAITING MAINTENANCE: B38; B39 HOURS; B43; B44 HOURS; B48; B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20151	B58 0745	B62
B65 IW	B66 20151	B70 0800	B74
C08 WP	C09 20151	C13 1200	C17
C20 IW	C21 20153	C25 0800	C29
C32 JC	C33 20153	C37 1200	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	150	C02		41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	317021

E23 PART NUMBER: 6046T12G01; E38 DATE REMOVED: 20151

E42 TIME/CYCLES: C0154; E47 TIME/CYCLES; E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
99207	317033

G23 PART NUMBER: 6046T12G01

G38 TIME/CYCLES: C0002; G43 TIME/CYCLES; G48 TIME/CYCLES

DISCREPANCY: HPC MODULE WARPED

PR OTINITIATOR: SGT SHULTZ

CORRECTIVE ACTION: REMOVED AND REPLACED HPC MODULE IAW NAVAIR XXX-XXX. AREA IS FOD FREE.

PEMA#XXX.

CORRECTED BY: ATCS J MILLER

INSPECTED BY: ATCS D SMART

QA REQ [ ] QA NO REQ [ ]

SUPERVISOR: ATCS D SMART

MAINT CONTROL: MGST J AKERS

UP [ ] DOWN [ ]

MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
	3		R/R HPC MOD	CGF4826

Figure 16-137: Major Engine Inspection (Fix Phase Module Replacement) (Example)

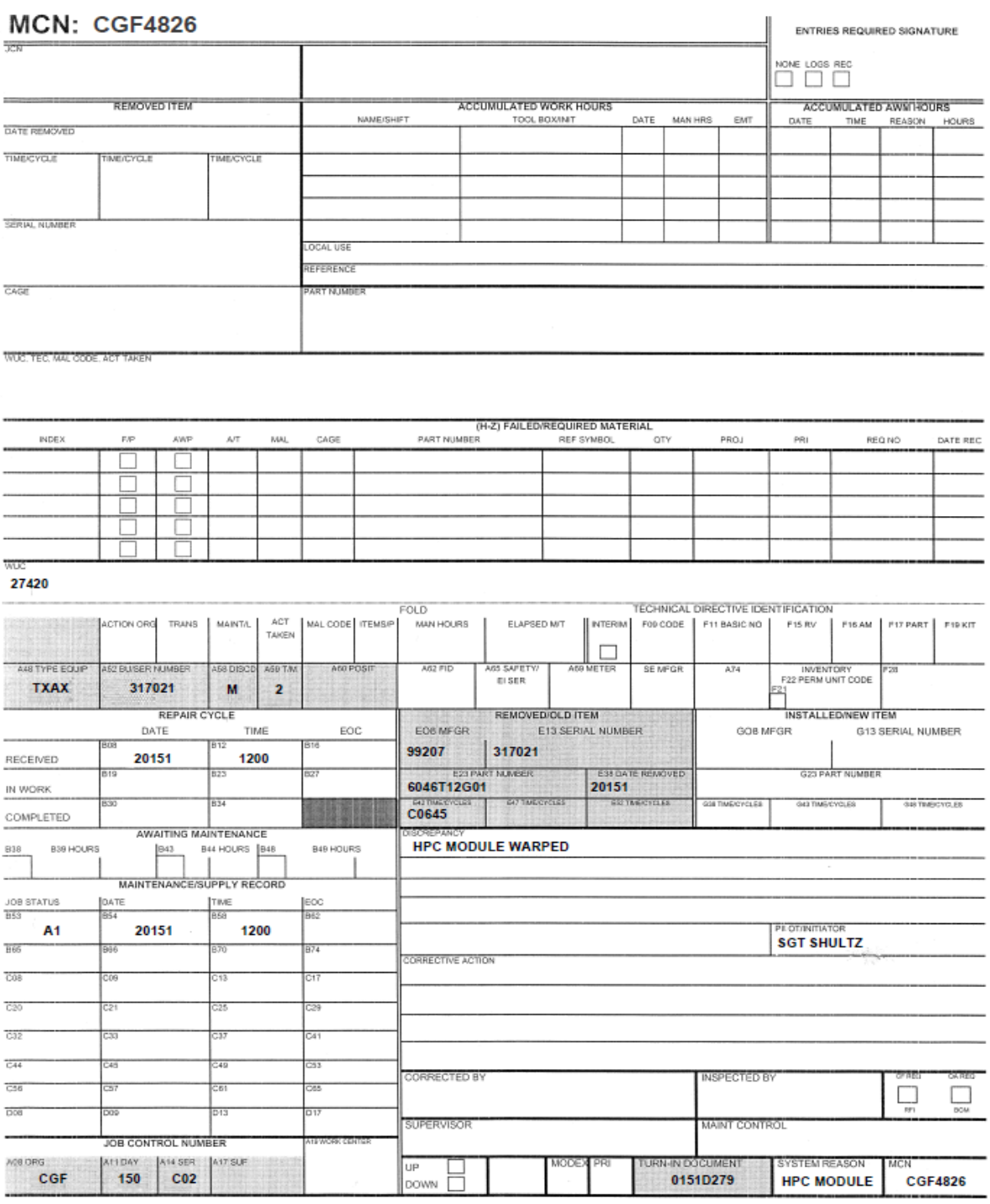
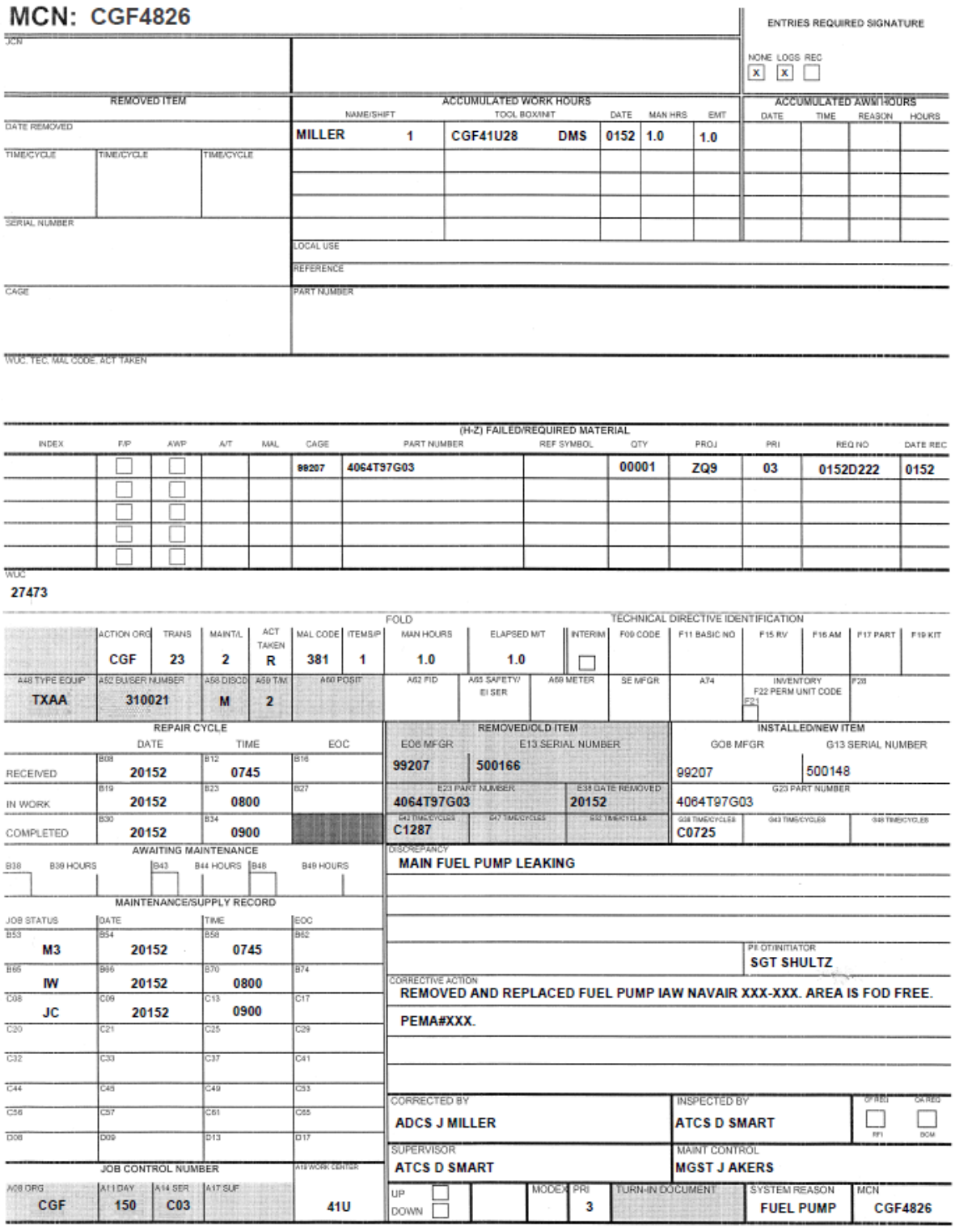


Figure 16-138: Major Engine Inspection (Module Turn-In) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: LOGS: REC
X X

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U28	DMS	0152	1.0	1.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			99207	4064T97G03		00001	ZQ9	03	0152D222	0152

WUC
27473

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	23	2	R	381	1	1.0	1.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAA	310021	M	2								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20152	0745	
IN WORK	20152	0800	
COMPLETED	20152	0900	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20152	0745	
IW	20152	0800	
JC	20152	0900	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	150	C03		41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
99207	500166

E23 PART NUMBER: 4064T97G03
E38 DATE REMOVED: 20152
E42 TIME/CYCLES: C1287

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER
99207	500148

G23 PART NUMBER: 4064T97G03
G38 TIME/CYCLES: C0725

DISCREPANCY
MAIN FUEL PUMP LEAKING

PR ORIGINATOR
SGT SHULTZ

CORRECTIVE ACTION
REMOVED AND REPLACED FUEL PUMP IAW NAVAIR XXX-XXX. AREA IS FOD FREE.
PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
ADCS J MILLER	ATCS D SMART	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			3		FUEL PUMP	CGF4826

Figure 16-139: Major Engine Inspection (Fix Phase Repairable Component Replacement) (Example)

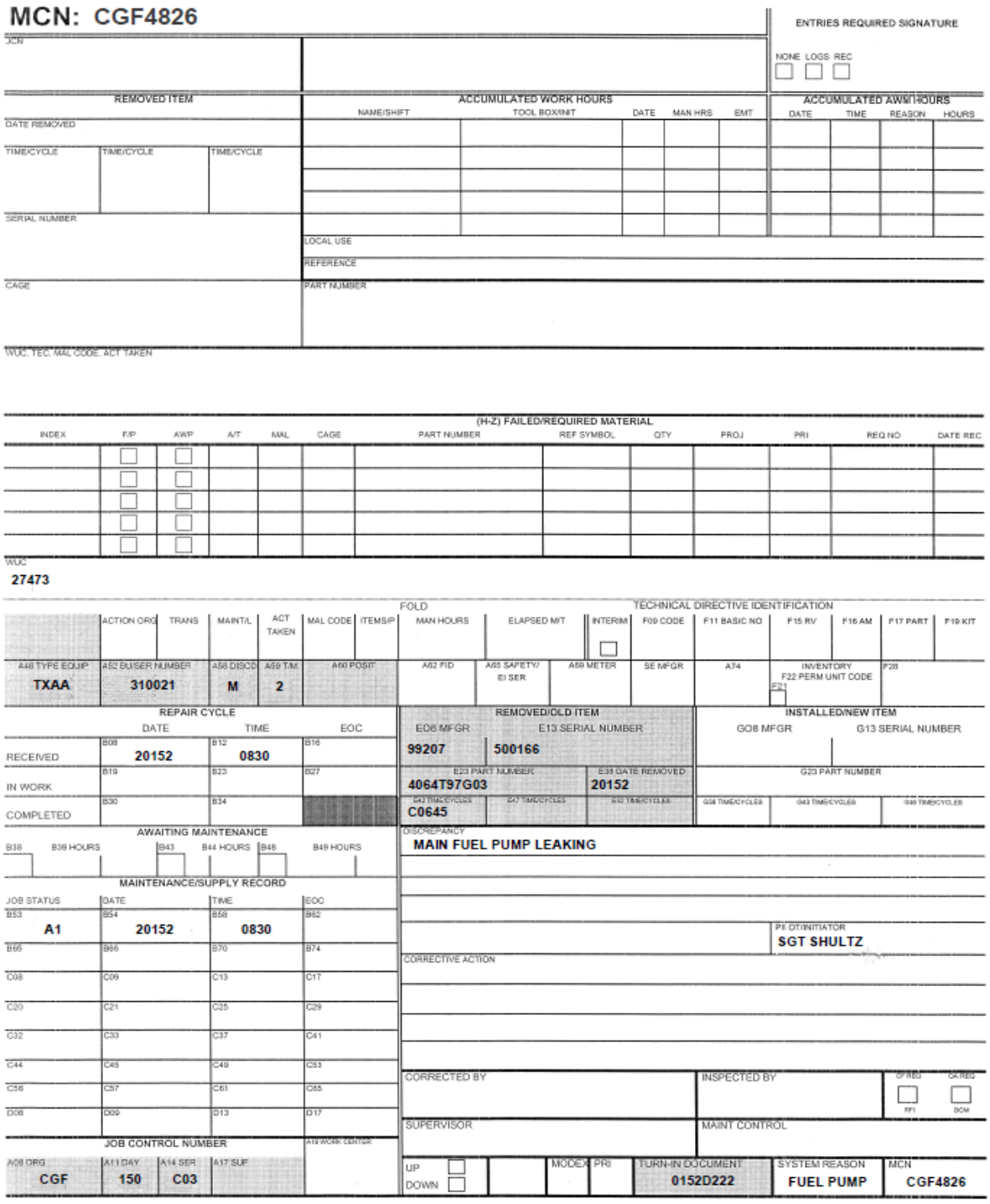
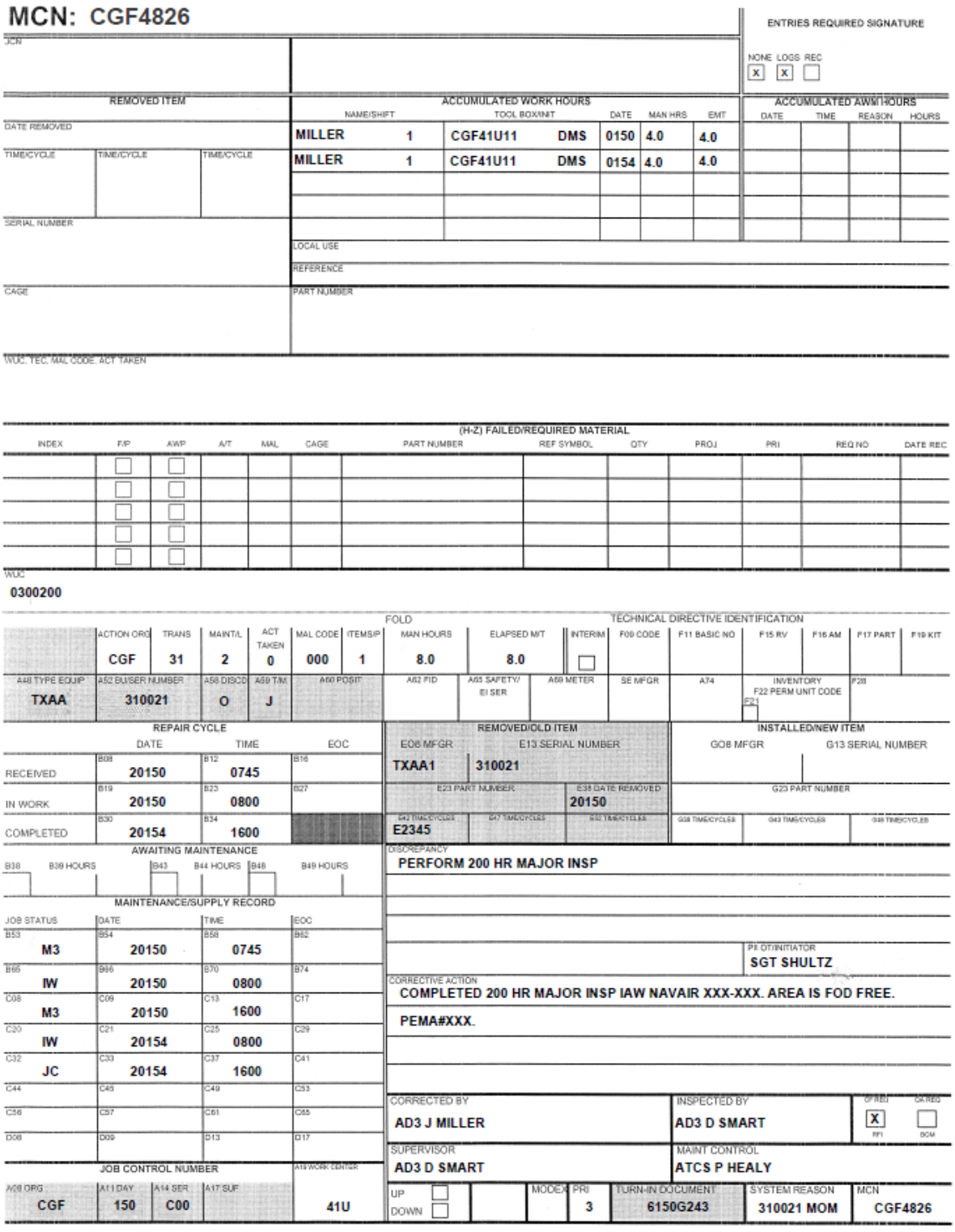


Figure 16-140: Major Engine Inspection (Fix Phase Component Turn-In) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X | LOGS: X | REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U11	DMS	0150	4.0	4.0
MILLER	1	CGF41U11	DMS	0154	4.0	4.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
0300200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	31	2	0	000	1	8.0	8.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAA	310021	O	J									

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20150	0745	
IN WORK	20150	0800	
COMPLETED	20154	1600	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20150	0745	
IW	20150	0800	
M3	20150	1600	
IW	20154	0800	
JC	20154	1600	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	150	C00		41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
TXAA1	310021

E23 PART NUMBER | E38 DATE REMOVED: 20150

E42 TIME/CYCLES: E2345 | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER

G23 PART NUMBER

G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
PERFORM 200 HR MAJOR INSP

PI OTINITIATOR
SGT SHULTZ

CORRECTIVE ACTION
COMPLETED 200 HR MAJOR INSP IAW NAVAIR XXX-XXX. AREA IS FOD FREE.
PEMA#XXX.

CORRECTED BY: AD3 J MILLER
INSPECTED BY: AD3 D SMART
QA REQ: X | QA NOT REQ: ☐
SUPERVISOR: AD3 D SMART
MAINT CONTROL: ATCS P HEALY

UP/DOWN		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
☐ / ☐			3	6150G243	310021 MOM	CGF4826

Figure 16-141: Completed Major Inspection Control Document (Modular Engine Turned-In Solely for Major Inspection) (Example)

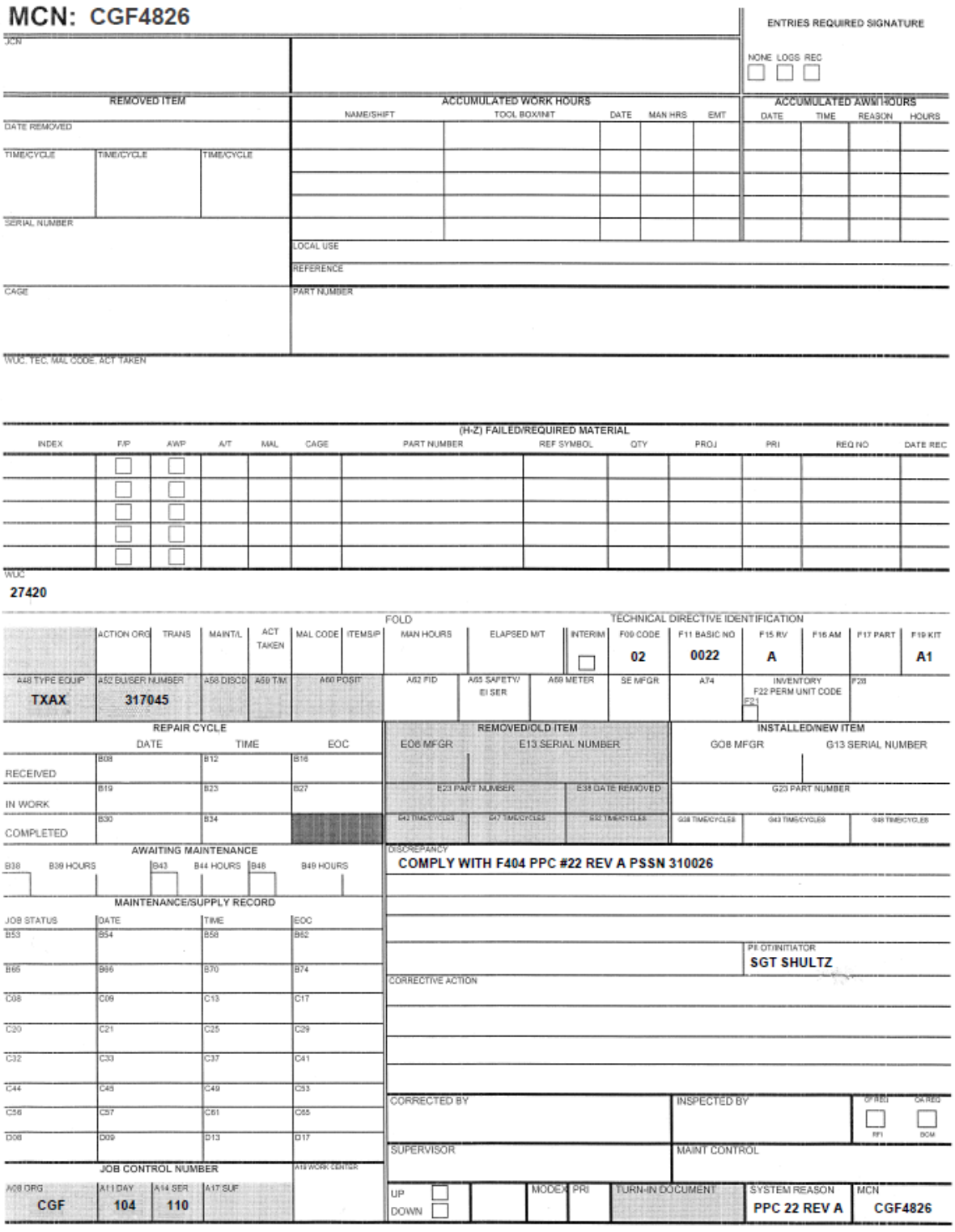


Figure 16-142: **O-Level Activity Request for a Modular Engine TD Compliance by I-Level Activity (Example)**

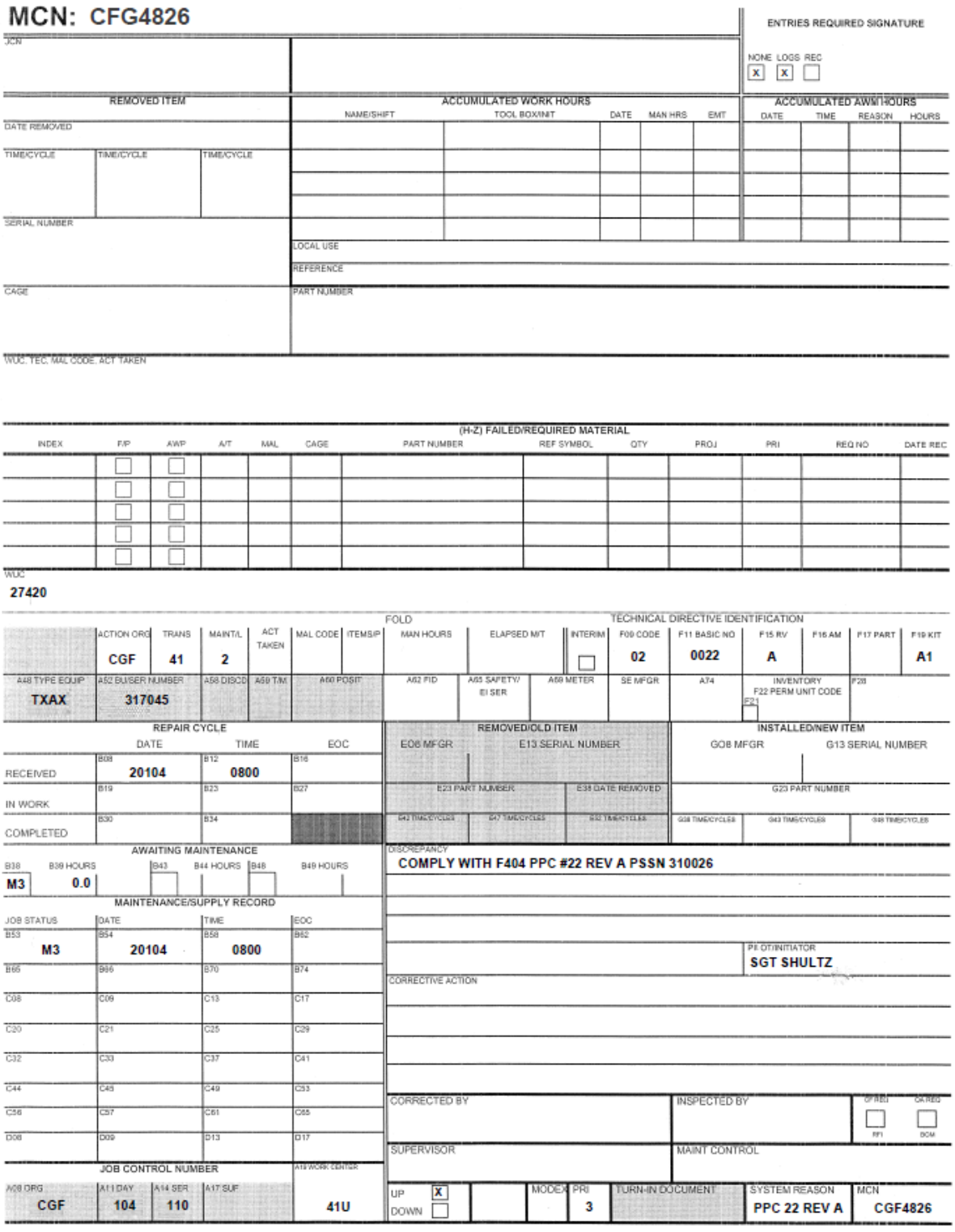
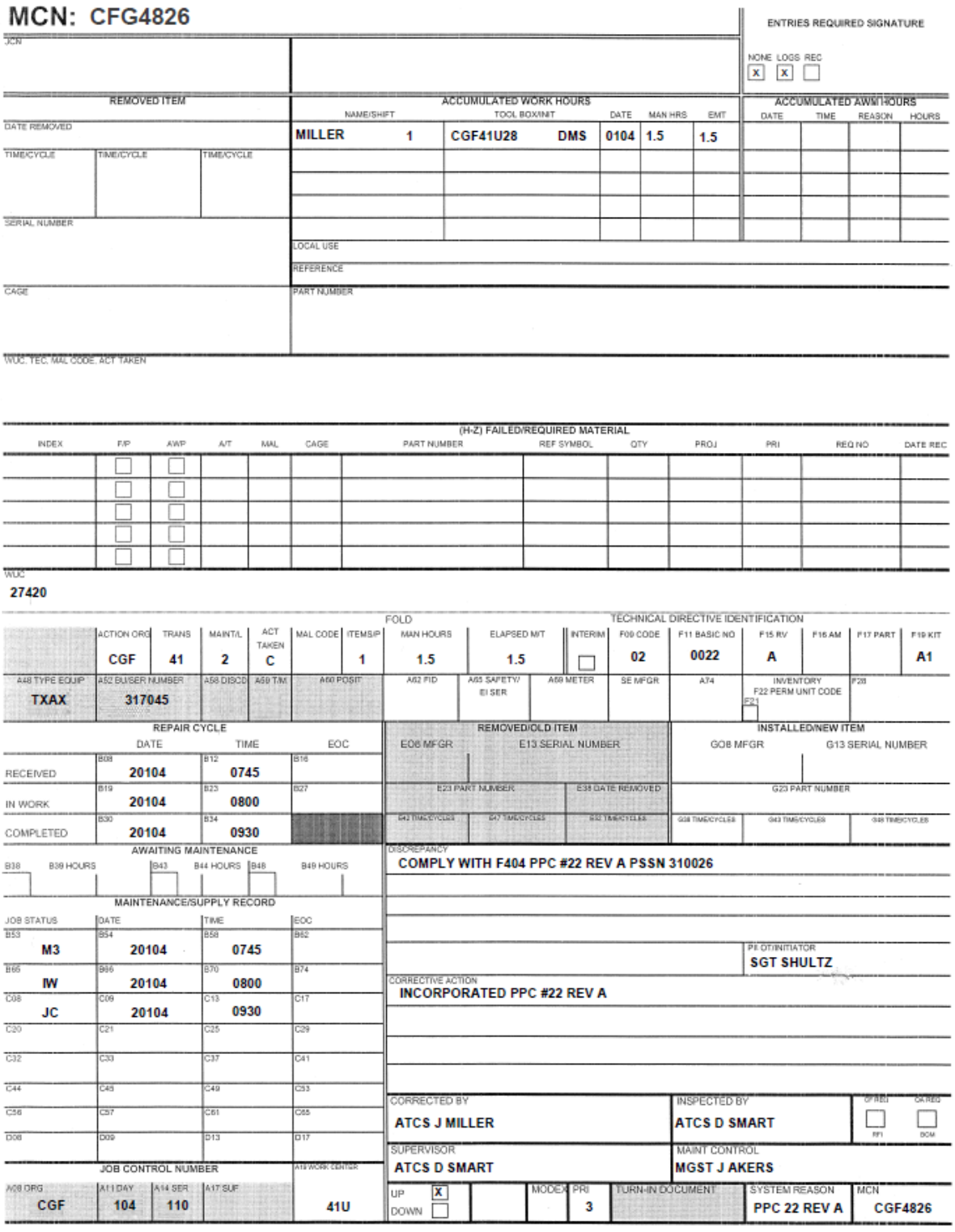


Figure 16-143: **Production Control Entries (O-Level Activity Request for TD Compliance) (Example)**



MCN: CFG4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X LOGS: X REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/KIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U28	DMS	0104	1.5	1.5

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
27420

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	41	2	C		1	1.5	1.5	☐	02	0022	A			A1

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
TXAX	317045											

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0745	B16
IN WORK	B19 20104	B23 0800	B27
COMPLETED	B30 20104	B34 0930	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0745	B62
B65 IW	B66 20104	B70 0800	B74
C08 JC	C09 20104	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	110		41U

REMOVED/OLD ITEM
E06 MFGR | E13 SERIAL NUMBER
E23 PART NUMBER | E38 DATE REMOVED
E42 TIME/CYCLES | E47 TIME/CYCLES | E52 TIME/CYCLES

INSTALLED/NEW ITEM
G06 MFGR | G13 SERIAL NUMBER
G23 PART NUMBER
G08 TIME/CYCLES | G43 TIME/CYCLES | G48 TIME/CYCLES

DISCREPANCY
COMPLY WITH F404 PPC #22 REV A PSSN 310026

PR OTINITIATOR
SGT SHULTZ

CORRECTIVE ACTION
INCORPORATED PPC #22 REV A

CORRECTED BY
ATCS J MILLER

INSPECTED BY
ATCS D SMART

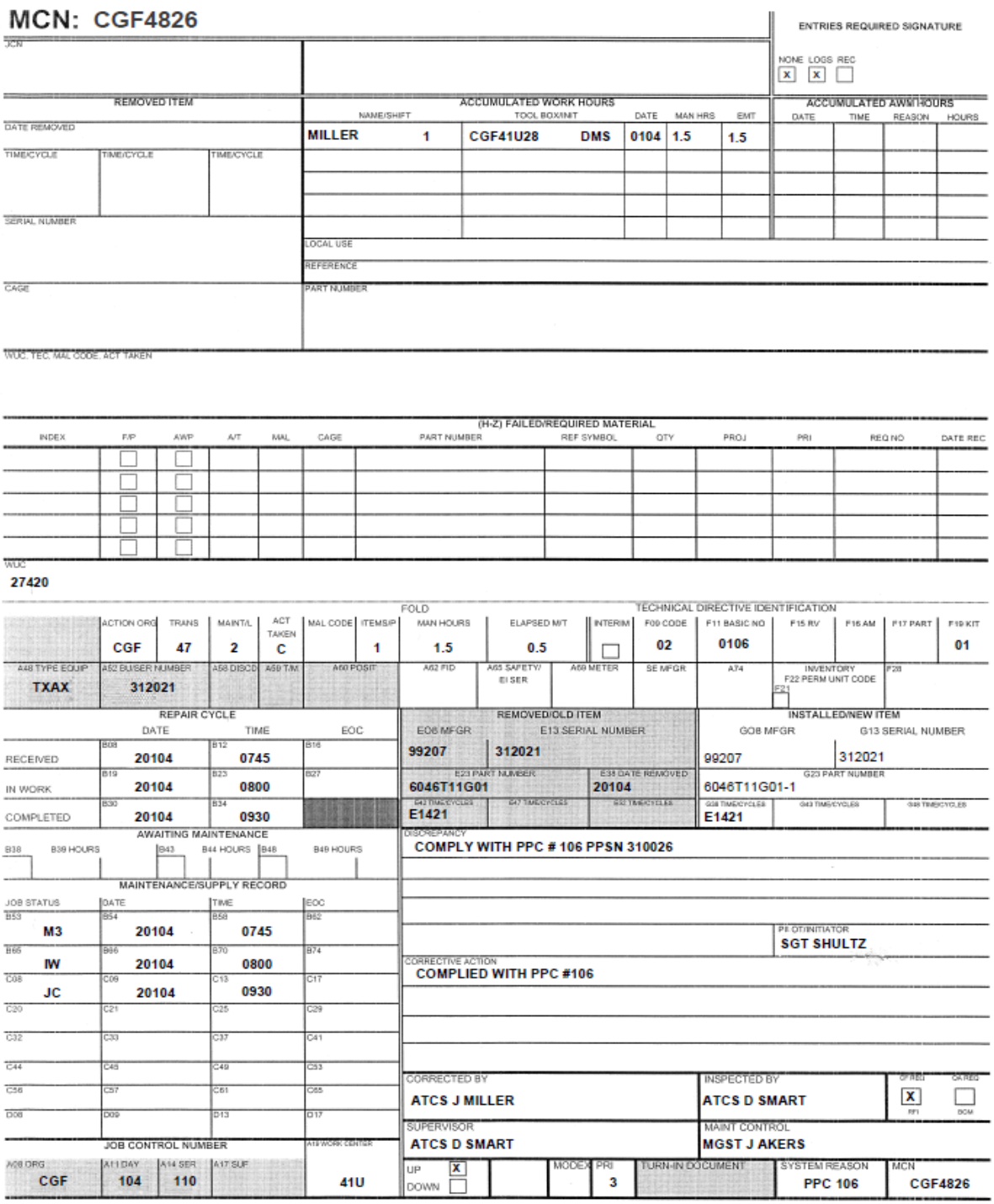
QA REQ: ☐ RFI | ☐ BOM

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		PPC 22 REV A	CGF4826

Figure 16-144: Completed TD Compliance (Applies to a Module With No Module or Repairable Component P/N Change) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE: NONE [X] LOGS [X] REC [ ]

JCN

REMOVED ITEM: DATE REMOVED; TIME/CYCLE; TIME/CYCLE; TIME/CYCLE; SERIAL NUMBER; CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
MILLER	1	CGF41U28	DMS	0104	1.5	1.5

ACCUMULATED AWM HOURS: DATE; TIME; REASON; HOURS

LOCAL USE

REFERENCE

PART NUMBER

WUC; TEC; MAL CODE; ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC: 27420

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	47	2	C		1	1.5	0.5	[ ]	02	0106				01

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
TXAX	312021										

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20104	0745	
IN WORK	20104	0800	
COMPLETED	20104	0930	

AWAITING MAINTENANCE: B38; B39 HOURS; B43; B44 HOURS; B48; B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20104	0745	
IW	20104	0800	
JC	20104	0930	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	110		41U

REMOVED/OLD ITEM

E08 MFGR	E13 SERIAL NUMBER
99207	312021

E23 PART NUMBER: 6046T11G01; E38 DATE REMOVED: 20104

E42 TIME/CYCLES: E1421

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER
99207	312021

G23 PART NUMBER: 6046T11G01-1

G28 TIME/CYCLES: E1421

DISCREPANCY: COMPLY WITH PPC # 106 PPSN 310026

PE OT/INITIATOR: SGT SHULTZ

CORRECTIVE ACTION: COMPLIED WITH PPC #106

CORRECTED BY: ATCS J MILLER

INSPECTED BY: ATCS D SMART

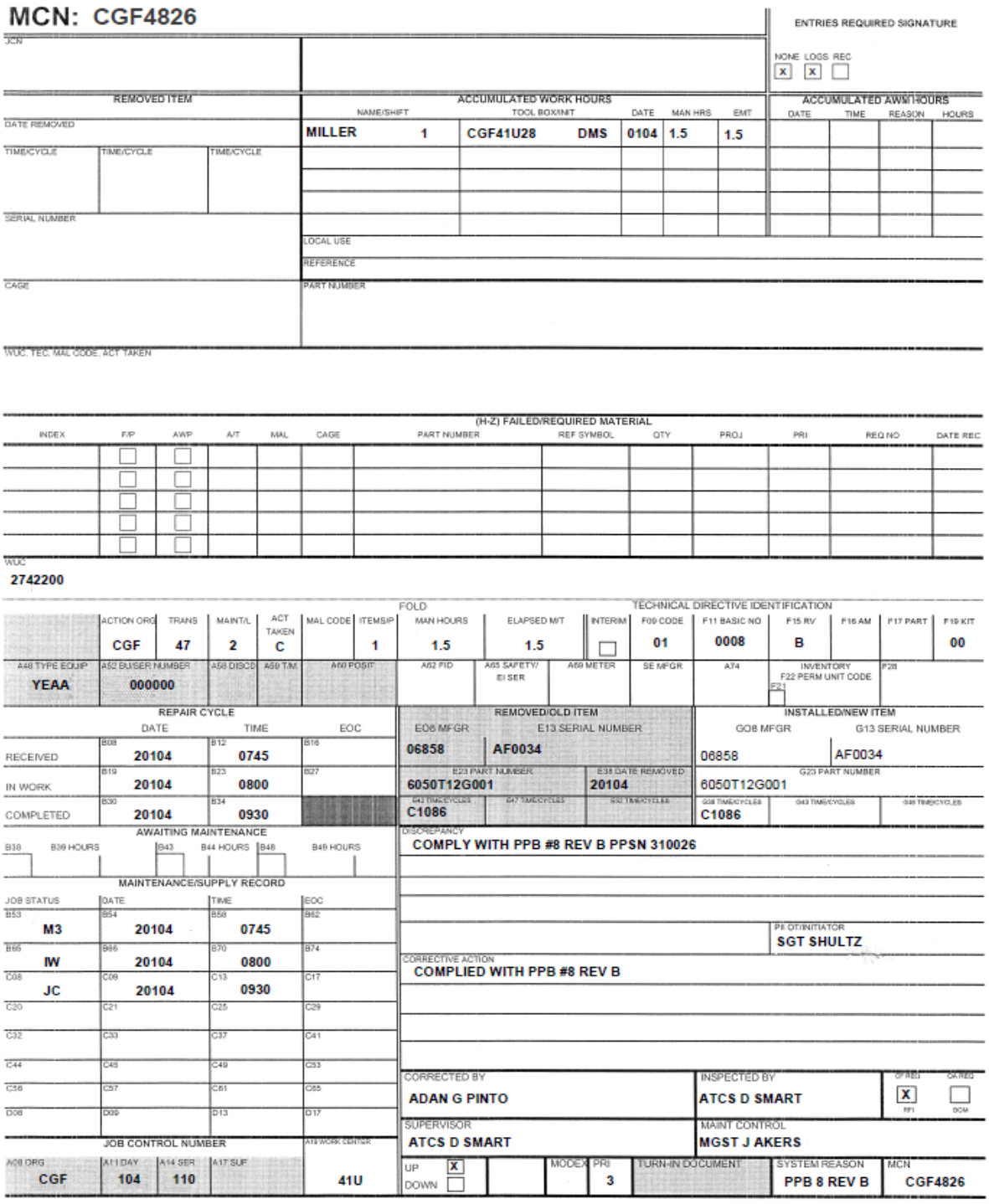
QA REQ: QA REI [X]; QA REQ [ ]

SUPERVISOR: ATCS D SMART

MAINT CONTROL: MGST J AKERS

UP [X] DOWN [ ]; MODEX; PRI: 3; TURN-IN DOCUMENT; SYSTEM REASON: PPC 106; MCN: CGF4826

Figure 16-145: TD Compliance (Applies to a Module With P/N Change) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE
NONE: X LOGS: X REC:

JCN

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
MILLER	1	CGF41U28	DMS	0104	1.5	1.5

LOCAL USE
REFERENCE
PART NUMBER

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										
	☐	☐										

WUC
2742200

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

	ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
	CGF	47	2	C		1	1.5	1.5	☐	01	0008	B			00

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POS/T	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F28
YEAA	000000									F21	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20104	B12 0745	B16
IN WORK	B19 20104	B23 0800	B27
COMPLETED	B30 20104	B34 0930	

AWAITING MAINTENANCE

B38	B39 HOURS	B43	B44 HOURS	B48	B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20104	B58 0745	B62
B65 IW	B66 20104	B70 0800	B74
C08 JC	C09 20104	C13 0930	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	104	110		41U

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
06858	AF0034

E23 PART NUMBER	E38 DATE REMOVED
6050T12G001	20104

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C1086		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
06858	AF0034

G23 PART NUMBER
6050T12G001

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C1086		

DISCREPANCY
COMPLY WITH PPB #8 REV B PPSN 310026

PE OTI/INITIATOR
SGT SHULTZ

CORRECTIVE ACTION
COMPLIED WITH PPB #8 REV B

CORRECTED BY
ADAN G PINTO

INSPECTED BY
ATCS D SMART

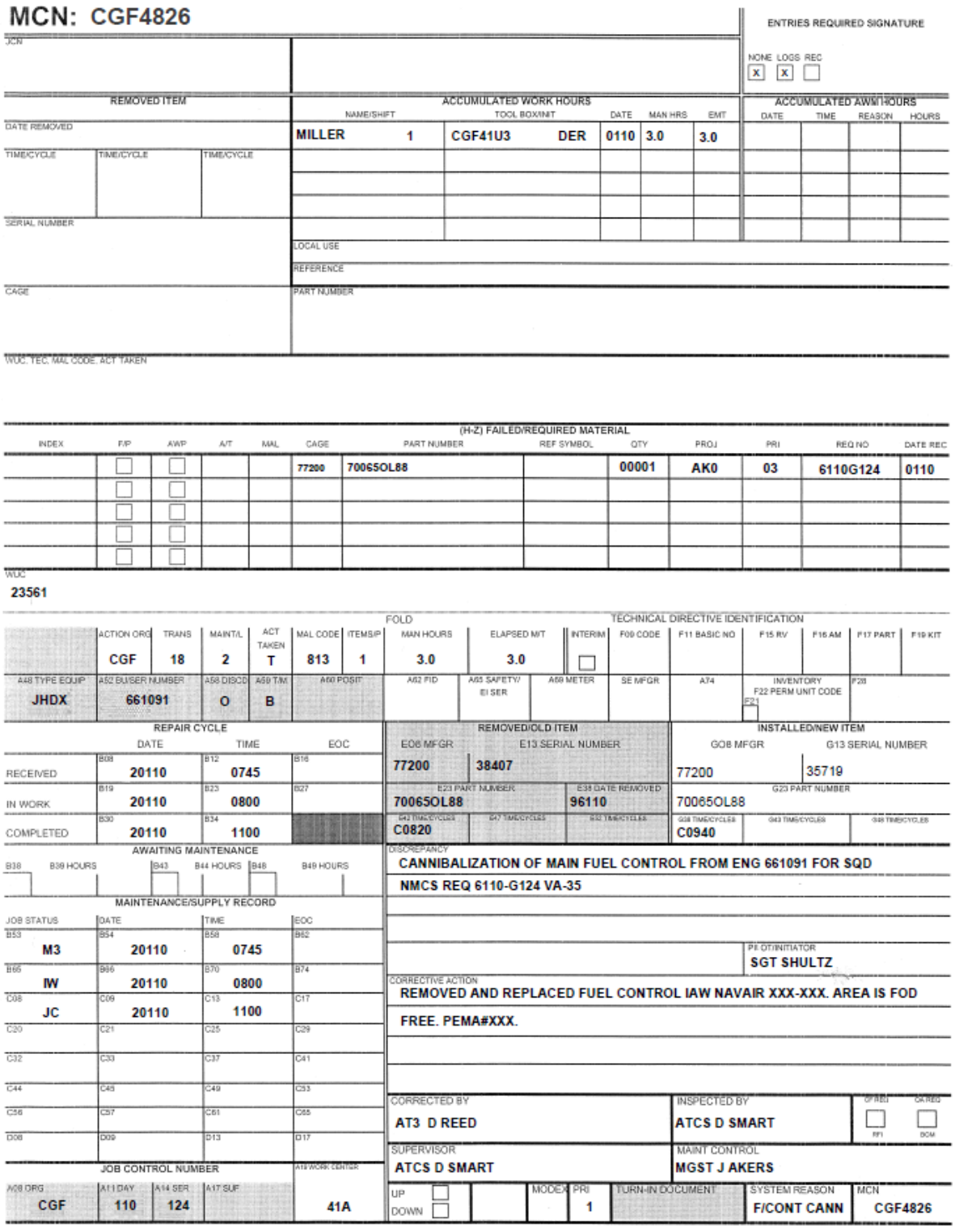
QA REQ: X | QA REQ: ☐

SUPERVISOR
ATCS D SMART

MAINT CONTROL
MGST J AKERS

UP	DOWN	MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
X	☐		3		PPB 8 REV B	CGF4826

Figure 16-146: TD Compliance (Applies to a Component Within A Module) (Example)



MCN: CGF4826

JCN

ENTRIES REQUIRED SIGNATURE
NONE: X LOGS: X REC:

REMOVED ITEM
DATE REMOVED
TIME/CYCLE | TIME/CYCLE | TIME/CYCLE
SERIAL NUMBER
CAGE

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/UNIT		DATE	MAN HRS	EMT
MILLER	1	CGF41U3	DER	0110	3.0	3.0

ACCUMULATED AWM HOURS

DATE	TIME	REASON	HOURS

LOCAL USE
REFERENCE
PART NUMBER
WUC, TEC, MAL CODE, ACT TAKEN

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	☐	☐			77200	70065OL88		00001	AK0	03	6110G124	0110

WUC
23561

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEMS/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	18	2	T	813	1	3.0	3.0	☐						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE F21	F28
JHDX	661091	O	B								

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	B08 20110	B12 0745	B16
IN WORK	B19 20110	B23 0800	B27
COMPLETED	B30 20110	B34 1100	

AWAITING MAINTENANCE
B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
B53 M3	B54 20110	B58 0745	B62
B65 IW	B66 20110	B70 0800	B74
C08 JC	C09 20110	C13 1100	C17
C20	C21	C25	C29
C32	C33	C37	C41
C44	C45	C49	C53
C56	C57	C61	C65
D08	D09	D13	D17

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	110	124		41A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
77200	38407

E23 PART NUMBER	E38 DATE REMOVED
70065OL88	96110

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
C0820		

INSTALLED/NEW ITEM

G08 MFGR	G13 SERIAL NUMBER
77200	35719

G23 PART NUMBER
70065OL88

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
C0940		

DISCREPANCY
CANNIBALIZATION OF MAIN FUEL CONTROL FROM ENG 661091 FOR SQD
NMCS REQ 6110-G124 VA-35

PR OTHINITIATOR
SGT SHULTZ

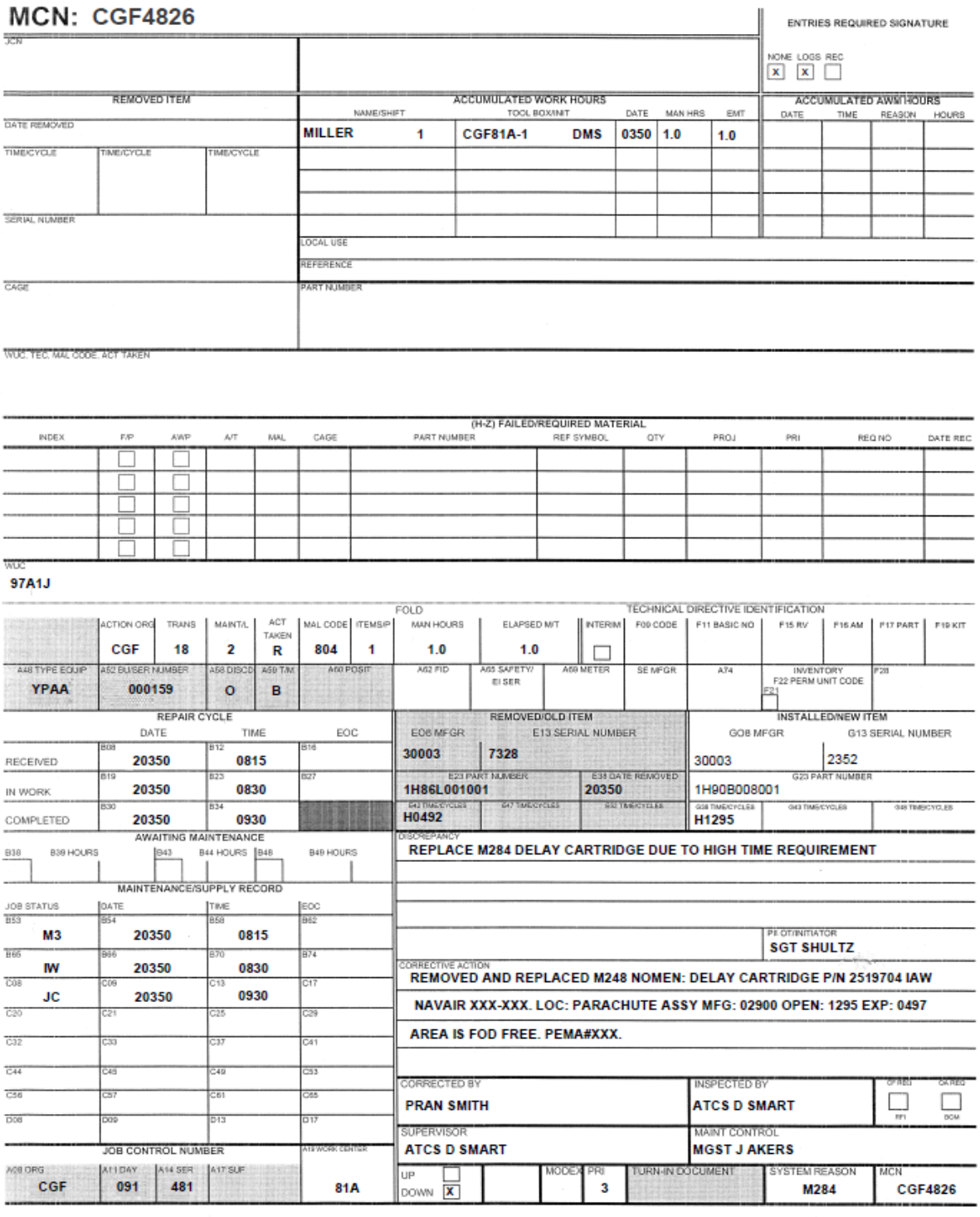
CORRECTIVE ACTION
REMOVED AND REPLACED FUEL CONTROL IAW NAVAIR XXX-XXX. AREA IS FOD
FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REQ	QA REQ
AT3 D REED	ATCS D SMART	☐ RFI	☐ BOM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP ☐ DOWN ☐		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
			1		F/CONT CANN	CGF4826

Figure 16-147: Engine or Module Cannibalization (For a Supported Activity) (Example)



MCN: CGF4826

ENTRIES REQUIRED SIGNATURE: NONE [X] LOGS [X] REC [ ]

JCN

REMOVED ITEM: DATE REMOVED; TIME/CYCLE; TIME/CYCLE; TIME/CYCLE; SERIAL NUMBER; CAGE; WUC, TEC, MAL CODE, ACT TAKEN

ACCUMULATED WORK HOURS

NAME/SHIFT		TOOL BOX/MT		DATE	MAN HRS	EMT
MILLER	1	CGF81A-1	DMS	0350	1.0	1.0

LOCAL USE; REFERENCE; PART NUMBER

ACCUMULATED AWM HOURS: DATE | TIME | REASON | HOURS

(H-Z) FAILED/REQUIRED MATERIAL

INDEX	F/P	AWP	A/T	MAL	CAGE	PART NUMBER	REF SYMBOL	QTY	PROJ	PRI	REQ NO	DATE REC
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										
	[ ]	[ ]										

WUC: 97A1J

FOLD

TECHNICAL DIRECTIVE IDENTIFICATION

ACTION ORG	TRANS	MAINT/L	ACT TAKEN	MAL CODE	ITEM/S/P	MAN HOURS	ELAPSED M/T	INTERIM	F09 CODE	F11 BASIC NO	F15 RV	F16 AM	F17 PART	F19 KIT
CGF	18	2	R	804	1	1.0	1.0	[ ]						

A48 TYPE EQUIP	A52 BU/SER NUMBER	A58 DISCD	A59 T/M	A60 POSIT	A62 FID	A65 SAFETY/ EI SER	A69 METER	SE MFGR	A74	INVENTORY F22 PERM UNIT CODE	F23	F28
YPAA	000159	O	B								[ ]	

REPAIR CYCLE

	DATE	TIME	EOC
RECEIVED	20350	0815	
IN WORK	20350	0830	
COMPLETED	20350	0930	

AWAITING MAINTENANCE: B38 | B39 HOURS | B43 | B44 HOURS | B48 | B49 HOURS

MAINTENANCE/SUPPLY RECORD

JOB STATUS	DATE	TIME	EOC
M3	20350	0815	
IW	20350	0830	
JC	20350	0930	

JOB CONTROL NUMBER

A08 ORG	A11 DAY	A14 SER	A17 SUF	A19 WORK CENTER
CGF	091	481		81A

REMOVED/OLD ITEM

E06 MFGR	E13 SERIAL NUMBER
30003	7328

E23 PART NUMBER	E38 DATE REMOVED
1H86L001001	20350

E42 TIME/CYCLES	E47 TIME/CYCLES	E52 TIME/CYCLES
H0492		

INSTALLED/NEW ITEM

G06 MFGR	G13 SERIAL NUMBER
30003	2352

G23 PART NUMBER
1H90B008001

G38 TIME/CYCLES	G43 TIME/CYCLES	G48 TIME/CYCLES
H1295		

DISCREPANCY: REPLACE M284 DELAY CARTRIDGE DUE TO HIGH TIME REQUIREMENT

PR OT/INITIATOR: SGT SHULTZ

CORRECTIVE ACTION: REMOVED AND REPLACED M248 NOMEN: DELAY CARTRIDGE P/N 2519704 IAW NAVAIR XXX-XXX. LOC: PARACHUTE ASSY MFG: 02900 OPEN: 1295 EXP: 0497

AREA IS FOD FREE. PEMA#XXX.

CORRECTED BY	INSPECTED BY	QA REI	QA RED
PRAN SMITH	ATCS D SMART	[ ] RFI	[ ] BCM

SUPERVISOR	MAINT CONTROL
ATCS D SMART	MGST J AKERS

UP		MODEX	PRI	TURN-IN DOCUMENT	SYSTEM REASON	MCN
DOWN [X]			3		M284	CGF4826

Figure 16-148: Removal and Replacement of Cartridges, Cartridge Activated Devices, and Propellant Actuated Devices (I-Level Maintenance) (Example)

APPENDIX A
Acronyms, Abbreviations, and Definitions

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

2M – MINIATURE/MICROMINIATURE

3M – MAINTENANCE AND MATERIAL MANAGEMENT

5S – SORT, STRAIGHTEN, SHINE, STANDARDIZE, AND SUSTAIN – The 5S methodology helps a workplace remove items that are no longer needed (Sort), organize the items to optimize efficiency and flow (Straighten), clean the area in order to more easily identify problems (Shine), implement color coding and labels to stay consistent with other areas (Standardize) and develop behaviors that keep the workplace organized over the long term (Sustain).

A

A/R – ARRESTS/RECOVERY ASSIST, SECURING AND TRAVERSING

AADB – AUTOMATED AIRCRAFT DISCREPANCY BOOK

AADF – AUTOMATED AIRCRAFT DISCREPANCY FILE

AAE – AIRCRAFT ARMAMENT EQUIPMENT – Equipment is used to mount ordnance to the aircraft, such as bomb racks and missile launchers (BRU-32, LAU-118, etc.).

AAI – AMMRL ACTIVITY IDENTIFIER – A code used to identify an activity for the purpose of managing the IMRL.

AAMO – ASSISTANT AIRCRAFT MAINTENANCE OFFICER (Marine Corps)

AAAR – AIRCRAFT ACCOUNTING AUDIT REPORT

AAS – AIRCRAFT ARMAMENT SYSTEMS – AAS is comprised of the following sub-systems: Aircraft Armament Equipment (AAE)/Alternate Mission Equipment (AME), Aircraft Gun Systems (AGS), Aircraft Crew Served Weapons (ACSW), Aircraft Crew Served Weapon Mounts (ACSW Mounts), and LASER Aiming Devices (LAD).

ABDR – AIRCRAFT BATTLE DAMAGE REPAIR – Maintenance actions taken during combat conditions that may provide less than 100 percent restoration of an aircraft and its subsystems to original strength, mission capability, or configuration.

ABO – AVIATORS BREATHING OXYGEN

ACC – AIRCRAFT CONTROLLING CUSTODIAN – ACCs administratively control the assignment, employment, and logistic support of certain aircraft and aircraft engine. CNO designated ACCs: COMNAVAIRFOR, CNATRA, COMNAVAIRFORES and COMNAVAIRSYSCOM.

ACCEPTANCE – Assumption of responsibility for, or legal title to, an aircraft, engine or equipment from another party. Receipt of new aircraft, engine or equipment from a manufacturer (or of any aircraft from a non-Navy custodian) by a representative authorized to do so by the Navy.

ACCEPTANCE INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE and SE.

ACCESSORIES – See AIRFRAME ACCESSORIES and ENGINE ACCESSORIES.

ACCOUNTABLE ITEM – Any item that must be accounted for or reported, per directive. Examples: Equipment that must be accounted for and reported per the AMMRL Program; and tools that must be accounted for per the Tool Control Program.

ACCUM – ACCUMULATED

ACCUMULATED WORK HOURS – Hours that are expended against a job by individuals within the same work center.

ACE – AVIATION COMBAT ELEMENT – The aviation organization assigned to a Marine Air-Ground Task Force.

ACES – AIRCRAFT COST EVALUATION SYSTEM on the CNAP SharePoint at https://datavis.navair.navy.mil/#/site/NAVAIREnterprise/workbooks/14150/views

ACI – AIRCRAFT CONDITION INSPECTION – Condition inspection of aircraft per parameters specified in the Type/Model/Series Integrated Maintenance Concept (IMC)/Planned Maintenance Interval (PMI) specifications.

ACO – ADMINISTRATIVE CONTRACTING OFFICER – Performs assigned functions, duties, or responsibilities related to the administration of a contract.

ACP – ASSETS CAPITALIZATION PROGRAM

ACSA – ACQUISITION AND CROSS SERVICING AGREEMENT

ACQUISITION LOGISTICS – The management process associated with the design, development, test, production, fielding, sustainment, and improvement of DoD systems.

ACSP – AIRCRAFT CONFINED SPACE PROGRAM – Program that implements requirements for aviation confined space entry.

ACSW – AIRCRAFT CREW SERVED WEAPONS

ACT – ACTUAL

ACTION DATE – The Julian date on which a maintenance form is completed by a work center.

ACTION ORGANIZATION – A three-character alphanumeric code that identifies the activity that actually performs the maintenance action.

ACTIVE AIRCRAFT – Aircraft currently engaged in supporting flying missions either through direct assignment to aircraft units or reassignment through any of the logistic processes of supply, maintenance, or modification.

ADB – AIRCRAFT DISCREPANCY BOOK – Provides maintenance and aircrew with an accurate, comprehensive, and chronological record and maintenance performed over the last 10 flights.

ADDR – AIRCRAFT DELIVERY DEFICIENCY REPORT – The report submitted by Depot Aircraft Examiners to document deficiencies associated with inadequate periodic maintenance.

ADDU – ADDITIONAL DUTY

ADJ – ADJUSTMENT

ADMINISTRATIVE CHAIN OF COMMAND – The chain of command as determined by the administrative organization.

ADMINISTRATIVE COMMANDS (Type Commands) – The commands that provide the tactical commands with the means to conduct tactical operations. Administration of training, supply, and repair of fleet units are some of their responsibilities.

ADRL – AUTOMATIC DISTRIBUTION REQUIREMENT LIST

ADW – AVIATION DATA WAREHOUSE – The central collection point for NALCOMIS data.

AE – AGE EXPLORATION – The process of determining age-reliability relationships through controlled testing and analysis of chance or unintentional events for safety critical items; and from operating experience for non-safety items.

AEF – AERONAUTICAL EXPEDITIONARY AIRFIELD

AEL – ALLOWANCE EQUIPAGE LIST - Used to specify requirements for shipboard equipage and lists of miscellaneous material requirements for mechanical, electrical, ordnance, or electronic system(s) in operating spaces aboard ship.

AEP – ARMAMENT EQUIPMENT POOL

AER – AIRCREW EQUIPMENT RECORD – Aircrew Equipment ALS Records document the current configuration of survival equipment. Aircrew Equipment Records (AER) are used for component inventory.

AERONAUTICAL ALLOWANCE LISTS – (Includes COMNAVAIRSYSCOM Allowance Lists (except Advanced Base Lists), COMNAVAIRSYSCOM ARRs, and COMNAVAIRSYSCOM TBAs) - Lists of equipment and material determined from known or estimated requirements necessary to maintain aeronautical material. See AEL, ALLOWANCE LISTS, APL, ARR, AVCAL, and COSAL.

AERONAUTICAL EQUIPMENT – Equipment used to accomplish the aviation mission or perform aviation maintenance. Examples: Aircraft, SE, aviators' equipment, and other similar devices.

AERONAUTICAL MATERIAL – Material used in the operation and maintenance of aircraft.

AESR – AERONAUTICAL EQUIPMENT SERVICE RECORD - An insert to the basic aircraft logbook used as a service record for various aircraft equipment, such as power plants and propellers.

AFAST - AVIATION FINANCIAL ANALYSIS TOOL CNAP SharePoint at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAF-AFAST/

AFB – AIRFRAME BULLETIN

AFC – AIRFRAME CHANGE

AFH – AIRCRAFT FLIGHT HOURS

AFM – AVIATION FLEET MAINTENANCE

AGE – The process of accumulating operating service months. See CALENDAR AGE, OPERATING SERVICE AGE, and PROGRAM SERVICE LIFE.

AGED UNFILLED ORDER – An unfilled order submitted by an operational target holder to the DFAS which has been held in file for over 120 days and which has not matched with a corresponding expenditure document nor been canceled.

AGM – AIRCRAFT GROUND MISHAP – A mishap where there is no intent for flight that results in reportable damage to an aircraft or UAV, or death or injury involving an aircraft or UAV. This applies to both afloat and ashore.

AGS – AIRCRAFT GUN SYSTEM

AHML – AVIATION HAZARDOUS MATERIALS LIST – Database of HAZMAT authorized or not authorized by the engineering technical authority for use on aviation weapons systems and SE.

AI – ARTISAN INSPECTOR – Depot level personnel assigned to QA duties.

AIDR – ACCEPTANCE INSPECTION DEFICIENCY REPORT – The report submitted to document material discrepancies found in newly received, manufactured, modified, or reworked aircraft that are attributed to deficient manufacturing, modification, or rework processes.

AIG – ADDRESS INDICATOR GROUP

AIMD – AIRCRAFT INTERMEDIATE MAINTENANCE DEPARTMENT (CVN or L-Class ship) or AIRCRAFT INTERMEDIATE MAINTENANCE DETACHMENT (OCONUS Navy IMAs) – AIMDs are responsible for I-level maintenance support for aircraft assigned to their ship/location.

AIR – AIRCRAFT INVENTORY RECORD – The record that establishes a formal, continuous chain of accountability for specific equipment and material installed on or designated for use on aircraft.

AIR PORTABLE – Equipment that can be carried in an aircraft with only minor dismantling and reassembly within the capabilities of user units.

AIRCRAFT – An air vehicle, designed primarily for flight in the atmosphere that has incorporated in its prime design the ability/requirement for human occupancy. See ACTIVE AIRCRAFT; EXPERIMENTAL AIRCRAFT; INACTIVE AIRCRAFT; PRODUCTION AIRCRAFT; PROGRAM AIRCRAFT; PROJECT AIRCRAFT; RESERVE AIRCRAFT; RESERVE STOCK AIRCRAFT; SPECIAL TEST, PERMANENT AIRCRAFT; SPECIAL TEST, TEMPORARY AIRCRAFT; SUPPORTING AIRCRAFT; and UNIT AIRCRAFT.

AIRCRAFT AIRFRAME – The structural components, including the framework and skin of such parts as the fuselage, empennage, wings, landing gear (minus tires), and engine mounts.

AIRCRAFT EQUIPMENT CONFIGURATION LIST – A listing of the avionics components installed in aircraft, ss-referenced to applicable ARRs that contain the support requirements for outfitting purposes.

AIRCRAFT LOADING TABLE – A data sheet used by the force unit commander containing information on the load that actually goes into each aircraft.

AIRCRAFT LOGBOOK – A detailed service record maintained for each individual aircraft. See AESR.

AIRFRAME – See AIRCRAFT AIRFRAME and MISSILE AIRFRAME.

AIRFRAME ACCESSORIES – The items of equipment required for operation of the aircraft and not considered an integral part of the airframe or engine, such as wheels, brakes, hydraulic equipment, fuel systems, deicing equipment, anti-icing equipment, and other items regardless of whether attached to the engine or airframe. See EQUIPMENT, DIVISION OF.

AIRRS – AIRCRAFT INVENTORY AND READINESS REPORTING SYSTEM – Provides up-to-date and consistent aircraft inventory, readiness data, and flight or utilization data for each aircraft in the Navy inventory.

AIRS – AIRCRAFT INVENTORY REPORTING SYSTEM

AIRSpeed – The integration and application of LSS and TOC process improvement methods to consistently deliver readiness with greater efficiency.

AIRSpeed BLACK BELT – A fully trained practitioner of Lean and Six Sigma skills and techniques. Black Belts typically lead complex projects where higher-level tools or statistical analysis may be required. Also serves as technical advisor to Green Belts in training, mentoring, and coaching Green Belt projects.

AIRSpeed GREEN BELT – A part-time leader and participant in CPI events, that require fundamental Lean and Six Sigma skills and techniques.

AIRWORTHINESS INSPECTION – Applicable to commercial off the shelf aircraft and provides for a periodic standard D-level rework normally performed per the manufacturer's FAA approved

maintenance requirements. This rework includes a comprehensive inspection together with critical defect corrosion correction and compliance with outstanding FAA airworthiness directives and approved manufacturer's service bulletins.

AIS – AVIATION INFORMATION SYSTEMS

ALE – AUTOMATED LOGISTICS ENVIRONMENT

ALERTS – AVIATION LOGISTIC ELECTRONIC REQUIREMENTS TRAINING SYSTEM

ALIMS – AVIATION LOGISTICS INFORMATION MANAGEMENT AND SUPPORT

ALLOCATION (PERSONNEL) – The apportionment of personnel numbers to a program or program element of the Future Defense Plan.

ALLOWANCE (AIRCRAFT) – The quantity and kind of aircraft an organizational unit is authorized to have. See PROGRAM OPERATING ALLOWANCE.

ALLOWANCE LISTS – Documents used to specify authorized requirements of operational support inventory for a squadron, IMA, or ship. The allowance is based on the activity's need for the item to perform its mission, the level of maintenance, and frequency of use.

ALS - AUTOMATED LOGSET – An electronic data set of maintenance, repair/rework, operation, and miscellaneous history of a specific BUNO aircraft or SERNO equipment.

ALSP – ACQUISITION LOGISTICS SUPPORT PLAN – The ALSP is prepared by the Logistics Manager to identify all logistics planning for aviation weapon system acquisitions or modifications of equipment, and is used as guidance for developing and managing the logistics program and logistics element requirements.

ALSS - AVIATION LIFE SUPPORT SYSTEM(S) – Items of equipment and clothing needed to allow aircrew members and aircraft passengers to function within all parameters of the flight environment, safely egress from disabled aircraft and descend/ascend to the surface, and survive on land and water and to interface with rescue forces.

ALTERNATE ITEM – An interchangeable item or suitable substitute capable of performing the same function(s) as the prime item.

AM – AMENDMENT

AMA – AVIATION MAINTENANCE ADVISORY – A naval message issued by COMNAVAIRFOR to advise activities of discrepancies with the NAMP compliance being found during inspections, or to emphasize, correct, or update a NAMP policy.

AMARC – AEROSPACE MAINTENANCE AND REGENERATION CENTER

AMARG – AEROSPACE MAINTENANCE AND REGENERATION GROUP

AMB – AIRCRAFT MISHAP BOARD

AMCM – AIRBORNE MINE COUNTERMEASURES – Aircraft weapons systems used to detect, and neutralize sea mines.

AMCR – AIRCRAFT MATERIAL CONDITION REPORT

AMD – ACTIVITY MANPOWER DOCUMENT – Official source document of a Navy activity's manpower requirements and billet authorizations.

AME – AVIATION STRUCTURAL MECHANIC (SAFETY EQUIPMENT) – Navy enlisted rating for technicians that maintain and repair oxygen, cockpit and cabin pressurization, and ejection seat systems.

AME – ALTERNATE MISSION EQUIPMENT – Equivalent term as AAE for certain aircraft, such as the F-35. See AAE.

AMEA – AVIATION MAINTENANCE ENGINEERING ADVISORY – A naval message issued by a FST to advise activities of systemic discrepancies with aviation maintenance compliance being discovered through trend analysis or during engineering inspections.

AMI – AVIATION MAINTENANCE INSPECTION

AMMRL – AIRCRAFT MAINTENANCE MATERIAL READINESS LIST (PROGRAM) – Provides data required for effective management of selected SE at all levels of aircraft maintenance. Within this program, SERMIS and IMRL are significant.

AMMT – AVIATION MAINTENANCE MANAGEMENT TEAM

AMO – ASSISTANT MAINTENANCE OFFICER (Navy) or AIRCRAFT MAINTENANCE OFFICER (Marine Corps)

AMSRR – AVIATION MANAGEMENT SUPPLY AND READINESS REPORTING – AMSRR is the authoritative data source for reporting and measuring the current material condition for all active and reserve USN and USMC aircraft, and for equeipment.

AMSTRP – AVIATION MAINTENANCE AND SUPPLY TRAINING AND READINESS PROGRAM

AMSU – AERONAUTICAL MATERIAL SCREENING UNIT

AMT – AVIATION MAINTENANCE TRAINING

AMTCS – AVIATION MAINTENANCE TRAINING CONTINUUM SYSTEM – All training and associated infrastructure required to support naval aviation maintenance.

AMTCS (TOOLS) – AVIATION MAINTENANCE TRAINING CONTINUUM SYSTEM (TOOLS) – Knowledge/skill tools consist of CBT in the form of interactive courseware with computer managed instruction and computer aided instruction. Management tool is the ASM, which provides test and evaluation, recording, a feedback system and the MTL. Aviation training devices host CBT and ASM.

AMTRP – Aviation Maintenance Training and Readiness Program – The Marine Corps program that provides maintenance training standardization, identification of training resources, and a standardized method for measuring the readiness of work centers, divisions, and departments.

AO – AVIATION ORDNANCEMAN

AOL – ALL OPERATOR LETTERS

AOM – AIRCRAFT OPERATIONS MAINTENANCE

APA – APPROPRIATION PURCHASE ACCOUNT

APL – ALLOWANCE PARTS LIST - A listing of repair parts prepared for individual equipment and components.

APML – ASSISTANT PROGRAM MANAGER FOR LOGISTICS

APT – AVIATION PROGRAM TEAM

APPROPRIATION – An authorization, established by an Act of the Congress of the United States, to spend funds of the U. S. Treasury or incur indebtedness for specified purposes. The Operations and Maintenance, Navy (O&MN) appropriation funds the operation and maintenance requirements of Naval aviation.

APU – AUXILIARY POWER UNIT

ARR – ALLOWANCE REQUIREMENTS REGISTER - Documents used to determine authorized requirements of spare assemblies and repair parts at I-level and O-level maintenance. They are storeroom items under control of the Supply Department.

ARTICLE (EQUIPMENT OR END ITEM) – Components, assemblies, subassemblies, and parts connected or associated together to perform an operational function.

ARTISAN – Civilian personnel assigned to, or in support of, an FRC performing I-level and D-level maintenance. See CIVILIAN.

AS – AVIATION SUPPORT EQUIPMENT TECHNICIAN

ASB – AIRBORNE SOFTWARE BULLETIN

ASBA – AVIATION STANDARDS BRANCH

ASD – AVIATION SUPPORT DIVISION – ASD coordinates all material requirements for supported activities. ASD is a function of the supporting supply activity, and includes a Component Control Section and a Supply Response Section.

ASDTP – AVIATION SUPPLY DESK TOP PROCEDURES (MARINE CORPS) – Procedures implemented in Marine Air Groups (MAG) to ensure standardization of aviation supply operations.

ASE – AIRCRAFT SURVIVABILITY EQUIPMENT – The aircraft-installed systems that protect the aircraft and aircrew in hostile environments. Examples include missile warning systems and countermeasure dispensing systems.

ASI – AIRCRAFT SYSTEMS INSPECTOR - Depot FRC personnel responsible for certifying aircraft Safe for Flight as well as systems tests, inspections, troubleshooting, and repairs accomplished prior to flight testing of the aircraft.

ASM – ADVANCED SKILLS MANAGEMENT

ASN(FM&C) – ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)

ASN(I&E) – ASSISTANT SECRETARY OF THE NAVY (INSTALLATION AND ENVIRONMENT)

ASO – AVIATION SAFETY OFFICER

ASPA – AIRCRAFT SERVICE PERIOD ADJUSTMENT – ASPA is a Depot level airframe inspection to determine if a 12 month (or equivalent flight hour) adjustment can be added to the inspected BUNO aircraft's current PED.

ASR – ASSEMBLY SERVICE RECORD

ASSIGNMENT – Statement of positive intention that specifically designated aircraft or equipment are, or will be, in the custody of specifically designated units.

ASSY/ASSY CD – ASSEMBLY/ASSEMBLY CODE

ASW – ANTISUBMARINE WARFARE

AT – AVIATION ELECTRONICS TECHNICIAN

AT CODE - ACTION TAKEN CODE - A one-character alphabetic or numeric code that describes what action has been accomplished on the item identified by a WUC.

ATA – AUTOMATED TRENDING AND ANALYSIS – See 10.37.

ATAC – ADVANCED TRACEABILITY AND CONTROL

ATB – AVIATION TRAINING BRANCH

ATDR – AERONAUTICAL TECHNICAL DIRECTIVE REQUIREMENTS

ATE – AUTOMATIC TEST EQUIPMENT - Equipment that carries out a predetermined program of testing for possible malfunction, with minimum reliance upon human intervention.

ATL – AIRCRAFT TRANSFER LETTER

ATO – AIRCRAFT TRANSFER ORDER – A letter or message type directive used by an ACC/TYCOM to direct transfer and acceptance of aircraft. See SHORT TERM TRANSFER.

ATS – AUDIT TRACKING SYSTEM

AUDIT – A periodic evaluation of detailed plans, policies, procedures, products, directives, and records. See MANAGEMENT AUDIT.

AUGMENTED SUPPORT – An interim arrangement during initial development or production for the support of the equipment by the contractor on an as required basis pending assumption of support responsibility by the government.

AUL – AUTHORIZED USE LIST

AUOL – AGE UNFILLED ORDER LISTING – Forwarded monthly by the FAADC to individual OPTAR holders for each OPTAR held.

AUTHORIZED CALIBRATION COURSE OR EQUIVALENT – TMDE specialists training courses provided to the Navy by the Air Force under inter-Service support agreements. Equivalency includes graduate or associate degrees in appropriate physical sciences or engineering fields or the satisfactory completion of a 4-year apprenticeship training program in the field of calibration.

AUTHORIZED I-LEVEL CALIBRATION TRAINING – CNATTU administered courses that have been coordinated with TYCOMs, the appropriate technical offices, and approved by CNO and TMDE specialists training courses provided to the Navy or Air Force under inter-Service support agreements.

AUTODIN – AUTOMATIC DIGITAL NETWORK

AUTOMATIC DISTRIBUTION – The action that provides initial distribution of publications to newly activated aircraft squadrons or ships and that provides definite follow-on distribution of supplementary publications, for example, changes, revisions, or supplements, to the recipients of the publications on initial distribution or to authorized requesters.

AVAILABILITY (AIRCRAFT) – Applies to aircraft in an operating or non-operating status that may be available for flight, upkeep, or rework as specified.

AVC – AVIONICS CHANGE

AVCAL – AVIATION CONSOLIDATED ALLOWANCE LIST – A consolidated list of aeronautical material, tailored to each individual ship and MAG, to support assigned or embarked aircraft flight operations. It is normally prepared by NAVSUP WSS Philadelphia, PA under direction of the air TYCOM.

AVDLR – AVIATION DEPOT LEVEL REPAIRABLE

AVG – AVERAGE

AVIATION ACTIVITY – A formally structured staff, command, squadron, unit, or detachment headed by a Commander, CO, or OIC responsible for management, maintenance, material, and logistic support of naval aeronautical equipment.

AVIATION CAPABLE SHIP – A non-aviation ship that can be used as an aviation operating platform.

AVIATION SHIP – Specifically CV, CVN, and L-Class type ships are designated, for NAMP purposes, as aviation ships.

AVIONICS – The application of electronics to aviation and astronautics. For NAMP purposes, avionics is interpreted to include electronic, electrical, instrument, flight control, fire control, and bombing equipment and their subsystems taken as either independent equipment, groups of equipment, or integrated systems to accomplish assigned military missions.

AVIONICS SE – AVIONICS SUPPORT EQUIPMENT (common and peculiar). Includes all equipment of an electronic nature used for, but not limited to, testing, troubleshooting, aligning, or calibrating aircraft systems and components. Examples of such equipment are general purpose electronic test equipment, ATE, vacuum pressure testers, temperature, and fuel quantity indicator test sets.

AVNSUPO – AVIATION SUPPLY OFFICER

AVO – AVIONICS OFFICER

AWBS – AUTOMATED WEIGHT AND BALANCE SYSTEM

AWI – AIR WORTHINESS INSPECTION

AWIS – ALL WEAPONS INFORMATION SYSTEM

AWM – AWAITING MAINTENANCE

AWM REASON CODE – A two-character alphanumeric code that describes the reason for an AWM condition.

AWM TIME – Time when an aircraft is NMCM or PMCM and no maintenance is being performed on the systems causing the NMCM or PMCM status. Other maintenance upkeep not causing an NMCM or PMCM condition may be performed on the aircraft during this period.

AWP – AWAITING PARTS - The condition that exists when materials required to complete a maintenance action are not available. A maintenance action is classified as AWP when no work can be performed due to a lack of parts on order.

AWSE – ARMAMENT WEAPONS SUPPORT EQUIPMENT - All equipment used in the loading of an explosive system or launch device on an aircraft, to include equipment used for the packaging, bulk handling, storage or stowage, and transportation of weapons, weapon components, and SE where the principle function is support of the explosive ordnance component or weapon (used primarily by the Weapons Department).

AZ – AVIATION MAINTENANCE ADMINISTRATIONMAN

B

BA – BROAD ARROW

BAILMENT – Government aircraft in the physical custody of a non-military organization (typically an aircraft manufacturer, aircraft modification company, or contractor providing the Government a service requiring military aircraft) under the terms of a bailment agreement.

BASIC MISSION – The basic intended function or capability of the aircraft, such as bomber, fighter, patrol, observation, and utility. See MODEL DESIGNATION.

BASIC MISSION SYMBOL – A letter used to indicate the basic intended function or capability of the aircraft, such as bomber, fighter, patrol, and utility. See MODEL DESIGNATION.

BCM – BEYOND CAPABILITY OF MAINTENANCE – A term/code used by IMAs when repair is not authorized at that level or when an activity is not capable of accomplishing the repair because of a lack of equipment, facilities, technical skills, technical data, or parts. BCM will also be used when shop backlog precludes repair within time limits specified by existing directives.

BCMI - BEYOND CAPABILITY OF MAINTENANCE INTERDICTION - BCMI is a Commander, Fleet Readiness Centers (COMFRC) managed program where selected IMAs are supplemented with on-site D-Level artisans to perform D-Level repair tasks on selected components that are within the capability of the artisan and the IMA.

BCR – BASELINE CHANGE REPORT

BENCH CHECK – A physical inspection or functional test of an item removed for an alleged malfunction to determine if the part or item is serviceable or repairable. It also includes a determination of the extent of maintenance, repair, or possible overhaul required to return it to serviceable status.

BENCH TEST – The subjection of aircraft, engines, accessories, equipment, and equipage to prescribed conditions and specifications, with the use of shop test equipment, to ensure proper functioning.

BER/BR – BEYOND ECONOMIC REPAIR/BEYOND REPAIR

BFIMA – BATTLE FORCE INTERMEDIATE MAINTENANCE ACTIVITY – The IMA that provides support to units assigned to a battle force during a deployment cycle.

BMT – BUFFER MANAGEMENT TOOL – BMT uses data from NALCOMIS and R-Supply databases to generate reports focused on what work has priority for repair in order to replenish RFI inventory (buffers) in a Time Domain.

BOA – BASIC ORDERING AGREEMENT

BOARD OF INSPECTION AND SURVEY – Convenes at COMNAVAIRSYSCOM approximately 60 days subsequent to the start of the Board of Inspection and Survey preliminary evaluation and is attended by representatives of CNO, CNATRA, Fleets, COMNAVAIRSYSCOM, NAVSUP WSS Philadelphia, PA, and contractors. Evaluation of the aircraft and its SE is reported and action to be taken is determined. Proposed configuration of the aircraft for fleet delivery is established.

Readiness of the aircraft and its associated equipment to commence the Fleet Introduction Program is a most important decision.

BOD – BOARD OF DIRECTORS

BOM – BILL OF MATERIAL

BOR – BUDGET OPTAR REPORT

BOSS – BUY OUR SPARES SMART

BTR – BASELINE TROUBLE REPORT - Provides a means to report NTCSS Optimized OMA NALCOMIS baseline deficiencies found in a specific PMA baseline.

BU/SER – BU/SERNO – BUREAU/SERIAL NUMBER

BULLETIN – A document issued by COMNAVAIRSYSCOM, which directs a one-time inspection of equipment, contains related instructions, and disseminates administrative, or management information as related to maintenance of weapon systems.

BUNO – BUREAU NUMBER – An unhyphenated serial number, not exceeding six digits, used to identify individual airframes within the naval aircraft inventory. Each BUNO is unique to a particular airframe. BUNO assignment is controlled by the CNO.

BUPERS – BUREAU OF NAVAL PERSONNEL

C

CAD – CARTRIDGE ACTUATED DEVICE

CAGE – COMMERCIAL AND GOVERNMENT ENTITY – A five-position code assigned to manufacturers and non-manufacturers organizational entities and contractors of items procured by agencies of the federal government.

CAI – CRITICAL APPLICATION ITEM

CALENDAR AGE – The total number of calendar months since acceptance.

CALIBRATE – To make corrections within a calibration facility on items listed in the CALSEL.

CALIBRATION – The process by which calibration installations compare a calibration or TMDE with a standard of higher accuracy to determine if the instrument being calibrated is within specified limits throughout its entire range.

CALIBRATION FACILITY – An installation under the control of the military departments or any agency of DOD that provides calibration services for TMDE and calibration standards used by activities engaged in research, development, test, and evaluation, production, QA, maintenance, supply, and operation of weapon system(s), equipment, and other DOD material.

CALIBRATION INTERVAL – The maximum length of time between calibrations that calibration standards or TMDE are expected to maintain reliable measurement capability.

CALIBRATION PROCEDURE – A document that outlines the steps and operations to be followed by calibration personnel in calibrating an instrument.

CALIBRATION STANDARD – COMNAVAIRSYSCOM calibration installation equipment used to maintain continuity of value in the units of measurement embodied by periodic comparison with higher echelon or National Institute of Standards and Technology.

CALSEL – CALIBRATION STANDARD EQUIPMENT LIST

CALSTDS – CALIBRATION STANDARDS

CAMEO – COMPREHENSIVE AUTOMATED MAINTENANCE ENVIRONMENT OPTIMIZED

CANNIBALIZATION/CANNIBALIZE – The removal of serviceable material/part or component from one aircraft or equipment for installation into another aircraft or equipment to restore the latter to a serviceable condition.

CANTRAC – CATALOG OF NAVY TRAINING COURSES (NAVEDTRA 10500) – Contains information on schools and courses under the purview of NETC Amphibious Forces, Atlantic and Pacific, and other Navy training commands. The function of CANTRAC is to provide a consolidated, centrally produced catalog, presenting courses in standardized form.

CANX – CANCELLED – This status code indicates TD that has been cancelled.

CAO – CONTRACT ADMINISTRATION OFFICE

CAR – CORRECTIVE ACTION REPORT - A report filed when failure to conform with accepted standards or specific contractual requirements as outlined in the statement of work (SOW), or performance work statement (PWS), or in the flight/ground operating procedures (FOP/GOP).

CART – CARTRIDGE

CAS – CONTRACT ADMINISTRATION SERVICES

CASS – CONSOLIDATED AUTOMATED SUPPORT SYSTEM - An automatic, high speed, computer controlled, general purpose test system that isolates faults to a piece/part level.

CAT – CATEGORY

CATS – CATAPULTS

CAV-ORM – COMMERCIAL ASSET VISIBILITY - ORGANIC REPAIRABLE MODULE

CBT – COMPUTER BASED TRAINING

CC – CAPABILITY CODE – The code denoting an IMA repair capability, for example A1 (Check and Test only)

CCB – CONFIGURATION CONTROL BOARD – A group of formally designated representatives from management/engineering/support organizations established to review and approve or disapprove change proposals by the government or a contractor.

CCS – COMPONENT CONTROL SECTION

CDA – CENTRAL DESIGN ACTIVITY

CDA – COMMERCIAL DERIVATIVE AIRCRAFT

CDI – COLLATERAL DUTY INSPECTOR

CDQAR – COLLATERAL DUTY QUALITY ASSURANCE REPRESENTATIVE

CD-ROM – COMPACT DISC-READ ONLY MEMORY

CDT – COMPLEXING/DECOMPLEXING TOOLS

CEB – COMMERCIAL ENGINE BULLETIN

CECR – CHANGE ENTRY CERTIFICATION RECORD

CENNAVAVNTECHTRA – CENTER FOR NAVAL AVIATION TECHNICAL TRAINING (CNATT) - An organization under the military command of NETC responsible for providing, by means of the CNATTUs, technical training for officers and enlisted personnel in the operation, maintenance, and repair of air weapons systems and associated equipment and for conducting such other training as the CNO may direct.

CENNAVAVNTECHTRAU – CENTER FOR NAVAL AVIATION TECHNICAL TRAINING UNIT (CNATTU) +

CERR – COMPLETE ENGINE REPAIR REQUIREMENTS

CERRC – COMPLETE ENGINE REPAIR REQUIREMENTS CARD

CERTIFICATE – An official document, either paper or electronic, that certifies completion of a training course. NAMP examples include certificates of completion for CNATTU courses.

CERTIFICATION – Signed documentation, either paper or electronic, attesting an individual is qualified or a product meets specified standards. NAMP examples: A Division Officer (DO) signature on a CDI nomination form is the DO's certification the nominee is eligible to be a CDI; a technician's signature on a WO/MAF is certification they performed the work.

CETARS – CORPORATE ENTERPRISE TRAINING ACTIVITY RESOURCE SYSTEM

CETS – CONTRACTOR ENGINEERING AND TECHNICAL SERVICES - Those services performed by commercial or industrial companies which provide advice, instruction, and training to personnel of the military departments in the installation, operation, and maintenance of DOD aeronautical systems and equipment. CETS consist of CONTRACT FIELD SERVICES, CONTRACTOR PLANT SERVICES, and FIELD SERVICE REPRESENTATIVE.

CF REQ – CHECK FLIGHT REQUIRED

CFE – CONTRACTOR FURNISHED EQUIPMENT - Items manufactured or purchased by the contractor for inclusion in or support of an aeronautical system.

CFFC – COMMANDER, UNITED STATES FLEET FORCES COMMAND

CFR – CODE OF FEDERAL REGULATIONS

CFT – CONTRACT FIELD TEAM

CG MCCDC – COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

CGMARBDE – COMMANDING GENERAL, MARINE BRIGADE

CGMAW – COMMANDING GENERAL, MARINE AIRCRAFT WING

CHANGE – A document that directs and provides instruction for the accomplishment of a change, modification, repositioning, or alteration of material in aircraft, weapon systems, assemblies, subassemblies, components, or SE. See TD.

CHARTS – CHANGE HISTORY AND REVIEW TRACKING SYSTEM

CHECKOUT – A sequence of functional or operational tests, or calibration, to determine the condition and status of a weapon system or its elements.

CHRIMP – CONSOLIDATED HAZMAT REUTILIZATION AND INVENTORY MANAGEMENT PROGRAM

CI – CRITICAL ITEM

CIM – CRITICAL ITEM MANAGEMENT

CIN – COURSE IDENTIFICATION NUMBER – The number that identifies a training course. Examples: C-555-0053 is the CIN for the Naval Aviation Maintenance Control Management course, and C-555-0043 is the CIN for the IMA Production Control course.

CIVILIAN – A Federal employee of the Department of Defense or other Federal agency.

CLASS – A broad classification of the general mission purpose of a Navy aircraft design, for example, fighter, attack, patrol, or transport. Subclass refers to the next lower level of classification into a more specific mission purpose of design, for example, all weather photographic.

CLS – CONTRACT LOGISTIC SUPPORT

CM – CONFIGURATION MANAGEMENT – The process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life. CM includes identifying, documenting, and verifying the functional and physical characteristics of an item; recording the configuration of an item; and controlling changes to an item and its documentation.

CM ALS – CONFIGURATION MANAGEMENT AUTO LOG SET

CMC – COMMANDANT OF THE MARINE CORPS

CMD – CONSUMABLE MANAGEMENT DIVISION

CMIS – CONFIGURATION MANAGEMENT INFORMATION SYSTEM

CMIS COMPONENT TRACKING SYSTEM FOR AIRCRAFT – An automated system for tracking the composition, location, and operating time/cycle counts of the life limited components of aircraft. The CMIS Component Tracking System for Aircraft is used to develop schedules for inspections, replacement procurements, and forced removal actions for these components based on usage requirements and fixed or variable hour or cycle counts or limits.

CMIS COMPONENT TRACKING SYSTEM FOR ENGINES – An automated system for tracking the composition, location, and operating time/cycle counts of the life usage indexes of aircraft engines, propulsion systems, modules, and life limited components. The CMIS Component Tracking System for Engines is used to develop long-range schedules for inspections, removals, replacements, procurements, and rework schedules for these components, based on usage requirements and fixed or variable usage rates.

C-MRT – CORROSION-MAINTENANCE READINESS TEAM

CMS – COMMUNICATIONS MATERIAL SYSTEMS

CNAFR – COMMANDER NAVAL AIR FORCE, RESERVE

CNATRA – CHIEF OF NAVAL AIR TRAINING

CNATTMARU – CENTER FOR NAVAL AVIATION TECHNICAL TRAINING MARINE UNIT

CNATTU – CENTER FOR NAVAL AVIATION TECHNICAL TRAINING UNIT

CNET – CHIEF OF NAVAL EDUCATION AND TRAINING

CNO – CHIEF OF NAVAL OPERATIONS

CO – COMMANDING OFFICER

CODR – CONVENTIONAL ORDNANCE DEFICIENCY REPORT

COG – COGNIZANCE SYMBOL – A two-position numeric-alpha code prefixed to NSNs, identifies the type of funds used to purchase the item and the activity that is the inventory manager.

COMFAIR – COMMANDER FLEET AIR

COMFAIRFWD – COMMANDER FLEET AIR FORWARD

COMFISC – COMMANDER, FLEET AND INDUSTRIAL SUPPLY CENTER

COMFRC – COMMANDER, FLEET READINESS CENTER

COMFRC FST-COMMANDER, FLEET READINESS CENTER, FLEET SUPPORT TEAM. See FST

COMMARFORCOM – COMMANDER, MARINE FORCES COMMAND

COMMARFORPAC – COMMANDER, MARINE FORCES PACIFIC

COMMERCIAL – Aircraft, support systems, and processes unique to commercial aviation.

COMMERCIAL DERIVATIVE AIRCRAFT – Aircraft procured by the Navy for which there is a certified commercial counterpart.

COMMON ITEM – An item of standard design, application, and specification, normally procurable from several manufacturers or suppliers, or available from only one manufacturer, but with wide usage or of such design that the multiple application is apparent.

COMMON SERVICING – That function performed by one military service in support of another military service for which reimbursement is not required from the service receiving the support.

COMNAVAIRFOR (CNAF) – COMMANDER, NAVAL AIR FORCES

COMNAVAIRFORES (CNAFR) – COMMANDER, NAVAL AIR FORCE RESERVE

COMNAVAIRLANT (CNAL) – COMMANDER, NAVAL AIR FORCE ATLANTIC

COMNAVAIRPAC (CNAP) – COMMANDER, NAVAL AIR FORCE PACIFIC

COMNAVAIRSYSCOM (NAVAIR) – COMMANDER, NAVAL AIR SYSTEMS COMMAND

COMNAVFACENGCOM (NAVFAC) – COMMANDER, NAVAL FACILITIES ENGINEERING COMMAND

COMNAVSEASYSCOM(NAVSEA) – COMMANDER, NAVAL SEA SYSTEMS COMMAND

COMNAVSUPSYSCOM(NAVSUP) – COMMANDER, NAVAL SUPPLY SYSTEMS COMMAND

COMNAVWARSYSCOM – COMMANDER, NAVAL WARFARE SYSTEMS COMMAND

COMPLEMENT – The quantity and quality of aircraft prescribed by CNO and implemented by COMNAVAIRFOR as the optimum inventory of an organizational unit whose mission requires aircraft.

COMPONENT REPAIR – See MAINTENANCE LEVELS.

COMPOSITE MAINTENANCE ORGANIZATION – Unit of reporting custodians with one or more T/M/S aircraft for purposes of deploying as a single unit, operating together during an exercise, or performing missions/tasks.

CONDITION CODES – See MCC.

CONDITIONAL INSPECTION – An inspection required due to an over limit condition, specific usage, or operational event. Examples of over limit conditions: Hard landing, overstress, overtemp, lightning strike, overweight take-off or landing, and field arrestment. Example of specific usage: Post-fire gun inspection. Examples of operational events: Pre carrier and post carrier inspections, and one-time inspections directed by higher authority (not directed by a TD). See INSPECTIONS, AIRCRAFT/ENGINE.

CONFIGURATION – The functional and physical characteristics of material as described in technical documents and achieved in a product.

CONFIGURATION CONTROL – The systematic evaluation, coordination, approval or disapproval of proposed changes and the implementation of all approved changes to the configuration of a configuration item after formal establishment of its configuration identification.

CONFIGURATION IDENTIFICATION – The current approved or conditionally approved technical documentation for a configuration item as set forth in specifications, drawings and associated lists, and documents referenced therein.

CONFIGURATION ITEM LIST – A list of those status items designated for configuration control and configuration accounting.

CONFIGURATION ITEM(S) – Items designated by DOD components for configuration management. They may differ widely in complexity, size, and kind. Examples are an aircraft, ship, mobile test unit, navigation system, embedded computer, computer program, facility, electronic system, test meter, or a round of ammunition.

CONFIGURATION STATUS ACCOUNTING – The recording and reporting of information that is needed to manage configuration effectively, including the approved configuration identification, the status of proposed changes to configuration, and the implementation status of approved changes.

CONFIGURED ITEMS – Those selected items that require continuation of configuration status accounting during the operational phase. An item that affects mission capability and can be interchanged with a similar item that will result in a different mission capability.

CONFIRMED CANCELLATION – The official notification by Supply that action will not be taken on a requisition and the requisition is cancelled.

CONOPS – CONCEPT OF OPERATIONS

CONSUMABLE ITEM – Any item or substance which, upon installation, loses its identity and is normally consumed in use or cannot be economically repaired.

CONSUMABLE MATERIALS – Expendable supplies and material.

CONTAMINANTS – Particles of foreign material, which may or may not be visible to the unaided eye.

CONTRACT FIELD SERVICES – Those engineering and technical services provided to DOD by commercial or industrial companies on-site at defense locations by trained and qualified engineers and technicians.

CONTRACT MAINTENANCE – The maintenance of material by commercial organizations without distinction as to levels of maintenance accomplished and maintenance accomplished by private industry in government-owned, contractor-operated plants; contractor owned, contractor operated plants; or by contract field teams.

CONTRACTING OFFICER – A person or persons with the authority to enter into, purchase, administer, or terminate contracts and make related determinations and findings.

CONTRACTOR – Any individual, corporation, or other non-Department of Defense entity that is contracted to operate naval aircraft, or to perform or provide support to the maintenance, modification, or production of Navy aircraft, to include engines, equipment, or components.

CONTRACTOR PLANT SERVICES – Those services provided to personnel of the military departments in the plants and facilities of the manufacturer of military equipment or components by trained and qualified engineers and technicians employed by the manufacturer.

CONTRACTOR SUPPORT PROGRAMS – Maintenance programs associated with commercial derivative aircraft, where Navy personnel perform the O-level maintenance with limited I-level effort. The contractor issues ready for issue components and provides limited diagnostic assistance.

CONTROL STATION – The portion of a UAS that allows for operator command and control of an Unmanned Aircraft.

CONTROLLING CUSTODIAN – Activities designated with authority to control the assignment, employment, and logistic support of certain aircraft, engines, and equipment.

CONTROLLING CUSTODY – Administrative control of the assignment, logistic support, employment, and responsibility to account for and provide information about aircraft, engines, and equipment.

CONUS – CONTINENTAL UNITED STATES

CILOP – CONVERSION IN LIEU OF PROCUREMENT – Any conversion, service life extension, update, expansion/change of mission capability, improvement of combat capability, or combination of the foregoing. CILOP is performed on existing aircraft for the primary purpose of providing a modernized aircraft, as an alternative to procuring new aircraft to meet or maintain force levels.

COR – CONTRACTING OFFICER'S REPRESENTATIVE – A representative designated by the contracting officer who performs primarily technical functions such as providing technical direction, inspection, approval of shop drawings, testing, approval of samples, and other functions of a technical or administrative nature not involving a change in the scope, price, terms, or conditions of the contract or order.

CORRECTIVE ACTION – The resolution of a problem or deficiency.

CORRECTIVE MAINTENANCE – The actions performed to restore an item to a specified condition.

COSAL – CONSOLIDATED SHIPBOARD ALLOWANCE LIST – Both a technical and a supply document tailored to suit an individual ship or MAG material support requirements. Technical in that equipment nomenclature, operating characteristics, applicable technical manuals, plans, repair parts, and special tool requirements for the operation and repair of ship or MAG equipment are described and documented. As a Supply document, it lists, by equipment, the NSN for each item supported by the Naval Supply System. It is a coordinated listing of ship or MAG spares, repair parts, and consumable allowances. It also provides the basis for a ship or MAG inventory management and development of second and third echelon support requirements. The COSAL is prepared by NAVSUP WSS Mechanicsburg, PA, for ship or MAG installed and portable mechanical, electrical, electronics, and ordnance equipment. NAVSUP WSS Philadelphia, PA, produces COSALs for aircraft launch and recovery systems, optical landing equipment, flight deck lighting, jet blast deflectors, and expeditionary airfields.

COTS – COMMERCIAL-OFF-THE-SHELF

COUNTERFEIT MATERIAL – Material whose identity or characteristics have been deliberately misrepresented, falsified, or altered without legal right to do so.

CP – CHANGE PROPOSAL

CPAR – CALIBRATION PROBLEM ASSISTANCE REQUEST

CPARS – CONTRACTOR PERFORMANCE ASSESSMENT REPORTING SYSTEM

CPI – CONTINUOUS PROCESS IMPROVEMENT

CPIMS – CONTINUOUS PROCESS IMPROVEMENT MANAGEMENT SYSTEM

CPN – CAGE PART NUMBER

CPR – CARDIOPULMONARY RESUSCITATION

CPT – COPILOT TIME

CR – CORRECTION RECORD

CRIPL – CONSOLIDATED REMAIN-IN-PLACE LIST – A listing of all authorized remain in place items for a particular T/M/S aircraft. CRIPLs are published by NAVSUP WSS and approved by the ACCs and COMNAVAIRSYSCOM.

CRITICAL DEFECT – See DEFECT.

CRITICAL SUPPLIES AND MATERIALS – Those supplies vital to the support of operations which, for various causes, are in short supply or are expected to be in short supply.

CRITICAL TASK TRAINING – Artisan training on aeronautical components, equipment or maintenance procedures, judged by a supervisor or other responsible authority using ORM

principles, to be of sufficient risk as to warrant specific training in advance or concurrently with the actual performance of maintenance tasks.

CRO – Component Repair Optimization

CROSS-COUNTRY FLIGHT – A flight that either does not remain in the local flying area or remains in the local flying area and terminates at a facility without qualified maintenance support.

CROSSDECK – The transfer of authorized allowance equipment/material from one unit to another to improve available inventory on board.

CROSS SERVICING – That function performed by one military service in support of another military service for which reimbursement is required from the service receiving the support. See SERVICING.

CSD – CUSTOMER SUPPORT DIVISION

CSAMS – CALIBRATION STANDARDS ASSET MANAGEMENT SYSTEM

CSE – COMMON SUPPORT EQUIPMENT – Comprised of only those general purpose items supplying or measuring broad parameters of physical properties that are known to be established in the using service's inventory, for example, ground electrical, pneumatic, and hydraulic power units; towing, hoisting, and fueling devices; signal generation devices; and voltage, amperage, and phase measuring devices. The application of SE items to other end items, systems, or components does not in itself justify or classify the items as CSE. CSE is divided as AVIONICS SE (common and peculiar) and NONAVIONICS SE (common and peculiar).

CSEC – COMPUTERIZED SELF EVALUATION CHECKLIST

CSI – CRITICAL SAFETY ITEM

CSS – CONTRACTOR SUPPORT SERVICES

CST – CUSTOMER SERVICE TEAM

CTPL – CENTRAL TECHNICAL PUBLICATIONS LIBRARY – QA CTPL work center 04A.

CTR – CARCASS TRACKING RECORD

CSRIA – CALIBRATION STANDARDS READY ISSUE ACTIVITY

CUSTODY – Cognizance and limited responsibilities for aircraft equipage, equipment, material, and SE. Categories of custody are CONTROLLING CUSTODY, PHYSICAL CUSTODY, and REPORTING CUSTODY.

CUSTODY CODES – Custody codes are single position alpha characters, which provide supplemental accountability detail about an SE transaction and the effect of the transaction on supply and financial records. These codes identify a specific category of SE items placed in the primary custody of an IMA and issued to other activities on a subcustody basis.

CUSTOMER ACTIVITY – MEASURE participants who coordinate the servicing and calibration of TMDE/TAMS within a specific area, for example, AIMDs, MALS, and ships.

CUSTOMER SERVICE – D-level services, including emergency check, test, minor repair, manufacture of parts, heat treat, plating, and machine shop service, to relieve NMCS, PMCS, and work stoppage conditions.

CVN – Multi-Purpose Aircraft Carrier, Nuclear

CVW – Carrier Air Wing

D

DAAS – DEFENSE AUTOMATIC ADDRESSING SYSTEM

DAILY INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE.

DAR – DAILY AUDIT REPORT

DATA ANALYSIS – For the purpose of the NAMP, Data analysis is the process of collecting, analyzing and presenting data on past performance in order to provide information to support decision-making regarding actions needed to improved future performance. See METRIC.

DATA ELEMENT – A single unit of data related to an item record.

DATA STORAGE SET – Monitors the operational status of aircraft weapon systems.

DATA STORAGE UNIT – A storage medium used by the data storage set for significant maintenance data measured in-flight and after landing.

DBA – DATA BASE ADMINISTRATOR

DCB – DYNAMIC COMPONENT BULLETIN

DCF – DOCUMENT CONTROL FORM

DCMA – DEFENSE CONTRACT MANAGEMENT AGENCY

DCMD – DEFENSE CONTRACT MANAGEMENT AREA/DISTRICT

DCNO – DEPUTY CHIEF OF NAVAL OPERATIONS

DCNO (M&P) – DEPUTY CHIEF OF NAVAL OPERATIONS (MANPOWER AND PERSONNEL)

DCPS – DEFENSE CIVILIAN PAYROLL SYSTEM

DCU – DOCUMENT CONTROL UNIT

DDSN – DOCUMENT DATE AND SERIAL NUMBER

DECKPLATE – DECISION KNOWLEDGE PROGRAMMING FOR LOGISTICS ANALYSIS AND TECHNICAL EVALUATION.

DEFECT – Any nonconformance of the unit or product with specified requirements. Defects are normally grouped into one or more of the following classes but may be grouped into other classes or subclasses within these classes:

DEFECT, CRITICAL – A defect that constitutes a hazardous or unsafe condition, or as determined by experience and judgment could conceivably become so, thus making the aircraft/equipment unsafe for flight/use or endangering personnel.

DEFECT, MAJOR – A defect, other than critical, that could result in failure or materially reduce the usability of the unit or part for its intended purpose.

DEFECT, MINOR – A defect that does not materially reduce the usability of the unit or part for its intended purpose or is a departure from standards but which has no significant bearing on the effective use or operation of the unit or part.

DEFERRAL – A postponement of an action or event, for example, CO one-time deferral of a TD.

DELIVERY – The logistic process involved in readying an aircraft for transfer from the custody of a COMNAVAIRSYSCOM Fleet Support Activity to the custody of an operating command.

DESIGNATION – Written appointment to a position or duty. NAMP examples include designation as a QAR (a position) or to certify aircraft Safe for Flight (a duty).

DESIGN ACTIVITY – The activity responsible for design, preparation, and maintenance of engineering documents for a given item of military property.

DETACHMENT – A unit physically removed from the location of the parent organization.

DEVIATION – To depart from established policy or procedures, for example, deviation from the NAMP.

DFARS – DEPARTMENT OF DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT

DFAS – DEFENSE FINANCE AND ACCOUNTING SERVICE – The activity designated to perform operating budget accounting for the Commanders in Chief, U. S. Atlantic and Pacific Fleets and respective TYCOMs, including associated accounting and reporting for ships, staffs, designated shore activities, aviation squadrons, mobile construction battalions, and miscellaneous units and commands, as assigned.

DIFM – DUE IN FROM MAINTENANCE

DIRECT LABOR – Used to denote work that can be identified to a single, specific job order. Direct labor generally includes the hands-on maintenance, repair, overhaul, test, and related direct production effort that follows the established sequence and content of work necessary to accomplish the billable job. Direct labor does not include the support work identified as either indirect or general and administrative in nature. See INDIRECT LABOR.

DIRECT MAINTENANCE – The effort expended by maintenance personnel in the actual performance of maintenance on aircraft, aeronautical equipment, or SE. Direct maintenance includes inspection, disassembly, adjustment, fault correction, replacement and reassembly of parts, and calibration/tests required in restoring the item to a serviceable status. Direct maintenance also includes preparatory and administrative actions by maintenance personnel assigned to the WO/MAF, such as technical research, inventorying/putting away tools and equipment, ordering parts, documenting actions taken on a WO/MAF, and communicating job status to Maintenance/Production Control.

DIRECTED REMOVAL – A requirement to remove an item after a fixed period of operation or time.

DIRECTIVE – A communication in which a policy is established, a specific action is ordered, or a plan is put in effect.

DISC – DISCOVERED – The DISC code field on WOs and MAFs. Indicates when a maintenance requirement was discovered. See Appendix E for DISC codes.

DIVERSION – The removal of an item of government furnished material or contractor furnished material positioned at a contractor's plant incidental to a production contract.

DLA – DEFENSE LOGISTICS AGENCY

DLADS – DEFENSE LOGISTICS AGENCY DISPOSITION SERVICES

D-LEVEL – DEPOT LEVEL MAINTENANCE D-level activities provide engineering assistance and perform maintenance beyond both O-level and I-level maintenance capabilities. The DoN D-level activities are FRC Southwest, FRC Southeast, FRC East, FRC Aviation Support Equipment, and FRC Western Pacific.

DLF – DATE LAST FLOWN

DLR – DEPOT LEVEL REPAIRABLE

DMDS – DEPOT MAINTENANCE DATA SYSTEM

DMI – DEPOT MAINTENANCE INTERSERVICE

DMISA – DEPOT MAINTENANCE INTERSERVICE SUPPORT AGREEMENT

DMMH – DIRECT MAINTENANCE MAN HOURS

DNEC – DISTRIBUTION NAVY ENLISTED CLASSIFICATION (CODES)

DOCNUM – DOCUMENT NUMBER

DOCUMENT – Specifications, lists, drawings, sketches, standards, pamphlets, reports, or other information relating to design, procurement, manufacture, test, or inspection of items or services under a contract. Also, in the MDS, any forms used to collect data at its source for conversion to machine records.

DOD – DEPARTMENT OF DEFENSE

DOD-HDBK – DEPARTMENT OF DEFENSE HANDBOOK

DODIC – DEPARTMENT OF DEFENSE IDENTIFICATION CODE

DOD ID NUMBER – DEPARTMENT OF DEFENSE IDENTIFICATION NUMBER – The DOD ID number is a unique 10-digit number associated with personnel and their DOD common access card (CAC)

DON – DEPARTMENT OF THE NAVY

DOSS – DIRECTOR OF SAFETY AND STANDARDIZATION

DOWNTIME – That element of time during which the item is not in condition to perform its intended function.

DPD – DATA PROCESSING DIVISION

DR – DEFICIENCY REPORT – Deficiency Reports include: ADDR, AIDR, BTR, CODR, EER, EI, EMR, HMR, PQDR, SDR, TDR, and TPDR. See NAMDRP.

DR – DELETION RECORD

DRP – DESIGNATED REWORK POINT – A D-level rework facility assigned the technical and rework responsibility for designated weapon system(s) or equipment.

DRWEB – DEFICIENCY REPORTING SYSTEM

DSN – DEFENSE SWITCHED NETWORK

DSP – DESIGNATED SUPPORT POINT – A supply activity, such as a Naval Supply Center, assigned to provide supply support to a designated overhaul point.

DTEDEP – JULIAN DATE DEPART

DTG – DATE TIME GROUP

DTPL – DISPERSED TECHNICAL PUBLICATIONS LIBRARY – A technical publications library maintained in a different location than the CTPL and is subordinate to and under direct management control of the CTPL.

DTO – DIRECT TURN OVER

DWO – DISCREPANCY WORK ORDER

E

E&E – EXAMINATION AND EVALUATION

EA – ENTRY AUTHORITY

EAF – EXPEDITIONARY AIRFIELD – An EAF is a deployable shore-based aviation support system for aircraft launch and recovery.

EAH – EQUIPMENT ASSIGNED HOURS

ECM – ELECTRONIC COUNTERMEASURES

ECP – ENGINEERING CHANGE PROPOSAL – A term that includes both a proposed engineering change and the documentation by which the change is described and suggested.

ECU – ENVIRONMENT CONTROL UNIT

ED – ENGINEERING DISPOSITION - See FED.

EDDY CURRENT – A method that uses induced eddy currents in detecting flaws in metal parts, such as cracks, inclusions, voids, seams, and laps. This method can also be used for sorting according to alloy temper, conductivity, and other metallurgical factors by variations in electrical characteristics/energy losses. See NDI.

EER – EXPLOSIVE EVENT REPORT

EFFECTIVE – The ability to consistently meet mission requirements.

EFFICIENT – The ability to be effective while minimizing the use of resources.

EFH – ENGINE FLIGHT HOURS

EGRESS SYSTEM – An ejection seat, interconnect and sequence system, installed parachute, seat survival kit, and the explosive devices and rocket motors used in their propulsion. It also includes hatches or canopies that are shattered or jettisoned from the aircraft by use of explosive devices.

EHR – EQUIPMENT HISTORY RECORD

EI – ENGINEERING INVESTIGATION

EIC – EQUIPMENT IDENTIFICATION CODE

EIM – ENGINE INFORMATION MODULE

EIQR – ELECTRONIC INDIVIDUAL QUALIFICATION RECORD

EIS – EQUIPMENT IN SERVICE – The number of hours per month an aircraft is In Mission Capability Reporting Status (IN-MCRS). EIS hours = (NUMBER AIRCRAFT) X (DAYS IN MCRS) X (24 HOURS). See MCRS.

ELCF – EQUIVALENT LOW CYCLE FATIGUE

ELECTRONIC MATERIAL – Those electronic devices employed in the field of detection and tracking (underwater, sea, land, air, and space), recognition and identification, communication, aids to navigation, weapons control and evaluation, flight control, and electronic countermeasures. Electronic devices are understood to include peculiar nonelectronic units required to complete

individual operational functions, such as power supplies, hoist mechanisms, antennas, and vehicles but to exclude associated nonelectronic equipment identified by other type designating systems.

ELMS – ENHANCED LIBRARY MANAGEMENT SYSTEM

EMI – ELECTROMAGNETIC INTERFERENCE - Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the performance of electronics/electrical equipment.

EMIR – ENLISTED MANNING INQUIRY REPORT

EMR – EXPLOSIVE MISHAP REPORT

EMT – ELAPSED MAINTENANCE TIME – For the purposes of Maintenance Data Reporting, EMT is defined as the actual clock time, in hours and tenths, that maintenance was being performed on a job. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. EMT is not the same as total man-hours required to complete a job, for example, if five personnel complete a job in 2.0 hours of continuous work, the EMT=2.0 hours and the man-hours=10.0. See DIRECT MAINTENANCE.

END ARTICLE – An end weapon, aircraft system, subsystem, component, or equipment being procured on a contract, including contractor furnished materials, for example, a transmission, an engine, a computer, or a radio. Certain end articles are treated as end items for documentation purposes under aviation 3M.

END ITEM – A final combination of end articles, component parts and materials ready for its intended use, for example, aircraft, NC-2A, or avionics test bench.

ENGINE ACCESSORIES – Those items of equipment required for engine operation that are not an integral part of the engine. Such equipment is included in the engine IPB.

ENGINE INSPECTION – See INSPECTION.

EN ROUTE – The physical movement an item transiting from one location to another.

EOC CODE – EQUIPMENT OPERATIONAL CAPABILITY CODE - EOC codes relate a particular system/subsystem within a T/M/S of equipment to a specific mission. An EOC code is a three-character alphanumeric code that identifies the degree of degradation to mission capability and the system responsible for the degradation.

EOQ – END OF QUARTER

EOR – EQUIPMENT OPERATING RECORD – A record of significant operational and usage data of certain types of equipment.

EOS – EQUIPMENT OUT OF SERVICE – Those aircraft that are "OUT" of material condition reporting status (OUT MCRS) and reported in an AIRRS inventory status code other than A.

EOT – EQUIPMENT OPERATING TIME

EPA – ENVIRONMENTAL PROTECTION AGENCY

EPA – ESD PROTECTED AREA

EPM – ENHANCED PHASE MAINTENANCE – The integration of depot maintenance inspections with existing O-level phase maintenance. Each aircraft is inspected semi-annually based on task RCM intervals.

EPSM – ENGINE/PROPULSION SYSTEMS MODULE

EQUIP – EQUIPMENT

EQUIPMENT ALLOWANCE LISTS – A generic term indicating the publications that prescribe authorized equipment and weapons.

EQUIPMENT APPLICABILITY INDEX – A part of the Naval Aeronautical Publications Index that lists aircraft and equipment, arranged in alphabetical order, with applicable manuals shown by their publication number.

EQUIPMENT, DIVISION OF – The following is a sequential listing of equipment division from smallest to largest:

PART – Pieces joined together that are not normally subject to disassembly without destruction of the designed use.

SUBASSEMBLY – Two or more parts that form a portion of an assembly or a unit, replaceable as a whole, but having a part or parts that are individually replaceable.

COMPONENT/ASSEMBLY – A number of parts or subassemblies, or any combination, joined together to perform a specific function. This term applies to items that cannot be further disassembled for test or repair without requiring shop facilities.

NOTE: The distinction between an assembly and a subassembly is not always exact. An assembly in one instance may be a subassembly in another where it forms a portion of an assembly.

UNIT – An assembly or any combination of parts, subassemblies, and assemblies mounted together, normally capable of independent operation in a variety of situations.

GROUP – A collection of units, assemblies, or subassemblies that is a subdivision of a set or system, but is not capable of performing a complete operational function.

SET – A unit or units and the necessary assemblies, subassemblies, and parts connected or associated together to perform an operational function.

SUBSYSTEM – A major portion of a system that performs a specific function in the overall operational function of the system.

SYSTEM – A complete system within the weapon such as landing gear system, flight control system, or radar navigation system.

ANCILLARY DEFINITIONS

ACCESSORY – A part, subassembly, or assembly designed for use in conjunction with or to supplement another assembly, unit, or set that contributes to the effectiveness without extending or varying the basic function of the assembly or set. An accessory may be used for testing, adjusting, or calibrating.

ATTACHMENT – A part, subassembly, or assembly designed for use in conjunction with another assembly, unit, or set that contributes to the effectiveness by varying the basic function of the assembly or set.

ERAC – ELECTRONIC RAPID ACTION CHANGE

ERT – EMERGENCY RECLAMATION TEAM

ESA – ENGINEERING SUPPORT ACTIVITY

ESC – EXECUTIVE STEERING COMMITTEE

ESD – ELECTROSTATIC DISCHARGE - The transfer of electrostatic charge between bodies at different electrostatic potentials caused by direct contact or induced by an electrostatic field and is potentially damaging to electrical and electronic equipment.

ESDS – ELECTROSTATIC DISCHARGE SENSITIVE

ESOH – ENVIRONMENTAL SAFETY AND OCCUPATIONAL HEALTH

ESSI – ENHANCED SPECIAL STRUCTURAL INSPECTION

ETF – ENGINE TEST FACILITY - An ETF consists of a Test Facility (most commonly a Gas Turbine Engine Test System (GTETS) or Global Test Facility (GTF) and Engine Test Instrumentation (ETI).

ETR – ENGINE TRANSACTION REPORT

ETS – ENGINEERING AND TECHNICAL SERVICES – ETS personnel provide fault isolation and troubleshooting support; technical information research and advice; assistance in resolving complex technical problems; and OJT in conjunction with the installation, operation, maintenance, modification, and repair of aircraft weapons systems.

EWIS – ELECTRICAL WIRING INTERCONNECT SYSTEM – Any wire, electrical cabling, or fiber optic cabling, or a combination of these items, including terminations, installed in any area of the aircraft for the purpose of transmitting electrical or optical energy, signals or data between two or more electrical/optical end points.

EXAMINATION – An element of inspection consisting of investigation, without the use of special laboratory appliances or procedures, of supplies and services to determine conformance to those

specified requirements that can be determined by such investigations. Examination is generally nondestructive and includes, but is not limited to, visual, simple physical manipulation, gauging, and measurement.

EXCD – EXCEPTION CODE

EXCEEDANCE – Surpassing or exceeding a life limit or maximum operating parameter.

EXCESS IN-USE ACCOUNTABLE SE – On hand quantities of SE not authorized by the IMRL.

EXCESS PROPERTY – Property that exceeds the quantity required or authorized for retention.

EXPEDITIONARY UNIT – A reporting custodian that typically deploys to air facilities within combat zones. The unit deploys with its CO, assigned aircraft, and expeditionary logistics unit, bringing a self-sustained aviation combat element in direct support of ground forces.

EXPERIMENTAL AIRCRAFT – Aircraft acquired by the Navy solely for use in research and development.

EXPLOSIVE ORDNANCE – Air launched weapon system(s) and components, except torpedoes and mines. Torpedoes and mines, supported by the COMNAVSEASYSCOM, are in some cases adapted to aircraft delivery.

EXPLOSIVE SYSTEM – Includes its components and the operationally adjacent mechanisms. Examples of explosive systems are: small arms, chaff dispensers, projectiles, bombs, missiles, rockets, targets using explosive materials, mines, torpedoes, grenades, charges, rounds, CADs, PADs, explosively operated stud drivers, gun mounts, missile grenades, and sonobuoys.

EXREP – EXPEDITIOUS REPAIR – The processing for repair of NIS or NC components (repairable or consumable) in support of, or related to, an NMCS or PMCS situation

F

F&T – FUNCTION AND TEAM

FAA – FEDERAL AVIATION ADMINISTRATION (EVALUATIONS) – The engineering, test planning, ground testing, flight testing, test reports, flight manual supplements, and procedures for continued airworthiness required by the FAA for granting or amending a Type Certificate or granting a Supplemental Type Certificate.

FACILITY – Any building, property, space, shop, hangar, work center, or parking area, both afloat and ashore, used for the upkeep, maintenance, and repair of aircraft, aircraft weapon systems, or aircraft components.

FACILITY MAINTENANCE – Routine, recurring work required to keep a facility, plant, building, structure, ground facility, utility system, or any real property in such a condition that it may be continuously used at its original or designed capacity, efficiency, and intended purpose.

FAD – FORCE ACTIVITY DESIGNATOR – The designation that determines material support priority based on mission.

FAILSAFE – FLEET AIR INTRODUCTION LIAISON SURVIVAL AIRCREW FLIGHT EQUIPMENT – The program for fleet introduction of new or modified ALSS.

FAILURE – The event, or inoperable state, in which any item or part of an item does not, or would not, perform as previously specified.

FAILURE CAUSE – The physical or chemical processes, design effects, quality defects, part misapplication or other processes which are the basic reason for failure or which initiate the physical processes by which deterioration proceeds to failure.

FAILURE MODE – The specific manner of failure; the engineering mechanism of failure; the circumstance or sequence of events which leads to a particular functional failure.

FAILURE RATE – The number of failures of an item per unit measure of life (cycles, time, miles, events, etc. (as applicable) for the item).

FAL – FOCUS AREA LIST – A T/M/S listing of corrosion prone areas derived from PMI-1/IMC/P event discrepancies, which consume 80 percent of corrosion related repairs.

FAME – F/A-18 AUTOMATED MAINTENANCE ENVIRONMENT

FAR – FEDERAL ACQUISITION REGULATION OR FEDERAL AVIATION REGULATION

FASOTRAGRU – See CENNAVAVNTECHTRA and CENNAVAVNTECHTRAU.

FC – FLIGHT CRITICAL – Any identified discrepancy that is directly related to Safety of Flight. See SAFE FOR FLIGHT.

FCA – FIELD CALIBRATION ACTIVITY – An I-level (W/C 670) calibration activity that provides calibration/repair services to MEASURE participants.

FCF – FUNCTIONAL CHECK FLIGHT – Flights performed to determine if the airframe, power plant, accessories, and items of equipage are functioning per predetermined requirements while subject to the intended operating environment. FCFs are conducted when it is not feasible or possible to determine safe/required functioning by means of ground checks.

FE – FLEET EQUIPMENT

FEA – FRONT END ANALYSIS

FED – FLEET ENGINEERING DISPOSITION - The process used to authorize repair procedures to be performed by O, I, and D-level activities for aircraft and components damaged beyond repairable limits. FED permits deviation from the standard procedures specified in technical manuals on a case-by-case basis as directed by the cognizant FST engineering authority.

FEDLOG – FEDERAL LOGISTICS DATA – is an interactive query system using a variety of types of search data to significantly reduce the time required to access all information necessary to identify and order supplies.

FERRY – The process of flying an aircraft from one physical location to another. Within the aviation community, this term has two meanings: any flight whose primary purpose is relocation of the airframe; portable ferry flights conducted per ACC/TYCOM directives.

FH – FLIGHT HOURS

FID – FAULT ISOLATION DETECTION

FID – FIXED INDUCTION DATE – Fixed IMC/P due dates for maintenance intervals as determined by RCM analysis. For IMC/P aircraft, the fixed date is determined for the start of a PMI and is numbered sequentially within a tour. FID1 marks the start of the tour and is equal to the PED of the previous tour.

FIELD MAINTENANCE – Maintenance performed at shore and sea operational sites to rapidly return aircraft and equipment to operational status. Field maintenance encompasses organizational level maintenance of aircraft and equipment, intermediate-level (normally off-aircraft/off-equipment) repair of components and end items, and less complex D-level maintenance that can be performed at operational sites instead of in industrial depot facilities.

FIELD SERVICE REPRESENTATIVE – An employee of a manufacturer of military equipment or components who provides liaison or advisory service between the company and the Navy for their company's equipment or components. See CETS.

FIRST-DEGREE REPAIR – The repair of a damaged or non-operating gas turbine engine, its accessories, or components to an acceptable operating condition when the repair includes compressor rotor replacement or disassembly to the extent the compressor rotor could be removed. See 10.39.

FISC – FLEET INDUSTRIAL SUPPLY CENTER

FIX PHASE – The portion of a scheduled inspection that involves the correction of discrepancies found during the look phase.

FLE – FATIGUE LIFE EXPENDITURE

FLEET CONTROLLED MATERIAL – Material under the requisitioning, rationing, and issue control of COMNAVAIRFOR, or its designated controlling agencies. A list of fleet controlled material is published by the Aviation Material Offices, Norfolk, VA and San Diego, CA.

FLEET INTRODUCTION PROGRAM – An accelerated flight program that lasts approximately 100 flight hours per aircraft, normally conducted at the NAVAIRWARCENACDIV Patuxent River for the purpose of introducing a new model to fleet personnel for indoctrination in the operation and maintenance of the aircraft. A secondary purpose is to provide a further check on the readiness of the aircraft for fleet delivery.

FLEMATSUPPO – FLEET MATERIAL SUPPORT OFFICE

FLIGHT – A flight begins when the aircraft first moves forward on its takeoff run or takes off vertically from rest at any point of support and ends after airborne flight when the aircraft is on the surface and either; (a) the engines are stopped, (b) the aircraft has been on the surface for 5 minutes, or (c) a change is made in the pilot in command. A series of landings is considered part of one flight and the provisions of (b) above do not apply. CNAF M-3710.7 contains a more precise definition.

FLIS – FEDERAL LOGISTICS INFORMATION SYSTEM

FLR – FIELD LEVEL REPAIRABLE – A low cost repairable, capable of being restored to serviceable condition at the IMA, as indicated by the SM&R code. Final disposition of an FLR usually rests with the IMA.

FLTMPS – FLEET TRAINING MANAGEMENT AND PLANNING SYSTEM

FLYABLE – An aircraft in such material condition as to be safe and capable of normal flight operations without regard to: capability to perform a specific mission, weather, personnel availability, base condition, fuel condition, armament, or flight schedule.

FMC – FULL MISSION CAPABLE – Material condition of an aircraft that can perform all of its missions. FMC Hours = MC Hours - PMC Hours.

FMF – FLEET MARINE FORCE – A force of arms comprising land, air, and surface elements of the U. S. Marine Corps. The FMF is an integral part of a U. S. Fleet and has the status of an operational TYCOM.

FMS – FOREIGN MILITARY SALES

FOD – FOREIGN OBJECT DAMAGE – Damage to aeronautical equipment, for example, aircraft, engines, missiles, drones, and SE caused by an object(s) external to the equipment. (Gas turbine engine FOD is defined as damage that exceeds serviceable limits caused by ingestion of objects not organic to the damaged engine.)

FOM – FACILITATE OTHER MAINTENANCE

FOP – FLIGHT OPERATIONS PROCEDURES

FORMAL TRAINING – Formal training with an approved course curriculum which may or may not produce an NEC or MOS. Formal training is most often taught by CNATT, Depot FRC, or NETC personnel.

FORMATS – MEASURE Program reports that list specific information in varying formats. Formats are either generated locally or published and distributed by MOCCs Norfolk and San Diego to customer services and calibration facilities. In addition to standardized formats, standard and ad hoc queries are available via on-line access to the cognizant MOCC. OP43P6B contains all MEASURE reports. COMNAVAIRSYSCOM typical formats:

INVENTORY FORMAT 310 – The customer activity maintains the inventory and is responsible for the accuracy of the information. Provides important information, such as P/N, S/N, subcustodian, calibration interval, scheduled laboratory code, and next due date.

INVENTORY FORMAT 350 – Normally distributed by customer activities and maintained by subcustodians. Format 350 lists only items from the parent Format 310 that is checked out to and under physical control of the subcustodian.

LABORATORY RECALL FORMAT 801/803 – A report that lists all items requiring calibration during a specified time frame. Format 801 is sorted by customer activity and next due date and the Format 803 is sorted by next due date. The report lists items requiring servicing in-lab and on-site, by due date, for the current month, the following 3 months, and items overdue for calibration.

RECALL FORMAT 802/805 – A report that lists all items requiring calibration during a specified time frame. Format 802 is sorted by subcustodian and next due date and the Format 805 is sorted by next due date. Customer activities distribute Format 802 reports to appropriate subcustodians. The report lists items requiring servicing in-lab and on-site, by due date, for the current month, the following 3 months, and items overdue for calibration.

FOUNDATION TIER – A publisher and subscriber server located at O-level or I-level activities.

FRC – FLEET READINESS CENTER

FRC AREA COMMAND – An aviation activity authorized to provide/perform integrated off-flight line repair, in-service I-level and D-level scheduled inspections/modifications, check, test, repair/manufacture of aeronautical components and SE for supported aircraft.

FRC SITE – An aviation activity assigned to an FRC area command authorized to provide/perform integrated off-flight line repair, in-service I-level and D-level scheduled inspections/modifications, check, test, repair/manufacture of aeronautical components and SE for supported aircraft.

FRCE – FLEET READINESS CENTER EAST

FRCSE – FLEET READINESS CENTER SOUTHEAST

FRCSW – FLEET READINESS CENTER SOUTHWEST

FRCWP – FLEET READINESS CENTER WESTERN PACIFIC

FRD – FACILITIES REQUIREMENT DOCUMENT

FREST – FLEET REPLACEMENT ENLISTED SKILLS TRAINING - See CENNAVAVNTECHTRAU.

FRS – FLEET REPLACEMENT SQUADRON

FRTP – FLEET READINESS TRAINING PLAN

FS – FLEET SUPPORT - Aircraft temporarily assigned to NAVAIRSYSCOM Fleet Support (NASC FS) physical custody for rework, storage, or future assignment to the operational aircraft inventory

FSC – FEDERAL SUPPLY CLASSIFICATION

FSCM – FEDERAL SUPPLY CODE FOR MANUFACTURERS (SEE CAGE)

FSP – FIXED SERVICE PERIOD – Fixed IMC/P tour is a cycle, which combines all PMIs and POIs completing all, scheduled D-level requirements.

FST – FLEET SUPPORT TEAM – The primary elements of the Program Manager-Air (PMA) Integrated Program Team (IPT) organizations chartered with ensuring effective fleet support is identified, implemented, analyzed/assessed, and sustained. The FST provides responsive support to fleet and FRC maintenance organizations when engineering and logistics technical support issues are encountered.

FTS – FIELD TEAM SUPPORT

FUNCTIONAL TEST – The testing of installed aircraft/engines, accessories, and equipage to determine proper functioning, particularly with respect to the applicable system.

FUND CODE – The project tracking funding codes. A two-digit code identifying the operating budget and the appropriate expense element. Fund codes are used to charge the appropriate TYCOMs funds and to identify the nature of the expense.

G

G&C – GUIDANCE AND CONTROL

GAS TURBINE ENGINES – All turbine engines, whether used to power flight (including target drones, missiles, and missile targets) for auxiliary power or for starting purposes. Airborne or ground units are included in the meaning of this term.

GBL – GOVERNMENT BILL OF LADING

GENADMIN – GENERAL ADMINISTRATION

GENERAL PUBLIC – Visitors to an aviation activity, for example, family, friends, or other non-military, civilian, or contractor personnel.

GFE – GOVERNMENT FURNISHED EQUIPMENT – Equipment that has been selected and is to be furnished by the government to a contractor or government activity for installation in, use with, or in support of the aeronautical system during production, conversion, or modification.

GFE – GOVERNMENT FURNISHED EQUIPMENT (MANAGER) – The designated individual or office assigned by the Executive Service Program Manager responsible for the GFE Program. The GFE Manager provides a central point of contact for all GFE as related to the Aeronautical System Program.

GFI – GOVERNMENT FURNISHED INFORMATION

GFP – GOVERNMENT FURNISHED PROPERTY

GFRC – GROUND AND FLIGHT RISK CLAUSE – Mandates incorporation of the NAVAIRINST 3710.1 in all contracts involving DOD aircraft for which the Government assumes some kind of risk of aircraft loss or damage.

GFR – GOVERNMENT FLIGHT REPRESENTATIVE

GGFR – GROUND GOVERNMENT FLIGHT REPRESENTATIVE

GGR – GOVERNMENT GROUND REPRESENTATIVE

GMT – GENERAL MILITARY TRAINING

GOCO – GOVERNMENT OWNED CONTRACTOR OPERATED

GOP – GROUND OPERATIONS PROCEDURES

GOTS – GOVERNMENT-OFF-THE-SHELF

GOVERNMENT FURNISHED MATERIAL – Any material the government owns and is furnished to a contractor in the performance of a contract. See GFE.

GPO - GOVERNMENT PROJECT OFFICER – Monitors contractor support service contact, including delivery orders under indefinite contracts and basic ordering agreements (BOAs).

GSA - GENERAL SERVICES ADMINISTRATION – An integrated manager responsible for supporting all federal agencies for specific classes of material or specific items within classes assigned to other integrated managers.

GTETS – GAS TURBINE ENGINE TEST SYSTEM

GTF – GLOBAL TEST FACILITIES

H

HAZCOM – HAZARD COMMUNICATION

HAZMAT – HAZARDOUS MATERIAL

HAZMINCEN – HAZARDOUS WASTE MINIMIZATION CENTER

HAZREP – HAZARD REPORT

HAZWASTE – HAZARDOUS WASTE

HAZWOPER – HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE STANDARD

HCN – HARD COPY NOTICE

HELICOPTER DYNAMIC COMPONENT – The part or series of parts that transmits power from the aircraft power plant to the rotary wing and rotary rudder (main, intermediate, and tail gear boxes; main and tail rotors; clutches and related drive shafting).

HM – HELICOPTER MINE COUNTERMEASURES

HMC&M – HAZARDOUS MATERIAL CONTROL AND MANAGEMENT

HMIRS – HAZARDOUS MATERIAL INFORMATION RESOURCE SYSTEM

HMMS – HAZARDOUS MATERIAL MANAGEMENT SYSTEM

HMR – HAZARDOUS MATERIAL REPORT

HMX – MARINE HELICOPTER SQUADRON

HOF – HEAD OF FAMILY

HOT REFUELING – An operational evolution where an aircraft is refueled while the engine(s) is (are) operating.

HOT SEATING – An operational evolution where the pilot/crew of an aircraft is changed while the engine(s) is (are) operating and the aircraft is to be immediately relaunched.

HQ – HEADQUARTERS

HRS – HOURS

HSU – HYDRAULIC SERVICING UNIT

HTS – HYDRAULIC TEST STAND

HUMS – HEALTH AND USAGE MONITORING SYSTEM

I

IA – IMPLEMENTING ARRANGEMENTS

IAFC – INTERIM AIRFRAME CHANGE

IAVC – INTERIM AVIONICS CHANGE

ICD – INITIAL CAPABILITIES DOCUMENT

ICN – INVESTIGATION CONTROL NUMBER

ICP – INVENTORY CONTROL POINT - An organizational unit or activity within a DOD supply system, assigned the primary responsibility for the material management of a group of items either for a particular service or for the DOD as a whole. Material inventory management includes cataloging directions, requirements computation, procurement direction, distribution management, disposal direction, and general rebuild direction.

ICRL – INDIVIDUAL COMPONENT REPAIR LIST

IDE – INTEGRATED DATA ENVIRONMENT

IDP – INDIVIDUAL DEVELOPMENT PLAN

IETM – INTERACTIVE ELECTRONIC TECHNICAL MANUAL - A technical manual prepared in digital form and designed for interactive display to the maintenance technicians or system operator end users by means of an electronic viewer, such as, the NAVAIR Standard IETM Viewer (NSIV) software application designed to be viewed on a Portable Electronic Maintenance Aid (PEMA) laptop.

IFF – IDENTIFICATION, FRIEND OR FOE

IH – INDUSTRIAL HYGIENIST

I-LEVEL MAINTENANCE – Maintenance or repair performed by designated I-level Maintenance Activities (IMA) in direct support of O-level activities. I-level maintenance normally consists of diagnostic testing performed with automated equipment, calibration, repair or replacement of damaged or unserviceable parts, components, or assemblies, limited manufacture of parts, and on aircraft/equipment technical assistance to O-level activities.

I-LEVEL CALIBRATION ACTIVITY – A Navy activity, other than a Navy Calibration Laboratory and Navy Standards Laboratory, authorized by the TYCOM and COMNAVAIRSYSCOM to perform calibration.

ILS - INTEGRATED LOGISTIC SUPPORT – A composite of all the support considerations necessary to ensure the effective support of a system for its life cycle.

ILS MANAGER – The individual responsible for (1) defining and executing an integrated support program for a weapon system or equipment acquisition; (2) interpreting the operational concept of weapon systems and equipment for the purpose of establishing ILS concepts, requirements, parameters, and constraints for inclusion in appropriate basic planning documents, requests for proposal, contracts, and ALSPs; and (3) accomplishing logistic support actions directly or assigning responsibilities for accomplishment to individual element managers within or external to the organization.

IMA – INTERMEDIATE MAINTENANCE ACTIVITY – An aviation activity (ship or station), including MALS, authorized to provide I-level maintenance support.

IMC/P – INTEGRATED MAINTENANCE CONCEPT/PROGRAM – IMC/P replaced ASPA/SDLM and MCAPP for specific T/M/S aircraft. IMC/P is scheduled D-level maintenance based on a FID, and may segregate the OSP into smaller periods of POI and PMI.

IMD-HUMS – INTEGRATED MECHANICAL DIAGNOSTICS – HEALTH AND USAGE MANAGEMENT SYSTEM

IMI – INTERACTIVE MULTIMEDIA INSTRUCTION – IMI applies to predominantly interactive, electronically delivered training and training support products. IMI products include all

instructional software, content, graphics and software management tools used to support instructional programs (MIL-HDBK-29612-3A).

IMRL – INDIVIDUAL MATERIAL READINESS LIST – A consolidated list shows items and quantities of certain SE required for material readiness of the aircraft ground activity to which the list applies. The lists are constructed by extracting those portions of SERMIS that pertain to the maintenance and material logistics responsibilities of the activity to which the list applies. See AMMRL.

INACTIVE AIRCRAFT – Non-program and reserve stock aircraft.

INACTIVE TIME – That time during which an item is in the inactive inventory.

INC – INCORPORATED – This status code is used to indicate TD has been completely incorporated.

INDIRECT LABOR – Used by Depot level to denote production overhead labor that does not meet the criteria for direct labor. See DIRECT LABOR.

INDUSTRIAL ACTIVITY – Industrial establishments equipped to perform aircraft MRO on a large scale and an extremely wide scope. Only Navy activities designated as a Depot FRC are included in this explanation.

INFORMAL TRAINING – Training not following any specific curriculum. Usually associated with OJT.

INITIAL OUTFITTING – The process of issuing, assembling, and delivering allowances of aeronautical material and equipment to vessels in any one of the following categories: (1) new construction, (2) conversion, or (3) activating from reserve fleets.

INITIAL TRAINING – Training performed to enable the training agency to acquire the capability for training. Normally, the initial cadre is composed of instructional personnel. The scope of initial training includes furnishing those training aids, for example, transparencies, charts, diagrams, and films, or devices evolved by the manufacturer in the production of new weapons systems, preparation of technical or instructional publications, and initial instructional training.

INITIATION OF PROCUREMENT ACTION – The time when the approved document requesting procurement and citing funds is forwarded to the procuring activity. See PROCUREMENT LEAD TIME.

IN-SHOP MAINTENANCE – Work that requires the use of shop facilities and cannot be normally performed outside the shop. (Bench test and component disassembly and repair are examples of in-shop maintenance work.)

INSPECT – To compare the characteristics of an item with established standards.

INSPECTION – The examination and testing of supplies and services, that include raw materials, components, and intermediate assemblies, to determine whether they conform to specified requirements.

INSPECTIONS, AIRCRAFT/ENGINE/SUPPORT EQUIPMENT -

ACCEPTANCE INSPECTION – An inspection performed at the time a reporting custodian accepts a newly assigned aircraft, engine, or SE from any source, including return from an off-site depot facility or commercial repair activity. See Chapter 5 for aircraft acceptance inspection requirements. See paragraph 10.17 for SE acceptance inspection requirements.

CONDITIONAL INSPECTION – An inspection required due to an over limit condition, specific usage, or operational event. Examples of over limit conditions: Hard landing, overstress, overtemp, lightning strike, overweight take-off or landing, and field arrestment. Example of specific usage: Post-fire gun inspection. Examples of operational events: Pre carrier and post carrier inspections, and one-time inspections directed by higher authority (not directed by a TD).

DAILY INSPECTION – An inspection conducted to inspect for defects to a greater depth than the turnaround inspection.

MAJOR ENGINE INSPECTION – A comprehensive I-level or D-level inspection to determine the material condition of the engine.

PHASE INSPECTION – A series of related inspection and maintenance requirements performed sequentially at specific intervals.

PREOPERATIONAL INSPECTION – A static or functional inspection, performed by the activity having physical custody, to verify that a unit of SE is properly serviced and ready for use. These inspections are performed prior to each use as specified on the MRCs.

SPECIAL INSPECTION – A scheduled inspection with a prescribed interval other than daily, phase, major engine, or Standard D-level rework. Special Inspection intervals are specified in technical publications with intervals based on elapsed calendar time, flight hours, operating hours, or number of cycles or events, for example, every 28 days; every 100 operating hours; every 10 arrestments; or every 5000 rounds fired.

TRANSFER INSPECTION – An inspection performed at the time a reporting custodian transfers an aircraft, engine, or SE to another activity, including delivery to an off-site depot facility. See Chapter 5 for aircraft transfer inspection requirements. See paragraph 10.17 for SE transfer inspection requirements.

TURNAROUND INSPECTION – An inspection conducted between flights to verify proper servicing, detect defects that may have occurred during the previous flight, and verify the aircraft is safe for the next flight.

ZONAL INSPECTION – A general inspection of a specific area for obvious defects, such as leaks, frayed cables, cracks, corrosion, physical damage, cleanliness, and foreign objects. Zonal inspections are normally performed in conjunction with other scheduled or unscheduled maintenance tasks.

INST – INSTALLED

INSTRUCTIONS – Directives of a continuing nature that are effective until subsequently canceled. Instructions use a subject classification numbering system per the Navy directives system.

INT – INTERIM – Used to denote interim Technical Directives.

INTERCHANGEABLE ITEMS – Two or more items that have such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being interchanged without alteration of the items themselves or of adjoining items except for adjustment.

INTERIM CHANGE – A change having an action classification of immediate or urgent and issued by message. See CHANGE.

INVENTORY CONTROL – The phase of military logistics that includes management, cataloging, requirements determination, procurement, distribution, overhaul, and disposal of material. Synonymous with material control, material management, inventory management, and supply management.

INVENTORY MANAGEMENT – See INVENTORY CONTROL.

INVENTORY MANAGERS – See ICP.

INVESTIGATION – Inquiry into a condition or situation systematically for the purpose of developing and providing factual information to cognizant authorities.

IPB – ILLUSTRATED PARTS BREAKDOWN – A manual containing illustrations and part numbers for all parts of the aircraft or equipment on which it is issued. The IPB contains information required for ordering parts, including part numbers, and for identifying parts and arrangements of parts in assemblies.

IPI – ITEMS PROCESSED INTERMEDIATE

IPO – ITEMS PROCESSED ORGANIZATIONAL

IPS – INDUSTRIAL PRODUCTION SUPPORT

IPT – INTEGRATED PROGRAM TEAM

IQR – INDIVIDUAL QUALIFICATION RECORD

IRAC – INTERIM RAPID ACTION CHANGE

IRIL – ISSUE/RECEIPT/INVENTORY AND LOCATION

IRIM – INTENSIVE REPAIRABLE ITEM MANAGEMENT

ISE – IN-SERVICE ENGINEERING

ISEA – IN-SERVICE ENGINEERING ACTIVITY

ISEL – IN-SERVICE ENGINEERING LOGISTICS

ISIC – IMMEDIATE SUPERIOR IN COMMAND

ISO – INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISR – IN-SERVICE REPAIR – Unscheduled depot-level repair of operational aircraft damaged beyond the repair capability of O-level and I-level activities. ISR is performed by depot field teams at the aircraft operational site.

IST – IN-SERVICE TRAINING

ITEM – Any level of hardware assembly, for example, segment of a system, subsystem, equipment, or component part.

ITEM OF SUPPLY – An item that is used, bought, stocked, or distributed so that only one distinctive combination of letters, numerals or both, identifies the same item throughout the DOD.

ITEMS/P – ITEMS PROCESSED – This term identifies the total number of times an AT code is applied toward a WUC.

ITSS - INDIVIDUAL TRAINING STANDARDS SYSTEM - A Marine Corps performance-based, standardized, documentable, level progressive, technical skills training management and evaluation program for enlisted Marines engaged in aviation maintenance.

J

JASMMM – JOINT AVIATION SUPPLY AND MAINTENANCE MATERIAL MANAGEMENT

JASU – JOINT AVIATION SCREENING UNIT

JC – JOB COMPLETE

JCN – JOB CONTROL NUMBER

JCNORG – JOB CONTROL NUMBER ORGANIZATION

JDMAG – JOINT DEPOT MAINTENANCE ANALYSIS GROUP

JDRS – JOINT DEFICIENCY REPORTING SYSTEM - A cross-service, Web-enabled, automated tracking system designed to initiate, process, and track deficiency reports from the fleet through the full investigation process.

JEDMICS – JOINT ENGINEERING DATA MANAGEMENT IMPLEMENTATION CONTROL SYSTEM

JETI – JET ENGINE TEST INSTRUMENTATION

JOAP – JOINT OIL ANALYSIS PROGRAM

JON – JOB ORDER NUMBER

JPCG – JOINT POLICY COORDINATING GROUP

JPCG-DMI – JOINT POLICY COORDINATING GROUP DEPOT MAINTENANCE INTERSERVICE (PROGRAM)

JQR – JOB QUALIFICATION REQUIREMENT – Locally produced PQS-type qualification training syllabus for qualifications not covered in a NAVEDTRA PQS.

JRB – JOINT RESERVE BASE

JS – JOB STATUS

JSWAG – JOINT SERVICES WIRING ACTION GROUP – A joint service forum providing advancements in safety, reliability, maintainability and readiness of all DoD aircraft through the improvement of electrical wiring interconnect systems (EWIS) and fiber optic cable systems.

JTDI – JOINT TECHNICAL DATA INTEGRATION

JTS – JET ENGINE TEST SYSTEM

JUAS – JOINT UNMANNED AIRCRAFT SYSTEMS

JULIAN DATE – The year and numerical day of the year identified by four numeric characters. The first character indicates the year and the remaining three characters specify the day of the year, for example, 5210 indicates the 210th day of 1995 or 28 July 1995.

K

KIN – KIT IDENTIFICATION NUMBER

KIT – See PARTS KIT, PARTS KIT CODES, and QEC.

L

LAD – LASER AIMING DEVICE

LAMS – LOCAL ASSET MANAGEMENT SYSTEM – An automated MIS which provides standardized local management of IMRL assets through the use of bar code technology. It provides for an accurate wall-to-wall inventory, which can be accomplished by unit personnel, resulting in significant reductions of manpower expenditures and operational disruptions.

LAN – LOCAL AREA NETWORK

LANDING – The controlled return of an aircraft in flight to the surface. It includes touch and goes (carrier or field) providing the landing gear touches the surface.

LANT – ATLANTIC

LCF – LOW CYCLE FATIGUE – A fatigue cracking failure mode that is defined by the frequency and characteristics of the loading that causes the crack. LCF is caused by stresses built up by mechanical/thermal cycles, which occur only a few times per flight. The four most significant LCF events are stop/start/stop cycles, rapid major changes in operating temperature, rapid major changes in rotational speed, and significant increases in aerodynamic loading of the blades/disks.

LCIP – LOGISTICS CHAIN IMPROVEMENT PRACTITIONER

LCM – LOGISTICS CHAIN MANAGEMENT

LCP – LOCAL COMMAND PROCEDURE – A local instruction published by maintenance activities or supporting staff to clarify geographic area, type/model/series specific, and command specific details not addressed in a NAMPSOP. LCP format is specified in Appendix D. Depot Level use either Appendix D or the format specified in OPNAVINST 5215.17 for LCPs

LCPO – LEADING CHIEF PETTY OFFICER

LEAD TIME – A composite of production, administrative (both contractor and government), spares positioning, and shipping time.

LEC – LOCAL ENGINEERING CHANGE

LECP – LOGISTICS ENGINEERING CHANGE PROPOSAL

LED – LOCAL ENGINEERING DIRECTIVES

LEM – LOGISTICS ELEMENT MANAGER

LES – LOCAL ENGINEERING SPECIFICATION

LEVEL OF SUPPLY – The quantity of supplies or materials authorized or directed to be held in anticipation of future demands. See OPERATING LEVEL OF SUPPLY, SAFETY LEVEL OF SUPPLY, and STOCKAGE OBJECTIVE.

LHA – LANDING SHIP, HELICOPTER ASSAULT

LHD – MULTI-PURPOSE AMPHIBIOUS ASSAULT SHIP

LIFE CYCLES – The total life span of an aeronautical system beginning with the concept formulation phase and extending through the operational phase up to retirement from the inventory.

LIR – LOGBOOK AND INVENTORY RECORD

LLR – LIFE LIMITED REPAIR

LM – LOGISTICS MANAGER

LMRC – LOCAL MAINTENANCE REQUIREMENTS CARDS

LOAN – Aircraft loaned to non-Navy organizations for non-Navy purposes. A lease may or may not be required to cover the loan. Aircraft that are in the Navy inventory but not in the physical custody of the Navy are either on bailment or on loan. Bailment indicates usage by the Bailee for the Navy, while loan indicates usage by the lesser for the lessee. See BAILMENT.

LOCAL FLYING AREA – That area in the vicinity of an air installation in which locally-based aircraft can operate during an average/typical sorties flight time.

LOCAL PURCHASE – The function of acquiring a decentralized item of supply from sources outside the DOD.

LOGBOOK, AIRCRAFT – See AIRCRAFT LOGBOOK.

LOGISTIC ELEMENT MANAGER – Systems command or other designated organizations or activities responsible for the management of spares and repair parts, personnel, or facilities. A logistic element manager has the ultimate objective of acquiring and distributing adequate quantities of specific support items on a timely basis.

LOGISTICS – Those aspects of military operations that deal with design and development, acquisition, storage, movement, distribution, maintenance, evaluation, and disposition of material; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services.

LOGISTICS SUPPORT – The materials and services required to enable the operating forces to operate, maintain, and repair the end item within the maintenance concept defined for that end item. Logistics support encompasses the identification, selection, procurement, scheduling, stocking, and distribution of spares, repair parts, facilities, SE, trainers, technical publications, CETS, and personnel training as necessary to provide the operating forces with the capability needed to keep the end item in a functioning status. See ILS.

LOGISTICS SUPPORT EQUIPMENT – Equipment used for the packaging, bulk handling, storage/stowage, and transportation of weapons and weapon components. Some of these items are categorized as materials handling equipment and ordnance handling equipment.

LONG LEAD TIME ITEMS – Parts for which the length of time needed to meet end article demand requires the part be ordered prior to normal procurement schedules in order to ensure delivery in time to meet operational needs.

LOOK PHASE – The portion of an inspection that includes the basic requirements outlined by the PMICs, excluding repair of discrepancies that cannot be completed within the time allotted on MRCs.

LOT – A number of associated items of the same model of equipment, for example, a lot of ten electrostatic discharge (ESD) protective mats.

LOX – LIQUID OXYGEN

LPD – AMPHIBIOUS TRANSPORT DOCK

LPS – LOCAL PROCESS SPECIFICATION

LRA – LAST REWORK ACTIVITY

LRCA – LOCAL REPAIR CYCLE ASSET - Any repairable item in an activity's OSI fixed allowance for which local repair capability exists.

LSS – LEAN SIX SIGMA

LTD – LONG TERM DOWN. Denotes aircraft that have not flown for 90 days or more.

LUI – LIFE USAGE INDEX

M

M – MAINTENANCE (JOB STATUS)

MACG – MARINE AIR CONTROL GROUP

MACHINE RECORD – A collection of related data elements, in machine-sensible language, treated as a unit of information. In maintenance data collection, a machine record is a segment of magnetic tape.

MACS – MARINE AIR CONTROL SQUADRON – MACS command Marine Air Traffic Control Detachments (MATCD), Early Warning Control (EWC) detachments and Tactical Air Operations Center (TAOC) detachments to provide tactical air traffic control services at forward operating bases, expeditionary, and existing airfields.

MAF – MAINTENANCE ACTION FORM – A work document generated in OIMA. See OIMA.

MAG – MARINE AIRCRAFT GROUP

MAGNETIC PARTICLE – A method that uses magnetic fields for the purpose of detecting fine discontinuities at or near the surface of the part. This method is limited to ferromagnetic materials. See NDI.

MAGTF – MARINE AIR GROUND TASK FORCE

MAINT/L – MAINTENANCE LEVEL

MAINTAINABILITY – The ability to maintain an item in, or restore to, a specific operational condition by expending resources, including man-hours, at an acceptable rate when using prescribed procedures and resources.

MAINTENANCE – The function of retaining material in or restoring it to a serviceable condition. Maintenance includes servicing, repair, modification, modernization, overhaul, rebuild, test, reclamation, inspection, and condition determination. See MAINTENANCE TYPES for distinctions in the scope of maintenance.

MAINTENANCE ACTION – Any one of a number of types of specific maintenance operations necessary to retain an item in or restore it to a specified condition. See MAINTENANCE

MAINTENANCE ACTIVITY – Any organization (activity or unit) of the naval establishment assigned the mission, task, or functional responsibility of performing upkeep or rework of aircraft, equipment, or components.

MAINTENANCE ALLOCATION TABLE – Describes the function to be performed in the repair of gas turbine engines, identifying the degree of repair.

MAINTENANCE AND SUPPORT PLANS – Combined elements of a maintenance plan per DODINST 5000.02 and referring to maintenance and logistical support documents, such as User's

Logistic Support Plan, Post Production Support Plan, ALSP, or SSMP maintenance manuals specific to a particular T/M/S aircraft.

MAINTENANCE CODE – Codes assigned to support items to indicate the maintenance levels authorized to remove and replace, repair, overhaul, assemble, inspect and test, and condemn items. Also assigned to maintenance tools and end items of SE to indicate the lowest level of maintenance requiring the item. See SM&R.

MAINTENANCE CONCEPT – The planned or envisioned methods that will be employed to sustain the aeronautical system/equipment at a defined level of readiness or in a specified condition in support of the operational requirement

MAINTENANCE CONTROL – The functional organization within the OMA responsible for workload control.

MAINTENANCE DEPARTMENT – The part of an activity responsible for the aircraft maintenance functions, also considered a maintenance activity. In the shore establishment, stations responsible for I-level maintenance will have maintenance departments. See MAINTENANCE DIVISION/BRANCH.

MAINTENANCE DEPTHS – The complexity or extensiveness of aircraft maintenance functions, for example, the extent of disassembly, the complexity of a test.

MAINTENANCE DETACHMENT – The part of an aircraft maintenance activity geographically separated from but administered by the parent activity.

MAINTENANCE DIVISION/BRANCH – The part of an activity responsible for the activity's aircraft maintenance functions; or the part of an aircraft maintenance department responsible for a specific part of the department's functions, for example, repair of power plants. In the shore establishment, stations responsible for only I-level and O-level maintenance will have maintenance divisions of operations or air departments. See MAINTENANCE DEPARTMENT.

MAINTENANCE ENGINEERING – The discipline of maintenance, which develops concepts, criteria, and technical requirements during the conceptual and acquisition phases to be applied and maintained in a current status during the operational phase to ensure timely, adequate, and economic maintenance support of weapon systems and equipment.

MAINTENANCE ENGINEERING ANALYSIS – The composite analytical studies, decisions, and related documentation conducted in connection with the design of an item to determine or influence the maintainability and reliability characteristics of the item and to determine the total support requirements resulting from the design.

MAINTENANCE FACILITY – Any building, property, or space designed for, available to, or used by aircraft maintenance activities. Use of the term refers to shops, hangars, or parking areas, both afloat and ashore, used primarily for aircraft upkeep or rework purposes.

NOTE: The term aircraft maintenance facility includes installed aircraft SE when applied to Navy facilities. When applied to Marine Corps facilities, it does not.

MAINTENANCE FUNCTIONS – Maintenance functions describe specific types of maintenance performed at each maintenance level. COMNAVAIRSYSCOM is responsible for determining maintenance functions during the development, expansion, execution, and support of maintenance plans for aircraft and component repair.

MAINTENANCE LEVELS – Maintenance tasks divided into levels in order to facilitate applying common terminology and standards. The NAMP divides maintenance into three levels: Organizational, Intermediate, and Depot. Definitions: See D-LEVEL, I-LEVEL, AND O-LEVEL.

MAINTENANCE MANAGEMENT – The process of planning, organizing, staffing, directing, and controlling organic industrial resources required for physically performing equipment maintenance.

MAINTENANCE PERFORMANCE DATA – Data relating to the use and application of the work force, industrial equipment, and dollars to sustain weapons and end item equipment in an operational status.

MAINTENANCE PLAN – A document containing technical data, tailored to a specific weapon system maintenance concept, which identifies maintenance and support resource requirements to maintain aeronautical systems, equipment, and SE in an operationally ready state.

MAINTENANCE PLANNING – The design, method, or scheme for accomplishing an aircraft mission or reaching an aircraft maintenance objective or objectives.

MAINTENANCE PROCEDURES – Established methods for periodic checking and servicing of items to prevent failure or to effect a repair.

MAINTENANCE PRODUCTION – The activity of equipment maintenance involving the physical performance of those actions and tasks attendant to the equipment maintenance function for servicing, repairing, testing, overhaul, modification, calibration, modernization, conversion, inspection, etc. The accomplishment of these tasks is normally carried out at O-level, I-level, and D-level maintenance activities.

MAINTENANCE PRODUCTION MANAGEMENT – The process of planning, organizing, staffing, directing, and controlling organic industrial resources engaged in the physical performance of equipment maintenance. See MAINTENANCE PRODUCTION (above).

MAINTENANCE QA – The actions by which it is determined material maintained, overhauled, reworked, modified, and reclaimed conforms to the prescribed technical requirements. See AUDIT and QA.

MAINTENANCE RESOURCES – Personnel, materials, tools, equipment, facilities, technical data, and dollars provided to carry out the equipment maintenance mission.

MAINTENANCE SCHEDULE – A plan of procedures for carrying out specific jobs or projects in a maintenance activity's maintenance program; fixing the time when operations are to begin or be completed.

MAINTENANCE STATUS – The classification or condition of equipment undergoing preventive/restorative action.

MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM – Monitors engine and airframe operational status for unit failures, cautions, and advisory conditions and sends this information to the mission computer system for processing on selected aircraft.

MAINTENANCE TASK – Incremental maintenance elements performed by maintenance personnel in completing a maintenance action.

MAINTENANCE TECHNOLOGY – The specific application of engineering and science to develop techniques, procedures, and directives for the maintenance and support of aviation systems:

ADHESIVE BONDING – Adhesive material application and the associated preparation and post-bonding procedures. This includes testing and evaluating to understand properties pertaining to structural adhesives, nonstructural adhesives, adhesive bond strength and durability, adhesive substitutions, and ambient temperature storable adhesives.

AIRBORNE WEAPONS AND TARGETS MAINTENANCE – The activities and related technology required to repair and renovate airborne weapons and targets and their associated SE.

AIRBORNE WEAPONS MATERIALS – Research, support, development, testing, and evaluation of materials and associated processes used in airborne weapons. Included are tests for environmentally compliant materials and processes, for example, ozone depleting substance replacements; energetic materials, for example, warheads, rocket motors, and fuses; composites, polymers, and plastics; metals and metal alloys; welding, brazing, and soldering; coatings, paints, and corrosion preventive compounds; adhesives and bonding agents; ceramics, optical windows, and missile domes; and electronic materials.

AIRCRAFT WIRING – The maintenance, design, engineering evaluation, logistics, testing, evaluation, and manufacture of aircraft wiring systems and components.

AVIATION GAS FREE ENGINEERING – Encompasses comprehensive engineering support to ensure the safety of all personnel involved with the handling and repair of aircraft and SE fuel cells and tanks.

BEARINGS – Refurbishment (repair) of bearings. A large percentage of bearing refurbishment involves the mixing of piece-parts from different bearings of the same part number. The piece-parts may be new or may have been remanufactured using existing manufacturing processes modified for application in bearing remanufacturing. Typical remanufacturing processes include grinding mounting surfaces, micro honing raceways, and plating retainers.

CANOPIES/TRANSPARENCIES – The refurbishing of transparent, plastic, and glass aircraft enclosures.

COMPOSITE REPAIR – The assessment of damaged composite parts and implementation of quality repairs through design, materials, testing, techniques, and processes necessary to successfully restore the part to its original design capabilities. This includes inspection and

characterization of damaged material, design, and analysis of appropriate repair joint, determination of adequate materials and processing, and fabrication of the repair.

CORROSION PREVENTION AND CONTROL – The protection of operational aircraft and SE systems from material corrosion through corrective and preventive maintenance actions. The protection of systems is provided by, but not limited to, cleaning, inspections, corrosion removal and surface treatment, sealants, surface coatings, materials and processes selection, and emergency reclamation.

ELASTOMERIC MATERIALS – Items made of rubber and rubber-like materials including, but not limited to, fuel cells, O-rings, hoses, gaskets, seals, potting and sealing compounds, and protective elastomeric coatings.

ELECTROCHEMICAL POWER SYSTEMS (BATTERIES) – The activities and related technology required to manufacture, rework, maintain, and improve batteries for fleet support.

ENGINE BLADE/VANE REPAIR – Identifying, development, and implementation of repairs on DOD gas turbine engine components.

ENGINE COMPOSITES – The general Logistics Research and Development for the maintenance of composites on engines.

ENVIRONMENTAL – Maintenance processes and procurement actions to reduce/eliminate environmental pollutants.

FAILURE ANALYSIS – Engineering analysis of metallic materials to determine casual factors predisposing assemblies to malfunction. Factors such as deficiencies in design and material selection, manufacture and repair procedures, errors in assembly, and corrosion identification and control are considered.

FLUID CONTAMINATION – The characterization of dielectric coolants, hydraulic fluids, and engine lubricants for physical or chemical contamination as it reflects the operational condition of aircraft systems, components, and SE.

FUELS/LUBRICANTS – Life cycle support of fuels, lubricants, and associated handling and quality control equipment used for Naval aviation, including turbine engine fuels; turbine engine lubricants; piston engine lubricants; helicopter gearbox oils; fuel additives (fuel system icing inhibitor, corrosion inhibitor, antioxidant, metal deactivator); fuel filtration equipment (coalescers, separators, monitors, housings); fuel quality assurance equipment; aircraft fuel filters; refueling trucks/equipment; lubricant usage instruction; and fuel/refueling NATOPS manuals.

HEAT DAMAGE EVALUATION – The controlled addition of heat to/removal of heat from raw materials and aircraft components.

HEAT TREATING – The controlled addition of heat to/removal of heat from raw materials and aircraft components.

INORGANIC COATINGS – The various methods of coating applications and the physical and mechanical properties of various coatings. Inorganic coatings are defined as those metallic and intermetallic coatings applied to metallic substrates for dimensional restoration, corrosion protection, wear, etc. Examples include chromium plating, cadmium plating, physical vapor deposition, and ion vapor deposited aluminum. This technology is used to address the environmental issues pertaining to inorganic coatings, and the effectiveness of metallic and intermetallic coatings applied to metal and non-metal substrates for corrosion, erosion and wear protection.

MATERIALS TESTING – Mechanical testing and chemical analysis of material. Mechanical testing is the method by which the mechanical properties of a material are determined. Mechanical properties are properties of a material that reveal its elastic and inelastic behavior when force is applied. This indicates its suitability for mechanical applications, for example, modulus of elasticity, tensile strength, elongation, hardness, and fatigue limits. Chemical analysis is the characterization of a substance by definite molecular composition.

NONDESTRUCTIVE TESTING AND INSPECTION (NDT/I) – The technologies (methods) for determining characteristics about the physical condition of a part of material, without permanently changing it. NDI is the application of nondestructive testing to the inspection of parts, structure, and material to determine condition/ serviceability. Typical defects and conditions to be detected are those not detectable visually, like fatigue and stress corrosion cracks, inclusions, porosity, delaminations, disbonds, enclosed FOD, etc. The most frequently used nondestructive testing methods are Fluorescent Penetrant, Magnetic Particle, Eddy Current, Ultrasonic and Radiographic. Methods used less frequently in the aircraft industry include thermal imaging, gamma and neutron radiography, and acoustic emission.

PAINT/ORGANIC COATINGS – The application of materials on surfaces for the purposes of corrosion prevention, resistance to high-temperature scaling, wear resistance, lubrication, or other purposes. Application includes aircraft final paint, component paint, engine finish, avionics paint, oxygen and compressed gas system paint, and corrosion control.

PRESERVATION – The protection of aviation assets (aircraft, SE and mobile facilities) from material degradation during periods of inactivity, storage, or shipment.

THERMAL SPRAY – The process by which finely divided material in a molten (or semi-molten) condition is sprayed onto a substrate to form a coating. Feedstocks are in the form of powder, wire, or rod.

TIRES – The maintenance, performance, improvements, logistic support, and qualification of new sources for naval aviation.

TRIBOLOGY – The design, friction, lubrication, and wear of contacting surfaces that move relative to each other. Examples include bearings, cams, and gears.

VIBRATION ANALYSIS – The technologies to detect, quantify, and eliminate defects in airframes, installed engines, and dynamic components for fixed and rotary wing aircraft.

Application may be in troubleshooting, scheduled maintenance, or following specified condition-based maintenance.

VIBRATION TESTING – The technologies to detect, quantify, and eliminate defects in engines and dynamic components during engine/dynamic component rework for fixed and rotary wing aircraft.

WELDING/BRAZING – A process used to join metals by the application of heat. Fusion welding includes, but is not limited to, oxyfuel welding, shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, plasma arc welding, and electron beam welding.

MAINTENANCE TYPES – Rework and upkeep are the two basic types of aircraft maintenance performed within the naval establishment without distinction as to levels of maintenance. Rework may be performed on any program aircraft (operating or non-operating), aircraft equipment, or aircraft SE. It is performed only by industrial type activities assigned the mission, task, or functional responsibility of providing maintenance program support. Rework is performed with both military and civilian personnel and is managed by the COMNAVAIRSYSCOM. Upkeep is performed only on operating aircraft, aircraft equipment, or aircraft SE. It is performed by military type activities assigned aircraft or equipment or assigned the mission, task, or functional responsibility of providing direct support to such activities. Upkeep is normally performed with military personnel and is managed by major operating commands. See REWORK and UPKEEP.

MAIR – MASTER AIRCRAFT INVENTORY RECORD

MAJOR DEFECT – See DEFECT.

MAJOR ENGINE INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE, SUPPORT EQUIPMENT.

MAL DESCRIPTION CODE – MALFUNCTION DESCRIPTION CODE – A three-character numeric or alphanumeric code used to describe the malfunction occurring on or in an item identified by a WUC.

MALS – MARINE AVIATION LOGISTICS SQUADRON – The unit or activity within a MAG assigned the mission of providing I-level support to the squadrons of the MAG.

MALSP – MARINE AVIATION LOGISTICS SUPPORT PROGRAM – Provides the framework within which a variety of concepts, programs and allowances are developed to support each T/M/S aircraft that could be used to form the aviation combat element of a MAGTF. The focus of the MALSP is to identify and integrate the personnel, SE, mobile facilities or shelters, and repair or spare parts required to sustain a MAGTF aviation combat element.

MAM - MAINTENANCE ASSIST MODULE – Are selected avionics and surface systems (normally a shop replaceable assembly) that are used to isolate faults within an avionics or surface system. MAMs can be interchanged for an installed unit by ordinary “modular” replacement, without structural disassembly, alteration, or modification. MAMs are only authorized in a test or maintenance environment and not normally installed in an operational unit.

MANAGEMENT – A general term to denote central executive direction and control of work by an individual or organization specifically assigned and funded to accomplish the function.

MANAGEMENT AUDIT – A periodic assessment of a command's managerial planning, organizing, actuating, and controlling compared to what might be the norm of successful operation. Management auditors do not appraise individual performance.

MAN-HOURS – The total number of accumulated direct maintenance hours (in hours and tenths) expended in performing a maintenance action. Direct maintenance man-hours are man-hours expended by personnel assigned to complete the work described on the source document. See DIRECT MAINTENANCE.

MAN-MOUNTED EQUIPMENT – Equipment used to provide overall protection and comfort to the aircrew under various flight, emergency, and environmental conditions.

MANUFACTURER – Individual, company, firm, corporation, or government activity engaged in the fabrication of finished or semi-finished products.

MANUFACTURER CODE – See CAGE.

MANUFACTURER PART NUMBER – See REFERENCE NUMBER.

MAP/FMS – MILITARY ASSISTANCE PROGRAM/FOREIGN MILITARY SALES

MAT – MAINTENANCE ASSESSMENT TEAM

MATCALS – MARINE AIR TRAFFIC CONTROL AND LANDING SYSTEMS – An expeditionary air traffic control system that provides all-weather air traffic control, precision approach radar, air surveillance radar, tower services, and navigational aids. See MATCD and MACS.

MATCD – MARINE AIR TRAFFIC CONTROL DETACHMENT – MATCDs operate MATCALs at forward operating bases, expeditionary, and existing airfields. See MACS

MATCHED SET – A group of two or more separate components that function together in a single system and are normally removed, repaired, checked, adjusted, calibrated, and installed together. Replacement of a single component of a matched system normally requires check/adjustment/calibration of the matched set.

MATERIAL – All items necessary for the equipment, maintenance, and support of military activities without distinction as to their application for administrative or combat purposes, excluding ships or naval aircraft.

MATERIAL CONDITION – Reporting status with respect to SCIR. See MC, FMC, PMC, and NMC.

MATERIAL CONTROL – See INVENTORY CONTROL.

MATERIAL CONTROL REGISTER – A register established to record all requisitions for material passed to the Supply Support Center.

MATERIAL MANAGEMENT – See INVENTORY CONTROL.

MATERIAL REQUIREMENTS – Those quantities of items of equipment and supplies necessary to equip, provide a material pipeline, and sustain a service, formation, organization, or unit in the fulfillment of its purpose or task during a specified period.

MFR – Master Record File

MAW – MARINE AIRCRAFT WING

MC – METER CODE

MC – MISSION CAPABLE – Material condition of an aircraft that can perform at least one and potentially all of its missions. MC Hours = EIS Hours - NMC Hours.

MCAPP – MODIFICATION, CORROSION, AND PAINT PROGRAM

MCAS – MARINE CORPS AIR STATION

MCC – MATERIAL CONTROL CODE – A single alphabetic character assigned by the inventory manager to segregate items into more manageable groupings (fast, medium, or slow movers) or to relate to field activities special reporting/control requirements.

MCI – MATERIAL CONDITION INSPECTION

MCN – MAINTENANCE ACTION FORM CONTROL NUMBER

MCO – MARINE CORPS ORDER

MCRC – MASTER COMPONENT REWORK CONTROL

MCRS – MATERIAL CONDITION REPORTING STATUS - MCRS refers to the status of an aircraft for Subsystem Capability Impact Reporting (SCIR). When an aircraft is In Reporting MCRS (IN-MCRS), SCIR data is accounted for in the aircraft's Mission Capable (MC) time. When aircraft is Out of Reporting MCRS (OUT-MCRS), SCIR data is not accounted for in MC time.

MCS – MINE COUNTERMEASURES SHIP

MDA – MILESTONE DECISION AUTHORITY

MDBA/A – MAINTENANCE DATA BASE ADMINISTRATOR/ANALYST

MDI – MICROSOFT DOCUMENT IMAGING (FORMAT)

MDPS – MAINTENANCE DATA PROCESSING SYSTEM

MDR – MAINTENANCE DATA REPORT

MDS – MAINTENANCE DATA SYSTEM

MDU – MATERIAL DELIVERY UNIT

MEAN TIME BETWEEN FAILURES – The total functioning life of a population of an item divided by the total number of failures within the population during the measurement interval. The definition holds for time, cycles, miles, events or other measure of life units.

MEASURE – METROLOGY AUTOMATED SYSTEM FOR UNIFORM RECALL AND REPORTING – A metrology system for the recall and reporting of test equipment by means of MIS techniques, maintains records of calibration and automatically recalls items when due for calibration. See CUSTOMER ACTIVITY, FCA, FORMATS, METER CARD, and SUBCUSTODIAN.

MEDP – MATERIAL ENGINEERING DISPOSITION PROGRAM

MER – MULTIPLE EJECTOR RACK

MESM – MISSION-ESSENTIAL SUBSYSTEMS MATRIX/MATRICES - A MESM states specific T/M/S MC and FMC readiness goals and subsystems required for specific missions and the impact of subsystem degradation or inoperability through EOCs. MESMs are posted on the CNAP Share Point at https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/.

METBUL – METROLOGY BULLETIN

METCAL – METROLOGY AND CALIBRATION

METER – METROLOGY EQUIPMENT RECALL

METER CARD – METROLOGY EQUIPMENT RECALL CARD – Source document used to update the MEASURE. All actions to TMDE/PME are reported to MEASURE via METER Cards (OPNAV 4790/58).

METER READING – Meter readings apply to only those items that have a clock/meter installed. Readings will be in time, cycles, or starts to the nearest whole number.

METRIC – A standard of measurement. Examples of NAMP metrics include cannibalizations per 100 sorties and aircraft utilization.

METRL – METROLOGY REQUIREMENTS LIST

METROLOGY – The science of measurement or determination of conformance to technical requirements including the development of standards and systems for absolute and relative measurements. See CALIBRATION and MEASURE.

MEU – MARINE EXPEDITIONARY UNIT

MF – MOBILE FACILITY – A relocatable tactical shelter and its related equipment. The principle application in naval aviation of an MF is to provide relocatable housing for aviation weapon systems and SE maintenance and related functions. They may be used on board ship as well as ashore.

MFGR – MANUFACTURER

MFOQA – MILITARY FLIGHT OPERATIONS QUALITY ASSURANCE

MFRD – MANUFACTURED

MFTOOL – MOBILE FACILITY TOOL

MHE – MATERIAL HANDLING EQUIPMENT – Commercially available industrial equipment, such as forklifts, warehouse tractors, pallet trucks, and platform trucks. Some of these items are approved for use in ammunition and explosive ordnance handling operations, and are a category of logistic SE.

MHRS – MAN-HOURS

MHRSO – MAN-HOURS ORGANIZATIONAL

MID TIER – Replication server that moves data from the publisher to subscriber (Top Tier).

MILCON – MILITARY CONSTRUCTION

MIL-HDBK – MILITARY STANDARDIZATION HANDBOOK

MILSPEC – MILITARY SPECIFICATION

MIL-STD – MILITARY STANDARD

MILSTRAP – MILITARY STANDARD TRANSACTION REPORTING AND ACCOUNTING PROCEDURE – A procedure to enlarge MILSTRIP by extending the uniform communicating procedures, codes, forms, and formats for the transmission of items and the financial inventory data.

MILSTRIP – MILITARY STANDARD REQUISITIONING AND ISSUE PROCEDURE – A uniform procedure established by the DOD for its own use to govern requisition and issue of material within standard priorities.

MIM – MAINTENANCE INSTRUCTIONS MANUAL – Contains instructions for O-level, I-level, and D-level maintenance and servicing of a specific weapon system and related airborne equipment including SE.

MINOR DEFECT – See DEFECT.

MIQ – MEASURE INTERACTIVE QUERY

MIS – MANAGEMENT INFORMATION SYSTEM(S) – The hardware and software systems used to document the information and data used to manage a process.

MISHAP, AIRCRAFT – A naval aircraft mishap is an unplanned event or series of events, directly involving naval aircraft which result in ten thousand dollars or greater cumulative damage to naval aircraft, other aircraft DOD or non-DOD) and property (DOD or non-DOD). Property damage includes costs to repair or replace facilities, equipment or material; or an injury as defined in OPNAVINST 3750.6.

MISSILE AIRFRAME – The assembled, principal structural components less propulsion system, control system, electronic equipment, and payload.

MISSILE TARGETS – All recoverable and non-recoverable, remotely controlled or programmed, unmanned aerial target vehicles; also remotely controlled or programmed powered land target and target boats, excluding drones.

MISSION – (1) The objective; the task together with the purpose, which clearly indicates the action to be taken and the reason for it; (2) in common usage, especially when applied to lower military units, a duty/task assigned to an individual; (3) the dispatching of one or more aircraft to accomplish one particular task, and (4) missions used in matrix construction and mission impact reporting are defined for each aircraft T/M/S.

MISSION ESSENTIAL – Anything authorized and assigned to the approved combat and combat support forces, which would be immediately employed to wage war and provide support for combat actions.

MISSION ESSENTIAL SUBSYSTEM MATRIX – Subsystems of an aircraft required to perform the designated missions as determined by use of the applicable MESM.

MMCO – MAINTENANCE MATERIAL CONTROL OFFICER

MMCPO – MAINTENANCE MASTER CHIEF PETTY OFFICER

MME – MISSION MOUNTED EQUIPMENT – As listed in T/M/S MESM.

MMP – MONTHLY MAINTENANCE PLAN

MMT – MAINTENANCE MONITORING TEAM

MNP – (MY NAVY PORTAL) – The goal of MNP is to provide Sailors a single portal with which they can manage their careers, https://my.navy.mil/.

MO – MAINTENANCE OFFICER

MOA – MEMORANDUM OF AGREEMENT

MOCC – MEASURE OPERATIONAL CONTROL CENTER – The Atlantic and Pacific terminals of the MEASURE automated information system network. These centers maintain data files for respective area customers and MEASURE participants. MEASURE products are produced and distributed via telecommunications, hard copy, or tape to elements of the distributed network and various agencies on a regular or as required basis.

MOD – MODIFICATION

MODEL DESIGNATION – Each Navy aircraft is designated by a combination of significant letters and numbers.

MODEX – Side number of aircraft.

MODULAR ENGINES – Engines consisting of several independent assemblies called modules, which by design can be removed/replaced without major disassembly of the engine or other modules, for example, compressor, combustion, turbine, afterburner, gearbox, torque meter, or combination thereof.

MONITOR – As applied to QA, monitoring is the observance of an ongoing process in order to verify compliance with policies and procedures.

MOS – MILITARY OCCUPATIONAL SPECIALTY

MOV – MATERIAL OBLIGATION VALIDATION

MPPE – MAINTENANCE PROGRAM PROFICIENCY EVALUATION

MPA – MAINTENANCE PROGRAM ASSESSMENT

MPP – MONTHLY PERSONNEL PLAN

MPT-PRO – MATERIAL PRODUCTIVITY TOOL – PROCUREMENT

MPT-STP – MATERIAL PRODUCTIVITY TOOL – SUPPLY TRANSFORMATION PROGRAM

MP&T - MANPOWER, PERSONNEL, AND TRAINING

MR – MATERIAL REPORT – The material report is a general name for multiple reports in OOMA or OIMA.

MRB – MATERIAL REVIEW BOARD

MRC – MAINTENANCE REQUIREMENTS CARD – Card sets issued by COMNAVAIRSYSCOM containing scheduled maintenance requirements applicable to I-level and O-level activities for the specific aircraft/SE for which they are issued. See PMIC.

MRIL – MASTER REPAIRABLE ITEM LIST – A listing, in NIIN sequence, of all repairable assemblies, indicating the DRP (Navy or commercial) and provides shipping instructions for these assemblies when they become defective. This list is published as NAVSUP Publication 4107.

MRO – MAINTENANCE REPAIR OVERHAUL

MSD – MEASUREMENT SCIENCE DIRECTORATE

MSHARP – MARINE SIERRA HOTEL AVIATION READINESS PROGRAM – Marine Aviation's web-based application for scheduling, training management, operational risk management, and reporting of training readiness.

MSL – MASTER SALVAGE LIST

MSR – MODULE SERVICE RECORD

MT – Symbol for MAGNETIC PARTICLE

MTF – MESSAGE TEXT FORMAT

MTL – MASTER TASK LIST

MTO – MAKE-TO-ORDER

MTPSI – MASTER TEST PROGRAM SET INDEX

MTR – MANDATORY TURN-IN REPAIRABLE OR MODULE TEST AND REPAIR

MU – MEMORY UNIT

MULTIJON – MULTIPLE JOB ORDER NUMBER

MULTI-ORG CODES – MULTIPLE ORGANIZATION CODES – The ability to have more than one ORG code assigned to a NTCSS NALCOMIS Foundation Server. The purpose of MULTI-ORG coding is to manage multiple assets assigned to different organizations on one NTCSS NALCOMIS Foundation Server.

MULTI-ORG DET REPORTING – MULTIPLE ORGANIZATION CODE DETACHMENT REPORTING – Multi-org det reporting allows a squadron to use one OOMA Foundation Server for homeguard and detachment site data processing.

MWSG – MARINE WING SUPPORT GROUP

MWSS – MARINE WING SUPPORT SQUADRON

N

NA – NOT APPLICABLE – This status code is used to indicate TD that do not apply to the particular T/M/S, serial number or part number.

NAE – NAVAL AVIATION ENTERPRISE

NAF – NAVAL AIR FACILITY

NALC – NAVY AMMUNITION LOGISTIC CODE

NALCOMIS – NAVAL AVIATION LOGISTICS COMMAND MANAGEMENT INFORMATION SYSTEM

NALDA – NAVAL AVIATION LOGISTICS DATA ANALYSIS – An automated database and information retrieval system for aviation logistics management and technical decision support. Analysis capability is provided through interactive query and batch processing from remote terminals. NALDA assists users in making improved decisions affecting fleet aircraft readiness. Users can define, identify, and isolate logistics problem areas from a centralized data bank of integrated aviation logistics information.

NAMDRP – NAVAL AVIATION MAINTENANCE DISCREPANCY REPORTING PROGRAM

NAMP – NAVAL AVIATION MAINTENANCE PROGRAM

NAMPSOP – NAVAL AVIATION MAINTENANCE PROGRAM STANDARD OPERATING PROCEDURES – NAMPSOPs direct procedures for compliance with certain maintenance programs and processes in sufficient detail to eliminate or minimize the need for publishing local procedures. See LCP.

NAR – NOTICE OF AMMUNITION RECLASSIFICATION

NAS – NAVAL AIR STATION

NASA – NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASC – NAVAL AIR SYSTEMS COMMAND

NAT – NIIN ANALYSIS TOOL

NATEC – NAVAL AIR TECHNICAL DATA AND ENGINEERING SERVICE CENTER

NATOPS – NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION – A manual of general flight and operating instructions applicable within the naval aviation establishment issued for individual aircraft which are intended to complement CNAF M-3710.7.

NATT COA – NAVAL AVIATION TECHNICAL TRAINING COUNCIL OF ADVISORS

NATTC – NAVAL AVIATION TECHNICAL TRAINING CENTER

NAVAIR FS – NAVAL AIR SYSTEMS COMMAND FLEET SUPPORT

NAVAIRSYSCOMHQ – NAVAL AIR SYSTEMS COMMAND HEADQUARTERS

NAVAIRWARCEN – NAVAL AIR WARFARE CENTER

NAVAIRWARCENACDIV – NAWCAD - NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION

NAVAIRWARCENWPNDIV – NAWCWD – NAVAL AIR WARFARE CENTER WEAPONS DIVISION

NAVAL ESTABLISHMENT – Comprised of the Navy Department, Shore Establishment, and the Operating Forces of the Navy and the Operating Forces of the Marine Corps. Synonymous with DON.

NAVCOMTELSTA – NAVAL COMPUTER AND TELECOMMUNICATIONS STATION

NAVEDTRA – NAVAL EDUCATION AND TRAINING

NAVFLIR – NAVAL FLIGHT RECORD (OPNAV Form 3710/4) – The form used to record the aircraft flight data used in NAVFLIRS.

NAVFLIRS – NAVAL FLIGHT RECORD SUBSYSTEM – NAVFLIRS serves as a single, integrated source of flight data for the Naval Aviation Maintenance Data System (MDS), the Sierra

Hotel Aviation Reporting Program (SHARP), Marine Corps Sierra Hotel Aviation Reporting Program (MSHARP), and other up-line reporting systems. Refer to COMNAVAIRFOR M-3717.7 for detailed information on NAVFLIRS.

NAVMAC – NAVY MANPOWER ANALYSIS CENTER

NAVOSH – NAVY OCCUPATIONAL SAFETY AND HEALTH

NAVPRO – NAVY PLANT REPRESENTATIVE OFFICE

NAVRIIP – NAVAL AVIATION READINESS INTEGRATED IMPROVEMENT PROGRAM

NAVRIT – NAVAL AVIATION READINESS IMPROVEMENT TEAM

NAVSAFECEN – NAVAL SAFETY CENTER

NAVSUP – NAVAL SUPPLY SYSTEMS COMMAND

NAVSUP WSS – NAVAL SUPPLY WEAPON SYSTEMS SUPPORT (formerly NAVICP)

NAVY DEPARTMENT – Refers to the central executive offices of the DON located at the seat of government. The Navy Department is organizationally comprised of the Office of the Secretary of the Navy, which includes Civilian Executive Assistants, Office of Staff Assistants, and the headquarters organizations of the Office of Naval Research, the Office of the Judge Advocate General, and the ASN(FM/C) of the Navy; the Office of the CNO, the Headquarters, Marine Corps; and, under the command of the CNO, the headquarters organizations of the Chief of Naval Personnel and the Chief, Bureau of Medicine and Surgery. In addition, the Headquarters, Coast Guard, is included when the United States Coast Guard is operating as a service in the Navy.

NAVY DIRECTIVES SYSTEM – Consists of instructions and notices employing the standard subject identification code numbering system for identification and filing purposes. The system is used throughout the Navy for issuing directives on policy, organization, administrative methods, or procedures.

NBC – NUCLEAR, BIOLOGICAL, AND CHEMICAL

NBNC – NOTED BUT NOT CORRECTED

NC – NOT CARRIED

NCEA – NONCOMBAT EXPENDITURE ALLOWANCE

NCER – NONCOMBAT EXPENDITURE REQUIREMENTS

NCO – NON-COMMISSIONED OFFICER

NCOIC – NON-COMMISSIONED OFFICER IN CHARGE

NCR – NO CALIBRATION REQUIRED

NDDS – NAVAL DATA DISTRIBUTION SYSTEM

NDI – NONDESTRUCTIVE INSPECTION – The inspection of a structure or component in any manner that will not impair its future usefulness. The purpose of the inspection may be to detect flaws, measure geometric characteristics, determine material structure or composition, or it may characterize physical, electrical, or thermal properties without causing any changes in the part. See PENETRANT, EDDY CURRENT, MAGNETIC PARTICLE, ULTRASONIC, and RADIOGRAPHIC for NDI methods in existence.

NDMS – NAVAIR DEPOT MAINTENANCE SYSTEM

NDT/I – NONDESTRUCTIVE TESTING AND INSPECTION – The technologies (methods) for determining characteristics about the physical condition of a part of material, without permanently changing it. NDI is the application of nondestructive testing to the inspection of parts, structure, and material to determine condition/ serviceability. Typical defects and conditions to be detected are those not detectable visually, like fatigue and stress corrosion cracks, inclusions, porosity, delamination, disbonding, enclosed FOD, etc. The most frequently used nondestructive testing methods are Fluorescent Penetrant, Magnetic Particle, Eddy Current, Ultrasonic and Radiographic. Methods used less frequently in the aircraft industry include thermal imaging, gamma and neutron radiography, and acoustic emission.

NEC – NAVY ENLISTED CLASSIFICATION

NETC – NAVAL EDUCATIONAL TRAINING COMMAND

NETS – NAVY ENGINEERING AND TECHNICAL SERVICES

NEW PRODUCTION AIRCRAFT – Aircraft without regard to model or configuration that are in the first year of operational use by the fleet or training commands and not deployed aboard ships or overseas.

NEWLY ASSIGNED AIRCRAFT – Aircraft accepted from the commercial builder, for example, Boeing and Lockheed Martin. These aircraft are normally accepted by DCMA or COMNAVAIRSYSCOM (pre-accepted).

NFC - NON FLIGHT CRITICAL – Any identified discrepancy that is not directly related to Safety of Flight. See SAFE FOR FLIGHT.

NFO – NAVAL FLIGHT OFFICER

NHA – NEXT HIGHER ASSEMBLY

NIF – NAVY INDUSTRIAL FUND

NIFMS – NAVAIR INDUSTRIAL FINANCIAL MANAGEMENT SYSTEM

NIIN – NATIONAL ITEM IDENTIFICATION NUMBER - A two-digit National Codification Bureau code combined with seven other digits. See NSN.

NIMMS – NAVAIR INDUSTRIAL MATERIAL MANAGEMENT SYSTEM

NINC – NOT INCORPORATED – This status code is used to indicate TDs that have been issued, but has not been incorporated and TDs that are only partially incorporated.

NIS – NOT IN STOCK – This status code is used to indicate TDs that have not been issued.

NIST – NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

NITRAS – NAVY INTEGRATED TRAINING RESOURCES AND ADMINISTRATION SYSTEM - An automated system responsive to training information requirements from higher commands provides automated capability to manage and support the training effort throughout the Navy.

NIWC – NAVAL INFORMATION WARFARE CENTER

NIWC ATLANTIC – This facility maintains NALCOMIS IMA systems, R-Supply, R-ADMIN, Aviation 3M Micro machine, operation and maintenance of the NALCOMIS OMA Mid-Tier and JTDI/Technical Manual Server for aviation activities onboard shore stations.

NLL – NAVAL LOGISTICS LIBRARY

NLT – NO LATER THAN

NMC – NOT MISSION CAPABLE – Material condition of an aircraft that is not capable of performing any of its missions. NMC is subdivided into NMCM and NMCS. NMC Hours = EIS Hours - MC Hours.

NMCD – NOT MISSION CAPABLE DEPOT – The material condition of an aircraft that is not capable of performing any of its missions per relevant T/M/S MESM because of standard or special rework, including, PDM, IMC/P, MCI, MOD, ISR, or depot level maintenance evolution. NMCD does not start until the aircraft is reported non-flyable or undergoing depot ISR or MOD at the reporting custodian's operating site. NMCD is not accounted for in SCIR while the aircraft is out of reporting for Mission Capable Reporting Status (MCRS). See SCIR.

NMCM – NOT MISSION CAPABLE MAINTENANCE – The material condition of an aircraft that is not capable of performing any of its missions because of maintenance requirements. Start NMCM time when the condition is discovered except when the discovery is made in flight. In flight, malfunction NMCM time starts at the termination of flight. Stop NMCM when maintenance is completed or interrupted by a supply shortage. Report work stoppage resulting from parts non-availability as NMCS. NMCM time resumes when required supply item(s) are delivered to the maintenance activity. NMCM is further defined as NMCM scheduled (S) and NMCM unscheduled (U). NMCM Hours = NMC Hours - NMCS Hours. See NMC, NMCMS, and NMCMU.

NMCMS – NOT MISSION CAPABLE MAINTENANCE SCHEDULED – The sum of equipment maintenance hours documented for scheduled engine inspections, special inspections, phase/calendar inspections and conditional inspections. An aircraft will be considered NMCMS if panels and equipment removed to conduct area inspections cannot be replaced within 2 hours or if the aircraft has been utilized to the maximum allowable operating limit prior to the scheduled

maintenance requirement, for example, +10 percent, +3 days. NMCMS Hours = NMCM Hours - NMCMU Hours. See NMC.

NMCMU – NOT MISSION CAPABLE MAINTENANCE UNSCHEDULED – Sum of maintenance not defined as scheduled maintenance, occurring during the interval between scheduled downtime maintenance periods. NMCMU Hours = NMCM Hours - NMCMS Hours.

NMCS – NOT MISSION CAPABLE SUPPLY – The material condition of an aircraft that is not capable of performing any of its missions because maintenance required to correct the discrepancy cannot continue due to a supply shortage. Start NMCS time when a supply demand has been made for an item(s) required to continue maintenance. Stop NMCS time at the time the material is delivered to the designated delivery point or change of EOC code. NMCS Hours = NMC Hours - NMCM Hours. See NMC.

NO – NATIONAL ORIGIN

NOAP – NAVY OIL ANALYSIS PROGRAM

NOC – NOT OTHERWISE CODED

NOMP – NAVAL ORDNANCE MANAGEMENT POLICY

NONAVIATION SHIP – For NAMP purposes, ships not designated as Aviation Ship, such as CG, FFG, AFS, DD. Nonaviation ships may be air or aviation capable.

NONAVIONICS SE – Nonavionics SE (common and peculiar) includes all equipment that is nonelectronic in nature and may be powered or nonpowered. Examples of powered equipment are: mobile electric power plants, gas turbine powered service equipment; aircraft tow tractors, and hydraulic service units. Examples of nonpowered equipment are aircraft jacks, aircraft tow bars, aircraft slings, maintenance work stands, special fittings and fixtures.

NONOPERATING AIRCRAFT – Any aircraft, for the purpose of flight operations, not currently filling an authorized allowance in an organizational unit. See OPERATING AIRCRAFT.

NOTAL – NOT TO ALL

NOTICES – Directives of a one-time nature or those applicable for a brief period of time. Each notice contains provisions for its own cancellation. Notices employ a subject classification numbering system and are part of the Navy directive system.

NPA – NONPROVISIONED AIRCRAFT

NPDC – NAVAL PERSONNEL DEVELOPMENT COMMAND

NPSL – NAVY PRIMARY STANDARDS LABORATORY

NRFI – NON-READY FOR ISSUE

NSAWC – NAVAL STRIKE AND AIRWARFARE CENTER

NSCM – NATO SUPPLY CODE FOR MANUFACTURERS

NSIV – NAVAIR STANDARD IETM VIEWER

NSN – NATIONAL STOCK NUMBER - A 13-digit number consisting of the four-digit FSC and the nine-digit NIIN. Component segments of NSN 5330-00-123-4567 are identified as (a) FSC: 5330; and (b) NIIN: 00-123-4567.

NSWC – NAVAL SURFACE WARFARE CENTER

NTCSS – NAVAL TACTICAL COMMAND SUPPORT SYSTEM

NTFS – NAVY TRAINING FEEDBACK SYSTEM

NTMPS – NAVY TRAINING MANAGEMENT AND PLANNING SYSTEM

NTR – NO TOOLS REQUIRED

NTSP – NAVY TRAINING SYSTEMS PLAN – The official statement of billets, personnel, and training input and resource requirements to support introduction and operational use of aircraft, systems, subsystems, equipment, and other developments. The NTSP assigns responsibilities for planning, programming, and implementing actions necessary to provide the required support.

NWADIV – NAVAL WARFARE ASSESSMENT DIVISION

NWCF – NAVY WORKING CAPITAL FUND – A working capital fund (revolving fund) established with the goal of recovering enough money from sales to replace sold material, used to finance the procurement and repair of secondary item inventories (including repairables), which will eventually be charged to the customer's end use funds. In addition to purchasing expense items to be centrally managed by NAVSUP WSS, the NWCF is also the funding mechanism by which the Navy acquires DLA or GSA managed expense items and places them in Navy retail inventory.

O

O&MN – OPERATIONS AND MAINTENANCE, NAVY

OBOGS – ON-BOARD OXYGEN GENERATING SYSTEM

OCONUS – OUTSIDE CONTINENTAL UNITED STATES

OEM – ORIGINAL EQUIPMENT MANUFACTURER

OFC – OPERATIONAL FUNCTIONAL CATEGORY

OFF-EQUIPMENT WORK – For the purpose of MDR, it includes all maintenance actions performed on removed, repairable components, usually at the IMA.

OFFMP – OFF LINE FOR MANUAL PROCESSING

OFF-SITE – Aircraft is located at FRC or commercial rework activity site for rework.

OFFTR – OFF FOR TECHNICAL RESEARCH

OFVAL – OFF FOR VALIDATION

OIMA – OPTIMIZED INTERMEDIATE MAINTENANCE ACTIVITY – The computer based Management Information Systems (MIS) used by most Navy and Marine Corps IMAs to document their work.

OIC – OFFICER IN CHARGE

OJT – ON-JOB TRAINING – Training conducted while performing an administrative, operational, or maintenance task.

O-LEVEL – ORGANIZATIONAL LEVEL – Basic maintenance performed by an activity on its assigned equipment. O-level maintenance normally consist of inspecting, servicing, lubricating, adjusting, and removal and replacement of parts, minor assemblies, and subassemblies. O-level maintenance is typically organized to achieve quick turnaround of aircraft or equipment in order to optimize operational availability.

OMA – ORGANIZATIONAL MAINTENANCE ACTIVITY – An O-level activity conducting maintenance in support of its own operations. See Maintenance Levels.

OMAWHOLE – OPTIMIZED OMA NALCOMIS WHOLESALE FOUNDATION TIER (NTCSS) – A storage data base located at COMNAVAIRSYSCOM, NAS Patuxent River for CM ALS records of aircraft or tracked assets that have been stricken from the naval inventory; or to which the actual aircraft or tracked assets are in the custody of a non-NTCSS Optimized OMA NALCOMIS activity.

OMB – OFFICE OF MANAGEMENT AND BUDGET

OMD – OPERATIONS MAINTENANCE DIVISION

OMMS-NG – ORGANIZATIONAL MAINTENANCE MANAGEMENT SYSTEM-NEXT GENERATION

ON-EQUIPMENT WORK – For the purpose of MDR, it includes those maintenance actions accomplished on complete end items, for example, aircraft, drones, SE, and removed engines.

ON-SITE – Aircraft is located at other than Depot FRC or commercial rework activity site.

ON-TRACK – Any NAMP program that is in compliance with governing directive.

OOMA – OPTIMIZED ORGANIZATIONAL MAINTENANCE ACTIVITY – The computer based Management Information Systems (MIS) used by most Navy and Marine Corps OMAs to document their work.

OOMA ELECTRONIC REPOSITORY – Refers to the office at which the NTCSS Optimized OMA NALCOMIS Wholesale Foundation Tier resides.

OOR – OUT OF REPORTING

OPCON – OPERATIONAL CONTROL

OPERATING AIRCRAFT – An aircraft filling an authorized operating allowance, even if in excess of PAA.

OPERATING COMMAND – A controlling custodian of naval aircraft, except COMNAVAIRSYSCOM FS. Also called air or major operating command.

OPERATING FORCES – Those forces whose primary missions are to participate in combat and the integral supporting elements.

OPERATING LEVEL OF SUPPLY – The quantities of material required to sustain operations in the interval between requisitioning and the arrival of successive shipments. These quantities should be based on the established replenishment period (monthly or quarterly). See LEVEL OF SUPPLY.

OPERATING SERVICE AGE – The number of Operating Service Months (OSM) an aircraft has completed.

OPERATING UNIT – Squadrons and units with an operating allowance. To be an operating unit, a unit must have a mission that requires flight operations (other than ferry or flight test) by Navy aircraft.

OPERATIONAL CHARACTERISTICS – The characteristics that pertain primarily to the functions to be performed by the equipment, either alone or in conjunction with other equipment; for example, for electronic equipment, operational characteristics include such items as the frequency coverage, channeling, type of modulation, and character of emission.

OPERATIONAL EVALUATION – The test and analysis of a specific end item or system, under practical operating service conditions, to determine if quantity production is warranted. It is based on increase in military effectiveness to be gained and its effectiveness as compared with currently available items or systems, with consideration given to personnel capabilities to maintain and operate the equipment; size, weight, and location; and enemy capabilities in the field.

OPERATIONAL NECESSITY – A mission associated with war or peacetime operations in which the consequences of an action justify accepting the risk of loss of aircraft and crew.

OPM – OFFICE OF PERSONNEL MANAGEMENT

OPNAV – OFFICE OF THE CHIEF OF NAVAL OPERATIONS

OPSERMOS – OPERATING SERVICE MONTHS

OPTAR – OPERATING TARGET (funding) - Annual funds (obligational authority) issued by TYCOMs to units of the operating forces under their command from one of their budgets.

ORD – ORDERED

ORDO – ORDNANCE OFFICER

ORDSO – ORDNANCE SAFETY OFFICER

ORG – ORGANIZATION

ORG CODE – ORGANIZATION CODE – A structured three-character alphanumeric code that identifies activities within a major command.

ORGANIC – D-level maintenance performed by FRC East, Cherry Point, NC; FRC SE, Jacksonville, FL; and FRC SW, San Diego, CA; excluding D-level maintenance performed by commercial rework activities and contractor maintenance.

ORGANIZATIONAL MAINTENANCE – See MAINTENANCE LEVELS.

ORM – OPERATIONAL RISK MANAGEMENT - A systematic, decision making process used to identify and manage hazards that endanger naval resources.

OSD – OFFICE OF THE SECRETARY OF DEFENSE

OSH – OCCUPATIONAL SAFETY AND HEALTH

OSHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

OSI – OPERATIONAL SUPPORT INVENTORY – The range and depth of material required to support a planned aircraft program at a given site consists of a fixed allowance for FLRs, DLRs, and an operating level of stock for consumables.

OSL – OPERATING SERVICE LIFE – The period of time used to establish programs related to the projected retirement of a population (T/M/S) of aircraft.

OSM – OPERATING SERVICE MONTH – One monthly increment of operating service life.

OSP – OPERATING SERVICE PERIOD

OTPS – OPERATIONAL TEST PROGRAM SET - The total grouping of test program sets required to test an avionics system on ATE.

OVERHAUL – The process of disassembly sufficient to inspect all the operating components and the basic end article. It includes the repair, replacement, or servicing as necessary, followed by the reassembly and bench check or flight test. Upon completion of the overhaul process, the component or end article will be capable of performing its intended service life or service tour. See MAINTENANCE TYPES.

OXY – OXYGEN

P

PAA – PRIMARY AIRCRAFT AUTHORIZATION – The number of aircraft OPNAV has planned and resourced for performing the mission defined in the operating unit's Required Operational Capability (ROC) and Projected Operational Environment (POE) directives for Navy units and the Marine Corps AVPLAN for Marine Corps units.

PAC – Pacific

P&E – PLANNER AND ESTIMATOR – Depot FRC personnel that evaluate work required to perform depot-level repairs.

P/N – PART NUMBER

PACKAGING – An all-inclusive term covering cleaning, preserving, packaging, packing, and marking required to protect items during every phase of shipment, handling, and storage.

PAD – PROPELLANT ACTUATED DEVICE

PAGENR – PAGE NUMBER

PARTICIPATING SERVICE – The military service that uses a multipurpose aeronautical system and obtains support for it from the executive service.

PARTS KIT – Supporting items and material for the maintenance, repair, and rework of selected aeronautical repairable end items procured, stocked, requisitioned, accounted for, and used on a kit basis as one line item. Parts kits should not be confused with the kits issued to perform a one-time modification of an item or with interim fleet maintenance support kits.

PARTS KIT CODES – Codes assigned to parts kits and items therein, for the maintenance, repair, and rework of selected, repairable end items. See PROVISIONING SOURCE CODING and SM&R.

PBL – PERFORMANCE BASED LOGISTICS

PCMTIP – PERSONAL COMPUTER MAINTENANCE TRAINING IMPROVEMENT

PCO – PROCUREMENT CONTRACTING OFFICER – The government contracting officer directing and administering the acquisition through the award of the contract. Administration of the contract after award may be delegated to an ACO.

PDB – POWER DISTRIBUTION BOX

PDM – PHASED DEPOT MAINTENANCE - PDM divides a T/M/S aircraft's total Standard Rework requirements into phases. PDM phases are based on fixed Operating Service Periods (OSP), expressed in months tailored to the depot maintenance requirements for each T/M/S aircraft. Several titles are used to denote PDM events: F/A-18 aircraft PDM events are called Planned Maintenance Intervals (PMI) events; H-60 aircraft PDM events are called Integrated Maintenance Concept (IMC) events.

PEB – PRE-EXPENDED BIN – A parts bin located within a work space that contains only low cost, high usage items. A PEB is replenished from stock held by the local supply activity.

PED – PERIOD END DATE - The month and year a given aircraft ended or, if serving in period, is expected to end the current service period. For IMC/P aircraft, the PED is a fixed date (month and year) that marks completion of the last POI in a tour and the start of the first PMI in the next tour.

PEDD – PORTABLE ELECTRONIC DISPLAY DEVICE

PEMA – PORTABLE ELECTRONIC MAINTENANCE AID. A device used to store and read electronic technical data.

PEMA SERVICE PACK – A collection of PEMA core application software updates distributed periodically to update the PEMA operating system, Information Assurance Vulnerability Alert patches, Information Assurance Vulnerability Bulletins, and anti-virus definitions.

PENETRANT – Methods used for the detection of surface cracks or discontinuities. The inspection surfaces are sprayed with or immersed in liquid, the excess liquid is removed, and the defect is indicated visually by color or fluorescence. See NDI.

PEO – PROGRAM EXECUTIVE OFFICER

PERSMAR – PERSONNEL MANNING REPORT

PERSONNEL REQUIREMENTS – Those requirements for personnel derived from a maintenance task that must be performed. See PERSONNEL UTILIZATION.

PERSONNEL UTILIZATION – The actual reporting of accomplishments by personnel assigned.

PHASE INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE.

PHYSICAL CUSTODY – Actual possession of aircraft, engines, or SE. Physical custody does not necessarily imply reporting custody.

PID – PHASED INDUCTION DATE

PINC – PREVIOUSLY INCORPORATED – This status code is used to indicate TD has been previously incorporated.

PIPELINE – The logistics channel by which material and other logistic elements flow from sources of procurement or repair to their point of use. The aircraft pipeline refers to aircraft being manufactured for future delivery to the Navy and aircraft already in the inventory that are undergoing repair/overhaul at a commercial or DoD depot facility. The manpower and training pipeline refers to personnel undergoing training in route to their ultimate duty assignment.

PJT – PRACTICAL JOB TRAINING – Structured "hands-on" training conducted by the fleet readiness squadron or supporting I-Level involving an arranged problem, task, or sequence in an educational environment. See OJT.

PLA – PLAIN LANGUAGE ADDRESS

PLTS – PARTS LIFE TRACKING SYSTEM – An automated system used for tracking the composition, location, and operating time/cycle counts or life usage indexes of aircraft engines, propulsion systems, modules, and life limited components. PLTS is used to develop long range schedules for inspections, removals, replacements, procurements, and rework schedules for these components, based on usage requirements and fixed or variable usage rates. It provides important support to the RCM Program.

PM – PREVENTIVE MAINTENANCE – Inspections and maintenance (excluding repair) required to maintain aircraft, equipment, SE, and facilities in satisfactory operating condition.

PMA - PROGRAM MANAGER-AIR

PMC - PARTIAL MISSION CAPABLE – Material condition of an aircraft that can perform at least one but not all of its missions. PMC is subdivided into PMCM and PMCS. PMC Hours = MC Hours - FMC Hours.

PMCM – PARTIAL MISSION CAPABLE MAINTENANCE – The material condition of an aircraft that can perform at least one but not all of its missions because of maintenance requirements existing on the inoperable subsystem(s). Start PMCM time when the condition is discovered, except when the discovery is made in flight. In flight, malfunction PMCM time starts at the termination of flight. Stop PMCM time when maintenance is completed or interrupted by a supply shortage. Report work stoppage resulting from parts nonavailability as PMCS. PMCM time resumes when required supply item(s) are delivered to the maintenance activity. PMCM Hours = PMC Hours - PMCS Hours. See PMC.

PMCS – PARTIAL MISSION CAPABLE SUPPLY – Material condition of an aircraft that can perform at least one but not all of its missions because maintenance required to correct the discrepancy cannot continue because of a supply shortage. Start PMCS time when a supply demand has been made for an item required to continue maintenance. Stop PMCS time at the time the material is delivered to the designated delivery point or change of EOC code. PMCS Hours = PMC Hours - PMCM Hours. See PMC.

PME – PRECISION MEASURING EQUIPMENT – Devices used to measure, gauge, test, inspect, diagnose, or examine material, supplies, and equipment to determine compliance with requirements established in technical documents, for example, research, development, test, and evaluation documents, specifications, engineering drawings, technical orders, technical manuals, maintenance instructions, and serviceability standards.

PMI – PLANNED MAINTENANCE INTERVAL – Period of time for execution of an IMC/P or PDM scheduled maintenance event. Can include O-level, I-level, and D-level maintenance actions.

PMIC – PERIODIC MAINTENANCE INFORMATION CARD – The PMS publication that contains the component/assembly removal/replacement schedule, airframe structural life limits, and a maintenance requirements systems index. It also contains a conditional inspection listing and a phase change implementation card (included as required).

PMRC – PERIODIC MAINTENANCE REQUIREMENT CARD

PMS – PLANNED MAINTENANCE SYSTEM

PMU – PROGRAM MANAGEMENT UNIT

PN – PART NUMBER

POA&M – PLAN OF ACTION AND MILESTONES - A document that identifies actions or tasks in the specific order needed to accomplish an objective. This document assigns to each action, the office responsible, and the start and completion date for each action.

POC – POINT OF CONTACT

POCW – PROGRAM OFFICE CERTIFICATION WORKSHEET

POD – PROOF OF DELIVERY

PODS – PORTABLE OIL DIAGNOSTIC SYSTEM

POE – POINT OF ENTRY

POI – PLANNED OPERATIONAL INTERVAL – Period of time planned for operational use when the aircraft is under IMC/P or PDM. POI follows a PMI and will vary in length based on actual maintenance completion. Predetermined end date is the next FID, or at the end of the tour, the PED.

POL – PETROLEUM, OIL, AND LUBRICANT

POM – PROGRAM OBJECTIVE MEMORANDUM

POOL – A grouping of repairable assemblies provided a rework activity as replacements for similar defective repairable assemblies removed from an aircraft or engine undergoing some phase of rework that are not to be reworked concurrently with the aircraft or engine from which removed. These items are provided to prevent disruption of production schedules because the lead time to obtain the required replacement item from supply and the turnaround time of the aircraft/engine are not compatible.

POS – POSITION

POSIT – POSITION

PPB – POWER PLANT BULLETIN

PPC – POWER PLANT CHANGE

PPE – PERSONAL PROTECTIVE EQUIPMENT

PPM – PARTS PER MILLION

PQDR – PRODUCT QUALITY DEFICIENCY REPORT

PQS – PERSONNEL QUALIFICATION STANDARDS – Documents, which describe the knowledge and skills trainees, must have to correctly perform their duties. The policy and procedures for PQS are outlined in OPNAVINST 3500.34.

PR – AIRCREW SURVIVAL EQUIPMENTMAN

PRE-ACCEPTED AIRCRAFT – Any Navy public aircraft which has not been formally brought into the Aircraft Inventory and Readiness Reporting System (AIRRS) inventory database.

PREDICTIVE MAINTENANCE - Predictive maintenance, as performed on the Weapon System, is the application of analysis, which has predicted the future failure point of a component so that the component maintenance can be planned by the OMA at an optimal time before functional failure. Predictive maintenance differs from preventive in that it uses rich data to determine the condition of a specific component and forecasts the opportunity window for OMA maintenance planning.

PREFERRED ITEM – One selected under a DOD program by which the item is designated for procurement, stock, and issue, but which is not a standard item.

PREOPERATIONAL INSPECTION – See INSPECTION, AIRCRAFT/ENGINE/SUPPORT EQUIPMENT (SE)

PM – PREVENTIVE MAINTENANCE –PM provides systematic inspection, detection, and correction of failures either before they occur or before they develop into major defects.

PREVENTIVE ACTION – Action taken to eliminate the cause of potential failure or nonconformance to standards.

PRI – PRIORITY

PRIMARY MISSION – For the purpose of maintenance data reporting, the primary purpose for which the aircraft is assigned to the unit (reporting custodian).

PRIME ITEM – The head-of-family, or preferred item, currently procurable (the latest version which will be procured upon requisition if all wholesale stock and in-use excess items are depleted).

PRMAR – PRIMARY MISSION AREAS

PROCESS – (1) A generic term used to describe the series of actions or uses an aircraft is subjected to as it progresses through its service life. Six categories are included in the term: operating, standard rework, special rework, storage, retirement or strike, and miscellaneous. Subdivisions are included under each category to describe specifically the action of use involved. (2) Any set of conditions, or set of causes, which work together to produce a given result. While it often refers to the combination of people, materials, machines, and methods used to produce a given product, it is also capable of assuming other meanings such as a method of assembly, a group of people such as a pay group or work center, or a method of measurement.

PROCUREMENT – The process of obtaining personnel, services, supplies, and equipment.

PROCUREMENT LEAD TIME – The interval, in months, between the initiation of procurement action and receipt into the supply system of the production model, excluding prototypes, purchased as the result of such actions. It is composed of two elements, production lead time and administrative lead time. See INITIATION OF PROCUREMENT ACTION.

PRODUCTION AIRCRAFT – New aircraft accepted from the contractor by the Navy. They include all Navy aircraft procured for operational or training purposes, that is, all aircraft except those procured solely for experimental purposes. Every Navy aircraft is either experimental or production.

PRODUCTION CONTROL – The functional organization within the IMA responsible for workload control.

PRODUCTION CONTROL OFFICER – is equivalent to the Maintenance Material Control Officer (MMCO) for the Marine Corps and also refers to personnel performing MMCO duties for D-level activities.

PRODUCTION DIVISION – Any division in the IMA responsible for a specific production workload, for example, avionics, power plants.

PRODUCTION EQUIVALENT – An approved configuration change to the product baseline incorporated by the manufacturer during production. The configuration change must have been approved for retrofit on in-service equipment via a TD.

PROGRAM – A plan or system under which action may be taken toward a stated goal or objective. A program is generally considered to have some or all of the following elements: (1) a program manager, (2) a formalized governing directive, (3) designated funding, (4) standardized procedures, and (5) specialized training.

PROGRAM AIRCRAFT – All production aircraft, except the Board of Inspection and Survey, in the physical custody of the Navy for which current or future operation within an authorized allowance is intended or can reasonably be expected. This includes all aircraft in the Navy inventory except aircraft of experimental configuration, target drones (man-carrying), aircraft retired but not yet stricken, or aircraft on bailment or loan.

PROGRAM MANAGER – Designated military and civilian personnel responsible for NAMPSOP and non-NAMPSOP programs.

PROGRAM OPERATING ALLOWANCE – The number of aircraft allowed a unit for flight operations related to the unit mission.

PROGRAM MONITOR – Designated military and civilian personnel responsible for the ongoing review of applications of details, plans, policies, practices, procedures, products, directives, and records of NAMPSOP and non-NAMPSOP programs.

PROGRAM SERVICE LIFE – The sum of operating service period plus nonaging or nonoperating time, approximates but does not set service life limit and is used for planning, programming, and budgeting purposes.

PROJ – PROJECT

PROJECT AIRCRAFT – Aircraft in either the controlling custody of the COMNAVAIRSYSCOM aircraft custodian or in the reporting custody of units of operational test and evaluation force under an authorized operating allowance for purposes of experiment, research, development, test, and evaluation (other than rework evaluation of flyability tests) of aircraft and aircraft equipment. Project aircraft have usually been altered to the extent it is uneconomical to return them to service configuration.

PROPRIETARY – The Department of Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.227-7013 sets forth the requirements for Proprietary Rights and Data. Proprietary denotes contractor data that, in the opinion of the contractor, reveals a trade secret or an industrial sensitive technique/procedure. The misuse of this data or improper distribution to unauthorized personnel could be detrimental to the contractor.

PROVISIONING – The process of doing the technical planning necessary to establish the item support plan, piece by piece and assembly by assembly; establishing the minimum levels or echelons responsible for repair; identifying the kind and type of SE requirements, handbooks, manuals, and other maintenance publications; determining the basic factory and field training requirements; and providing for the establishment of inventory management records.

PROVISIONING SOURCE CODING – The process of determining the range of repair parts required to support and maintain an end item by assigning codes that indicate to maintenance and supply personnel the manner of acquiring items for the maintenance, repair, or overhaul of the end item. See SM&R.

PSE – PECULIAR SUPPORT EQUIPMENT – An item of SE that must be designed and developed in conjunction with the development of a specific weapons system and does not meet the criteria of CSE. PSE is divided as AVIONICS SE (common and peculiar) and NONAVIONICS SE (common and peculiar).

PSECA – PRIMARY SUPPORT EQUIPMENT CONTROLLING AUTHORITY – The term applied to COMNAVAIRSYSCOM (PMA-260) who functions as the centralized SE inventory management authority. The PSECA is responsible for coordinating redistribution of in-use assets among the SECAs, prioritization of SE procurement, and distribution of new SE.

PSI – POSITION SENSITIVE INDICATOR

PSICP – PROGRAM SUPPORT INVENTORY CONTROL POINT

PSIG – PER-SQUARE-INCH GAUGE

PSP – PERFORMANCE STANDARD PROGRAM

PSSN – PROPULSION SYSTEM SERIAL NUMBER – The same as engine serial number. Modular engines will be assigned a PSSN, which identifies the complete engine as an assembly.

PST – PRODUCT SUPPORT TEAM

PT – PART OR SYMBOL FOR PENETRANT

PTS – PERFORMANCE TEST SHEET

PUC – PERMANENT UNIT CODE – The 6-character number permanently assigned to each reporting custodian of aircraft. The master code list is maintained by the CNO.

PWS – PERFORMANCE WORK STATEMENT

Q

QA – QUALITY ASSURANCE – A planned and systematic pattern of all the actions necessary to provide adequate confidence that the item or product conforms to established technical requirements and will perform satisfactorily in service. See MAINTENANCE QA.

QAR – QUALITY ASSURANCE REPRESENTATIVE

QAWB – QUALITY ASSURANCE WORKBENCH

QAS – QUALITY ASSURANCE SUPERVISOR or QUALITY ASSURANCE SPECIALIST

QASO – QUALITY ASSURANCE SAFETY OBSERVER

QC – QUALITY CONTROL

QEC – QUICK ENGINE CHANGE

QECA – QUICK ENGINE CHANGE ASSEMBLY – An engine completely assembled with a QECK on a QECS with all accessories, less the propeller for reciprocating or turboprop engines.

QECK – QUICK ENGINE CHANGE KIT – A kit containing all items required for a QECA, less GFE, engine, and propeller.

QECS – QUICK ENGINE CHANGE STAND – A structural frame, equipped with castors and floor locks on which a QECA may be mounted.

QPA – QUALIFIED AND PROFICIENT APPRENTICE

QPJ – QUALIFIED AND PROFICIENT JOURNEYMAN

QPT – QUALIFIED AND PROFICIENT TECHNICIAN

QTY – QUANTITY

QUALIFICATION – Attainment of skill or knowledge to perform a task, duty or job. Qualification normally includes completion of a specified training track and demonstration of proficiency. Qualification often results in a designation. NAMP example: A designated Plane Captain has attained the qualifications to perform those tasks covered in the Place Captain training syllabus.

QUALIFIED – Having the qualifications to perform a specified task, duty or job. NAMP example: A Hydraulic Contamination Analysis Technician is qualified to analyze hydraulic fluid samples.

QUALITY AUDIT – A selective comparison of actual workmanship with a given set of standards or objectives.

QUALITY CHARACTERISTIC – A product characteristic that has been identified by quality and reliability assurance as being critical to or necessary for assuring an acceptable quality product or process.

QUALITY COST –

FAILURE COSTS – Costs incurred when a reworked product does not meet specifications. Internal failure costs are those failure costs that are incurred before the product is sold to our customer. External failure costs are those failure costs that are incurred by the FRCs after the product is sold to our customer.

APPRAISAL COSTS – Costs incurred when a reworked product is verified or analyzed to determine its conformance to specifications.

PREVENTION COSTS – Costs incurred for planning and maintaining the quality system.

TOTAL QUALITY COST INDEX – Total quality costs or total costs X 100.

TOTAL QUALITY COSTS – Prevention costs and appraisal costs + failure costs.

QVI - QUALITY VERIFICATION INSPECTION

R

R&M – RELIABILITY AND MAINTAINABILITY

R-SUPPLY – RELATIONAL SUPPLY

RAC – RAPID ACTION CHANGE

RADCOM – RADAR/COMMUNICATIONS

RADIOGRAPHIC – A method that uses X-rays or similar radiation for the purpose of penetrating or being scattered by substances to reveal flaws or defects in the part or structure being examined. See NDI.

RAMEC – RAPID ACTION MINOR ENGINEERING CHANGE

RAST – RECOVERY ASSIST, SECURING AND TRAVERSING

RCA – ROOT CAUSE ANALYSIS

RCC – REGIONAL CALIBRATION CENTER

RCM – RELIABILITY CENTERED MAINTENANCE – An analytical process used to identify PM tasks to realize the reliability of equipment with least expenditure of resources.

RCN – REPORT CONTROL NUMBER

RCRA – RESOURCE CONSERVATION AND RECOVERY ACT

RCU – REQUISITION CONTROL UNIT

RDT&E – RESEARCH, DEVELOPMENT, TEST AND EVALUATION

REBASE – A special inspection performed earlier than the applicable minus three days or 10 percent limit.

RECD – RECEIVED

RECOVERABILITY CODE – Code assigned to support items to indicate to maintenance and supply personnel the reclamation or disposition action required for items removed and replaced during maintenance. See SM&R.

RECTYP – RECORD TYPE

REDISTRIBUTION – The act of effecting transfer in control, use or location of material between units or activities within or among the military services or between the military services and other federal agencies.

REDUNDANCY – The existence of more than one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical.

REF – REFERENCE

REFERENCE NUMBER – A number used to identify an item of production or a range of items of production by the manufacturer controlling the design, characteristics, and production of the item by means of its engineering drawings, specifications, and inspection requirements.

REFERENCE SYMBOL – An alphanumeric code used to identify piece parts as distinct from other items of the same part number in a single subassembly or circuit, such as four of the same diodes within a circuit; each has the same part number but a different reference symbol. Reference symbols are found in the IPB for the component.

REI – REQUEST FOR ENGINEERING INFORMATION

RELIABILITY – The probability that an item will perform its intended function for a specified interval under stated conditions.

REM – REMOVED

REP – REPAIR TIME

REPAIR – Necessary preparation, fault correction, disassembly, inspection, replacement of parts, adjustment, reassembly, calibration, or tests accomplished in restoring items to serviceable status. See MAINTENANCE TYPES.

REPAIR CYCLE DATA – An uninterrupted record of a repairable item from the time of removal until repair is completed or a reclamation or salvage determination is made.

REPAIR PART – Material capable of separate supply and replacement that is required for the maintenance, overhaul, or the repair of an end article, for example, airframe, accessories, instruments, engine, propeller, electrical, electronics, photographic, armament, training equipment, and SE.

REPAIRABLE ITEM – A durable item which, when unserviceable, can be economically restored to a serviceable condition through regular repair procedures.

REPLACEMENT ITEM – An item, functionally interchangeable with another item, but differs physically from the original in that the installation of the replacement requires operations such as drilling, reaming, cutting, filming, or shimming, in addition to the normal application and methods of attachment.

REPORTING CUSTODIAN – Navy and Marine activities and commercial contractors assigned custody of aircraft, engines, and SE. Reporting Custodians are responsible for accounting for and reporting the status of assigned aircraft, engines, and equipment. Each aircraft, engine, or equipment is in the reporting custody of only one reporting custodian at any given time.

REPORTING CUSTODY – Responsibility to account for and provide information about assigned aircraft or engines. Reporting custody does not necessarily imply physical custody.

REPORTING PERIOD – For MDS, purposes, a reporting period is 1 month.

REQ/REQN – REQUISITION

RESERVE AIRCRAFT – Aircraft in excess of immediate needs for active aircraft and are retained in inventory for possible future needs.

RESERVE STOCK AIRCRAFT – Program aircraft in the controlling custody of COMNAVAIRSYSCOM FS that are not currently and actively engaged in any of the various logistic processes, such as awaiting or en route to an operating command or to rework required in normal transition through standard service life. This category includes those aircraft stored-service-life not completed.

RESOURCES – Military and civilian personnel, material on hand and on order, the entitlement to procure or use material, utilities, and services required for the performance of a basic mission, including work or services performed for others.

RESPONSIBILITY CENTER – A command designated to receive and administer an operating budget.

RETIREMENT – Separation of aircraft from the program inventory. Separation may be accomplished by (1) strike, (2) transfer to status codes series P, R, S, or Y, or (3) transfer to a contingency reserve status (code series W).

RETROFIT – Incorporation of an engineering change, at any level, in accepted or in-service items.

REV – REVISION

REWORK (RWK) – Restorative or additive work performed on aircraft, aircraft equipment, and aircraft SE by D-level FRCs, contractors' plants, and such other industrial establishments designated by COMNAVAIRSYSCOM. A rework process extends from the time some of the work is started until all of the work has been completed, including temporary interruptions in direct labor; it also includes rework evaluation and test and correction of discrepancies determined thereby. See STANDARD REWORK and SPECIAL REWORK.

REWORK FACILITY:

PRIMARY – A facility designated by COMNAVAIRSYSCOM as having the primary D-level maintenance responsibility for each aircraft, engine, or equipment. In addition to conducting rework, overhaul, or repair of the material listed, the designation as primary rework facility for aircraft and engines carries with it the responsibility for providing engineering and logistic services. When primary D-level maintenance responsibilities are contracted for, engineering and logistic services will be provided for that aircraft or engine by a separately designated rework facility, which will also normally be assigned primary manufacturing cognizance.

ALTERNATE – The facility, if any, which is assigned maintenance workload for aircraft, engines, or equipment for which another facility has been designated as the primary rework facility. The alternate rework facility will assume supporting engineering responsibilities as a participating field activity as requested by and negotiated with the primary rework facility, and will normally have responsibility for secondary manufacturing cognizance which may be separately assigned a rework facility by COMNAVAIRSYSCOM.

RF – RADIO FREQUENCY

RFI – READY FOR ISSUE – Material, equipment, aircraft, and SE, which does not require rework of any type, replacement of overage parts, or other than routine preinstallation and post installation condition verification prior to use. RFI items are not necessarily new or like new, but are functionally reliable and meet applicable performance specifications. Packaging and preservation do not enter into the process of producing an RFI item but are required in order to maintain the item identity and condition and to prevent damage during subsequent shipping, handling, and storage.

RFP – REQUEST FOR PROPOSAL

RFT – READY FOR TASKING

RFU – READY FOR USE

RIC – ROUTING IDENTIFIER CODE

RILOP – RECLAMATION IN LIEU OF PROCUREMENT

RIP – REMAIN IN PLACE

RMD – REPAIRABLES MANAGEMENT DIVISION

RMI – Risk Management Information

RMS – REPAIRABLE MATERIAL SECTION

ROB – RECEIPT ON BOARD

ROI – RETURN ON INVESTMENT

RSI – REPAIRABLE SUPPORT INVENTORY

RSSK – RIGID SEAT SURVIVAL KIT

RU – RECEIVING UNIT

RWK – REWORK

S

S/N – SER/SERNO – SERIAL NUMBER

SA – SYSTEM ADMINISTRATOR

SA/A – SYSTEM ADMINISTRATOR/ANALYST

SAD – SUPPLY ACCOUNTING DIVISION

SAFE – STRUCTURAL APPRAISAL OF FATIGUE EFFECTS

SAFE FOR FLIGHT – The material condition of an aircraft which, considering mission requirements and environmental conditions, permits it to be launched, flown and landed safely and ensures the aircrew has, as a minimum, the operable equipment for safe flight required by: NAVAIR 01 Series Manual, Aircraft NATOPS; CNAF M-3710.7, General NATOPS; and MESM provided on CNAP SharePoint https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ/ Subsystem Capability and Impact Reporting (Safely Flyable Column).

SAFE FOR FLIGHT CERTIFICATION – The decision process performed by authorized and designated personnel that certifies all W&B requirements have been satisfied, all applicable MRCs have been complied with (or a deviation has been attained from the appropriate authorities), all previously known discrepancies that precluded safe flight have been corrected, and all known discrepancies (evaluated separately and collectively) do not preclude safe flight.

SAFETY LEVEL OF SUPPLY – The quantity of material, in addition to the operating level of supply, required to be on hand to permit continuous operations in the event of minor interruption of normal replenishment or unpredictable fluctuations in demand.

SALVAGE – The saving or rescuing of condemned, discarded, or abandoned property and of materials contained therein for reuse, refabricating, or scrapping.

SAMM – SYSTEM ADMINISTRATOR MAIN MENU

SAMPLE – One or more units of product drawn from a lot or batch selected at random without regard to their quality. The number of units of product in the sample is the sample size.

SAMPLING PLAN – A statement of statistically valid sample size or sizes to be used and the associated acceptance and rejection criteria.

SAR – SEARCH AND RESCUE

SARDIP – STRICKEN AIRCRAFT RECLAMATION AND DISPOSAL PROGRAM

SB – SERVICE BULLETIN

SCC – SEQUENCE CONTROL CARD

SCH – SCHEDULING TIME

SCHEDULED MAINTENANCE – Inspection or servicing of aircraft, equipment, or SE done on a calendar, mileage, or hours of operation basis. Special Inspections, Phase Inspections, and Phased Depot Maintenance events are examples of scheduled maintenance.

SCIR - SUBSYSTEM CAPABILITY IMPACT REPORTING – The data system used to monitor mission capability of selected systems/subsystems.

SCREENING:

ADMINISTRATIVE SCREENING – The screening of all material received at the IMA for repair to determine if the item is within the check/test/repair capability of the IMA.

SUPPLY SCREENING – The screening of material by the supply screening unit to determine the disposition of material that cannot be repaired at the IMA.

SCT – SPECIAL CREW TIME

SCTE – SUPPLY CHAIN TECHNICAL EXPERT

SCU – STOCK CONTROL UNIT

SDR – SUPPLY DISCREPANCY REPORT

SDS – SAFETY DATA SHEET

SE – SUPPORT EQUIPMENT – IMRL and non-IMRL equipment required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. This includes all equipment required to launch, arrest (except Navy shipboard and shore based launching and arresting equipment), guide, control, direct, inspect, test, adjust, calibrate, gauge, measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain, or operate the system, subsystem, end item, or component. See CSE and PSE.

NOTE: The following equipment is excluded from the definition of SE: Powered and non-powered hand tools; housekeeping items; office furniture and equipment common to all activities defined in applicable allowance lists that are required as indirect support; items used only by the contractor; and personal equipment, such as headsets and microphones.

SE QECA – SUPPORT EQUIPMENT QUICK ENGINE CHANGE ASSEMBLY – An engine (and in some cases transmission) assembly consisting of the basic block and all required components and accessories which will provide a using activity with a complete assembly ready for immediate operation after installation into the appropriate end unit.

SEAOPDET – SEA OPERATIONAL DETACHMENT – A sea duty component assigned to shore IMAs used to augment the aircraft carrier's IMA in support of carrier air wing embarkations.

SEATS – SURVIVAL EQUIPMENT ASSET TRACKING SYSTEM – See VFS LIFE SUPPORT.

SEB – SUPPORT EQUIPMENT BULLETIN

SEC – SUPPORT EQUIPMENT CHANGE

SECA – SUPPORT EQUIPMENT CONTROLLING AUTHORITY – A term applied to major aviation commands that exercise administrative control of the AMMRL Program SE end items for allowance and inventory control. The following are designated SECAs: COMNAVAIRFOR, CNATRA, COMNAVAIRFORES, COMNAVAIRSYSCOM, CENNAVAVNTECHTRA, and PMA-260.

NOTES: 1. COMNAVAIRSYSCOM Aircraft and Support Equipment Branch executes the SECA functions for all COMNAVAIRSYSCOM field activities, D-level FRCs, FRC West Det China Lake, FRC Mid Atlantic Patuxent River, and for naval weapons stations with SE supplied by COMNAVAIRSYSCOM under the scope of the AMMRL Program.

2. PMA-260 executes SECA functions for the Maritime Prepositioning Force and for initial outfitting of new construction ships.

SECDEF – SECRETARY OF DEFENSE

SECNAV – SECRETARY OF THE NAVY

SECOND-DEGREE REPAIR – The repair of a damaged or non-operating gas turbine engine, its accessories, or components to an acceptable operating condition. See 10.39.

SEGTE – SUPPORT EQUIPMENT GAS TURBINE ENGINE

SEIS – SUPPORT EQUIPMENT IN SERVICE

SEL – SUPPORT EQUIPMENT LIST

SEMS – SUPPORT EQUIPMENT MANAGEMENT SYSTEM

SER – SERIES

SERMIS – SUPPORT EQUIPMENT RESOURCES MANAGEMENT INFORMATION SYSTEM – The replacement system for the Application Data for Material Readiness List. A collection of technical and cataloging data identifying SE end items required for O-level, I-level, and D-level aircraft maintenance. SERMIS provides the SECA with on-line visibility of source, allowance, inventory, and rework data to aid in inventory control. See AMMRL.

SERNO – SERIAL NUMBER – A number that identifies a specific end item or component. The number is usually assigned by the manufacturer and is used to differentiate between a particular end item or component and others of the same T/M/S, design, etc.

SERVICE LIFE – The time period during which the item can be maintained in service without replacement. Each program aircraft, from acceptance to strike, follows a life cycle consisting of

alternate periods of operating and rework time as prescribed for each model by OPNAVINST 3110.11. Aircraft become eligible for strike upon completion of the life cycle specified for the model.

SERVICE PERIOD – For aircraft not under IMC/P, a prescribed segment of the service life of aircraft subject to the PDM process, such as a stated number of calendar months or accumulated flight hours that an aircraft is in the physical custody of an operating activity for use prior to PDM or retirement. The number and length of standard service periods, together with associated planning factors and policies, are set forth in OPNAVINST 3110.11.

SERVICE TEST – A test of an item, system, material, or technique conducted under simulated or actual operational conditions to determine whether the specified military requirements or characteristics are satisfied.

SERVICEABLE – The condition of an end item in which all requirements for repair, bench check, overhaul, or modification (as applicable) have been accomplished making it capable of performing the function or requirements for which originally designed. The fact that signs of previous use are apparent does not necessarily mean it is unserviceable. When appearance is not a primary consideration, and the condition of the item meets all safety and performance requirements, it will be processed as serviceable.

SERVICING – The replenishment of consumables needed to keep an item in operating condition, but not including any other preventive maintenance. See COMMON SERVICING, CROSS SERVICING

SERVMART/MINIMART – A Supply Department activity providing nontechnical supplies of an administrative and housekeeping nature and high-consumption maintenance materials such as hand tools, corrosion preventive material, and petroleum, oils and l lubricants (POL). See 6.6.4.

SESS – SUPPORT EQUIPMENT STANDARDIZATION SYSTEM

SET – A unit or units and the necessary assemblies, subassemblies, and parts connected or associated together to perform an operational function.

SETI – SHAFT ENGINE TEST INSTRUMENTATION

SF – STANDARD FORM

SFOEDL – SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE LISTING

SHIP OPERATIONS – For the purpose of the NAMP, all flights that take off or land aboard a carrier/ship will be designated as ship operations.

SHML – SHIPS HAZARDOUS MATERIALS LIST

SHOP PROCESS CARDS – A ready reference for performing scheduled maintenance on specific type of aviation life support system equipment and are an extension of the NAVAIR 13-1-6 series manuals.

SHORCAL – SHORE CONSOLIDATED ALLOWANCE LIST

SHORE ESTABLISHMENT – Comprised of shore activities with defined missions approved for establishment by SECNAV.

SHOROC – SHORE REQUIRED OPERATIONAL CAPABILITY

SHORT SUPPLY – A situation existing when the total of stock on hand and anticipated receipts during a given period are less than the total estimated demand during that period.

SHORT-TERM TRANSFER – A letter or message type directive used to direct transfer and acceptance of aircraft for 90 days or less without an ATO for the purpose of deployments, exercises, missions/tasks, or units assembled for 90 days or less.

SIM – SIMULATED

SISCAL – SHIPBOARD INSTRUMENTATION AND SYSTEM CALIBRATION

SITSUM – SITUATIONAL SUMMARY

SLEP – SERVICE LIFE EXTENSION PROGRAM – One element of Conversion in Lieu of Procurement. The restoration/replacement of a primary aircraft structure, which has reached its life limit.

SM&R – SOURCE, MAINTENANCE, AND RECOVERABILITY (CODE) – A collective code assigned to items during the provisioning, source coding, or selection process to convey specific information to maintenance and supply personnel. The SM&R code consists of three parts; a source code, a maintenance code, and a recoverability code. See SOURCE CODE, MAINTENANCE CODE, RECOVERABILITY CODE, and PROVISIONING SOURCE CODING.

SMA – SUPPLY MANAGEMENT ASSIST

SMART – SELF MONITORING AND REPORTING TECHNOLOGY

SMD – SUPPLY MANAGEMENT DIVISION

SME – SUBJECT MATTER EXPERT

SMI – SUPPLY MANAGEMENT INSPECTIONS

SMIC – SPECIAL MATERIAL IDENTIFICATION CODE

SMQ – SPECIAL MAINTENANCE QUALIFICATION

SNCO – STAFF NONCOMMISSIONED OFFICER

SNDL – STANDARD NAVY DISTRIBUTION LIST - Provides official address and distribution information for the naval establishment.

SNTP – STANDARD NAVY TRAINING PLAN

SOFTWARE – A set of programs, documents, procedures, and routines associated with the operation of a computer system.

SOP – STANDARD OPERATING PROCEDURE

SORTIE – An operational flight by one aircraft.

SORTSREPNV – STATUS OF RESOURCES AND TRAINING SYSTEMS JOINT REPORT-NAVY

SOURCE CODE – Code assigned to support items (spares, repair parts, components, parts, kits, special tools, test equipment, and SE), to indicate the manner of acquiring items for the maintenance, repair, or overhaul of end items. See SM&R.

SOW – STATEMENT OF WORK

SPAD – SUPPLY PERSONNEL AND ADMINISTRATION DIVISION

SPARES – Articles identical to, or interchangeable with, the end articles on contract that are procured over and above the quantity needed for initial installation for support of an aeronautical system. See REPAIR PART.

SPC – SHOP PROCESS CARD

SPECIAL INSPECTION – See INSPECTION, AIRCRAFT/ENGINE

SPECIAL REWORK – Non-recurring D-level rework of aircraft, aircraft equipment, and SE to improve or change capability to perform specific missions or functions. Special Rework includes replacement, removal, addition, alteration, or repair of structural components and installed parts or equipment. See REWORK.

Aircraft Special Rework includes:

MODERNIZATION – Rework to convert new or newly overhauled aircraft or aircraft withdrawn from storage to the most modern configuration. Modernization includes incorporation of applicable changes and bulletins, installation of accessories, and flight testing.

MODIFICATION – Rework to improve or change capability to perform specific missions. Modification includes only the incorporation of changes and bulletins and the correction of discrepancies as specified in the directive authorizing the modification rework.

CONVERSION – Rework that alters the basic characteristics of the aircraft to such an extent a change of any part of the model designation is required, for example, conversion of an AH-1W to AH-1Z, F-14A to F-14B.

PILOT – Rework to establish overhaul and repair capability for selected components of an aeronautical system, SE, training equipment, and trainers. Pilot rework may be conducted during both the preoperational and operational phases of aircraft service life.

ANALYTICAL – Complete disassembly, inspection, engineering evaluation, repair, assembly, and test of commercial derivative aircraft for defining the D-level maintenance requirements.

INTERSERVICE – Rework of aircraft belonging to one service using the rework resources of another, for example, Army Air Force rework of Navy C-130 aircraft.

REPAIR – Rework to aircraft damaged beyond the scope of a depot field team In-service Repair (ISR); for example, rework of a crash-damaged aircraft to such an extent the work must be performed in a depot facility.

SPECIAL TEST, PERMANENT AIRCRAFT – Aircraft on special test programs by authorized activities or on bailment contract whose configuration is so drastically changed that return to its original configuration or conversion to standard operational configuration is beyond practical or economical limits. Special test, permanent aircraft are designated by the status prefix symbol N.

SPECIAL TEST, TEMPORARY AIRCRAFT – Aircraft on special test programs by authorized organizations or on bailment contract having a special test configuration or whose installed property has been temporarily removed to accommodate the test. At completion of the test, the aircraft will be returned either to its original configuration or to standard operational configuration. Aircraft in the process of Board of Inspection and Survey, Preliminary Evaluation are considered in this category. Aircraft in this situation will be designated by the status prefix symbol J. Upon completion of the tests and return of the aircraft to an operational configuration the prefix symbol J will be dropped and so reported by OPNAV XRAY action.

SPECIAL WEAPONS – A term used to indicate weapons grouped for security or other reasons. Specific terminology, for example, nuclear weapons or guided missiles, is preferable.

SPECIFICATION – A document intended primarily for use in procurement, which clearly and accurately describes the essential technical requirements for items, materials, or services, including the procedures by which it will be determined that the requirements have been met.

SQMD – SQUADRON MANPOWER DOCUMENT – Identifies and justifies manpower requirements in relation to mission operational assignments and ensures agreement and alignment with the present manpower programs, controlling directives, policies, terminology, and maintenance and administrative concepts.

SRA – SHOP REPLACEABLE ASSEMBLY – A generic term which includes all the packages within a WRA including chassis and wiring as a unit. (Sub-level mechanization or modular subdivisions within an SRA may occur.) Conversely, a WRA is composed entirely of SRAs.

SRC – SCHEDULED REMOVAL COMPONENT

SRD – SUPPLY RESPONSE DIVISION

SRS – SUPPLY RESPONSE SECTION – The section of the ASD that receives requests for material and causes the issue and delivery of the requested material to be made.

SSI – SPECIAL STRUCTURAL INSPECTION

SSI – STRUCTURALLY SIGNIFICANT ITEM – The specific region or element of structure whose failure would result in a major reduction of residual strength or loss of the structural function.

SSI-K – SPECIAL STRUCTURAL INSPECTION-KIT

SSK – SEAT SURVIVAL KIT

SSMP – SUPPLY SUPPORT MANAGEMENT PLAN

SSN – SOCIAL SECURITY NUMBER

SSRA – SUB SHOP REPLACEABLE ASSEMBLY

SSSCP – SINGLE SUPPLY SUPPORT CONTROL POINT

SSU – SUPPLY SCREENING UNIT

STANDARD REWORK – Depot rework performed per an established recurring schedule, such as a Fixed Induction Date (FID) or Planned End Date (PED). Phased Depot Maintenance (PDM) and Aircraft condition Inspection/Air Worthiness Inspection (ACI/AWI) are Standard Rework events. Standard Rework includes a comprehensive D-level inspection of selected aircraft structures and materials, correction of critical defects, and incorporation of TDs, and may include limited removal and rework of installed components.

STANDARDIZATION – The process by which the DOD achieves the closest practicable cooperation among the services and agencies for the most efficient use of research, development, and production resources and agrees to adopt on the broadest possible basis the use of: (1) common or compatible operational administrative and logistic procedures; (2) common or compatible technical procedures and criteria; (3) common, compatible, or interchangeable supplies, components, weapons or equipment; and (4) common or compatible tactical doctrine with corresponding organizational compatibility.

STANDARDS LABORATORY – A laboratory under the control of the military departments or any agency of DOD that provides calibration services for certifying the calibration standards of calibration installations. These laboratories normally obtain certification of their standards from the National Institute of Standards and Technology.

STANDBY POOL – See POOL.

STARS-FL – STANDARD ACCOUNTING AND REPORTING SYSTEM - FIELD LEVEL

STASS – STANDARD TRAINING ACTIVITY SUPPORT SYSTEM – Standardized comprehensive day-to-day integrated automated classroom support that feeds corporate level data to NITRAS II.

STATISTICAL ANALYSIS – The science of drawing conclusions from observed data using statistical techniques and methods proved mathematically valid.

STATISTICAL DATA – An accumulation of data which may be graphically presented or tabulated for use in determining the quality level being produced by any specific manufacturing, repair, overhaul, or inspection process.

STATISTICAL QUALITY CONTROL – The control of quality through the application of statistical techniques to inspection/verification methods and process analysis.

STATUS CODES (MILSTRIP) – Codes that furnish information on the status of requisitions. Supply status (except "rejection" status, code C) predicts shipment on time as specified by the priority delivery date or the required delivery date.

STOCKAGE OBJECTIVE – The maximum quantities of material to be maintained on hand to sustain current operations. It consists of the sum of stocks represented by the operating level and the safety level. See LEVEL OF SUPPLY.

STORAGE – Temporary removal of an aircraft from the active inventory and placement in an inactive status for an indefinite period. Storage assumes the aircraft will be inactive indefinitely or for more than 60 days. Aircraft, in the custody of the COMNAVAIRSYSCOM FS activities, that are not expected to commence a rework process for 60 days or more, must be reported in the appropriate storage status. An aircraft will remain in storage status from the beginning of the preservation process until removal of preservation upon withdrawal from storage. Stored aircraft will be preserved at COMNAVAIRSYSCOM or DOD activities and may be stored in the open, in metal containers, or in cocoons.

STR – STRUCTURAL LIFE LIMIT COMPONENT

STRIKE – The official action that removes an aircraft from the list of Navy aircraft.

SUADPS – SHIPBOARD UNIFORM AUTOMATED DATA PROCESSING SYSTEM

SUADPS/RT – SHIPBOARD UNIFORM AUTOMATED DATA PROCESSING SYSTEM/REAL TIME

SUBASSEMBLY – Two or more parts that form a portion of an assembly or a unit, replaceable as a whole, but having a part or parts that are individually replaceable.

SUBCUSTODIAN – The activity having physical custody of aircraft or equipment permanently assigned to another activity.

SUBSTITUTE ITEMS – Two or more items possessing such functional and physical characteristics as to be capable of being exchanged only under certain conditions or in particular applications and without alteration of the items themselves or of adjoining items.

SUBSYSTEMS – A combination of two or more pieces of equipment, generally physically separated when in operation, and such other components, assemblies, subassemblies and parts necessary to perform an operational function or functions.

SUPORG – SUPPLY ORGANIZATION (CODE)

SUPPLIES – All items necessary for the equipment, maintenance and operation of a military command.

SUPPLY – The procurement, distribution, maintenance while in storage, and salvage of supplies including determination of the kind and quantity of supplies.

SUPPLY MANAGEMENT – See INVENTORY CONTROL.

SUPPLY SCREENING UNIT – The section of the ASD that screens and forwards, for disposition, all components processed at the IMA.

SUPPORT – The action of a force that aids, protects, complements, or sustains another force per a directive requiring such action.

SUPPORTING AIRCRAFT – All active aircraft other than unit aircraft.

SURFACE TARGET – See MISSILE TARGET.

SURVEILLANCE – A mode of Type III verification, which allows the use of, reduced verification through application of an effective audit program. Applicable products and processes are those that display objective quality evidence or those that display a state of statistical quality control using the Shop Process Card.

SUSPECT COUNTERFEIT – Material, items, or products in which there is an indication by visual inspection, testing, or other information that it may meet the definition of counterfeit material provided herein.

SVC – SERVICE

SWPT – SOFTWARE PRODUCT TEAM

SYSTEM – A composite of subsystems, assemblies, skills, and techniques capable of performing or supporting an operational or nonoperational role. A complete system includes related facilities, items, material, services, and personnel such that it can be considered a self-sufficient item in its intended operation.

T

T/M/S – TYPE/MODEL/SERIES

TABLE OF BASIC ALLOWANCE (TBA) – See AERONAUTICAL ALLOWANCE LISTS.

TACAN – TACTICAL AIRBORNE NAVIGATION

TAD – TEMPORARY ADDITIONAL DUTY

TAMPS – TACTICAL AVIATION MISSION PLANNING SYSTEM

TAT – TURNAROUND TIME – TAT is: The time period that commences with the time an aircraft is removed from an operating unit to undergo a rework process and terminates when the reworked aircraft is returned to an operating unit. A change of reporting and controlling custody is not

necessarily involved; however, a change in physical custody is always involved. TAT is the sum of the following: time en route from an operating unit to the naval facility, time awaiting rework, time in rework, time awaiting flight check after rework, time in a COMNAVAIRSYSCOM RFI status, and time en route to an operating unit. The time needed to service, inspect, and check an item prior to recommitment. The interval between the time a repairable item is removed from use and the time it is available for reissue in a serviceable condition.

TAT RECOVERABLE MISSILE TARGETS – For recoverable missile targets, TAT is the total time required to perform a complete post launch rehabilitation inspection commencing with the onset of decontamination of a recovered target, including all scheduled and unscheduled maintenance, and testing required to return it to a launch ready condition.

TAXI OPERATOR – Personnel authorized to ground taxi Unmanned Aircraft (UA).

TBA – TABLE OF BASIC ALLOWANCE

TBI – TEST BENCH INSTALLATION – Is a selected replaceable aircraft assembly (normally a Weapons Replaceable Assembly) installed in a test bench harness, test set or console which is required in an aviation maintenance shop to accomplish all maintenance, test, and repair of an aviation system, assembly or component.

TCC - TARGET CAPABILITY CODE – TCC denotes an I-level repair Capability Code (CC) change expected to occur in the future. See CC.

TCCD - TARGET CAPABILITY CODE DATE – The date an I-level repair Capability Code change is expected to be in effect. See TCC.

TCD – TARGET COMPLETION DATE

TCM – TOOL CONTROL MANUAL – Contains information that includes material requirements, tool inventories, and detailed instructions for the implementation and operation of the Tool Control Program for a specific type/model aircraft.

TCMB – TRAINING CONTINUUM MANAGEMENT BOARD

TCN – TRANSPORTATION CONTROL NUMBER

TCP – TOOL CONTROL PROGRAM

TCR – TRACKED COMPONENT RECORD

TCS – TARGET CONTROL SYSTEM

TD – TECHNICAL DIRECTIVE – A document authorized and issued by COMNAVAIRSYSCOM to provide technical information necessary to properly and systematically inspect or alter the configuration of aircraft, engines, systems, or equipment subsequent to establishment of each respective baseline configuration. TDs include all types of changes and bulletins and consist of information that cannot be disseminated satisfactorily by revisions to technical manuals. NATEC controls assignment of TD numbers.

TD CODE – A two-character numeric code that identifies the type of TDs.

TD IDENTIFICATION CODE – A 12 or 13-character alphanumeric code used to identify a specific TD.

TD STATUS CODE – A one-character alphabetic code used to indicate the status of compliance with a TD.

TDA – TPDR DEPOSITION AUTHORITY

TDC – TECHNICAL DIRECTIVE COMPLIANCE

TDCODE – TECHNICAL DIRECTIVE CODE

TDM – TECHNICAL DATA MANAGER – Acts as the activity's single point of contact with NATEC concerning automatic distribution requirements of all NAVAIR manuals and manages the day-to-day operations of the CTPL.

TDMA – TECHNICAL DATA MANAGER ASSISTANT – Maintenance/Production work center collateral duty assignment and functions under direct management and support of the activity TDM.

TDPC – TECHNICAL DIRECTIVES COMPLIANCE PROGRAM COORDINATOR

TDPM – TECHNICAL DIRECTIVES COMPLIANCE PROGRAM MANAGER

TDRS – TECHNICAL DIRECTIVES REPORTING SYSTEM

TDR – TRANSPORTATION DISCREPANCY REPORT

TDS – TECHNICAL DIRECTIVE SYSTEM – TDS is a web application that allows users to track compliance of TDs. By interacting with other AWIS systems, TDS provides real-time reports of compliance by part inventory levels, serialized items, and PCMCIA cards. The system also enables the initiation, verification, review and approval of new TDs.

TE – TEST EVALUATION

TEC – TYPE EQUIPMENT CODE – A 4-character code used to identify the complete end item or category of equipment being worked on, for example, aircraft, engine, or SE. The general format and structure of these codes is in Appendix E. A complete listing of TECs may be found in the Aviation Type Equipment Code List (A7210-01).

TECHNICAL DATA – Data required for the accomplishment of logistics and engineering processes in support of the contract end item. It includes drawings, operating and maintenance instructions, provisioning information, specifications, inspection and test procedures, instruction cards and equipment placards, engineering and support analysis data, special purpose computer programs, and other forms of audiovisual presentation required to guide personnel in the performance of operating and support tasks.

TECHNICAL EVALUATION – Studies and investigations, by a developing agency, to determine the technical suitability of material, equipment, or systems for use in the military services.

TECHNICAL MANUAL – A publication containing a description of equipment, weapons, or weapon system(s) with instructions for use, inspection, or maintenance. Technical manuals are divided into two major types: operational and maintenance. Maintenance technical manuals include general engineering series manuals, technical documentation lists, maintenance instruction manuals, wiring manuals, weight and balance data manuals, crew station/in-flight maintenance manuals, airborne missile weapons assembly checklists, structural repair manuals, IPBs, power plant manuals, and PMS manuals.

TECOM – TRAINING EDUCATION COMMAND

TEI – TEMPORARY ENGINEERING INSTRUCTION

TEMADD – TEMPORARY ADDITIONAL DUTY

TENANT – Any activity that will be aboard a ship or station for a period of time sufficient to require specific assignment of shop, hangar, crew, and equipment or line spaces. Activities may use a facility as an assigned tenant or as a joint tenant. Specific spaces may be assigned on a rotational, seasonal, occasional, or transient basis as appropriate.

TER – TRIPLE EJECTOR RACK

TEST – Subjecting an aircraft, airframe, engine, accessory, or item of equipage to prescribed conditions to determine if it will function per predetermined requirements.

BENCH TEST – The subjection of aircraft, engines, accessories, equipment, and equipage to prescribed conditions and specifications, with the use of shop test equipment, to ensure proper functioning.

FUNCTIONAL TEST – The testing of installed aircraft/engines, accessories, and equipage to determine proper functioning, particularly with respect to the applicable system.

SERVICE TEST – A test of an item, system, material, or technique conducted under simulated or actual operational conditions to determine whether the specified military requirements or characteristics are satisfied.

TEST BENCH INSTALLATION – WRA installed in a test bench harness/test set/test console which is required to simulate in a shipboard or shore-based maintenance shop, system, assembly, or component of the end article for the purpose of accomplishing all necessary operational and maintenance test and repair procedures.

TFMMS – TOTAL FORCE MANPOWER MANAGEMENT SYSTEM

TFOA – THINGS FALLING OFF AIRCRAFT

THIRD-DEGREE REPAIR – Encompasses the same gas turbine engine repair capability as the second-degree repair except that certain functions, which require high maintenance man-hours and are of low incident rate are excluded. See 10.39.

TIME/CYCLE PREFIX CODE – A one-character alphabetic code that identifies the type of time or cycle data recorded on the item.

TIME DOMAIN – The focus on quick and reliable flow of material in time.

TIR – TRANSACTION ITEM REPORT

TM – TYPE MAINTENANCE

TM CODE – TYPE MAINTENANCE CODE – A one-character numeric or alphabetic code that identifies the type of maintenance performed.

TMAPS – TECHNICAL MANUAL APPLICATION SYSTEM

TMDE – TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT - TMDE includes all devices or aviation SE used to measure, calibrate, gage, test, inspect, diagnose, or otherwise examine materials, supplies, and equipment to determine compliance with specifications, engineering drawings, technical orders, technical manuals, maintenance instructions, and/or serviceability standards.

TMR – TOTAL MISSION REQUIREMENTS

TMS – TRAINING MANAGEMENT SYSTEM

TOC – THEORY OF CONSTRAINTS – A management philosophy to effectively identify and manage constraints that inhibit organizations from achieving their goals.

TOLLGATE – A review process carried out at the end of each step of the “Define, Measure, Analyze, Improve, and Control” process improvement project. Tollgate reviews help to determine whether all of the goals within each stage of the project have been achieved successfully and must be approved by process owners and stakeholders prior to proceeding with the next phase of the project.

TOP TIER – The Top Tier Replication server is a subscriber to all.

TOT – TOTAL TURNAROUND TIME

TPI – TEST PROGRAM INSTRUCTION

TPM – TEST PROGRAM MEDIA

TPTI – TURBO PROP TEST INSTRUMENTATION

TPDR – TECHNICAL PUBLICATIONS DEFICIENCY REPORT

TPL – TECHNICAL PUBLICATIONS LIBRARY

TPS – TACTICAL PAINT SCHEME

TPS – TEST PROGRAM SET - Items needed to test a unit on ATE. These items include electrical, mechanical, instructional, and logical decision elements. The TPS elements are test program, interconnection device, test program instruction, and supplementary data.

T&R – TRAINING AND READINESS

TR – TRANSACTION REPORT

TRR – TRAINING REQUIREMENT REVIEW – A CNO-sponsored review and revalidation of designated existing weapon system training courses, which identify training track, course, NEC or MOS, Personnel Qualification Standards, and curriculum deficiencies. The TRR initiates corrective action and establishes tailored training tracks for enlisted aviation billets.

TRACE CADPAD – TRACEABILITY CARTRIDGE ACTUATED DEVICE/PROPELLANT ACTUATED DEVICE

TRACE LIFE SUPPORT MODULE – An internet based system, which provides a standardized method to manage, report, and generate hard copy history records on ALSS components and installed explosive devices.

TRACKED – All life limited/repairable components in NTCSS Optimized OMA NALCOMIS.

TRAINING AIDS – Any item developed/procured with the primary intent that it will assist in training and the process of learning.

TRANS – TRANSACTION

TRANSFER – The act of conveying reporting/controlling custody of an aircraft/SE to another custodian.

TRANSFER INSPECTION – An inspection performed at the time a reporting custodian transfers an aircraft to another operating activity including delivery to an off-site depot facility. It includes an inventory of items listed in the AIR, verification of CADs and PADs, configuration verification, and a daily inspection. CAD, PAD and configuration verifications are performed by visual external inspection and record examination. See INSPECTIONS, AIRCRAFT/ENGINE and INSPECTIONS, SUPPORT EQUIPMENT (SE).

TRANSIENT – Personnel, ships, or aircraft stopping temporarily at a station or port to which they are not assigned/attached and having destination elsewhere.

TRAWING – TRAINING WING

TRCODE – TRANSACTION CODE – A two-character numeric code used to denote the type of data being reported, and to indicate the record type to be produced.

TRR – TIME TO RELIABLY REPLENISH – The time, in hours or days, it takes once a part is pulled from the supply shelf until it is back on the supply shelf ready for issue. The formula for determining a work centers TRR is RRI + RRT = TRR.

TRU – TECHNICAL RESEARCH UNIT

TSC – TACTICAL SUPPORT CENTER

TSN – TIME SINCE NEW

TSO – TIME SINCE OVERHAUL

TSR – TIME SINCE REWORK

TTCR – TRAINING TOOL CHANGE REQUEST

TURNAROUND – The time between arriving at a point and departing from that point.

TURNAROUND CYCLE – Used in conjunction with vehicles, ships, and aircraft comprising the following: loading time at home, planned maintenance time, and, where applicable, time awaiting facilities. See TURNAROUND.

TURNAROUND INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE.

TYCOM – TYPE COMMANDER

TYPE COMMANDS – See ADMINISTRATIVE COMMANDS.

TYPE WING – Unit exercising immediate operational and administrative control over a reporting custodian, relinquishing operational control to another wing when the reporting custodian is deployed.

U

U&W – UNMANNED AVIATION AND STRIKE WEAPONS

UA – UNMANNED AIRCRAFT – A powered aircraft that does not carry a human operator, and is capable of flight under remote control, or autonomous programming.

UADPS – UNIFORM AUTOMATED DATA PROCESSING SYSTEM

UAS – UNMANNED AIRCRAFT SYSTEMS – A system whose components include a UA and the necessary equipment, network, and launch and recovery equipment to control a UA.

UAS GMVO – UNMANNED AIRCRAFT SYSTEMS GROUND MAINTENANCE VEHICLE OPERATOR

UIC – UNIT IDENTIFICATION CODE

UICP – UNIFORM INVENTORY CONTROL POINT

ULSS – USER'S LOGISTICS SUPPORT SUMMARY – (Formerly the Operational Logistics Support Plan). The ULSS is prepared by the Logistics Manager for users to identify logistics resources necessary to operate and maintain the systems, subsystems, and equipment in their

operational environment. The ULSS describes the acquisition logistics support products and services that have been developed to support fleet introduction.

ULTRASONIC – A method that uses ultrasonic energy to inspect parts of structures for defects, thickness variations, corrosion, etc. The reflection of ultrasonic energy is observed to determine discontinuities or measure thickness. This method can be applied to metallic or nonmetallic materials. See NDI.

UMMIPS – UNIFORM MATERIAL MOVEMENT AND ISSUE PRIORITY SYSTEM

UNCLAS – UNCLASSIFIED

UNIT – Unit is defined as: (1) a military element whose structure is prescribed by competent authority, such as a Table of Organization, specifically, part of an organization; (2) an organizational title of a subdivision of a group in a task force; (3) a standard of basic quantity into which items of supply are priced, divided, issued, or used; and (4) an assembly or any combination of parts, subassemblies, and assemblies mounted together, normally capable of independent operation in a variety of situations.

UNIT AIRCRAFT – Those aircraft provided to an aircraft unit for performance of a flying mission.

UNIT OF ISSUE – The quantity of an item, such as each number, dozen, gallon, pair, pound, ream, set, or yard. Usually termed "unit of issue" to distinguish from "unit price".

UNK – UNKNOWN

UNMANNED AIRCRAFT – A powered aircraft capable of flight under remote control, or autonomous programming that does not carry a human operator. Radio controlled aircraft that are operated exclusively under the Academy of Model Aeronautics National Model Aircraft Safety code are not considered unmanned aircraft.

UNS – UNSCHEDULED MAINTENANCE – Maintenance, other than the fix phase of scheduled maintenance, occurring during the interval between scheduled downtime maintenance periods.

UNS – UNIFIED NUMBERING SYSTEM

UNSCH – UNSCHEDULED

UPKEEP – The preventive, restorative, or additive work performed on aircraft, equipment, and SE by operating units and aircraft SE activities. The term applies to any method of processing aircraft required to ensure the completion of standard operating periods or service tours, including but not limited to the servicing, periodic inspections, functional and bench test, replacement, preservation, modification, and repair. An upkeep process extends from the time some of the work is started until all the work is completed, including temporary interruptions in direct labor; it also includes upkeep, evaluation, test, and correction of discrepancies determined thereby. Upkeep is divided into two categories, scheduled and special. See MAINTENANCE TYPES.

STANDARD UPKEEP – The periodic or scheduled work performed on aircraft, aircraft equipment, and aircraft SE after (and as a result of) completion of a prescribed number of flying

hours, operating hours, or calendar days per prescribed inspection or replacement requirements and such that the end product requirement of the work includes the capability of aircraft or equipment to serve a full prescribed period of flying hours, operating hours, or calendar days before undergoing upkeep again.

SPECIAL UPKEEP – The work done to aircraft, aircraft equipment, and aircraft SE to improve, change, or restore their capability to perform specific missions or functions by replacement, removal, addition, alteration, or repair of parts/equipment/aircraft, without particular regard to flying hours, operating hours, calendar days, or operating periods. Special upkeep includes, but is not limited to, modification, repair, and unscheduled inspection, replacement, or test.

USE (PRIMARY) – The primary reason an operating unit has an allowance of operating aircraft.

USN – UNITED STATES NAVY

USNO – UNITED STATES NAVAL OBSERVATORY

UTIL – UTILIZATION – The average number of hours per unit period of time an aircraft is actually in flight. Normally, utilization for a particular model aircraft is specified by the average number of hours flown per operating aircraft per calendar month, for example, E-2C utilization is 30 hours (meaning an average of 30 flight hours were flown per month per operating aircraft).

UTILIZATION FACTORS – Planned aircraft utilization per 24-hour day or calendar month, as appropriate. Aircraft utilization factors for various types, classes, and models of aircraft differ and must be specified for each. These factors are used in computations leading to the determination of maintenance requirements, for example, maintenance man-hours, spares, and repair parts required.

UUT – UNIT UNDER TEST

V

VALSPECS – VALIDATION SPECIFICATIONS

VAL/VER – VALIDATION/VERIFICATION

VED – VISUAL ELECTRONIC DISPLAY

VENDOR – A manufacturer or supplier of a commercial item.

VERIFICATION – The determination of product quality conformance by (1) actual examination, (2) measurement, (3) witnessing of tests, or (4) review of documented objective evidence describing product/quality characteristics and comparison to prescribed quality requirements and performed by QA group personnel.

VERTREP – VERTICAL REPLENISHMENT

VFC – NAVY COMPOSITE SQUADRON

VFS – VIRTUAL FLEET SUPPORT

VFS CADPAD – VIRTUAL FLEET SUPPORT CARTRIDGE ACTUATED DEVICE/PROPELLANT ACTUATED DEVICE – Web-based real-time information management program used to track installed assets, electronic transfers of aircraft custody between commands, electronic service life changes/extensions, and ALSS asset maintenance providing the ability to print reports and logbook pages.

VFS LIFE SUPPORT – VIRTUAL FLEET SUPPORT LIFE SUPPORT SYSTEMS – Web-based real-time information management program used to track installed assets, electronic transfers of aircraft custody between commands, electronic service life changes/extensions, and ALSS asset maintenance providing the ability to print reports and logbook pages.

VHF – VERY HIGH FREQUENCY

VIBRATION ANALYSIS – The technologies to detect, quantify, and eliminate defects in airframes, installed engines, and dynamic components for fixed and rotary wing aircraft. Application may be in troubleshooting, scheduled maintenance, or following specified condition-based maintenance.

VIBRATION TESTING – The technology to detect, quantify, and eliminate defects in engines and dynamic components during engine/dynamic component rework for fixed and rotary wing aircraft.

VIDS – VISUAL INFORMATION DISPLAY SYSTEM

VIDS/MAF – VISUAL INFORMATION DISPLAY SYSTEM/MAINTENANCE ACTION FORM - A hardcopy OPNAV form 4790/60 used to document maintenance in activities that do not use OOMA or OIMA.

VOC – VOLATILE ORGANIC COMPOUND

VRT – VOYAGER REPAIR TEAM

VX – AIR TEST EVALUATION SQUADRON

W

W&B – WEIGHT AND BALANCE

WAN – WIDE AREA NETWORK

WC – WORK CENTER

WD CODE – WHEN DISCOVERED CODE – A one-character alphabetic code that identifies when the need for maintenance was discovered.

WEAPON SYSTEM – A weapon and those components/parts required for its operation. (The term is not precise unless specific parameters are established.)

WEAPONS TEST EQUIPMENT – Specialized equipment of an electrical or electronic design used to test, maintain, or service aircraft weapons, bombs, rockets, missiles, special weapons, torpedoes mines, or any other explosive ordnance. This equipment is a category of WSE.

WEBFLIS – WEB FEDERAL LOGISTICS INFORMATION SERVICE

WEL – WEAPONS EQUIPMENT LIST

WESS – WEB ENABLED SAFETY SYSTEM

WESTPAC – WESTERN PACIFIC

WHE – WEAPONS HANDLING EQUIPMENT – A category of WSE which provides direct support to the weapons item. This equipment includes both peculiar and common ordnance handling and transportation equipment, as well as tools used for canning/de-canning, magazine handling, and assembly of weapons/ordnance related items. Examples of this equipment include hoisting beams, weapons carriers, strongbacks, hand lift trucks, handling bands, magazine lifting slings, weapons skids, trailers, bomb trucks (nonself-powered) and their associated tools, gauges, jigs, alignment bars, bomb assembly tables, maintenance stands, and other weapons related equipment. This equipment supports both air and surface launched weapons.

WHE – WEIGHT HANDLING EQUIPMENT

WIP – WORK-IN-PROCESS

WHO, PAXRIVER – WHOLESALE FOUNDATION, PATUXENT RIVER – An address in OOMA to transfer CM ALS. See OMAWHOLE, CM ALS and OOMA.

WHOLESALE FOUNDATION TIER – Server for CM ALS items that are life limited or repairable components to reside in as a result of repair or BCM. See OMAWHOLE, CM ALS and OOMA.

WING – Unit exercising immediate operational control over a reporting custodian, for example CVW, MAW, and Type Wing.

WO - WORK ORDER – A work document generated in OOMA. See OOMA.

WORK CENTER – A designated functional area to which maintenance personnel are assigned.

WORK CENTER CODE – A three-character code that identifies work centers. They are used in MDR to identify a work center performing the maintenance action documented. Work center codes are listed in Appendix E.

WORK CENTER SUPERVISOR – The person assigned the responsibility of maintenance management within a given work center.

WORK DOCUMENTS – Workload Control System Shop Work Orders which provide mechanized documents (electronic accounting machine serialized punched cards) compatible with the Installed Source Data Automatic Equipment Industrial Transactor: (1) UADPS Shop Work Order; (2) Handwritten Shop Work Order; (3) Discrepancy Work Order; (4) other work documentation required to supplement work documents; (5) Technical Data Package Examination and Evaluation Worksheet (internal); and (6) temporary custody, logs and records, ASR, SRC Card, EHR Card, MSR, and AESR (external).

WORK START – The point at which direct maintenance starts. See DIRECT MAINTENANCE.

WORK STOPPAGE – The point at which direct maintenance ceases, requiring the job status to change from in-work (IW) to any other job status on a WO/MAF. See DIRECT MAINTENANCE.

WP – WORK PACKAGE

WRA – WEAPONS REPLACEABLE ASSEMBLY – A generic term, includes all the replaceable packages of an avionic equipment, pod, or system as installed in an aircraft weapon system, with the exception of cables, mounts, and fuse boxes or circuit breakers.

WSE – WEAPONS SUPPORT EQUIPMENT – A category of SE where the principal function is support of the explosive ordnance component or weapon is used primarily by the Weapons Department. This equipment may be defined further as being related to air-launched, surface, or subsurface fired weapons. Air-launched related equipment includes both mechanically/electrically operated handling equipment and electronic test equipment, defined as WHE and weapons test equipment, respectively.

WSM – WEAPON SYSTEM MANAGER

WSP – WHOLESALE STOCK POINT

WSPD – WEAPONS SYSTEM PLANNING DOCUMENT – Provides base loading data, planned procurements, delivery schedules, system inventories, planning factors, material support policy, training plans, and other related planning information.

WUC – WORK UNIT CODE – A unique alphanumeric identifier of the hierarchical structure of assemblies, systems, sets, groups, installations, repairable components, life limited, high profile consumable parts, or areas, or zones of a weapons system. WUCs are utilized for documentation of maintenance tasks. WUCs may be up to thirty-two numeric or alphanumeric characters in length.

X

XO – EXECUTIVE OFFICER

Y

YYMMDD – YEAR, MONTH, AND DAY (for example, 971231)

Z

ZONAL INSPECTION – See INSPECTIONS, AIRCRAFT/ENGINE/SUPPORT EQUIPMENT.

APPENDIX B
Forms and Reports

NOTE: Previous OPNAVINST or COMNAVAIRFOR authority forms are authorized for use only when the form number and revision date match the form number and revision date stated in this Appendix.

Retention symbols assigned to reporting requirements, imposed by this instruction, pertain to completed forms. Retention symbols and definitions are listed below. If no specific retention period is specified, refer to applicable instructions for retention guidelines. Final records disposition action will follow the Department of the Navy Records Management Manual (SECNAV M-5210.1).

NOTES: 1. Copy 2 will be filed or disposed of at the squadron analyst's discretion. Copy 3 will be retained by maintenance control for a minimum of 3 months after monthly reports have been received and verified, then filed. Activities operating OOMA, refer to paragraph 8.2.5(j) NOTE.

2. Retained until replaced by next like inspection record.

3. Retained for a minimum of 6 months from the completed date.

4. Retain the last completed form and the most current form.

5. Retained for 1 month.

6. Documents with Action Taken Code L may be destroyed after daily verification. Subsystem Capability Impact Report (SCIR) related Visual Information System/Maintenance Action Forms (VIDS/MAF) with Action Taken Code N will be retained for a minimum of 6 months from the completed date.

7. Documents in support of phase or special inspections will be retained for one complete inspection cycle, or 6 months, whichever is greater. Special inspections with cycles greater than 6 months retain only those additional inspection documents for which a like inspection has not been performed during the last 6 months.

8. Retained in the Aircraft Discrepancy Book (ADB) as a separator for 10 subsequent flights. Activities operating OOMA, refer to paragraph 5.1.5.3.(a) NOTES.

9. For daily reports, the due dates (due back to the user) listed indicate the number of working days following the date of submission of the source forms to Naval Information Warfare Center (NIWC) Atlantic. For monthly reports, the due dates indicate the number of working days following the end of the month.

10. These reports will be retained during the current month and may be destroyed after receipt and verification of the monthly reports.

11. Contact Measure Occupation Control Center (MOCC), Norfolk or San Diego to obtain these forms.

12. For OOMA activities, utilize OOMA generated forms or procure through DoD or DON form number. For non-OOMA activities, forms may be locally generated as needed to meet specific aircraft or equipment requirements, provided minimum data requirements specified in the NAMP are met.

13. Generated through the Automated Weight and Balance System (AWBS).

Table B-1 NAMP Forms

NOTE: The Navy Forms On-Line Web site (https://forms.documentservices.dla.mil/order/) provide some forms in Portable Document Format (PDF). Forms listed as "Digital" must be downloaded from the on-line website.

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
OPNAV 4790/12 (10-16)	Quality Assurance Representative/Inspector Recommendation/Designation	(Digital)	
OPNAV 4790/21A (12-14)	Monthly Flight Summary	(Digital)	
OPNAV 4790/22A (12-14)	Inspection Record	(Digital)	
OPNAV 4790/23A (12-14)	Repair/Rework Record	(Digital)	
OPNAV 4790/24A (12-14)	Technical Directives	(Digital)	
OPNAV 4790/25A (2-15)	Miscellaneous/History	(Digital)	
OPNAV 4790/27A (11-16)	Inventory Record	(Digital)	
OPNAV 4790/28A (1-15)	Scheduled Removal Component Card	(Digital)	
OPNAV 4790/29 (1-84)	Aeronautical Equipment Service Record	0107LF0479145	
OPNAV 4790/31A (1-15)	Equipment Operating Record	(Digital)	
OPNAV 4790/34 (1-15)	Required Reading and Maintenance Information Record	(Digital)	
OPNAV 4790/36A (1-15)	Work Request Customer Service	(Digital)	
OPNAV 4790/38 (4-15)	Preflight/Daily/Turnaround/Postflight Maintenance Record	(Digital)	NOTE 2
OPNAV 4790/51 (2-16)	SE Custody and Maintenance History Record	(Digital)	NOTE 4
OPNAV 4790/61 (8-16)	Mobile Facility Logbook and Inventory Record - Table of Contents	(Digital)	
OPNAV 4790/62 (8-16)	Mobile Facility Logbook and Inventory Record - General Instructions	(Digital)	
OPNAV 4790/63 (5-16)	Part I - MF Major Related Equipment Records Separator	(Digital)	
OPNAV 4790/64 (5-88)	Support Equipment Transaction Report	0107LF0016600	
OPNAV 4790/65 (11-16)	Phased Depot Maintenance Work Request	(Digital)	
OPNAV 4790/73 (8-16)	Mobile Facility Logbook and Inventory Record – Part II - Table of Contents	(Digital)	

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
OPNAV 4790/73A (8-16) (Back of OPNAV 4790/73)	Mobile Facility Logbook and Inventory Record – Part II - Instructions	(Digital)	
OPNAV 4790/74 (4-15)	Mobile Facility Part II - Inventory Records – Equipment List (Separator)	(Digital)	
OPNAV 4790/74A (8-16)	Mobile Facility Part II - Inventory Records – Equipment List Form	(Digital)	
OPNAV 4790/75 (4-15)	Mobile Facility Record of Shortages (Separator)	(Digital)	
OPNAV 4790/75A (4-15)	Mobile Facility Record of Shortages Form	(Digital)	
OPNAV 4790/80 (11-16)	Support Equipment Rework Request	(Digital)	
OPNAV 4790/102 (12-16)	USN Aviation Support Equipment Operator' License	(Digital)	
OPNAV 4790/104 (4-15)	Aircraft Inventory Record Certification and Record of Transfers	(Digital)	
OPNAV 4790/106A (2-17)	Assembly Service Record	(Digital)	
OPNAV 4790/108 (5-16)	Support Equipment Misuse/Abuse	(Digital)	
OPNAV 4790/110 (4-15)	Aircraft Inventory Record	(Digital)	
OPNAV 4790/111 (4-15)	Aircraft Inventory Record (Equipment List)	(Digital)	
OPNAV 4790/112 (4-15)	Aircraft Inventory Record (Shortages)	(Digital)	
OPNAV 4790/113 (5-15)	Equipment History Record (EHR) Card	(Digital)	
OPNAV 4790/135 (8-16)	Module Service Record	(Digital)	
OPNAV 4790/136A (5-15)	Preservation/Depreservation Record	(Digital)	
OPNAV 4790/139 (4-16)	NDI Certification Record	(Digital)	
OPNAV 4790/140 (8-16)	NDI Technician/Operator Work Record	(Digital)	

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
OPNAV 4790/141 (08-23)	Aircraft Inspection and Acceptance Record	0107LF0084600	NOTE 8
OPNAV 4790/142 (5-16)	Structural Life Limits	(Digital)	
OPNAV 4790/158 (8-16)	Plane Captain Designation	(Digital)	
OPNAV 4790/19 (12-70)	Aircraft Log Book (Binder)	0107-LF-770-3385	
OPNAV 4790/21 (11-69)	Monthly Flight Summary (Separator)	(Digital)	
OPNAV 4790/22 (8-69)	Inspection Record (Separator)	0107-LF-770-3440	
OPNAV 4790/23 (1-84)	Repair/Rework Record (Separator)	0107-LF-047-9116	
OPNAV 4790/24 (8-69)	Technical Directives (Separator)	0107-LF-770-3480	
OPNAV 4790/25 (8-69)	Miscellaneous/History (Separator)	0107-LF-770-3500	
OPNAV 4790/26 (8-69)	Explosive Devices (Separator)	(Digital)	
OPNAV 4790/26A (10-92)	Installed Explosive Device Record	(Digital)	
OPNAV 4790/27 (1-84)	Inventory Record (Separator)	0107-LF-047-9135	
OPNAV 4790/31 (8-69)	Equipment Operating Log (Separator)	0107-LF-770-3620	
OPNAV 4790/52 (3-83)	SE Preoperational Record	0107-LF-770-5501	NOTE 5
OPNAV 4790/58 (07-74)	Metrology Equipment and Recall Report	N/A	NOTE 11
OPNAV 4790/60 (5-88)	VIDS/MAF	0107-LF-002-5900	NOTES 3, 6, 7
OPNAV 4790/101 (8-93)	Parachute Record	0107-LF-016-5500	NOTE 12
OPNAV 4790/109 (8-81)	Department of the Navy Aircraft Inventory Record - Cover	0107-LF-013-4500	
OPNAV 4790/134 (1-84)	Supplemental Records (Separator)	0107-LF-047-9670	
OPNAV 4790/136 (1-84)	Preservation/Depreservation Record (Separator)	0107-LF-047-9680	
OPNAV 4790/137 (8-90)	Seat Survival Kit Record	0107-LF-010-6000	NOTE 12
OPNAV 4790/138 (8-90)	Aircrew Systems Record	0107-LF-010-6100	NOTE 12
OPNAV 4790/142A (3-94)	Structural Life Limits (Separator)	0107-LF-017-9900	

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
OPNAV 4790/157 (2-86)	ALSS Record (Separator)	0107-LF-047-9785	
OPNAV 4790/159 (8-90)	Aircrew Personal Equipment Record	0107-LF-010-6200	NOTE 12
OPNAV 4790/191 (4-16)	Aircraft Taxi License	(Digital)	
OPNAV 4790/192 (4-16)	Aircraft Engine/APU Turn-up License	(Digital)	

Table B-2 Non-NAMP Forms
The following forms are available in the Navy Supply System per NAVSUP Publication 2003:

NOTE: The Navy Forms On-Line Web site (https://forms.documentservices.dla.mil/order/) provide some forms in Portable Document Format (PDF). Forms listed as "Digital" must be downloaded from the on-line website.

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
DD 200 (1-16)	Financial Liability Investigation of Property Loss	(https://www.esd.whs.mil/dd/)(Digital)	
DD 250 (8-00)	Material Inspection and Receiving Report	(https://www.esd.whs.mil/dd/)(Digital)	
DD 365 (8-96)	Record of Weight and Balance Personne		NOTE 13
DD 365-1 (8-96)	Chart A-Basic Weight Checklist Record		NOTE 13
DD 365-2 (8-96)	Form B-Aircraft Weighing Record		NOTE 13
DD 365-3 (8-96)	Chart C-Basic Weight and Balance Record		NOTE 13
DD 365-4 (8-96)	Weight and Balance Clearance Form F		NOTE 13
DD 1149 (1-16)	Requisition and Invoice/Shipping Document	(https://www.esd.whs.mil/dd/)(Digital)	
DD 1155 (12-01)	Order for Supplies or Services Request	(https://www.esd.whs.mil/dd/)(Digital)	
DD 1348 (7-91)	DOD Single Line Item Requisition System Document (6 pt.)	(https://www.esd.whs.mil/dd/)(Digital)	
DD 1348-1A (7-91)	DOD Single Line Item Release/Receipt Document	(Digital)	
DD 1423 (8-96)	Contract Data Requirements List	(https://www.esd.whs.mil/dd/)(Digital)	
DD 1574 (10-88)	Serviceable Tag - Material	0102-LF-014-5600	
DD 1577-2 (10-66)	Unserviceable Repairable Label-Materia	0102-LF-016-0000	
DD 2026 (8-24)	Oil Analysis Request	(https://www.esd.whs.mil/dd/) (Digital)	
DD 2332 (01-99)	Product Quality Deficiency Report Exhibit	0116-LF-983-8900	
NAVAIR 13920/1 (1-97)	Flight Loads/Launch/Landing Data	(Digital)	

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
NAVCOMPT 2156 (7-70)	OPTAR Document Transmittal Report	(Digital)	
NAVCOMPT 2157 (1-72)	Budget/OPTAR Report	(Digital)	
NAVPERS 1221/6 (3-16)	Navy Enlisted Classification (NEC) Change Request	(http://www.npc.navy.mil) (Digital)	
NAVSEA 4734/6 (3-90)	Special Calibration	0116-LF-018-5100	
NAVSEA 4734/7 (3-90)	Rejected Tag	0116-LF-009-4600	
NAVSEA 4734/8 (3-90)	Calibrated Label (1 3/8" x 1 1/8")	0116-LF-009-4700	
NAVSEA 4734/9 (3-90)	Calibrated Label (with flap)	0116-LF-009-4800	
NAVSEA 4734/10 (3-90)	Calibrated Label (7/8" x 5/8")	0116-LF-009-4900	
NAVSEA 4734/11 (3-90)	Calibrated Label (5/8" x 3/8")	0116-LF-009-5000	
NAVSEA 4734/13 (3-90)	Calibrated Refer to Report of Calibratior	0116-LF-009-5200	
NAVSEA 4734/15 (3-90)	Special Calibration (2" x 3")	0116-LF-009-5400	
NAVSEA 4734/16 (3-90)	Special Calibration (7/8" x 5/8")	0116-LF-009-5500	
NAVSEA 4734/17 (3-90)	Inactive Label (1 3/8" x 1 1/8")	0116-LF-009-5600	
NAVSEA 4734/19 (3-90)	User Calibration (1 1/4" x 1 7/16")	0116-LF-009-5800	
NAVSEA 4734/20 (3-90)	Warning Cleaned for Oxygen Service	0116-LF-009-5900	
NAVSEA 4734/22 (3-90)	Calibration Standard	0116-LF-009-6100	
NAVSEA 4734/23 (3-90)	Cleaned for Oxygen Service	0116-LF-009-6200	
NAVSEA 4734/24 (3-90)	Use Counter Clockwise Only	0116-LF-009-6300	
NAVSEA 4734/25 (3-90)	Use Clockwise Only	0116-LF-009-6400	
NAVSEA 4734/26 (10-95)	Calibration Not Required (1 3/8" x 1 1/8")	0116-LF-113-5200	
NAVSEA 4734/27 (3-90)	Calibration Not Required (7/8" x 5/8")	0116-LF-009-6600	

FORM NO./REV. DATE	TITLE	STOCK NO.	RETENTION (See Notes)
NAVSEA 4734/28 (3-90)	Calibration Void if Seal Broken	0116-LF-009-6700	
NAVSEA 4734/29 (3-90)	Calibrated Void if Seal Broken	0116-LF-009-6800	
OPNAV 1500/39 (3-92)	Navy Training Feedback System Form	(Digital)	
OPNAV 3710/4 (2-84)	Naval Aircraft Flight Record	0107-LF-037-1020	NOTE 1
OPNAV 3710/7 (4-16)	NATOPS Evaluation Report	(Digital)	
OPNAV 4790/2K (6-75)	Ship's Maintenance Action Form (2-Kilo)	0107-LF-047-9011 (Digital)	

The following forms are preprinted and automatically distributed to MEASURE OPERATION CONTROL CENTER, PO BOX 357064, NAS NORTH ISLAND, SAN DIEGO CA 92135-7076:

FORM NO./REV. DATE	TITLE
OPNAV 4790/58 (5-75)	Metrology Equipment Recall and Report (METER) Card
OPNAV 4790/58A (5-75)	Equipment Identification and Receipt Tag

The following forms may be ordered from General Services Administration (http://www.gsa.gov/portal/getSearchResult.action):

FORM NO./REV. DATE	TITLE	STOCK NO.
OF 346 (06-20)	U.S. Gov't Motor Vehicle Operators Identification Card	7540-00-634-3999
SF 44 (10-83)	Purchase Order/Invoice/Voucher	7540-01-152-8068
SF 95 (2-07)	Claim of Damage or Injury	GSA Web Site
SF 135 (7-85)	Records Transmittal and Receipt	GSA Web Site
SF 364 (2-80)	Report of Discrepancy (ROD)/Supply Discrepancy Report (SDR)	GSA Web Site
SF 368 (5-11)	Product Quality Deficiency Report	GSA Web Site

The following form may be ordered from the local Print on Demand System at the Navy Publications and Printing Service:

FORM NO./REV. DATE **TITLE**

NAVSUP 1375 (9-80) Allowance Change Request – Fixed https://www.navsup.navy.mil

Table B-3 Reports

REPORT NO.	TITLE	FREQ	DUE DATE (Note 9)	RETENTION (See Notes)
	Aircraft Flight Summary Report	Daily or As required	NOTE 5	NOTE 3
	Aircraft Landing Code and Mission Number (Hours) Summary	Daily or As required	NOTE 5	NOTE 3
	Aircrew Flight	Daily or As required		NOTE 3
	Aircrew Flight Summary by Assy Cd	Daily or As required		NOTE 3
	Aircrew Flight Summary by SSN	Daily or As required	NOTE 5	NOTE 3
	Individual Master Roster	Daily or As required	NOTE 5	NOTE 3
MAINT-1	Consolidated Performance Metrics	Daily or As required	NOTE 5	NOTE 3
MAINT-2	Aircraft Readiness Degradation and Utilization Summary	Daily or As required	NOTE 5	NOTE 3
MAINT-3	Subsystem Capability and Impact Reporting by WUC/UNS	Daily or As required	NOTE 5	NOTE 3
MAINT-4	Detailed Mission and Maintenance Data by Aircraft	Daily or As required	NOTE 5	NOTE 3
MAINT-5	Maintenance Man-Hours	Daily or As required	NOTE 5	NOTE 3
MAINT-6	Detailed Data Extract	Daily or As required	NOTE 5	NOTE 3
N2R23800	Equipment Discrepancy Report	Daily or as required	NA	NA
N2R23900	Work Center Work Load Report	Daily or as required	NA	NA
N2R24001	Daily Production Report - Part 1	Daily or as required	NA	NA
N2R24002	Daily Production Report - Part 2	Daily or as required	NA	NA
N2S21601	***Workload Inquiry *** (Screen Display)	Daily or as required	NA	NA
N6R72300	DIFM Status Report	Daily or as required	NA	NA
N6R72600	SQD EXREP Status Report	Daily or as required	NA	NA

NA500C	Aeronautical Technical Directive Index Report	Daily or as required	NA	NA

APPENDIX C
Directives

This appendix provides a listing of the latest directives and publications available at time of publication. It is the responsibility of the user to determine the current status and distribution of any directive or publication being used.

NOTES: 1. Department of the Navy Issuances website (https://www.secnav.navy.mil/doni/default.aspx) provides unclassified directives and forms issued by the Secretary of the Navy and the Office of the Chief of Naval Operations.

2. Department of Defense Issuances website (https://www.esd.whs.mil/dd/) provides unclassified directives issued by the Department of Defense for the Office of the Secretary of Defense.

3. Naval Air Systems Command (NAVAIR) Issuances website (https://myteam.navair.navy.mil/km/71/Directives/Pages/NAVAIR.aspx) provides unclassified directives and manuals issued by NAVAIR.

4. Commander, Naval Air Forces (CNAF), Commander, Naval Air Forces, Pacific (CNAP) and Commander, Naval Air Forces, Pacific/Atlantic (CNAP/CNAL) Issuances website https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-HQ provides unclassified directives issued by CNAF, CNAP and CNAP/CNAL.

5. Code of Federal Regulations website https://www.govinfo.gov/app/collection/cfr provides access to annually updated CFR titles and volumes.

6. Defense Logistics Agency website(https://issuances.dla.mil/Pages/default.aspx) provides access to DLA Instructions, Regulations, Manuals, Handbooks, Standard Operating Procedures, Directive-Type Memorandums, Joint Service Regulations and Decision Memorandums.

7. Directives listed in this appendix are not-to-all (NOTAL). Directives identified may not be distributed to or held by all recipients of this instruction.

DIRECTIVES:

14 CFR	Aeronautics and Space
29 CFR	Labor
40 CFR	Protection of Environment

BUPERSINST 1080.54	Enlisted Distribution and Verification Process
CENNAVAVNTECHTRAINST 1541.2	Mobile Training Team Program
CENNAVAVNTECHTRAINST 1500.13	Training Requirements Review Program Policy and Guidance
CNAF M-3710.7	NATOPS General Flight and Operating Instructions Manual
COMFLTFORCOM/COMNAVPERSCOMINST 1300.1	Enlisted Manning Policy and Procedures
COMFRC M-4855.6	Industrial Quality Operations Manual
COMFRCINST 4790.4	Naval Aviation Maintenance Program Compliance Auditing Program
COMNAVAIRFORINST 3710.4	Use of Naval Aircraft for Cross-Country Flights
COMNAVAIRFORINST M-3710.9	Training and Operations Manual for Department of Navy Group 1 and 2 Unmanned Aircraft Systems
COMNAVAIRFORINST 4440.2	Supply Operations Manual
COMNAVAIRFORINST 4790.3	Naval Aviation Engineering Technical Services Report Control Symbol 4790-1
COMNAVAIRFORINST 4790.5	Organizational Maintenance Material Condition Inspection
COMNAVAIRFORINST 5100.5	Commander, Naval Air Forces Safety Management Systems
COMNAVAIRFORINST 8380.2	Aircraft Armament Systems Program
COMNAVAIRPAC/COMNAVAIRLANTINST 4415.1	Supply Operations Manual (SOM) Ashore
COMNAVAIRPAC/COMNAVAIRLANTINST 4750.4	Guidance for the Application of Polyurethane Paints in Aircraft and Related Equipment While Embarked Onboard CVNs.

COMNAVAIRPAC/COMNAVAIRLANTINST 4790.23	F/A-18 Automated Maintenance Environment 2.0 for F/A-18 and EA-18 Aircraft
COMNAVAIRPAC/COMNAVAIRLANTINST 5400.1	Safe-For-Flight Operations Certification
COMNAVAIRPAC/COMNAVAIRLANTINST 5442.1	Aircraft Material Condition Reporting
COMNAVAIRPAC/COMNAVAIRLANTINST 13650.3	Aircraft Maintenance Material Readiness List (AMMRL) Program
COMNAVSURFOR/COMNAVAIRFOR/MCO 4790.3	Prevention of Foreign Object Damage on CVN and LHD/LHA Class Ships
DCMA INST 8210.1	Contractor's Flight and Ground Operations
DFARS	Defense Federal Acquisition Regulation Supplement
DLAR(JP) 4155.24/SECNAVINST 4855.21	Product Qualify Deficiency Report Program (Inter-Service Product Quality Deficiency Report)
DLM 4000.25	Defense Logistics Management System
DOD Directive 5010.42	DOD-Wide Continuous Process Improvement (CPI)/LSS Program
DODINST 5000.02	Operation of the Adaptive Acquisition Framework
DODINST 5010.43	Implementation and Management of the DOD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program
DODINST 6050.05	DOD Hazard Communications (HAZCOM) Program
DODINST 8500.01	Cybersecurity
DODINST 8560.01	Communications Security (COMSEC) Monitoring and Information Assurance (IA) Readiness Testing

DoDM 4140.27 Volume 1	DoD Shelf-Life Management Program: Program Administration
DoDM 4140.27 Volume 2	DoD Shelf-Life Management Program: Material Quality Control Storage Standards
DTR 4500.9-R	Defense Transportation Regulation, Part II - Cargo Movement
FAR	Federal Acquisition Regulation
MCO 2020.1	Marine Corps Aviation Logistics Information Management and Support Department Standard Operating Procedures (ALIMS-SOP)
MCO 4790.2	Field-level Maintenance Management Policy (FLMMP)
MCO 5100.8	Marine Corps Occupational Safety and Health (OSH) Policy Order
MCO 5104.1	Navy Laser Hazards Control Program
MCO 5104.3	Marine Corps Radiation Safety Program
MCO 8023.3	Personnel Qualification and Certification Program for Class V Ammunition and Explosives
MCO P4400.177	Marine Corps Aviation Supply Desk-Top Procedures With Continuous Process Improvement (ASDTP W/ CPI)
MCO P5102.1	Navy and Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual
MCO P11240.106	Garrison Mobile Equipment
NAVAIR M-13034.1	NAVAIR Airworthiness and Cybersafe Process Manual
NAVAIR M-13650.1	Aircraft Maintenance Material Readiness List (AMMRL) Program Coordination Manual

NAVAIR NOTE 4700	Gas Turbine Engine Maintenance Assignment By Depot Maintenance, Intermediate Maintenance, and In-Service Support Center Activities
NAVAIR SOP 4130.1	Standard Operating Procedures for NAVAIR Configuration Management
NAVAIRINST 2400.1	Electromagnetic Environmental Effects and Spectrum Supportability Policy and Procedures
NAVAIRINST 3700.4	Safe-For-Flight Operations Certification
NAVAIRINST 3710.1	Contractor's Flight and Ground Operations
NAVAIRINST 4130.1	Naval Air Systems Command Configuration Management Process
NAVAIRINST 4200.56	Critical Item Management
NAVAIRINST 4423.12	Assignment and Application of Uniform Source, Maintenance and Recoverability Codes
NAVAIRINST 4790.20	Reliability-Centered Maintenance Program
NAVAIRINST 4790.33	Transition of Naval Aircraft to the Integrated Maintenance Concept/Plan
NAVAIRINST 4855.2	Supplier Performance
NAVAIRINST 5100.3	Naval Aviation System Safety Engineering Policy
NAVAIRINST 5104.2	NAVAIR Radiological Affairs Support Program and Naval Aircraft Radiological Affairs Materials Permit requirements
NAVAIRINST 5215.12	Naval Air Systems Command Technical Directives System
NAVAIRINST 5400.162	Technical Authority Policy
NAVAIRINST 13034.1	Airworthiness and Cybersecurity Safety Policies for Air Vehicles and Aircraft Systems

NAVAIRINST 13070.1	Naval Air Systems Command Nondestructive Testing and Inspection Program
NAVAIRINST 13100.17	Red Stripe Memorandum System
NAVAIRINST 13120.1	Fixed Wing Aircraft Structural Life Limits
NAVAIRINST 13130.1	Rotary Wing Aircraft Structural Life Limits
NAVAIRINST 13630.5	Optimizing Weapon System Avionics Support Using Automatic Test Systems
NAVAIRINST 13640.1	Naval Aviation Metrology and Calibration Program
NAVAIRINST 13650.1	Naval Air Systems Command Aircraft Maintenance Material Readiness List Program
NAVAIRINST 13670.1	Naval Air Systems Command Mobile Facility Management
NAVAIRINST 13680.1	Depot Level Rework Program for Support Equipment End Items
NAVAIRINST 13700.15	Decision Knowledge Programming Analysis for Logistics and Technical Evaluation Engine/ Propulsion System Module Management
NAVAIRINST 13800.12	Certification of Expeditionary Airfield AM2 Matting Installations, Aircraft Recovery Equipment Visual or Optical Landing Aids, and Marking or Lighting Systems
NAVAIRINST 13800.13	Certification of Shore-based Aircraft Recovery Equipment and Visual or Optical Landing Aid Systems
NAVAIRINST 13800.15	Fleet Technical Services Support of Naval Air Systems Command Cognizant Aircraft Launch and Recovery Equipment

NAVAIRINST 13920.1	Procedures for Submitting Flight Loads, Launch, and Landing Data for the Structural Appraisal of Fatigue Effects Program
NAVMC 4790.1	Aviation Maintenance and Supply Training and Readiness Program
NAVMC 3500.14	Aviation Training and Readiness Program Manual
NAVMC 3500.128	Marine Air Traffic Control Training and Readiness Manual
NAVMC DIR 5100.8	Marine Corps Occupational Safety and Health (OSH) Program Manual (MARCOR OSH Program Manual)
NAVMED P-5055	Radiation Health Protection Manual
NAVSEAINST 4790.8	Ships' Maintenance and Material Management (3-M) Manual
NAVSEAINST 8020.7	Hazards of Electromagnetic Radiation to Ordnance (HERO) Safety Program
NAVSUPINST 4423.29	Navy Uniform Source, Maintenance and Recoverability (SMR) Codes
NAVSUPINSP 4440.182	Remain-In-Place Policy
NAVSUPWSSINST 4441.15	Retail Level Inventory for Ships Using the Aviation Consolidated Allowance List (AVCAL) Process
NAVSUPWSSINST 4441.16	Shore-based Consolidated Allowance List (SHORCAL) Procedures
NAVSUPWSSINST 4790.4	Support Equipment/Airborne Avionics Maintenance Assist Modules (MAMs)
NETCINST 1500.19	Training Requirement submission, and Course Development Delivery, and Maintenance End to End Process
OPNAV M-5100.23	Navy Safety and Occupational Health Manual

OPNAV M-5215	Navy Directives Management Program Manual
OPNAV M-8000.16	The Naval Ordnance Management Policy (NOMP) Manual
OPNAVINST 1500.47	Navy Training Quota Management
OPNAVINST 1500.76	Naval Training Systems Requirements, Acquisitions and Management
OPNAVINST 1540.2	Naval Aviation Technical Training Program Administration and Operation
OPNAVINST 2400.20	Electromagnetic Environmental Effects (E3) and Spectrum Supportability Policy and Procedures
OPNAVINST 3110.11	Policies and Peacetime Planning Factors Governing the Use of Naval Aircraft
OPNAVINST 3120.32	Standard Organization and Regulations of the U.S. Navy
OPNAVINST 3500.34	Personnel Qualification Standards Program
OPNAVINST 3500.39	Operational Risk Management
OPNAVINST 3710.7	Naval Air Training and Operating Procedures Standardization Program
OPNAVINST 3750.6	Naval Aviation Safety Management System
OPNAVINST 3960.16	Navy Test, Measurement, and Diagnostic Equipment Automatic Test Systems, and Metrology and Calibration
OPNAVINST 4440.25	Consolidated Remain-in-Place List for Aviation Material
OPNAVINST 4441.12	Retail Supply Support of Naval Activities and Operating Forces
OPNAVINST 4460.1	Management of Material Handling Equipment and Shipboard Mobile Support Equipment

OPNAVINST 4614.1	Uniform Materiel Movements and Issue Priority System
OPNAVINST 4790.2	The Naval Aviation Maintenance Program (NAMP)
OPNAVINST 4790.14	Joint Depot Maintenance Program
OPNAVINST 4790.15	The Aircraft Lunch and Recoverty Equipment Maintenance Program (ALREMP)
OPNAVINST 5090.1	Environmental Readiness Program
OPNAVINST 5100.19	Navy Safety and Occupational Health Program Manual for Forces Afloat
OPNAVINST 5100.23	Navy Safety and Occupational Health Program Manual
OPNAVINST 5100.27	Navy Laser Hazards Control Program
OPNAVINST 5102.1	Navy and Marine Corps Mishap and Safety Investigation, Reporting, and Record Keeping Manual
OPNAVINST 5215.17	Navy Directives Management Program
OPNAVINST 5218.7	Navy Official Mail Management Program
OPNAVINST 6470.3	Navy Radiation Safety Committee
OPNAVINST 8000.16	Naval Ordnance Management Policy
OPNAVINST 8020.14	Department of the Navy Explosives Safety Policy
OPNAVINST 8023.24	Navy Personnel Conventional Ammunition and Explosives Handling Qualification and Certification Program
SECNAVINST 4855.3	Product Data Reporting and Evaluation Program

SECNAVINST 5400.15	Department of the Navy Research and Development, Acquisition, Associated Life-Cycle Management, and Logistics Responsibilities and Accountability
SECNAVINST 5000.2	Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System Implementation
SECNAVINST 5211.5	Department of the Navy on Privacy Program
SECNAVINST 5442.3	Management of the Naval Aircraft Inventory and Unmanned Aircraft Systems
SECNAVINST 5510.30	Department of Navy (DON) Personnel Security Program (PSP) Instruction
Sustainment Operating Instruction 1514.02	F-35 Program Problem Reporting and Resolution Instruction

PUBLICATIONS:

ANSI-ESD TR 20.20	For the Protection of Electrostatic Discharge Susceptible Items Handbook for the Development of an Electrostatic Discharge Control Program for the Protection of Electronic Parts, Assemblies, and Equipment
ANSI/ESD S20.20	For the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)
MIL-HDBK-522	Guidelines for Inspection of Aircraft Electrical Wiring Interconnect Systems (EWIS)
MIL-HDBK-525	Electrical Wiring Interconnect System (EWIS) Integrity

MIL-HDBK-773	Electrostatic Discharge Protective Packaging
MIL-HDBK-844	Aircraft Refueling Handbook for Navy/Marine Corps Aircraft
MIL-STD-1798	Mechanical Equipment and Subsystems Integrity Program
MIL-STD-2161	Paint Schemes and Exterior Markings for U.S. Navy and Marine Corps Aircraft
NATMS-ULSS-38-03	MATCALS User's Logistics Support Summary
NAVAIR AG-115SL-OMP-000	Cryogenics Sampler Model FCS 2001 Part Number 600646
NAVAIR AG-200GT-TIC-MRC-000	Preoperational Checklist Tire Inflator Booth Part Number 938AS100-1
NAVAIR AG-200GT-TIC-POM-000	Preoperational Checklist Tire Inflator Cage
NAVAIR SE-004-PQS-000	Certification Manual for Miniature/Microminiature (2M)/Module Test and Repair (MTR) Program
NAVAIR A6-215PC-MEB-000	Maintenance Instructions with Illustrated Parts Breakdown Industrial Sewing Equipment
NAVAIR A6-332AO-GYD-000	000, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory and Field Guide
NAVAIR 00-25-8	Business Rules for the Assignment of Work Unit Codes and Type Equipment Codes
NAVAIR 00-25-100	Naval Air Systems Command Technical Publications Library Management Program
NAVAIR M-00-25-300	Naval Air Systems Command Technical Directives System

NAVAIR 00-25-300 SOP	Naval Air Systems Command Technical Directives System
NAVAIR 00-35QH-2	Allowance List, Aviation Life Support System and Airborne Operation Equipment for Aircraft Squadrons Navy and Marine Corps
NAVAIR 00-80T-96	U.S. Navy Support Equipment Common (Basic Handling & Safety Manual)
NAVAIR 00-80T-105	CV NATOPS Manual
NAVAIR 00-80T-106	LHA/LHD NATOPS Manual
NAVAIR 00-80T-109	Aircraft Refueling NATOPS Manual
NAVAIR 00-80T-113	Aircraft Signals NATOPS Manual
NAVAIR 00-80T-119	NAVAIR Weight Handling Support Equipment
NAVAIR 00-80T-120	CVN Flight/Hangar Deck NATOPS Manual
NAVAIR 00-80T-122	Helicopter Operating Procedures for Air-Capable Ships NATOPS Manual
NAVAIR 00-80T-123	Aircrew Systems NATOPS Manual
NAVAIR 01-1A-16-1	Nondestructive Inspection Methods, Basic Theory
NAVAIR 01-1A-16-2	Nondestructive Inspection General Procedures and Process Controls
NAVAIR 01-1A-17	Aviation Hydraulics Manual
NAVAIR 01-1A-20	Aviation Hose and Tube Manual
NAVAIR 01-1A-23	Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair
NAVAIR 01-1A-35	Aircraft Fuel Cells and Tanks
NAVAIR 01-1A-39	Naval Aircraft Battle Damage Repair

NAVAIR 01-1A-75	Airborne Weapons and Associated Equipment Consumable Material Applications and Hazardous Material Authorized Use List
NAVAIR 01-1A-503	Maintenance of Aeronautical Antifriction Bearings for Organizational, Intermediate and Depot Maintenance Levels
NAVAIR 01-1A-505-1	General Series Wiring Maintenance
NAVAIR 01-1A-505-4	Aircraft Fiber Optic Cabling
NAVAIR 01-1A-509-1	Cleaning and Corrosion Control, Volume I, Corrosion Program and Corrosion Theory
NAVAIR 01-1A-509-2	Cleaning and Corrosion Control, Volume II, Aircraft
NAVAIR 01-1A-509-3	Cleaning and Corrosion Control, Volume III Avionics and Electronics
NAVAIR 01-1A-509-4	Cleaning and Corrosion Control, Volume IV, Consumable Materials and Equipment for Aircraft and Avionics
NAVAIR 01-1B-50 01	Joint Service Technical Manual for Organizational, Intermediate and Depot Maintenance Aircraft Weight and Balance
NAVAIR 04-10-1	Organizational, Intermediate, and Depot Maintenance Instruction Aircraft Wheels
NAVAIR 04-10-506	Inspection, Maintenance, Repair, Storage, and Disposition Instructions O-level, I-level, and D-level Maintenance Aircraft Tires and Tubes
NAVAIR 04-10-508	Application Table for Aircraft Tires and Tubes
NAVAIR 06-20-2	Oxygen/Nitrogen Systems Technical Manual

NAVAIR 06-30-501	Oxygen/Nitrogen Systems Technical Manual
NAVAIR 06-20-2	Gas Cylinders (Storage Type) Use, Handling, and Maintenance (ATOS)
NAVAIR 11-100-1.1	Cartridge Actuated Devices (CADS) and Propellant Actuated Devices (PADS) (IETM)
NAVAIR 13-1-6.4-1	Aviation-Crew Systems Oxygen Systems (Aircraft Equipment, Masks, and other Systems)
NAVAIR 13-1-6.4-2	Aviation-Crew Systems Oxygen Equipment (Regulators)
NAVAIR 13-1-6.4-3	Aviation-Crew Systems Oxygen Equipment (Concentrators)
NAVAIR 13-1-6.4-4	Aviation-Crew Systems Oxygen Equipment (Converters)
NAVAIR 15-01-500	Organizational, Intermediate and Depot Preservation of Naval Aircraft
NAVAIR 16-30PRC149-1	Radio Set AN/PRC-149 Part Number 2155-09093-00 Radio Set AN/PRC-149A Part Number 2155-09093-01 Radio Set AN/PRC-149-T1 (Training Unit)
NAVAIR 16-30PRQ7-1	Operator’s Maintenance Manual Radio Set AN/PRQ-7
NAVAIR 16-30PRQ7-2	Operational and Maintenance Procedures, CSEL Battery Charger PP-8562/U
NAVAIR 16-30URT140-1	Radio Beacon Set AN/URT-140 and Radio Beacon Set AN/URT-140-T1 (Training Unit)
NAVAIR 16-35AVS9-4	Technical Manual Operator's and Organizational Maintenance Manual Image Intensifier Set, Night Vision, Type AN/AVS-9(V)

NAVAIR 16-35CSEL-CPE-1	Operation and Maintenance Organizational CSEL Planning Equipment (CPE)
NAVAIR 17-1 (Series)	Tool Control Manual
NAVAIR 17-1-114 (Series)	Inspection and Proof Load Testing of Lifting Slings for Aircraft and Related Components
NAVAIR 17-1-123	Tire Inflator Assembly Kit Part Number M85352/1 Dual Chuck Stem Gage Part Number M85352/4
NAVAIR 17-1-125	Maintenance Instructions (Organizational and Intermediate Level) Support Equipment Cleaning, Preservation, and Corrosion Control
NAVAIR 17-1-129	Organizational and Intermediate Maintenance Instructions Support Equipment Tire and Wheel Assemblies, O-level and I-level Maintenance Instructions
NAVAIR 17-1-537	Aircraft Securing and Handling Procedures with Aircraft Restraining Devices and Related Components
NAVAIR 17-1-574	MATCALS Tool Control Manual
NAVAIR 17-15BF-97	Operation Instructions Hydraulic Particle Counter Test Set
NAVAIR 17-15G-1	Aircraft Tire Inflator/Monitor Part Number 631AS100-1
NAVAIR 17-15-50.1	Joint Oil Analysis Program Manual, Volume I
NAVAIR 17-15-50.2	Joint Oil Analysis Program Manual, Volume II
NAVAIR 17-15-50.3	Joint Oil Analysis Program Manual, Volume III
NAVAIR 17-15-99	PRC-2000-2M System, Electronic Rework Power Unit

NAVAIR 17-15-534	Operation and Intermediate Maintenance with Illustrated Parts Breakdown, Analyzer, Aviators Breathing Oxygen (ABO), A/E26T-3, Part Number 3964AS100-1
NAVAIR 17-35FR-06	Facility Requirements for Navy and Marine Corps Calibration Laboratories
NAVAIR 17-35MTL-1	Metrology Requirements List (METRL)
NAVAIR 17-35NCE-1	Navy Calibration Equipment List (NCE) General Information
NAVAIR 17-35POP-01	Metrology and Calibration Program Operations Process Manual
NAVAIR 17-35QAC-01	Naval Aircraft Carrier and Amphibious Assault Ships Metrology and Calibration (METCAL) Program Manual
NAVAIR 17-35QAL-11	Oxygen Instrument Cleaning for Calibration
NAVAIR 17-35QAL-15	Naval Aircraft Carrier and Amphibious Assault Ships Metrology and Calibration (METCAL) Program Manual
NAVAIR 17-35TR-8	Technical Requirements for Calibration Labels and Tags
NAVAIR 17-600-174-6-1	Tire Inflator Assembly Kit Part Number M85352/1, Dual Chuck Stem Gage Part Number M85352/4
NAVAIR 17-600-193ESD-6-1	Preoperational Checklist, Electrostatic Discharge (ESD) Protection Devices
NAVAIR 17-600-193-6-2	Periodic Maintenance Requirements Manual, PACE Soldering Station, PACE Incorporated
NAVAIR 19-1-55	Aircraft Wheel Holder and Tire Bead Breaking Machine Models LEE-1 and LEE-1X

NAVAIR 19-600-138-6-1	Preoperational Checklist, Storage Tank, Liquid Oxygen Low Loss, Closed Loop, TMU-70/M
NAVAIR 19-1-270	Ground Support Equipment Manual Mobile Refill System (MRS III) P/N 1007-01
NAVAIR 19-25D-26	Servicing Trailer, Liquid Oxygen Low Loss, Closed Loop Type TMU-70/M Part Number 22455
NAVAIR 19-25D-33	Storage Tank, Liquid Oxygen, Type TMU-27/M, 50-Gallon Capacity
NAVAIR 19-600-282-6-2	Periodic Maintenance Requirements Manual, 50 Gallon Storage Tank, Liquid Oxygen, TMU-27/M
NAVMED P-5055	Radiation Health Protection Manual
NAVSEA OP 4	Ammunition and Explosives Safety Afloat
NAVSEA OP 5	VOL I, Ammunition and Explosives Ashore
NAVSEA SE700-AA-MAN-100	Radiation, Detection, Indication, and Computation (RADIAC) Policy and Procedures Manual; Navy RADIAC Program User's Manual; Volume I, Policies and Procedures Manual
NAVSEA S0420-AA-RAD-010 (Series)	Radiological Affairs Support Program Manual
NAVSUP Publication 485 (Series)	Naval Supply Procedures
NAVSUP Publication 700	Common Naval Packaging
NAVSUP Publication 722	Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) Manual
NAVSUP Publication 723	Navy Inventory Integrity Procedures
NAVSUP Publication 801	Notice of Ammunition Reclassification (NAR) Manual

APPENDIX D
Local Command Procedures (Sample Format)

(Date)

From: Maintenance Officer, (Activity)
To: (As required)

Subj: LOCAL COMMAND PROCEDURES FOR (Program/Process covered by the LCP)

Ref: (a) COMNAVAIRFORINST 4790.2D
(b) (Any other reference as applicable to the procedures addressed in the LCP.)

Encl: (1) (Any diagrams, lists, etc, used in the local procedure.)

1. Introduction. This LCP addresses local procedures for (list the applicable program or procedure). (Examples: "This LCP addresses local procedures for COMNAVAIRFORINST 4790.2D, Chapter 10, 10.19 Hazardous Material Control and Management (HMC&M) program" or "This LCP addresses local procedures for COMNAVAIRFORINST 4790.2D, Chapter 5, procedures for authorizing BCM Codes 1, 5, 7, and 9.")

2. Local Requirements. (State the local requirements.)

(Example: The following additional HAZMAT training will be completed by all maintenance personnel: NAS Lemoore Environmental Services Division Hazardous Material (HAZMAT) Management course.)

3. Responsibilities. (List who is responsible for managing the local requirement.)

(Example: HMC&M Program Manager: Schedule and track completion of the NAS Lemoore Environmental Services Division HAZMAT Management course. Personnel will complete the course within 45 days of reporting to the Maintenance Department.)

I. M. MAINTENANCE OFFICER

NOTES: 1. LCPs are not mandatory. LCPs will be published only if required to clarify geographic area requirements, type/model/series specific requirements, or other command specific details not adequately addressed in the NAMP or other governing directive. LCPs may not be used to alter or deviate from the intent of the related policy.

2. Squadrons must submit LCPs to their Wing for review. If the LCP has application to all wing activities, the Wing will publish a Wing LCP to standardize procedures and relieve squadrons from the administrative burden of producing their own LCP.

3. Approved LCP's will have an established review procedure. LCPs must be reviewed annually, at a minimum, and whenever there is a change to CNAFINST 4790.2 or other directive applicable to the subject of the LCP.

4. D-level activities may also use the LCP format specified in OPNAVINST 5215.17A.

5. Electronic or paper copy is acceptable.

APPENDIX E

Maintenance Documentation Codes

ACTION TAKEN (AT) CODES

All codes listed below may be used for both on equipment or off equipment work unless otherwise noted.

A. Items of Repairable Material, Weapon or Support System Discrepancy Checked No Repair Required.

This code is used for all discrepancies, which are checked and found that either the reported deficiency cannot be duplicated, or the equipment is operating within allowable tolerances. Adjustments may be made under this code if the purpose of the adjustment is to peak or optimize performance. When adjustments are made, the malfunction description (MAL) code should reflect the reason for the adjustment, for example, A-127, A-281, A-282. If the purpose of the adjustment is to bring the equipment within allowable tolerances, AT Code C should be used, for example, C-127, C-281, C-282. Additionally, this code will be used on all maintenance actions forms (MAF) work requests for documenting local manufacture or fabrication.

B. Repair or Replacement of Items.

The repair or replacement of these items, such parts as attaching units, seals, gaskets, Packing, Tubing, Hose, and Fittings, that are not integral parts of work unit coded items or components. These parts are not identified by work unit codes (WUC) and are normally a connecting or attaching link between two or more components that do have WUCs assigned. Therefore, when items of this nature are repaired or replaced, this AT Code is used. In case of doubt regarding which component to identify, the WUC of the component serviced will be used.

C. Repair.

This code is entered when a repairable item of material, which is identified by WUC, is repaired. Repair includes cleaning, disassembly, inspection, reassembly, lubrication, and replacement of integral parts; adjustments are included in this definition if the purpose of the adjustment is to bring the equipment within allowable tolerances (see AT Code A). This code also applies to the correction of a discrepancy on a weapon or support system (when appropriate).

D. Work Stoppage, Post and Predeployment, and Intermediate Maintenance Activity (IMA) Support.

This code is entered to closeout MAF when component repair is to be performed at another facility (see NOTE).

F. Failure of Items Undergoing Check and Test.

Work Request and I-level Assisting Work Center MAFs only.

J. Calibrated - No Adjustment Required.

This code is used when an item is calibrated and found serviceable without need for adjustment. If the item requires adjustment to meet calibration standards, use code K. This code applies to test, measurement, and diagnostic equipment (TMDE) only.

K. Calibrated - Adjustment Required.

This code is used when an item must be adjusted to meet calibration standards. If the item needs repair in addition to calibration and adjustment, use another code indicating the proper maintenance action. This code applies to TMDE only.

L. Work Stoppage - Awaiting Parts.

This code is entered when a maintenance action must be stopped or delayed while awaiting parts, which are not available locally, and a component goes into an awaiting parts status. Use of this code is restricted to the I-level. No entries will be made in the (H-Z) Failed/Required Material section of the close out MAF.

N. Work In-Progress - Close out.

This code is entered by an organizational activity when it becomes necessary to close out a maintenance action during or at the end of a reporting period for any reason, including Subsystem Capability Impact Reporting (SCIR) change, WO close out. This code will be entered by an IMA to close out for any reason except awaiting parts (see AT Code L).

P. Removed.

This code is entered when an item of material is removed and only the removal is to be accounted for. In this instance delayed or additional actions are accounted for separately (see also codes R, S, and T).

Q. Installed.

This code is entered when an item is installed and only the installation action is to be accounted for.

R. Remove and Replace.

This code is entered when an item of material is removed due to a suspected malfunction and the same or a like item is reinstalled (see NOTE).

S. Remove and Reinstall.

This code is entered when an item of material is removed to facilitate other maintenance and the same item is reinstalled. AT Code S is limited to MAL Codes 800, 804, and 811.

T. Removed and Replaced for Cannibalization.

This code is used when an item of material is removed and replaced as a cannibalization action.

Y. Troubleshooting.

This code is used when the time expended in locating a discrepancy is great enough to warrant separating troubleshooting time from repair time. Use of this code necessitates completion of two separate documents, one for the troubleshooting phase and one for the repair phase. When recording the troubleshooting time separately from the repair time, the total time taken to isolate the primary cause of the discrepancy is recorded on a separate MAF, using the system, subsystem, or assembly WUC (as appropriate).

Z. Corrosion Treatment.

Includes cleaning, treatment, priming, and painting of corroded items that require no other repair. This code is always used when actually treating corroded items, either on equipment or in the shop.

0. Phase and Special inspections, Corrosion Preservation and Depreservation

The numeric 0 will be used in the Action Taken section on all source documents recording look phase man-hours for acceptance, transfer, special, conditional, major aircraft and combined airframe and engine special inspections; and corrosion, preservation, and depreservation including the close out of man-hours on the look phase of those inspections at the end of the reporting period.

NOTE: AT Code D is used only when the Transaction (TRANS) Code in block A32 of the MAF is 31 or 32. AT Code R may be used when the TRANS Code in block A32 of the MAF is 11, 12, 18, 19, 23, or 25. The use of AT Code R may be used in block A35 if one of the following conditions is met: (1) if item removed is identified by a WUC; (2) for TRANS Code 11 an assisting work center, when the primary work center used AT Code R. For the assisting work center the item processed must be "0"; (3) for TRANS Code 18 or 19 only when the work unit coded items are time sensitive or require entries in logbooks/AESR, such as spark plugs and CADs; (4) for TRANS Codes 23 or 25. AT Codes P, 0, and S are also used for engine identification in the (H-Z) Failed/Required Material section of the MAF.

AT Codes 1 through 9 are restricted to those repairable items of material which have been administratively or technically screened and found to be non-repairable at an IMA (by designated I-Level personnel authorized to make these determinations). In keeping with the philosophy of repair at the lowest practicable level, the IMA is authorized to perform any and all functions for which it has or can be granted authority and the capability to perform and meet performance specifications. If more than one BCM code applies, the code reflecting the most serious logistic support deficiency will be used.

BCM 1 Repair Not Authorized

This code is entered only when the activity is specifically not authorized to repair the item in applicable directives, for example, required maintenance function not assigned by Source, Maintenance, and Recoverability (SM&R) code, Maintenance Instruction Manuals (MIM), maintenance plan, other technical decision, peculiar item from an aircraft not supported by an activity, and SM&R coded XXXXD.

BCM 2 Lack of Equipment, Tools, or Facilities

This code is entered when the repair is authorized but cannot be performed because of a lack of equipment, tools, or facilities, for example, required equipment is on individual material readiness list (IMRL) but authorized quantity is zero, receipt of authorized IMRL equipment not expected within 30 days (zero quantity on hand), return of required equipment from repair or calibration not expected within 30 days, non-IMRL tools and equipment not on hand, lack of permanently installed facilities, specifically directed by the ACC/TYCOM.

BCM 3 Lack of Technical Skills

This code is entered when repair is authorized but cannot be performed because of a lack of technical skills, for example, permanent billet will be vacant for more than 30 days; temporary additional duty (TAD) billet will be vacant for more than 30 days; billet incumbent absent, for example, TAD or leave; formal technical training is nonexistent; formal technical training exists but cannot be used due to lack of quota or funds; rating, Navy Enlisted Classification (NEC), or Military Occupational Specialty (MOS) required is not reflected on manpower authorization; rating, NEC, or MOS is on board but billet not assigned to IMA.

BCM 4 Lack of Parts

This code is entered when repair is authorized but cannot be performed because required parts will not be available within guidelines established by applicable directives.

BCM 5 Fails Check and Test

This code is entered when the activity's authorized level of maintenance is limited to check and test only and repair is required.

BCM 6 Lack of Technical Data

This code is entered when repair is authorized, but cannot be performed because of a lack of technical data. For example, maintenance manuals or test program sets exist but cannot be obtained within 30 days, maintenance manuals or test program sets do not exist or cannot be identified within 30 days, applicable manuals or test program sets are available, but do not provide adequate technical information.

BCM 7 Beyond Authorized Repair Depth

This code is entered when some level of repair beyond check and test is authorized but the maintenance function required to return the item to a ready for issue (RFI) condition is not assigned by SM&R code, maintenance technical manuals, maintenance plan, or other technical decision.

BCM 8 Administrative

This code is entered when repair is authorized and feasible but not attempted due to an Engineering Investigation (EI) exhibit, scheduled removal component (SRC) data unknown and cannot be determined, item under warranty, excessive backlog, budgetary limitations, materials in excess of requirements, or specifically directed by the ACC/TYCOM.

NOTE: The determination to use BCM 8 for excessive backlog will be made jointly by the maintenance and supply officers. BCM 8 for materials in excess of requirements and budgetary limitations require ACC/TYCOM approval.

BCM 9 Condemned

This code is entered when a repairable item is so severely worn or damaged that repair is not feasible, as determined by local maintenance personnel, or specifically directed by ACC/TYCOM. The item is locally condemned and returned to the Supply Department for survey, retrograde, or scrap (as appropriate) per applicable directives.

AWAITING MAINTENANCE (AWM) REASON CODES

M1. Awaiting or undergoing depot repair at the reporting custodian site

This code will be used as the primary status for system reporting of EOC-A for out of reporting XRAY change. Additionally, this code will be documented when no further maintenance can be performed due to D-level repair at the reporting custodian site. M1 will be used at the O-level when no further maintenance can be performed on an aircraft or aircraft component due to one or more of the following reasons: Awaiting depot P&E evaluation; awaiting depot engineering disposition; awaiting depot ISR, modification, or rework; or when the aircraft is inaccessible for O-level maintenance while undergoing on-site ISR, modification or rework. M1 will be used at the I-level when no further work can be performed on engines, components, or equipment due to one or more of the following reasons: Awaiting depot engineering disposition; awaiting or undergoing depot BCM interdiction.

M2. Lack of Support Equipment (SE)

Lack of Support Equipment.

M3. Backlog of work center workload

Workload in excess of work center capability. In addition, this code will be used as the primary status for system reporting of EOC change for in-reporting XRAY change.

M4. Off-shift hours

Maintenance requirement exists beyond normal working hours. This applies only to activities which do not normally schedule work assignments during the reported period, such as 0001 to 0800, or during weekend or holiday periods in which personnel are not normally working.

M5. Other-weather, OPS condition, training

Performance of maintenance precluded by weather, operational conditions, general drill, training, ceremonies, open house, shipboard or shore station imposed restrictions, etc. In addition, this code will be used as the alternate status for system reporting of EOC-A for out of reporting XRAY change.

M6. Awaiting Intermediate level maintenance

Awaiting Maintenance (AWM) reason code M6 will be used at the O-level when no further work can be accomplished because the engine or component is either in process at the I-level, or is awaiting on-aircraft processing by the I-level. M6 will be used at the I-level to reflect all supply requisitions are completed for components not inducted to AWP locker and awaiting I-level work center pick-up. This code will be used as the alternate status for system reporting of EOC change for in-reporting.

M7. Flight operations/operational utilization

Weapon systems or equipment unavailable for maintenance due to flight operations or equivalent.

M8. Awaiting other shops or maintenance actions

This code will be documented when no further maintenance can be performed due to other shops or maintenance actions, for example, Work Center 120 unable to complete functional check on

flight controls due to Work Center 110 having engine removed. This code should not be confused with Reason Code 3 (backlog).

M9. Awaiting maintenance funding

This code will be used when the item cannot be repaired due to a lack of support funding for required repair parts or for Beyond Capability of Maintenance (BCM) action or awaiting disposition. This code may also be used for non-Supply Officer, TYCOM controlled assets such as SE, test benches, and engines determined to be in excess of demand or uneconomical to repair. NRFI assets held in M9 status will be tracked in Buffer Management Tool (BMT) as "Non Due In From Maintenance (DIFM)" workload and will not be available to the maintenance activity for use in further trouble shooting or cannibalization.

MF. Lack of facilities

This code will be used for maintenance backlog due to the lack of facilities including hangar, hangar deck spaces, maintenance area or utility services, such as electricity or air pressure.

CT. Awaiting maintenance cure time

This code will be used when a maintenance task requires time for curing of an adhesive, sealant, or paint before the maintenance can continue or be completed.

Job Status Codes; Naval Aviation Logistics Command Management Information System (NALCOMIS)

A1.	Pre-Induction Screening.	M4.	AWM Off Shift.
CC.	MAF Canceled.	M5.	AWM Other.
CM.	Contractor Maintenance.	M6.	AWM Awaiting AIMD.
CP.	Contractor Parts.	M7.	AWM Flight/Operational.
CT.	AWM Cure Time (Adhesives, Sealant, Paint)	M8.	AWM Awaiting Other Shops.
DD.	Analyst Delete.	M9.	AWM Funding/Disposition
IW.	In Work.	WB.	In Transit from AWP Locker.
JC.	Job Complete.	WP.	AWP In Shop.
M1.	AWM In Depot.	WQ.	AWP In AWP Locker.
M2.	AWM SE/Hangar.	WS.	AWP Work Stoppage.
M3.	AWM Backlog.	WT.	In Transit to AWP Locker.

GENERAL WORK UNIT CODES (WUC)

System general WUCs, for example 2-digit system 11000, 12000, etc., are permitted only in cases where next higher assembly (NHA) WUC is not available. In these instances, the SA/A will submit a baseline change request via JDRS to establish a new WUC for future use or validate a request is already on file.

The following WUCs are used on the WO/MAF when documenting general maintenance actions:

030	Maintenance Inspections. Used for acceptance, transfer, and conditional inspections.
030WMCI	For aircraft undergoing a Material Condition Inspection.
040	Corrosion Prevention. Used when documenting unscheduled corrosion prevention, including unscheduled aircraft washing.
049	Preservation and Depreservation. Used with end items are preserved for temporary or long term storage or shipment and for depreservation.

The following WUCs are used on the MAF Work Request or the Intra-Activity Support MAF: These codes should be used only when a specific WUC does not apply.

050	General Functions. Includes aeronautical related functions, such as painting, stenciling, lettering, and installing decals; fabric and metal tests; calibration of mechanical devices; reclamation and salvage; local manufacture and fabrication; and oil analysis. Use code 050 only if none of the following codes apply.
051	Wheel and Tire Buildup and Teardown.
052	Check, Test, and Service. Includes items other than those listed in code 050 or those power plant and life support items listed under codes 060 and 080, respectively.
060	Propulsion System Support. Includes tasks such as the handling of engines, propellers and rotor heads. Use the appropriate specific code from the following list; if none of these apply, use code 060.
061	Quick Engine Change Assembly and Quick Engine Change Kit Buildup and Teardown.
062	Propeller and Rotor Head Buildup and Teardown.
063	Engine Test Stand Operation.

NOTE: 06 Series WUCs may not be used on the Intra-Activity Support MAF.

080	Inspection of Aviators Equipment, Safety and Survival Equipment. For work in this general category use the appropriate specific code from the following list; if none of these apply, use code 080.
081	Check, Test, Service, and Repack of Parachutes. Includes personnel, cargo, and drag parachutes.
082	Check, Test, and Service of Flotation Equipment. Includes life rafts and life vests.
083	Check, Test, and Service of Personal Equipment. Includes torso harnesses, pressure suits, general flight clothing, and helmets.

084	Check, Test, and Service of Oxygen Equipment. Includes oxygen masks, oxygen regulators, and liquid oxygen converters.
090	Nonaeronautical Work. Nonaeronautical work is defined as work that cannot be properly charged to aircraft, power plants, SE, missiles, trainers or other aeronautical equipment within the scope of TECs "A" through "Y". It includes manufacture, repair, assembly, disassembly, painting, or other productive labor that contributes to the overall state of readiness of the reporting unit. Used only with TEC "Z" series.
1000000	The utilization of this WUC is restricted to applicable Technical Directive WO only.

INVENTORY CODES

Inventory codes denote the status of the aircraft or equipment as it relates to aircraft status codes assigned to the aircraft. Inventory codes are as follows:

0 INVENTORY ONLY

Equipment that is inventoried but for which no mission capability data is collected. These items will only be gained or lost and will require no change in Material Condition Reporting Status (MCRS) reporting. This code is used for SE, training devices, and missile target inventory reporting and is not applicable to aircraft.

A FULLY OPERATIONAL

Aircraft or equipment in the inventory system that are in a fully operational status. For aircraft, those in XRAY status A series.

1 PHASE DEPOT MAINTENANCE (PDM)

Aircraft or equipment that is enroute to, awaiting, or undergoing PDM.

2 SPECIAL REWORK AT THE DEPOT FACILITY

Aircraft or equipment that is enroute to, awaiting, or undergoing special rework (modification, modernization, conversion, or repair) in the physical custody of the depot repair activity.

3 SPECIAL REWORK AT THE REPORTING CUSTODIAN SITE

Aircraft undergoing depot special rework consisting of modernization, modification, conversions, or incorporating D-level TDs while in the physical custody of the reporting custodian.

4 OTHER

(Decision to Strike, Remove from Service, Bailment, Loan, etc.). Aircraft or equipment that are affected by reasons other than standard or special rework. Decision to Strike, Remove from Service, Bailment, Loan, etc.)

NOTE: Inventory Codes 5 through 8 are for future use.

9 INVENTORY LOSS

AIRCRAFT STATUS CODES FOR USE ON INVENTORY CODES

STATUS CODES	INVENTORY CODES
ALL A	A
ALL D, E, F	1
ALL G, H, I (See NOTE)	2
ALL G, H, I (See NOTE)	3
ALL OTHERS	4
Transfers Regardless Of Status Code	9

NOTE: Depending on the physical location (UNIT SITE).

MALFUNCTION (MAL) CODES

Corrosion Control, Types of Corrosion, and Degree of Corrosion

Use these codes when the need for maintenance exists to document the type and degree of corrosion found on aircraft, aircraft components, and SE.

NOTE: All maintenance personnel must ensure the proper MAL codes are used (as required) per this appendix to document the type and degree of corrosion found on aircraft, aircraft components, and SE.

Surface Corrosion

C01 Light surface corrosion

C02 Moderate surface corrosion

C03 Severe surface corrosion

Pitting Corrosion

C11 Light pitting corrosion

C12 Moderate pitting corrosion

C13 Severe pitting corrosion

Exfoliation Corrosion

C21 Light exfoliation corrosion

C22 Moderate exfoliation corrosion

C23 Severe exfoliation corrosion

Galvanic Corrosion

C31 Light galvanic corrosion

C32 Moderate galvanic corrosion

C33 Severe galvanic corrosion

Intergranular Corrosion

C41 Light intergranular corrosion

C42 Moderate intergranular corrosion

C43 Severe intergranular corrosion

Stress Corrosion

C51 Light stress corrosion

C52 Moderate stress corrosion

C53 Severe stress corrosion

Fatigue Corrosion

C61 Light fatigue corrosion

C62 Moderate fatigue corrosion

C63 Severe fatigue corrosion

Fretting Corrosion

C71 Light fretting corrosion

C72 Moderate fretting corrosion

C73 Severe fretting corrosion

Filiform Corrosion

C81 Light filiform corrosion

C82 Moderate filiform corrosion

C83 Severe filiform corrosion

Micro-biological Corrosion

C91 Light micro-biological corrosion

C92 Moderate micro-biological corrosion

C93 Severe micro-biological corrosion

Hydrogen Embrittlement Corrosion

CB1 Light hydrogen embrittlement corrosion

CB2 Moderate hydrogen embrittlement corrosion

CB3 Severe hydrogen embrittlement corrosion

Crevice Corrosion

CC1 Light crevice corrosion

CC2 Moderate crevice corrosion

CC3 Sever crevice corrosion

Hot Corrosion (High Temperature Oxidation)

CD1 Light hot corrosion

CD2 Moderate hot corrosion

CD3 Severe hot corrosion

Erosion Corrosion

CE1 Light erosion corrosion

CE2 Moderate erosion corrosion

CE3 Severe erosion corrosion

Fiber Optics Components

The following MAL codes are prescribed for fiber optic component defects only.

F01 Fiber Optic connector loose

F02	Fiber Optic terminus dirty
F03	Fiber Optic terminus uncleanable
F04	Fiber Optic terminus end face scratched, shattered, or cracked
F05	Fiber Optic cable broken
F06	Fiber Optic cable improper installation

Wiring and Wiring Components

The following MAL codes are prescribed for use in the Maintenance Data System (MDS) for wiring and wiring component defects only. The codes are divided into two groups to aid in finding the most applicable code. The MAL code takes on added significance when used in conjunction with items under warranty since it may be used to determine a breach of warranty by the government. Therefore, it is imperative that the code most applicable to the malfunction be selected from the following groups.

Inspection (Potential) Failure Group

Use these codes when a need for maintenance exists to prevent an actual wiring or wiring component failure.

Harness/Wire Chafing

W00	Chafing against combustible/bleed airlines
W01	Chafing against structure/components/non-combustible line
W02	Chafing against control cables/flight control components
W03	Chafing against other wire/wire bundle assembly
W04	Chafing against chafe protection material/components
W05	Chafed/frayed grounding/bonding strap

Circuit Breakers/Relays

W06	Loose circuit breaker (not properly secured)
W07	Improper terminals
W08	Loose terminals
W09	Loose relay terminal
W10	Missing/damaged relay cover
W11	Loose relay (not properly secured)
W12	Corroded relay/hardware

Connectors

W13	Corroded connector/backshell (external)
W14	Loose/improper/missing/damaged hardware
W15	Improper/damaged/missing potting, seal plugs, or sealant

W16 Missing/damaged rubber boot

W17 Improper/damaged/loose connector (including keyway)

Dielectric (Insulation)

W18 Cracked/brittle/deteriorated insulation

W19 Fluid soaked insulation

W20 Nicked insulation

W21 Torn insulation

W22 Peeling/flaking topcoat insulation

W23 Evidence of carbon tracking/arcing

Installation/Security

W24 Improper wire routing (for example, under flammable fluid carrying line(s))

W25 Incorrect bend radius

W26 Improper wire bundle slack

W27 Damaged/missing/improper potting at feed through

W28 Improper /damaged/missing chafe prevention material - includes grommets, strips, tubing, insulation sheeting, and insulation tape

W29 Loose/missing/broken standoff

W30 Insufficient clearance

W31 Improperly installed wire bundle assembly cushion clamp, includes rubber slipped, wires against metal, wires clamped to metal, missing clamp, or clamp cushioning material

W32 Loose/improper or damaged clamp

W33 Missing/broken/improper ties

W34 Loose/missing/broken safety wire

W35 Oversized/undersized clamps

W36 Fluid soaked/deteriorated clamps

Terminal Boards/Modules/Points

W37 Terminal boards - improper/damaged/loose terminals (studs)

W38 Terminal modules - missing sealing plugs

W39 Damaged/missing terminal boards, modules, separators, or covers

W40 Loose terminal boards, modules, or points

W41 Loose solder joints and crimps

W42 Overstripping/understripping

W43 Improper/missing endcaps

W44 Improper/damaged/loose terminals (does not include relays or circuit breakers)

W45 Corroded terminals, posts, etc.

Functional Failure Group

Use these codes when a need for maintenance exists because of an actual wiring or wiring component failure.

W46 Arced/burned/shorted wiring - due to chafing against structure, equipment or fluid/pneumatic lines (including overheat detection elements)

W47 Arced/burned/shorted wiring - due to unknown or other causes (including overheat detection elements)

W48 Broken/open wiring (including overheat detection elements)

W49 Broken splice

W50 Broken terminal lugs/studs

W51 Broken grounding/bonding strap

W52 Connectors - missing, recessed, bent or broken pins/contacts

W53 Connectors - fluid contaminated

W54 Connectors - corroded (internal)

W55 Burned/overheated terminal lugs/studs

W56 Damaged relay/circuit breaker terminals

W57 Damaged/defective relays

W58 Damaged/defective circuit breakers

W59 Damaged wiring (chafed through/gouged/pinched/nicked/torn) with center conductor exposed/bare

W60 Terminal modules - bent or recessed pin(s)

W61 Fluid soaked insulation with center conductor exposed

W62 Defective fuse(s), switches, diodes, light bulbs, and other consumables

Low Observables (LO) Technologies

The following MAL Codes are available and must be used on Work Orders (WO) when characterizing damage or discrepancies to LO technologies IAW the applicable MIM's. Applicable to OOMA systems only.

L01 Gap sealant discrepancy (missing, low, high, or incorrect material)

L02 RAM Discrepancy (loose, cracked, peeled, chipped, gouged, bubbled, wrinkled, reverted, or missing)

L03 Blade seal damaged or missing

L04 Mold line mismatch

L05 Trailing edge boot damaged or missing.

Conditional, Reason for Removal, and Reasons for Failure Codes

NOTES: 1. The following MAL codes are divided into three logical groups to aid in finding the most applicable code. The MAL code takes on added significance when used in conjunction with items under warranty since it may be used to determine a breach of warranty by the government. Therefore, it is imperative that the code most applicable to the malfunction be selected from the following groups.

2. MAL codes provided by NALCOMIS may not exactly match definitions from this appendix due to data field limitations.

3. Use codes W00 through W62 for wiring and wiring components.

Conditional (No Fault) Group

(Use these codes when a non-defective item is removed, or when the defect or malfunction is not the fault of the item in question.)

Numerical Listing

000	ADMINISTRATIVE - look portion of an inspection; or, work request for manufacture
030	MISHAP DAMAGE
086	IMPROPER HANDLING
087	IMPROPER IDENTIFICATION
092	MISMATCHED - electronic part
093	MISSING PART - except code 105 or 110
105	LOOSE, MISSING, OR FAULTY - bolts, nuts, screws, rivets, safety wire, cotter keys, fasteners, and like items. (**NOTE 3**)
110	UNINTENTIONAL DEPARTURE OF OBJECTS FROM AIRCRAFT, AIRBORNE, OR ON THE GROUND
140	MISSING SRC CARD, ASR, MSR, OR AESR
158	LAUNCH DAMAGE
174	DELIVERED AIRCRAFT QUALITY – manufacturing related quality issue
246	IMPROPER/FAULTY MAINTENANCE (**NOTE 3**)
301	FOD - use 374 for internal failure
302	FOREIGN OBJECT - safety wire, fasteners, tools, or other objects discovered in aeronautical equipment which could lead to FOD if not removed
311	HARD LANDING
437	DAMAGED DUE TO OPERATOR ERROR - improper selection, positioning, release, shutdown, activation, or like activities
440	OVERAGE, OBSOLETE OR SURPLUS
570	RADIOGRAPHIC INSPECTION

571 MAGNETIC PARTICLE INSPECTION

572 EDDY CURRENT INSPECTION

573 HARMONIC BOND INSPECTION

574 FIBER-OPTIC BORESCOPE INSPECTION

575 ULTRASONIC INSPECTION

576 LIQUID PENETRANT INSPECTION

577 GASEOUS LEAK TEST

578 ACOUSTICAL COIN-TAP TEST

579 OTHER NDI METHODS

602 FAILED, DAMAGED OR REPLACED - due to malfunction of associated equipment/item

731 BATTLE DAMAGE

787 TIRE REMOVAL - normal wear

800 NO DEFECT - component removed and reinstalled to facilitate other maintenance

801 NO DEFECT - installation or removal of nonexpendable equipment to reconfigure the aircraft or SE to perform a specific mission - AIRCRAFT MISSION OR SE RECONFIGURATION

802 NO DEFECT-Component Removed/Reinstalled to FOM-Corrosion Related

804 NO DEFECT - removed and installed due to scheduled maintenance, modification, or high time

805 NO DEFECT - removed for pool stock

806 NO DEFECT - removed as part of a matched set - NOT FOR USE AT THE O-LEVEL

807 NO DEFECT - component removal and reinstallation directed by higher authority

811 NO DEFECT - removed for troubleshooting and reinstalled on original equipment

812 CANNIBALIZATION - removed for fault isolation or troubleshooting (unit left installed in second aircraft)

813 CANNIBALIZATION - directed by higher authority (above squadron level inter-activity transfer of equipment or item). **NOTE: Use MAL Code 801 for mission essential equipment regarding aircraft deconfiguration/reconfiguration only**

814 CANNIBALIZATION - Operation launch/turnaround requirements (part not readily available within required time constraints)

815 CANNIBALIZATION - repairable part carried but not on hand in local supply system

816 CANNIBALIZATION - repairable part not carried in local supply system

817 CANNIBALIZATION - consumable part not carried.

818 CANNIBALIZATION - lack of available deck space/SE/test equipment for troubleshooting (unit left installed in second aircraft.)

877 TRANSPORTATION DAMAGE

Reason for Removal Group

This group of codes generally describes trouble symptoms or apparent defects prompting removal of malfunctioning items for repair.

Numerical Listing

010 POOR OR NO FOCUS

020 WORN, STRIPPED, CHAFED, FRAYED - except electrical wiring

037 FLUCTUATES, OSCILLATES - frequency or RPM unstable, intermittent, weak, or no stabilization

051 FAILS TO TUNE/DRIFTS

069 FLAME OUT

070 BROKEN, BURST, RUPTURED, PUNCTURED, TORN, CUT (**NOTE 3**)

117 DETERIORATED/ERODED (**NOTE 3**)

135 BINDING, STUCK, JAMMED

150 CHATTERING

185 CONTAMINATION - metallic

188 GLAZED

190 CRACKED, CRAZED (**NOTE 3**)

255 NO OUTPUT

257 OFF COLOR

281 HIGH OUTPUT

282 LOW OUTPUT

306 CONTAMINATION - nonmetallic

307 CONTAMINATION - Chemical or Biological

308 CONTAMINATION - Radiological

314 ACCELERATION/DECELERATION IMPROPER

320 ENGINE COMPRESSOR STALLS, BUZZ, CHUG, THUMP

325 NON-RECOVERABLE IN-FLIGHT SHUTDOWN - Engine

326 NO ENGINE OIL PRESSURE INDICATION

327 FLUCTUATING ENGINE OIL PRESSURE INDICATION

328 LOW ENGINE OIL PRESSURE INDICATION

329 HIGH ENGINE OIL PRESSURE INDICATION

334 TEMPERATURE INCORRECT

381	LEAKING - internal or external
383	LOCK-ON MALFUNCTION
398	OIL CONSUMPTION EXCESSIVE
425	NICKED OR CHIPPED (**NOTE 3**)
429	PEELED OR BLISTERED (**NOTE 3**)
464	OVERSPEED/RUNAWAY OPERATION
465	UNDERSPEED
503	SUDDEN STOP
520	PITTED
525	PRESSURE/VACUUM/COMPRESSION INCORRECT
537	LOW POWER OR THRUST - mechanical
561	UNABLE TO ADJUST TO LIMITS
585	SHEARED
599	TRAVEL OR EXTENSION INCORRECT
622	WET (**NOTE 3**)
649	SWEEP MALFUNCTION
652	AUTOMATIC ALIGN TIME EXCESSIVE
653	GROUND SPEED ERROR EXCESSIVE
681	SHUTTER HUNG/NO TRIP
682	NO AZIMUTH OR DRIFT
690	VIBRATION EXCESSIVE
693	AUDIO/VIDEO FAULTY
696	FLUID LOW
780	BENT, BUCKLED, DENTED, COLLAPSED DISTORTED, OR TWISTED
781	TIRE LEAKAGE EXCESSIVE OR BLOWOUT
782	DEFECTIVE OR DAMAGED TIRE SIDEWALL, TREAD, BEAD, ETC.
823	NO START, STALLED/HUNG START, HOT START, DETONATION, OR HARD/LATE AFTERBURNER LIGHT
846	DELAMINATED
900	BURNED OR OVERHEATED (**NOTE 3**)
916	IMPENDING OR INCIPIENT FAILURE - indicated by oil analysis (JOAP)
922	ENGINE MONITORING SYSTEM INDICATES OVERTEMP LIMIT EXCEEDED
932	DOES NOT ENGAGE, LOCK OR UNLOCK PROPERLY (**NOTE 3**)

935 SCORED, SCRATCHED, GOUGED, BURRED (**NOTE 3**)

956 ABNORMAL FUNCTION - of computer mechanical equipment

958 NO OR INCORRECT DISPLAY/SCOPE PRESENTATION

959 FAILS TO TRANSFER TO REDUNDANT EQUIPMENT

989 LOW COOLANT FLOW

Reasons for Failure Group

This group of codes generally describes underlying defects or basic failure reasons determined during repair of items exhibiting trouble symptoms.

Numerical Listing

007 ARCING, ARCED (**NOTE 3**)

008 NOISY, MICROPHONIC, GASSY, HIGH ANODE CURRENT, LOW GM/EMISSION, OR OPEN FILAMENT/TUBE CIRCUIT

028 CONDUCTANCE INCORRECT

029 CURRENT INCORRECT

064 MODULATION INCORRECT

088 GAIN OR STANDING WAVE RATIO INCORRECT

127 ADJUSTMENT OR ALIGNMENT IMPROPER

128 RIGGING/INDEXING INCORRECT

167 TORQUE INCORRECT

169 VOLTAGE INCORRECT

177 FUEL FLOW INCORRECT

180 CLOGGED, OBSTRUCTED, PLUGGED - use code 306 for contamination

191 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO VIBRATION(S)

192 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO CONNECTOR, CONNECTOR CORROSION, BENT PINS

193 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO OIL CONTAMINATION

194 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO HIGH INDICATION

195 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO LOW INDICATION

196 ENGINE OIL PRESSURE TRANSMITTER FAILS DUE TO TRANSMITTER SHORT

279 SPRAY PATTERN DEFECTIVE OR FUEL NOZZLE COKED

290 FAILS – diagnostic/automatic tests

292 FAILS – acceptance check

295 FAILS – check/test

350 INSULATION BREAKDOWN
374 INTERNAL FAILURE – use 301 for FOD
410 LACK OF/IMPROPER LUBRICATION
416 OUT OF ROUND
420 SPAR SPLINTERING
447 WRONG LOGIC - program or computer
450 OPEN (**NOTE 3**)
458 OUT OF BALANCE
481 KEY WAY OR SPLINE DAMAGED/WORN (**NOTE 3**)
567 RESISTANCE/IMPEDANCE HIGH
568 RESISTANCE/IMPEDANCE LOW
615 SHORTED - including internal (**NOTE 3**)
651 AIR IN SYSTEM
679 SIGNAL DISTORTION - input/output pulse, data link errors, etc.
695 SYNC ABSENT OR FAULTY
697 MAGNETIC TAPE BROKEN/FAULTY
698 FAULTY – card or micrologic device
703 PROGRAM FAILURE
710 BEARING FAULTY
720 BRUSH, SLIP RING/COMMUTATOR WORN EXCESSIVELY/FAILURE
766 OUT OF SPECIFICATION/CHANGE OF VALUE
799 NO DEFECT - malfunction could not be duplicated, item checks good
962 POWER OUTPUT DIP/LOW - electronic
969 CANNOT RESONATE - input cavity, magnetron
991 OUT OF FREQUENCY - does not track tuning curve, poor spectrum

ORGANIZATION (ORG) CODE STRUCTURING

Purpose

ORG codes are three-character codes that identify the reporting and processing activities associated with maintenance and operational data. The first character of the ORG code is structured to facilitate the grouping and summarization of data by major commands. The second and third characters are assigned to identify specific units within the major command. Organizational relationships to CVW, MAG, Wing, or Base as well as Local IMA and Supply are also dynamically maintained within the ORG code system, including begin and end dates for these assignments. Aircraft reporting custodians are also assigned a PUC controlled by COMNAVAIRFOR (N422D). Detailed listings of assigned codes are available in the DECKPLATE Organization Code Translator located within DECKPLATE Reference Lookups.

General Guidelines

a. ORG codes will not ordinarily be changed as a result of the internal reorganization or relocation of units within a major command.

b. ORG codes will not be changed when an activity has a name change.

c. An ORG code will not be reassigned to another activity. An ORG code will be reassigned only when organizations are reestablished or returning to the major command from which previously assigned. ORG codes are assigned and are unique to activities. Examples: Squadrons, Detachments, Force Level Ship IMAs and Supply Departments, Unit Level Ships, Organic and Commercial Rework Activities, Foreign Military, etc. Codes are managed within DECKPLATE AIRRS by COMNAVAIRFOR N422D. Organizational relationships to MAG/CAG/Wing/IMA/ASD/Homeport are also dynamically maintained within this system, including begin and end dates for these relationships. Ongoing minor changes in organizational relationships as well as entity name changes should be brought to the attention of COMNAVAIRFOR (N422D) via e-mail at cnap-av_3m@us.navy.mil so that the accuracy of relationships can be maintained expeditiously. Activities with responsibility as aircraft reporting custodians are also assigned a PUC controlled by COMNAVAIRFOR (N422D).

Code Structuring

The first character of an organization code indicates a major command:

A - Atlantic Fleet Squadrons and Shore Stations

B - Atlantic Fleet Squadrons with Detachments

C - Atlantic Fleet Ships

D - Pacific Fleet Ships

F - Atlantic Fleet Marine Force Activities

G - Pacific Fleet Marine Force Activities

J - Naval Air Maintenance Training Group

K - Naval Air Reserve Squadrons

M - Marine Activities Not Assigned to a Fleet Marine Force

P - Pacific Fleet Squadrons and Shore Stations

Q - Pacific Fleet Squadrons with Detachments

R - Naval Air Reserve Training Activities

S - Marine Air Reserve Training Activities

T - Naval Air Training Activities

W - Naval Air Systems Command Activities

Z - Miscellaneous Activities

Squadrons with Detachments

Squadrons that normally operate detachments are assigned codes in the B series (Atlantic Fleet) and Q series (Pacific Fleet). A zero in the third position of the code, for example, BE0, will designate the parent activity. Detachments of these squadrons will be assigned permanent organization codes within the structure of the basic code assigned to the parent activity, for example, BE1, BE2. The parent activity will request appropriate code changes, additions, or deletions when (1) forming a detachment that is not listed in the master list, or (2) disestablishing a detachment listed in the master list. Requests can be sent via the cognizant Wing, Marine Aircraft Wing (MAW), or Immediate Superior In Command (ISIC) by naval letter or e-mail. Message address: COMNAVAIRFOR SAN DIEGO CA//N422/N422D//Letter address: COMNAVAIRFOR ATTN: CODE N422D, PO BOX 357051 SAN DIEGO, CA 92135-7051. E-mail namp_policy.fct@navy.mil. Naval Supply Weapon Systems Support (NAVSUP WSS) will be included as an information addressee. Requests will include the detachment designation, PUC, deployment location, effective date of the detachment formation or disestablishment, and a brief reason for the change.

Request for Addition, Deletion, or Change of ORG Codes

Requests for additions, deletions, or changes to ORG codes must be submitted by naval letter to COMNAVAIRFOR (Code N422D) via the cognizant Wing, MAW, or equivalent ISIC.

NOTE: To expedite processing, letters may be scanned and submitted by e-mail to namp_policy.fct@navy.mil.

a. Naval letter format:

From: (Requesting Activity)

To: Commander Naval Air Forces (Code N422D)

Via: (Wing commander for approval and endorsement)

Subj: AVIATION ORGANIZATION CODE CHANGE REQUEST

1. The following organization code addition or deletion is requested.

ADD or DELETE:

ORG NAME:

UNIT IDENTIFICATION CODE:

PERMANENT UNIT CODE:

CVW/MAG ASSIGNED:

2. Justification: This paragraph will contain a justification for the request, any amplifying information considered necessary, and a command Point Of Contact (POC) with Defense Switch Network (DSN) and commercial phone numbers.

(Requester's Signature)

Copy to:

COMNAVAIRSYSCOM, Enterprise Services Division

COMFRC FST HQ Technical Data Department, NATEC

b. Mailing address:

COMMANDER NAVAL AIR FORCES

ATTN: N422D

PO BOX 357051

SAN DIEGO, CA 92135-7051

Upon approval, COMNAVAIRFOR N422D will inform COMNAVAIRSYSCOM, Enterprise Services Division and COMFRC FST HQ Technical Data Department, NATEC

.

SPECIAL INSPECTION WORK UNIT CODES (WUC)

Seventh Position Matrix

Seventh Position of Interval Grouping WUC, for example, hours, days, cycles:

A	01-20
B	21-30
C	31-40
D	41-50
E	51-60
F	61-90
G	91-100
H	101-140
J	141-185
K	186-230
L	231-300
M	301-400
N	401-500
P	501-600
Q	601-900
R	901-1100
S	1101-1500
T	1501-3700
U	3701-6900
V	6901-8000
W	8001-10000
X	10001-14000
Y	14001-20000
Z	20001-24999

For inspections based on intervals of 25,000 and above, such as rounds of ammunition loaded or fired, divide the interval by 100 and enter the derived character. For example, intervals of 25,000, 50,000, and 125,000 equate to L, N, and S respectively. For inspections based on weeks, convert to number of days and select the proper seventh position based on days, for example, 4 weeks = 28 days = B. Convert all SE Periodic Maintenance (PM) inspection intervals, as called for in applicable MRCs, to the nearest 7 day increment, for example, 1 year = 52 weeks; 1 quarter = 13 weeks; 1 month = 4 weeks; and 1 week = 7 days).

TECHNICAL DIRECTIVE (TD) STATUS CODES

Status Code Explanation

A Assisting Work Center

C Complied With

D Does Not Apply (Note 1)

P Previously Complied With

Q TD Removal (Note 2)

W Work in Progress

NOTES: 1. Use of Status Code D must be verified by a Quality Assurance Representative (QAR).

2. TD removal will be documented in the same manner as TD incorporation. The only exceptions being the use of TD Status Code Q in action taken code the (H-Z) record will be blank.

Technical Directive (TD) Codes

Alphabetical List

CODE	TITLE
58	Accessory Bulletin (AYB)
61	Accessory Change (AYC)
99	Age Exploration Bulletin (AEB)
94	Airborne Software Bulletin (ASB)
93	Airborne Software Change (ASC)
76	Airborne Weapon Bulletin (AWB)
75	Airborne Weapon Change (AWC)
67	Aircrew System Bulletin (ACB)
66	Aircrew System Change (ACC)
74	Airframe Bulletin (AFB)
50	Airframe Change (AFC)
57	Aviation Armament Bulletin (AAB)
56	Aviation Armament Change (AAC)
55	Avionics Bulletin (AVB)
54	Avionics Change (AVC)
41	Commodity Software Bulletin (CSB)
40	Commodity Software Change (CSC)
52	Dynamic Component Bulletin (DCB)

51 Dynamic Component Change (DCC)

79 Meteorological Equipment Bulletin (MEB)

73 Meteorological Equipment Change (MEC)

87 Mission Software Change (MSC)

88 Mission Software Bulletin (MSB)

92 Naval Air Maintenance Trainer Bulletin (NTB)

91 Naval Air Maintenance Trainer Change (NTC)

98 Naval Air Maintenance Trainer Support Software Bulletin (TSB)

97 Naval Air Maintenance Trainer Support Software Change (TSC)

69 Photographic Bulletin (PHB)

68 Photographic Change (PHC)

01 Power Plant Bulletin (PPB)

02 Power Plant Change (PPC)

65 Propeller Bulletin (PRB)

64 Propeller Change (PRC)

04 Quick Engine Change Kit Bulletin (QEB)

03 Quick Engine Change Kit Change (QEC)

08 Reusable Container Bulletin (RCB)

07 Reusable Container Change (RCC)

84 Ship Installed and Expeditionary Airfield Launch, Recovery, and Visual Landing Aid Equipment Bulletin (LRB)

83 Ship Installed and Expeditionary Airfield Launch, Recovery, and Visual Landing Aid Equipment Change (LRC)

63 Support Equipment Bulletin (SEB)

62 Support Equipment Change (SEC)

96 Support Software Bulletin (SSB)

95 Support Software Change (SSC)

78 Target Control System Bulletin (TCB)

77 Target Control System Change (TCC)

06 Training Equipment Bulletin (TEB)

05 Training Equipment Change (TEC)

Numerical List

CODE TITLE

01	Power Plant Bulletin (PPB)
02	Power Plant Change (PPC)
03	Quick Engine Change Kit Change (QEC)
04	Quick Engine Change Kit Bulletin (QEB)
05	Training Equipment Change (TEC)
06	Training Equipment Bulletin (TEB)
07	Reusable Container Change (RCC)
08	Reusable Container Bulletin (RCB)
40	Commodity Software Change (CSC)
41	Commodity Software Bulletin (CSB)
50	Airframe Change (AFC)
51	Dynamic Component Change (DCC)
52	Dynamic Component Bulletin (DCB)
54	Avionics Change (AVC)
55	Avionics Bulletin (AVB)
56	Aviation Armament Change (AAC)
57	Aviation Armament Bulletin (AAB)
58	Accessory Bulletin (AYB)
61	Accessory Change (AYC)
62	Support Equipment Change (SEC)
63	Support Equipment Bulletin (SEB)
64	Propeller Change (PRC)
65	Propeller Bulletin (PRB)
66	Aircrew System Change (ACC)
67	Aircrew System Bulletin (ACB)
68	Photographic Change (PHC)
69	Photographic Bulletin (PHB)
73	Meteorological Equipment Change (MEC)
74	Airframe Bulletin (AFB)
75	Airborne Weapon Change (AWC)
76	Airborne Weapon Bulletin (AWB)
77	Target Control System Change (TCC)
78	Target Control System Bulletin (TCB)

79 Meteorological Equipment Bulletin (MEB)

83 Ship Installed and Expeditionary Airfield Launch, Recovery, and Visual Landing Aid Equipment Change (LRC)

84 Ship Installed and Expeditionary Airfield Launch, Recovery, and Visual Landing Aid Equipment Bulletin (LRB)

87 Mission Software Change (MSC)

88 Mission Software Bulletin (MSB)

91 Naval Air Maintenance Trainer Change (NTC)

92 Naval Air Maintenance Trainer Bulletin (NTB)

93 Airborne Software Change (ASC)

94 Airborne Software Bulletin (ASB)

95 Support Software Change (SSC)

96 Support Software Bulletin (SSB)

97 Naval Air Maintenance Trainer Support Software Change (TSC)

98 Naval Air Maintenance Trainer Support Software Bulletin (TSB)

99 Age Exploration Bulletin (AEB)

TIME OR CYCLE PREFIX CODES

The alphabetic codes listed below are to be used to prefix entries in the removed and installed section on the WO/MAF to denote type of data being reported. All entries in this section will be preceded by an alphabetic prefix, and sufficient zeros will be added between the prefix and the first significant numeric character to make a total of five digits.

A. Type Equipment Time

Used to report the removal and installation of equipment not having an hour meter installed or an Aeronautical Equipment Service Record (AESR), Assembly Service Record (ASR), Module Service Record (MSR), Equipment History Record (EHR), or Scheduled Removal Component (SRC) card maintained. This reflects the total type equipment time in whole hours only, on the end item from which the component was removed. All entries in these sections must be five digits, for example, report 27 hours type equipment time as A0027. If Type Equipment Time exceeds 9,999 hours, record the last four digits only, for example, 10,231 hours would be recorded as A0231. For equipment without logbooks, where Total Type Equipment Time is unknown, such as Test, Measurement, and Diagnostic Equipment (TMDE), use A0000.

B. Captive Flights

Total number of captive flights on the equipment. (For use with missiles and missile targets only.)

C. Operating Hours or Counts on Components Having MSR, ASR, EHR, or SRC Cards

Use total time since rework or overhaul, if known, whole hours only. If unknown, use time since new. For ASR, EHR, or SRC components or modules using other than hours or counts for time/cycle monitoring system accounting, use appropriate code.

D. Days

Number of days

E. Operating Hours or Counts for Items Having an AESR

For items which have an AESR, for example, engines, propellers, in-flight refueling stores, and for components of these items where Code C does not apply, enter time since rework or overhaul if known, whole hours only, as recorded in the AESR. If unknown, enter time since new. For AESR items using other than hours or counts for time/cycle monitoring system accounting use appropriate code.

F. Flight Hours. Total flight hours

(For use with missile targets only.)

G. Date of Manufacture

Date the item was manufactured, as recorded on the equipment or associated documents. Date to be entered and read as MMYY, for example, 0320. (For use with survival equipment only.)

H. Date Placed Into Service

Date the equipment was placed into service, as recorded on the equipment or associated documents. Also used to designate the open date or propellant manufacture date for cartridges (CART), cartridge actuated devices (CAD), or propellant actuated device (PAD). Date to be entered

and read as MMYY, for example, 0320. (For use with survival equipment and expeditionary airfield lighting, matting, Fresnel lens, visual communication systems, and CARTs, (CADs, or PADs.)

K. Arrestments

Number of accumulated aircraft arrestments since new, if available; otherwise, number since overhaul.

(For use with aircraft-installed arresting gear and expeditionary airfield equipment only). In the case of expeditionary airfield equipment, use this code to record number of arrestments on the arrester engine assembly, deck pendant tapes, and tape connector only; use Code M to record hour meter reading on retriever engine.

L. Landings

Enter the current total of landings recorded on the aircraft. If total exceeds 9,999 landings, record only the last four digits, for example, 10,231 landings would be recorded as L0231.

M. Meter Time

Number of accumulated hours on equipment and components as shown on the hour meter. (Enter whole hours only.)

N. Rounds Fired

Enter the total number of rounds fired since overhaul, if available; otherwise, enter the total number of rounds fired since new. Data will be rounded to the nearest hundred for entering on the maintenance document. If the figure exceeds 999,999 drop the left most digit and round off to the nearest hundred. Examples: 46 rounds would be reported as N0000, 68 rounds would be reported as N0001, 638 rounds would be reported as N0006, 2,437 rounds would be reported as N0024, 180,779 rounds would be reported as N1808, 1,000,241 rounds would be reported as N0002.

P. Cycles

Enter the number of cycles since overhaul, if available; otherwise, enter the number of cycles since new, for example, number of bombs dropped from a bomb rack.

S. Starts

Enter actual number of starts on equipment/components as shown on start meter or actual number of starts on equipment/component recorded by other devices.

T. Catapult Shots

Enter the number of actual catapult shots recorded on equipment and components.

U. Months Installed

Number of accumulated months equipment was installed since new (if available); otherwise, months since overhaul.

W. Warranty

This code indicates that the component is under warranty. After the prefix code, enter the length of the warranty period in time/cycles, or the date of warranty expiration. Information about warranty length/expiration date can be found on the data plate affixed to the item, or in its logbook

or associated records. If the expiration of the warranty is by date, enter on the MAF the year and month, for example, if warranty expires September 2004, enter W0409. For contingency, code W may be used only in fields E47 and G43.

X. Contract Number

This code indicates the contract number of the component under warranty. After the prefix code, enter the last four characters of the contract number. The contract number can be found on the data plate affixed to the item, or the logbook or associated records, for example, if the contract number is N00019-95-C-0129, enter X0129. For contingency, code X may be used only in fields E52 and G48 only.

TRANSACTION (TRANS) CODES

TRANS codes denote the type of data being reported. Codes 00, 02, and 03 particularly are for reporting custodians.

TRANS CODE	USE
00	Is used to report an inventory gain.
02	Is used to report a change in the material condition reporting status of an equipment, for example, IN/OUT reporting.
03	Is used to report an equipment loss.
11	a. On-Equipment work not involving removal of defective or suspected defective components/items. b. On supporting engine documents not having a removal of a defective or suspected defective component/item when the engine is not specifically identified to a particular aircraft, for example, JRPX (see NOTE). c. This code is also used at the O-level or I-level when closing out a maintenance action. d. On supporting documents where corrosion treatment is performed at the IMA and this treatment is a separate and distinct action apart from the required repair. e. This code may be used when documenting and Aircraft Ground Mishap (AGM) on AGM Conditional Inspection control and look phase WOs.
12	a. On-Equipment work, including engines, involving nonrepairable components/items documented as failed parts. b. Engine identification documented in the (H-Z) Failed/Required Material section and indexed (Use Transaction Code 12) (see NOTE).
14	Removal of a nondefective component/item (excluding cannibalization, see Transaction Code 19), from an engine, to be processed at the O-level. (TRANS Code 18 will be used for the removal and replacement of a complete nondefective engine. In the case of a nonserialized component/item, the MAF must be a single zero (0).
15	Installation of a nondefective component/item, excluding cannibalization (see TRANS Code 19) on an engine to be processed at an O-level activity. In the case of a nonserialized component/item, the installed section of the WO/MAF serial number must be a single zero (0).
16	Removal of a nondefective component/item, excluding engine components/items and a cannibalization (see TRANS Code 18), to be processed at an O-level activity. In the case of a nonserialized component/item, the installed section of the WO/MAF serial number must be a single zero (0) (see NOTE).
17	Installation of a nondefective component/item (excluding engine components/items and cannibalization). In the case of a nonserialized

TRANS CODE	USE
	component/item, the installed section of the WO/MAF serial number must be a single zero (0) (see NOTE).
18	Used to document the following for components/items at O-level and I-level activities (excluding engine components/items at the O-level): a. Removal and replacement of nondefective components and items to accomplish a cannibalization action (AT Code T). b. Removal and replacement of those consumable components and items subject to a scheduled removal interval or items of supply significance, for example, precious metal content (AT Code R).
19	Used to document the following for engine components and items at the O-level: a. Removal and replacement of a nondefective component or item to accomplish a cannibalization action (AT Code T). b. Removal and replacement of those consumable components and items subject to a scheduled removal interval or items of supply significance, for example, precious metal content (AT Code R). Failed/Required Material.
20	Removal and replacement of nondefective consumable component for cannibalization (NTCSS Optimized OMA activities only).
21	Will be used when a repairable component is removed (excluding engines and engine components) for processing at an IMA or D-level maintenance activity. This code is used when only the removal must be documented and a replacement is not required.
23	Removal and replacement of a defective, suspected defective, or scheduled maintenance of a repairable component from an end item (excluding engine components at the O-level). Additionally, this TRANS Code will be used for the removal and replacement of a complete engine assembly for a defect, suspected defect, or scheduled maintenance requirement. The removal component is to be processed at an IMA or D-level maintenance activity. For IMA only - Use this TRANS Code for removal and replacement of engine modules and components when the engine is the end item (see NOTE).
24	Will be used when a repairable engine component is removed for processing at an IMA or D-level activity. This code is used only when the removal must be documented and the replacement is not required.
25	Removal and replacement of a defective or suspected defective repairable component from an engine. The removed component to be processed at an IMA or D-level activity.

TRANS CODE	USE
30	Is used to document components processed through the IMA for check, test, service, manufacture, and fabrication, as well as weapons assembly/disassembly and other weapons support functions.
31	Work performed on a removed repairable component with no failed parts or awaiting parts documented in the Failed/Required Material sections. This action is normally performed at the IMA. (See TRANS Code 11 for supporting engine document.)
32	Work performed on a removed repairable component with failed parts, awaiting parts, or cannibalization actions documented in the Failed/Required Material sections. This action is normally performed at the IMA.
39	Close out for man-hours or awaiting parts at an IMA.
41	a. TD compliance with no part number change or non-serialized components. b. O-level close out of SCIR impacted TD items (NALCOMIS Legacy).
47	Used to document TD compliance on all serialized components, regardless of whether there is a part number change.
72	Will be used to report subsystem capability and impact reporting data by the reporting custodian when transient maintenance is performed by other than the reporting custodian.

NOTE: When an engine is a supply asset, not undergoing repair or inspection inducted from an O-level activity TRANS codes 11, 12, 16, 17, or 23 must be used.

TYPE EQUIPMENT CODES (TEC)

This section describes the general format of Type Equipment Codes (TECs) and Optimized Organizational Maintenance Activity (OOMA) assembly codes used in the Maintenance Data System (MDS). Specific TEC management information can be found in NAVAIR Technical Manual 00-25-8, Business Rules for Assignment and Management of WUC and TEC. Activities requiring specific TEC/OOMA assembly code information should contact the NAVAIR TEC/OOMA Assembly Team at usn.patuxent.nawcad.mbx.NAWCAD-ASG-BCE@us.navy.mil.

TECs are four character codes which identify either the end item or category of equipment on which work is performed. Codes in each specific category are structured in the manner best suited to describe the equipment concerned. Detailed TEC assignments can be found in the TEC Translator section of the DECKPLATE Web site (https://deckplate.navair.navy.mil/cognos/bi/?perspective=classicviewer&pathRef=.public_folders%2FDECKPLATE+Reference+Lookups%2FType+Equipment+Code+Translator&id=iFF854DC7FE234AE7A52AA0B3745081E7&objRef=iFF854DC7FE234AE7A52AA0B3745081E7&type=report&format=HTML&Download=false&prompt=true&cmProperties%5Bid%5D=iFF854DC7FE234AE7A52AA0B3745081E7&cmProperties%5BdefaultName%5D=Type+Equipment+Code+Translator&cmProperties%5Btype%5D=report&cmProperties%5Bpermissions%5D%5B%5D=execute&cmProperties%5Bpermissions%5D%5B%5D=read&cmProperties%5Bpermissions%5D%5B%5D=traverse). To maintain the stability of historical data, a TEC is considered unique to an end item over its life cycle and for a designated time period after it has been retired. Post-retirement time periods are as follows:

Aircraft and UAS Control Systems – 20 years

All other TECs – 7 years

ASSEMBLY CODE (ASSY CD)

An Assembly Code is an alternative means of identifying an end item used exclusively within the OOMA NALCOMIS application. OOMA Assembly Codes are structured as a three or four-character alpha-numeric code that will only be used in the event a Type Equipment Code (TEC) assignment is not practical. Each Assy CD will have a direct relationship to a COMNAVAIRSYSCOM approved TEC. In instances where an Assy CD is associated with multiple TECs, the TEC/Assembly Code Manager COMFRC FST HQ Technical Data Department will determine and assign a primary TEC for data warehousing purposes.

TYPE MAINTENANCE (TM) CODES

The following TM Codes are prescribed for use on the MAF:

B. Unscheduled Maintenance

Used for all maintenance actions except the following:

a. The look phase of any inspection.

b. The look phase and fix phase of all aircraft inspections, engine inspections, SE Preventive Maintenance (PM) inspections, and missile equipment rehabilitation inspections.

c. Calibration of TMDE.

d. Transient maintenance.

e. Used to document all maintenance conducted based on aircraft data identified need, this includes When Discovered codes: I (Between Flights HMS Identified Fault), N (Enterprise Data Analytics), or R (QA Inspection, QA Trend Analysis). Predictive maintenance completed after component functional failure.

C. Predictive Maintenance

Used to document all maintenance conducted based on aircraft data identified need, this includes When Discovered codes: I (Between Flights HMS Identified Fault), N (Enterprise Data Analytics), O (Administrative), R (QA Inspection, QA Trend Analysis) or V (Related Maintenance Action). Predictive Maintenance is executed prior to component functional failure.

D. Daily, Turnaround, Special Inspections and Preservation or Depreservation Actions

Used to document special inspections, preservation, depreservation, and for documenting discrepancies discovered during, daily inspections, preoperational inspections, or turnaround inspections. The following examples apply:

a. With respect to aircraft, this code is used for daily inspections and turnaround inspections, preservation or depreservation actions, airframe special inspections based on calendar days, and combined airframe and engine special inspections based on calendar days.

b. With respect to SE, this code is used for preservation or depreservation actions, airframe special inspections based on calendar days, and combined airframe and engine special inspections based on calendar days and documenting discrepancies discovered during daily inspections, preoperational inspections, and turnaround inspections.

c. Equipment with a prescribed standard inspection cycle, such as mini-regs, parachutes not covered by MRCs, and survival equipment.

E. Acceptance and Transfer Inspection

Acceptance inspections and transfer inspections on aircraft, SE, and missile targets.

F. Transient Maintenance

Maintenance performed on equipment in a transient status.

G. Phase Inspection

Phased maintenance inspections on aircraft (excluding uninstalled engine inspections), both look phase and fix phase.

J. Major Engine Inspection

This code is used for uninstalled engine inspections for both the look phase and fix phase.

K. Special Engine Inspection

This code is used for all special inspections performed exclusively on engines, installed or uninstalled, for both the look phase and fix phase.

L. Local Manufacture or Fabrication Actions for Nonaeronautical Material

M. Hourly Special Aircraft Inspections

This code is used for airframe and combined airframe and engine hourly interval special inspections for both the look phase and fix phase.

N. Cycle or Event Special Aircraft Inspections

This code is used for airframe and combined airframe and engine special inspections based upon cycles or events, for example, rounds fired, arrested landings, launches. This code is used for both the look phase and fix phase.

P. Periodic Maintenance, Postlaunch Rehabilitation Inspections, and Scheduled Calibration

Used to document both look phase and fix phases of the following type of inspections:

a. Periodic Maintenance inspections on SE and expeditionary airfield equipment.

b. Scheduled calibration of TMDE.

c. Postlaunch rehabilitation of recoverable targets following each launch and recovery and major inspections on targets not normally rehabilitated, including non-recoverable types.

S. Conditional Inspection.

The look phase and fix phases of conditional inspections on aircraft, engines, SE, and missile targets, and conditional (unscheduled) calibration of TMDE.

T. Supply Support

All work performed as a result of a MAF work request received from a supply activity.

U. Reclamation and Salvage

All work performed in connection with reclamation and salvage actions.

The following TM Codes are prescribed for use by Power Plants Work Centers with specific engine repair capability:

1. First-Degree Repair

First-degree repair is repair which includes compressor rotor replacement or disassembly to a degree that the compressor rotor assembly can be removed.

2. Second-Degree Repair

Second-degree repair by designated IMAs includes the repair or replacement of turbine rotors and combustion sections (including afterburners), and the repair or replacement of reduction gearboxes and torque shafts which are considered repairable within the limits of the approved intermediate maintenance handbooks.

3. Third-Degree Repair

Third-degree repair encompasses the same gas turbine engine repair capability as the second-degree repair except that certain functions which require high maintenance man-hours and are of low incident rate are excluded.

TYPE WORK ORDER (WO)/ MAF CODES

Type WO/MAF Code to Discrepancy

AC	Acceptance/Post-depot Inspection Control	MF	SDLM or Enhanced Phase Maintenance (EPM) Fix Phase
AD	Assist Maintenance	ML	SDLM or EPM Look Phase
AF	Acceptance/Post-depot Inspection Fix Phase	MX	SDLM or EPM Single Work Center
AL	Acceptance/Post-depot Inspection Look Phase	OC	One Time Inspection Control
AT	Technical Directive Assist	OF	One Time Inspection Fix Phase
AX	Acceptance/Post-depot Inspection Single Work Center	OL	One Time Inspection Look
BC	Depreservation Control	OM	Other Type Maintenance
BF	Depreservation Fix Phase	OX	One Time Inspection Single Work Center
BX	Depreservation Single Work Center	PC	Phase Control
CC	Conditional Inspection Control	PF	Phase Fix Phase
CF	Conditional Inspection Fix Phase	PL	Phase Look Phase
CL	Conditional Inspection Look Phase	PW	Phase Look Phase (OIMA only)
CM	Cannibalization Maintenance	PX	Phase/Periodic Maintenance Inspection Single Work Center
CP	Corrosion Prevention	QT	Technical Directive Deconfigure
CT	Corrosion Treatment	SC	Special Inspection Control
CW	Conditional Inspection Look Phase (OIMA only)	SD	Depreservation Work Center Action
CX	Conditional Inspection Single Work Center	SD	Special Discrepancy (OIMA only)
D	Discrepancy (OIMA only)	SF	Special Inspection Fix Phase
DF	Daily/Turnaround/Pre/Post Flight Discrepancy	SI	Special Induction (OIMA only)
DM	Discrepancy Maintenance	SL	Special Inspection Look Phase
ES	Engine Support (OIMA only)	SP	Preservation Work Center Action
ET	Technical Directive (Engine) SCIR	SW	Special Inspection Look (OIMA only)
FC	Preservation Control	SX	Special Inspection Single Work Center
FF	Preservation Fix Phase	T	Cannibalization (OIMA only)
FO	Facilitate Other Maintenance	TC	Transfer/Pre-depot Inspection Control
FX	Preservation Single Work Center	TD	Technical Directive

HA	Hosting Activity
IA	Intra-Activity Support
IC	IMC/P Control (OOMA only)
IF	IMC/P Fix Phase (OOMA only)
IL	IMC/P Look Phase (OOMA only)
MC	SDLM Control or EPM Fix Phase
TF	Transfer/Pre-depot Inspection Fix Phase
TL	Transfer/Pre-depot Inspection Look Phase
TM	Transient Maintenance
TS	Troubleshooting
TX	Transfer/Pre-depot Inspection Single Work Center
WR	Work Request

Discrepancy to Type WO/MAF Code

Acceptance/Post-depot Inspection Control	AC	Other Type Maintenance	OM
Acceptance/Post-depot Inspection Fix Phase	AF	Phase Control	PC
Acceptance/Post-depot Inspection Look Phase	AL	Phase Fix Phase	PF
Acceptance/Post-depot Inspection Single Work Center	AX	Phase Look Phase	PL
Assist Maintenance	AD	Phase Look Phase (OIMA only)	PW
Cannibalization (OIMA only)	T	Phase/Periodic Maintenance Inspection Single Work Center	PX
Cannibalization Maintenance	CM	Preservation Control	FC
Conditional Inspection Control	CC	Preservation Fix Phase	FF
Conditional Inspection Fix Phase	CF	Preservation Single Work Center	FX
Conditional Inspection Look Phase	CL	Preservation Work Center Action	SP
Conditional Inspection Look Phase (OIMA only)	CW	SDLM or Enhanced Phase Maintenance (EPM) Control	MC
Conditional Inspection Single Work Center	CX	SDLM or EPM Fix Phase	MF
Corrosion Prevention	CP	SDLM or EPM Look Phase	ML
Corrosion Treatment	CT	SDLM or EPM Single Work Center	MX
Daily/Turnaround Pre/Post Flight Discrepancy	DF	Special Discrepancy (OIMA only)	SD
Depreservation Control	BC	Special Induction (OIMA only)	SI
Depreservation Fix Phase	BF	Special Inspection Fix Phase	SF
Depreservation Single Work Center	BX	Special Inspection Control	SC
Depreservation Work Center Action	SD	Special Inspection Look Phase	SL
Discrepancy (OIMA only)	D	Special Inspection Look (OIMA only)	SW
Discrepancy Maintenance	DM	Special Inspection Single Work Center	SX
Engine Support (OIMA only)	ES	Technical Directive	TD
Facilitate Other Maintenance	FO	Technical Directive Assist	AT
Hosting Activity	HA	Technical Directive Deconfigure	QT
IMC/P Control (OOMA only)	IC	Technical Directive (Engine) SCIR	ET
IMC/P Fix Phase (OOMA only)	IF	Transfer/Pre-depot Inspection Control	TC
IMC/P Look Phase (OOMA only)	IL	Transfer/Pre-depot Inspection Fix Phase	TF

Intra-Activity Support	IA	Transfer/Pre-depot Inspection Look Phase	TL
One Time Inspection Control	OC	Transfer/Pre-depot Inspection Single Work Center	TX
One Time Inspection Fix Phase	OF	Transient Maintenance	TM
One Time Inspection Look	OL	Troubleshooting	TS
One Time Inspection Single Work Center	OX	Work Request	WR
Other Type Maintenance	OM	Phase Control	PC

WHEN DISCOVERED (WD) CODES

WD Code Explanation for Aircraft and Engines

A. Before Flight Abort

This code is used when a need for maintenance is discovered after the aircrew accepts the aircraft and maintenance discrepancy causes the flight to be cancelled.

B. Before Flight No Abort

This code is used when a need for maintenance is discovered after the aircrew accepts the aircraft, but the maintenance does not cause cancellation of the flight.

C. In-Flight Abort

This code is used when a need for maintenance is discovered in-flight and it becomes necessary to abort the flight.

D. In-Flight No Abort

This code is used when a need for maintenance is discovered in-flight and it is not necessary to abort the flight.

E. After Flight/Between Flight Aircrew

This code is used when a need for maintenance is discovered between flights, for example, during a passenger stop, a pilot notices a drop in fuel pressure.

F. Pilot/NFO Inspection

This code is used when a need for maintenance is discovered during a pilot/NFO aircraft inspection which is not flight related.

G. Acceptance/Transfer Inspection

This code is used when a need for maintenance is discovered during an acceptance/transfer inspection, regardless of the depth of the inspection.

H. Between Flights Ground Crew

This code is used when a need for maintenance is discovered between flights by personnel other than the aircrew, for example, a taxi director notices an oil leak from an engine while directing a pilot into the chocks.

I. Between Flights HMS Identified Fault

This code is used when a need for maintenance is discovered between flights by personnel other than the aircrew due to onboard (Aircraft) or off board (Ground Station) HMS identified fault.

NOTES: 1. Use of this code does not supersede aircrew initiated WOs documented as When Discovered Codes A, B, C, D, E, and P.

2. Use of this code applies to both O and I level documentation.

J. Daily Inspection

This code is used when a need for maintenance is discovered during a daily inspection which is performed independently of any other inspection.

K. Turnaround Inspection

This code is used when a need for maintenance is discovered during a turnaround inspection.

L. Special Inspection, Preservation/Depreservation

This code is used when a need for maintenance is discovered during a special inspection or preservation/depreservation.

M. Major or Phase Inspection

This code is used when a need for maintenance is discovered during a phase inspection for aircraft or during a major inspection for engines. This code will also apply to aircraft for which a single type of inspection is prescribed (as opposed to intermediate/major) and to periodic maintenance inspections on SE.

N. NAE Data Analytics

This code is used when a need for maintenance is discovered by NAE data analytics identified fault.

NOTE: Use of this code applies to both O and I level documentation.

O. Administrative

This code is used when an administrative action is required, for example, inspection documents, check, test, or service, cannibalization, FOM.

P. Functional Check flight

This code is used when the need for maintenance is discovered during a flight which was conducted for the purpose of testing for proper functioning of the airframe, power plant, accessories, and other items of equipment. The use of this code is limited to those items in the FCF checklist as requiring test during the flight.

Q. Conditional Inspection

This code is used when a need for maintenance is discovered during an inspection which does not have a prescribed interval and depends upon occurrence of certain circumstances or conditions.

R. QA Inspection

This code is used when a need for maintenance is discovered during any receiving, screening, in-process or final QA inspection (scheduled or unscheduled) conducted by personnel acting in the capacity of QAR, CDQAR, or CDI. This code is also used when the need for maintenance is discovered during the performance of QA trend analysis of HMS data per ATA NAMPSOP 10.37.4.1.3.

NOTE: Use of this code applies to both O-Level and I-Level documentation.

S. Oil Analysis Recommendation

This code is used when a need for maintenance is discovered as a result of a recommendation from the JOAP/NOAP.

U. Modification/PDM/Overhaul/Airline Maintenance

This code is used when a need for maintenance is discovered during unscheduled D-level maintenance.

V. Related Maintenance Action

This code is used when a need for maintenance by another work center is discovered during a related maintenance action. (Used by assisting work centers only.)

W. In-Shop Repair/Disassembly for Maintenance

This code is used when a need for maintenance is discovered during in-shop repair/disassembly for maintenance. (Applies to levels 2 and 3 maintenance only.)

X. Test Bench/Engine Test Stand Operation

This code is used when a need for maintenance is discovered on aeronautical components installed in test benches, ready room, and line shacks, or when a need for maintenance is discovered during engine test stand operation.

Y. Upon Receipt or Withdrawal from Supply

This code is used when parts, components, or assemblies are received or withdrawn from supply and found to be discrepant upon installation.

NOTE: The use of When Discovered Codes is for the most part self-explanatory. In case of doubt, however, use the code, which most logically identifies when the need for maintenance was discovered, that is, P would take precedence over C.

Code Explanation for Support Equipment, Precision Measuring Equipment, and Aeronautical Expeditionary Airfield Equipment

C. Equipment Operation Caused Equipment Downtime

This code is used when a need for maintenance is discovered during equipment operation and equipment down time results.

D. Equipment Operation Did Not Cause Equipment Downtime

This code is used when a need for maintenance is discovered during equipment operation and no equipment downtime results.

F. Unscheduled Maintenance, Preservation, or Depreservation

This code is used when a need for maintenance is discovered during unscheduled maintenance, preservation, or depreservation.

G. Acceptance and Transfer Inspection

This code is used when a need for maintenance is discovered during an acceptance or transfer inspection.

J. Local Inspection/Shift Verification

This code is used when a need for maintenance is discovered during either an inspection required by local command or a verification check on SE between shifts.

M. Scheduled Inspection

This code is used when a need for maintenance is discovered during any scheduled inspection using MRCs.

O. Administrative

This code is used when an administrative action is required, for example, inspection documents, items removed and replaced for check/test/service, cannibalization, or removal and reinstallation to FOM.

P. Operational System Check

This code is used when a need for maintenance is discovered during a systems test conducted to discover defects and maladjustments.

Q. Conditional Inspection/AIMD Calibration

This code is used when a need for maintenance is discovered during an inspection or calibration which does not have a prescribed interval and depends upon occurrence of certain circumstances or conditions.

R. QA Inspection

This code is used when a need for maintenance is discovered during any receiving, screening, in-process or final QA inspection (scheduled or unscheduled) conducted by personnel acting in the capacity of QAR, CDQAR, or CDI.

S. Oil Analysis Recommendation

This code is used when a need for maintenance is discovered as a result of a recommendation from the JOAP/NOAP.

T. Scheduled Calibration at AIMD

This code applies to TMDE only and is used by the AIMD when a need for maintenance is discovered during scheduled calibration.

U. D-Level Maintenance/Calibration

This code is used when a need for maintenance is discovered during a D-level maintenance or calibration.

V. Related Maintenance Actions

This code is used when a need for maintenance by another work center is discovered during a related maintenance action. (Used by assisting work centers only.)

W. In-Shop Repair or Disassembly for Maintenance

This code is used when a need for maintenance is discovered during in-shop repair or disassembly for maintenance.

Y. Upon Receipt or Withdrawal from Supply

This code is used when parts, components, or assemblies are received or withdrawn from supply and found to be discrepant upon installation.

Code Explanation for Missiles, Missile Targets, Target Engines, and Airborne Mine Countermeasures Equipment

A. Before Flight Abort Launch Crew

This code is used when a need for maintenance is discovered by a launch crew before flight which makes it necessary to abort the mission.

B. Before Flight No Abort Launch Crew

This code is used when a need for maintenance is discovered by a launch crew before flight and it is not necessary to abort the mission.

C. In-Flight Abort

This code is used when a need for maintenance is discovered in-flight and it becomes necessary to abort the mission.

D. In-Flight No Abort

This code is used when a need for maintenance is discovered in-flight and it is not necessary to abort the mission.

G. Acceptance and Transfer Inspection

This code is used when a need for maintenance is discovered during initial buildup and test, acceptance or transfer inspection.

H. Between Flights Ground Crew

This code is used when a need for maintenance is discovered by ground crew personnel other than the launch crew, for example, a maintenance crew member notices an oil leak from an engine while the target or Airborne Mine Countermeasures (AMCM) sled is in the hangar between operations.

J. Daily Inspection

This code is used when a need for maintenance is discovered during a daily inspection which is performed independently of any other inspection.

K. Prelaunch or Turnaround Inspection

This code is used when a need for maintenance is discovered during a prelaunch or turnaround inspection.

L. Special Inspection, Preservation/Depreservation

This code is used when a need for maintenance is discovered during a special inspection or preservation/depreservation.

M. Post Launch Rehabilitation Inspection

This code is used when a need for maintenance is discovered during rehabilitation inspection of a target, after recovery.

O. Administrative

This code is used when an administrative action is required, for example, inspection documents, check/test/service, cannibalization, facilitate other maintenance (FOM).

P. Test and Evaluation Flight or Operational System Check

This code is used for all needs for maintenance discovered during a flight which was conducted for the sole purpose of testing a target, target engine, accessories, or installed equipment; or when an AMCM system test is conducted for the sole purpose of discovering defects and maladjustments.

Q. Conditional Inspection

This code is used when a need for maintenance is discovered during an inspection which does not have a prescribed interval and depends upon the occurrence of certain circumstances or conditions, for example, retest console, combined systems check, hot start, and handling damage.

R. QA Inspection

This code is used when a need for maintenance is discovered during any receiving, screening, in-process or final QA inspection (scheduled or unscheduled) conducted by personnel acting in the capacity of QAR, Collateral Duty Quality Assurance Representative (CDQAR), or Collateral Duty Inspector (CDI).

S. Oil Analysis Recommendation

This code is used when a need for maintenance is discovered as a result of a recommendation from the Joint Oil Analysis Program (JOAP) or Navy Oil Analysis Program (NOAP).

V. Related Maintenance Action

This code is used when a need for maintenance by another work center is discovered during a related maintenance action. (Used by assisting work centers only)

W. In-Shop Repair/Disassembly for Maintenance

This code is used when a need for maintenance is discovered during in-shop repair/disassembly for maintenance.

X. Upon Receipt or Withdrawal from Supply

This code is used when parts, components, or assemblies are received or withdrawn from supply and found to be discrepant upon installation.

WORK CENTER CODES

The following standard Work Center Codes are prescribed for use in the MDS. Work centers may be division, branch, or section level elements of the organization representing functional areas of responsibility to which maintenance personnel are permanently assigned.

Work Center Codes will be selected from this appendix and assigned locally to the depth necessary to reflect the organizational structure in effect.

Work Center Codes in this section are structured to correspond with a standard organization. These codes may be changed only with approval of COMNAVAIRFOR (N422). Recommendations for changes will be submitted per Chapter 1.

NOTE: The third position of the work center code can be locally assigned where needed at the discretion of the MO or AMO. Division and Branch association are identified by the first and second position of the work center code and must be maintained.

TABLE OF WORK CENTER CODES

Organizational and Intermediate Level Activities Only

Code	Function
010	Maintenance Officer
01A	Assistant Maintenance Officer
01B	Training/ASM
01C	Manpower
01D	SEAOPDET
01E	AIRSpeed Continuous Process Improvement
011	Maintenance/Material Control Officer
020	Maintenance/Production Control
021-022	May be assigned only upon approval of ACC/TYCOM
02N	NALCOMIS MDBA/A, SA/A
030	Maintenance Administration
040	Quality Assurance/Analysis
04A	Technical Library
050	Material Control
05C	Accountable Material/IMRL Manager
05D	Aviation Tool Issue/Tool Control Center
05H	Hazardous Material Control
060	Not assigned
070	Not assigned
080	Not assigned
08A	Not assigned
08B	Not assigned
08C	Not assigned
08D	Not assigned
08E	Not assigned
08F	Not assigned
08G	Not assigned
08H	Not assigned
08L	Not assigned

Code	Function
08M	Not assigned
08N	Not assigned

Organizational Level Activities Only (Notes 1 and 4)

Code	Function
100	Aircraft Division
110	Power Plants Branch
11A	Jet Engine Shop
11B	Reciprocating Engine Shop
11C	Auxiliary Fuel Stores/Tanker Shop
11P	Propeller Shop
118	Not assigned
120	Airframes Branch
12A	Structures Shop
12B	Hydraulic Shop
12C	Corrosion Control Shop
12L	Low Observable Shop
128	Not assigned
130	Aviation Life Support Systems Branch
13A	Aircrew Personal/Protective/Survival Equipment Shop
13B	Egress/Environmental Systems Shop
138	Not assigned
140	Periodic Maintenance Branch
150	Targets Branch
15A	Missile Targets Shop
15B	Miscellaneous Targets Shop
160	AMCM Department
16A	Device Division
16B	AV/WEPS Division
16C	Tactical Support Division (Note 2)
170-180	Not assigned

190	Aviation Training Equipment Division
200	Avionics/Armament Division
210	Electronics Branch
213	Electronic Countermeasures (Marine Corps only)
215	Special Projects
218	Not assigned
220	Electrical/Instrument Branch
228	Not assigned
230	Armament Branch
238	Not assigned
240	Reconnaissance/Photo Branch
24A	Aerial Camera Shop
24B	Sensor Systems Shop
250	ASCAC/TSC Branch (Note 3)
260	RADAR/Fire Control Branch
268	Not assigned
270	Anti-submarine Warfare Branch
280	Integrated Weapons Branch
288	Not assigned
290	UAS Control Station Support
300	Line Division
310	Plane Captain Branch
310	Power Line (Marine Corps only)
318	Not assigned
31P	Propeller Repair Shop (Marine Corps only)
320	Troubleshooter Branch
330	Support Equipment Branch
340	Transient Maintenance Branch
350	Flight Crew Branch
360	Configuration Branch
361-390	Not assigned

Intermediate Level Activities Only (Note 4)

Code	Function
012	General Maintenance Officer Afloat (IM-2)
013	Avionics/Armament Officer Afloat (IM-3)
014	SE Officer Afloat (IM-4)
015	Support Services Officer Afloat(IM-5) (Note 2)
024	Power Plants Production Control (IMA only)
025	Airframes Production Control (IMA only)
026	Avionics Production Control (IMA only)
027	Armament Production Control (IMA only)
028	Aviation Life Support Systems Production Control (IMA only)
029	Support Equipment Production Control (IMA only)
05A	Material Screening (AMSU/JASU)
05B	Material Procurement/Accounting
400	Power Plants Division
410	Jet Engine Branch
41B	CFM56 Aircraft Engine Repair Shop
411	Jet Engine Component Repair Shop
412	Auxiliary Power Units/Support Equipment Gas Turbine Engines
413	Afterburner Shop
414	Power Plants Module Repair Shop
415	Power Plants Can-UnCan Shop
41A	Not Assigned
41F	J85 Engine Shop
41L	T56 Engine Repair Shop
41N	T64 Engine Repair Shop
41Q	T400 Engine Repair Shop
41R	T700 Engine Repair Shop
41T	F402 Engine Repair Shop
41U	F404 Engine Repair Shop
41V	F414 Engine Repair Shop
430	Propeller Branch
431	Propeller Component Repair Shop

440	Rotor Dynamics Branch
450	Test Cell for Engine Model #1
451	Test Cell for Engine Model #2
460	Auxiliary Fuel Stores Branch
470	JOAP/NOAP Analysis Lab
480	Power Plants Welding Shop
500	Airframes Division
510	Structures Branch
51A	Structures Shop
51B	Paint Shop
51C	Welding Shop
51D	Machine Shop
51E	Tire/Wheel Shop
51F	Composites Repair Shop
51G	Engraving Shop
520	Hydraulics/Pneumatics Branch
52A	Hydraulics Shop
52B	Brake Shop
52C	Strut Shop
530	IMA NDI Branch
53A	Radiography Shop
53B	Electrical/Chemical Shop
540	Electro-Plating/Anodizing Branch (Note 5)
550	Additive Manufacturing
551-590	Not assigned
600	Avionics Division
60A	Avionics Corrosion Control Branch
60C	Mobile Maintenance Facility Support Branch (USMC)
610	Comm/Nav Branch
61A	Communication Shop
61B	Navigation Shop
61C	Mission Computer Shop

61D	COMSEC/CRYPTO Repair Shop
620	Electrical/Instrument Branch
62A	Electric Shop
62B	Instrument Shop
62C	Battery Shop, Lead Acid
62D	Battery Shop, Nickel Cadmium and Lithium Ion
62E	CSD/Generator Shop
62F	Inertial Navigation Shop
630	Fire Control RADAR Branch
63A	Not assigned
63B	Not assigned
63C	Not assigned
63D	Not assigned
63E	Not assigned
63F	Not assigned
63G	Not assigned
63H	Not assigned
640	Radar/ECM Branch
64A	Non-Fire Control Radar Shop-
64B	ECM Shop
64C	DECM Shop
64D	FLIR/Optical Shop
64F	EA-18G ALQ-99 Shop
64G	ALQ-99 CASS WRAs and Related TPS
64I	Misc ECM CASS WRAs and Related TPS
64J	Misc DECM CASS WRAs and Related TPS
650	Integrated Weapons System Branch
65A	RADCOM Station Maintenance
65B	Misc Avionics (CASS) WRAs
65C	CASS Bench Maintenance and Misc Avionics (CASS) TPS
65D	Misc Avionics WRAs (RADCOM) SACE Radar Shop
65E	Weapons System Missile Component Shop

65F	FTE/DTS (Factory Test Equipment/Digital Test Station) Shop
65G	ATS/IATS
65H	ATS/IATS Station Maintenance
660	ASW Branch
66A	Acoustic Equipment Shop
66B	Non-Acoustic Equipment Shop
670	Field Calibration Activity (FCA) Branch
67A	FCA Receipt and Issue
67B	FCA Electrical/Electronic Calibration Shop
67C	FCA Physical/Mechanical Calibration Shop
67D	TMDE Repair Shop
67E	Computer Repair Shop
680	Reconnaissance/FLIR Branch
68A	FLIR/Optical Shop
68B	ATFLIR Pod Maintenance Shop
68C	Unassigned for future use
690	Module/Microminiature Repair Branch
69A	HTS Module Test/Trouble Shooting Shop
69B	Micro/Miniature Repair Shop
69C	Cable/Connector Repair Shop
69D	Trouble Shooting Shop
69E	Module Analysis Shop
69F	EMTC Module Test/Trouble Shooting Shop
69G	HATS Module Test/Trouble Shooting Shop
69H	Point to Point Testing/Circuit Card Test and Repair Systems
700	Armament Division
710	Ordnance Branch
71A	Armament Systems Pool
71B	Gun Shop
71C	Armament Equipment Repair Shop
71D	Racks/Launcher Shop
71E	Tow Reel Repair Shop

720	Special Weapons Branch
72A	Special Weapons Test/Repair Shop
730	Weapons Department
731	Armament Weapons Support Equipment
732	Not Assigned
733	Navy Weapons Department G-1 Issue and Receipts, Ordnance Control/MALS Ammunition Stock Recording Section
734	Armory/MALS Armory G-2
735	Assembly/MALS Munitions G-3
736	Aircraft Gun Loading Shop
737-739	Not assigned
740	Airborne Mine Countermeasures (AMCM) Branch
74A	AMCM Sled Shop
74B	AMCM Structural Component Repair Shop
74C	AMCM Avionic/Electric Component Repair Shop
74D	AMCM Hydraulic Component Repair Shop
750-790	Not Assigned
800	Aviation Life Support Systems Division
810	Aviators Safety and Survival Equipment Branch
81A	Parachute Shop
81B	Aviators Safety Equipment Shop
81C	Oxygen Regulator and Equipment Shop
81D	Not assigned
820	Oxygen/Nitrogen Generating Facility
830-890	Not assigned
900	Support Equipment Division
901	SE Training/License
902	SE IMRL Management
903	SE Material Control
904	SE Rework Facility
90A	SE Pool
910	SE Gas Engine Repair Branch
91A	SE Gas Turbine Repair Shop

91B	Aircraft Handling/Servicing Equipment Engine Repair Shop
920	SE Structural/Hydraulic Branch
92A	SE Structural Repair Shop
92B	SE Hydraulic Repair Shop
92C	LOX/Oxygen/Nitrogen Servicing Equipment Repair Shop
92D	SE Corrosion Control Branch
930	SE Electrical Repair Branch
940	SE Component Repair Branch
950	SE Periodic Maintenance Branch
970	Air Conditioning Repair Branch
980	Flight Deck Troubleshooter Branch
990	Mobile Maintenance Facility Support Branch (USN)

Activities with Depot FRC Artisans Assigned Only (NOTE 7)

Code	Function
420	Jet Engine Branch (Artisan)
421	Jet Engine Component Repair Shop (Artisan)
422	APU/SE Gas Turbine Repair Shop (Artisan)
423	Afterburner Repair Shop (Artisan)
424	Power Plants Module Repair Shop (Artisan)
42A	J52 Engine Repair Shop (Artisan)
42L	T56 Engine Repair Shop (Artisan)
42N	T64 Engine Repair Shop (Artisan)
42Q	T400 Engine Repair Shop (Artisan)
42R	T700 Engine Repair Shop (Artisan)
42T	F402 Engine Repair Shop (Artisan)
42U	F404 Engine Repair Shop (Artisan)
42V	F414 Engine Repair Shop (Artisan)
432	Propellers and Propeller Component Repair Shop (Artisan)
452	Test Cell (Artisan)
462	Auxiliary Fuels Stores Branch (Artisan)
51H	Structures Shop (Artisan)

51L	Paint Shop (Artisan)
51M	Welding Shop (Artisan)
51N	Machine Shop (Artisan)
51P	Tire/Wheel Shop (Artisan)
51Q	Composite Repair Shop (Artisan)
51X	Structures Branch (Artisan)
52D	Hydraulic Shop (Artisan)
52E	Brake Shop (Artisan)
52F	Strut Shop (Artisan)
52X	Hydraulic/Pneumatic Branch (Artisan)
531	NDI Branch (Artisan)
53C	Radiography Shop (Artisan)
53D	Electrical/Chemical Shop (Artisan)
54A	Electro-Plating/Anodizing Branch (Artisan)
60B	Avionics Corrosion Control (Artisan)
61F	Communications Shop (Artisan)
61G	Navigation Shop (Artisan)
61L	Mission Computer Shop (Artisan)
61M	COMSEC/Crypto Repair Shop (Artisan)
61X	COMM/NAV Branch (Artisan)
62G	Electric Shop (Artisan)
62H	Instrument Shop (Artisan)
62J	Lead/Acid Battery Shop (Artisan)
62K	Nickel/Cadmium Battery Shop (Artisan)
62L	CSD/Generator Shop (Artisan)
62M	Inertial NAV Shop (Artisan)
62X	Electrical/Instrument Branch (Artisan)
63J	APG-65/73 CASS WRAs and Related TPSs (Artisan)
63X	Fire Control Radar Branch (Artisan)
64K	Non Fire Control Radar Shop (Artisan)
64L	ECM Shop (Artisan)
64M	DECM Shop (Artisan)

64N	FLIR/Optical Shop (Artisan)
64P	DECM POD Shop (Artisan)
64Q	EA-18G ALQ-99 Shop (Artisan)
64R	ALQ-99 CASS WRAs and Related TPSs (Artisan)
64S	S-3 CASS WRAs and Related TPSs (Artisan)
64T	Misc ECM CASS WRAs and Related TPSs (Artisan)
64U	DECM CASS WRAs and Related TPSs (Artisan)
64X	Radar/ECM Branch (Artisan)
65J	RADCOM Station Maintenance (Artisan)
65K	Misc Avionics (CASS) WRAs (Artisan)
65L	CASS Bench Maintenance and Misc Avionics (CASS) TPSs (Artisan)
65N	Weapons Systems Missile Components Shop (Artisan)
65P	ATS/IATS (Artisan)
65Q	ATS/IATS Station Maintenance (Artisan)
65R	FTE/DTS/RADCOM Shop (Artisan)
65X	Integrated Weapons System Branch (Artisan)
66C	Acoustic Equipment Shop (Artisan)
66D	Non Acoustic Equipment Shop (Artisan)
66X	ASW Branch (Artisan)
67F	TMDE Electrical/Electronic Calibration Shop (Artisan)
67G	TMDE Physical/Mechanical Calibration Shop (Artisan)
67H	TMDE TAMS Repair Shop (Artisan)
67J	Computer Repair Shop (Artisan)
67X	TMDE Branch/Field Calibration Activity (Artisan)
68D	FLIR/ATFLIR Shop (Artisan)
68X	Reconnaissance/Photo Branch (Artisan)
69J	HTS Module Test/Trouble Shooting Shop (Artisan)
69K	MICRO/Miniature Repair Shop (Artisan)
69L	Cable/Connector Repair Shop (Artisan)
69M	Trouble Shooting Repair Shop (Artisan)
69N	Module Analysis Shop (Artisan)
69P	EMTC Module Test/Trouble Shooting Shop (Artisan)

69Q	Pinpoint/Protrack (Artisan)
69X	Module/Microminiature Repair Shop (Artisan)
81X	ALSS/Ejection Seat Shop (Artisan)

Other

Code	Function
X00	Miscellaneous
X10	Supply (MAG/Navy)
X20	In-Flight Maintenance
X30	Away-from-Home Maintenance
X40	Standard Rework Control (level 3)
X41	Standard Rework O-level (level 1)
X42	Standard Rework I-level (level 2)
X43	Designated for future Depot Fix Phase Documentation
X44	In Service Repair (level 3)
X45	Modification (level 3)

NOTE: Work Center Codes X50 through X5T are for contractor use only.

X50	Contractor Support
X55	Paint Shop
X59	Support Equipment Shop
X5A	ATE Lab
X5B	Battery Locker
X5C	Calibration Lab
X5D	Parachute Packing
X5E	Test Cell Maintenance
X5F	Flotation Shop
X5L	Prop Shop
X5P	Oxygen Shop
X5S	Weld Shop
X5T	Tire Shop

NOTES: 1. O-level Work Center Codes may be assigned or used by an IMA if the IMA is responsible for performing O-level maintenance functions.

2. This work center will be used for non-aircraft maintenance, local organization purposes only. No documentation in the Aviation 3M Data System is allowed using this work center code.

3. Work Center 250 will ordinarily be under the administrative control of the local operations department.

4. I-level Work Center Codes may be assigned or used by an O-level activity, if the O-level is designated as responsible for performing I-level maintenance function.

5. May be used only when the IMA has been specifically designated by COMNAVAIRSYSCOM to perform the function (formerly "SX").

6. (All Intermediate Level activities only) All work centers that include the terms division and branch, for example, 400, 500, 600, 51X, and 62X, are considered administrative work centers. Administrative functions may be combined at the branch or division level for work centers with minimal manning. However, a more specific Work Center Code will be used for the documentation of maintenance and production efforts.

7. Artisan work centers are considered virtual work centers and were designed to capture maintenance and production data only. They are not intended to maintain administrative processes, such as required reading boards, maintenance technical manual libraries, or associated collateral duties. The majority of these work centers do not contain enough personnel to maintain those administrative functions. These functions must be maintained in the corresponding branch or traditional I-level work center.

8. The occurrence of standard rework (on-site) will be documented by Maintenance Control. The control MAF/WO will be issued to X40.

9. To provide accurate man-hour accounting by rate, corrective maintenance actions must be documented against the host work center whenever practical, for example, 110 and 120.

APPENDIX F
Data Entry Procedures

This appendix contains the data entry procedures necessary to enter aviation maintenance and material management (3M) data from source documents into the standard 3M formats and the formats of records to be forwarded to Commander, Naval Air Systems Command (Enterprise Services Division) and Type Commander (as appropriate). The following applies:

Under the A, N, E, OTHER Column

A = Alphabetic

N = Numeric

E = Either alphabetic or numeric

OTHER = Alphanumeric with embedded Blanks/Special Characters

Under the SPECIAL INSTRUCTIONS Column

RJ = Right Justified

LJ = Left Justified

ZF = Zero Filled

Record Type 60, 62, 64, and 65

DESCRIPTION	Material Issue, Material Issue Correction, Technical Directive (TD) Compliance Material Issue, and Initial Outfitting Issue Records
SOURCE DOCUMENT	Naval Aviation Logistics Command Management Information System (NALCOMIS)

SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
B	1-3	E	ORG	
8-22	4-18	E	NSNPN	LJ
23-24	19-20	A	UI	
25-29	21-25	N	QTY	RJ, ZF
36-39	26-29	N	REQDAT	
40-43	30-33	E	REQNUM	
L, M	34-36	E	JCNORG	
L, M	37-39	N	JCNDAY	
L, M	40-42	E	JCNSER	
L, M	43-44	E	JCNSUF	
N	45-48	E	TEC	
55-56	49-50	E	COG	
57-59	51-53	E	PROJ	
60-61	54-55	N	PRI	
P	56-62	E	WUC	LJ
R	63-67	E	MFGR	LJ
70	68	A	PURP	
71	69	A	COND	
73	70	A	MCC	
BELOW V	71-74	N	SUPDAT	
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
V	79-80	N	RECTYP	60, 62, 64 or 65

NOTE: Enter the local supply organization code of where the document originated.

Record Type 66

DESCRIPTION	Service Market (SERVMART) Record
SOURCE DOCUMENT	DD Form 1348

SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
B	1-3	E	ORG	
NOT USED	4-44			
N	45-48	E	TEC	
NOT USED	49-55			
U	56-63	N	TOTPRC	RJ, ZF, Note 1
NOT USED	64-70			
BELOW V	71-74	N	SUPDAT	
DCF	75-77	E	DPCODE/SUPORG	Note 2
DCF	78	E	AWAY	
V	79-80	N	RECTYP	66

NOTES: 1. TOTPRC will be entered in dollars and cents with an assumed decimal.

2. Enter the local supply organization code of where the document originated.

Record Type 67

DESCRIPTION	Indirect Material Issue Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
B	1-3	E	ORG	
8-22	4-18	E	NSNPN	LJ
23-24	19-20	A	UI	
25-29	21-25	N	QTY	RJ, ZF
36-39	26-29	N	REQDAT	
40-43	30-33	E	REQNUM	
NOT USED	34-44			
N	45-48	E	TEC	
55-56	49-50	E	COG	
57-59	51-53	E	PROJ	
60-61	54-55	N	PRI	
P	56-62	E	WUC	LJ
R	63-67	E	MFGR	LJ
70	68	A	PURP	
71	69	A	COND	
73	70	E	MCC	
BELOW V	71-74	N	SUPDAT	
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
V	79-80	N	RECTYP	67

NOTE: Enter the local supply organization code of where the document originated.

Record Type 61, 63

DESCRIPTION	Maintenance Action Form or Work Order (MAF or WO) Component Ready for Issue or Beyond Capability of Maintenance (RFI or BCM)
SOURCE DOCUMENT	OPNAV 4790/60 Copy 2

SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
A22	1-7	E	WUC	LJ
A48	8-11	E	TEC	
E08	12-16	E	MFGR1	LJ
NOT USED	17-26			
1	27-29	E	ORG	
2, 3	30-44	E	NSNPN	LJ
4	45-46	A	UI	
5	47-48	N	QTY	RJ, ZF
6	49-50	E	COG	
7	51	A	PURP	
8	52	A	COND	
9	53	E	MCC	
11	54-57	N	SUPDAT	
NOT USED	58-60			
A08	61-63	E	JCNORG	
A11	64-66	N	JCNDAY	
A14	67-69	N	JCNSER	
A17	70-71	E	JCNSUF	
NOT USED	72-74			
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
12	79-80	N	RECTYP	61 or 63

NOTE: Enter the local supply organization code of where the document originated.

Record Type 7B

DESCRIPTION	Naval Aircraft Flight Record (Aircraft Data)
SOURCE DOCUMENT	NALCOMIS

SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
TOP RIGHT	8	N	PAGENR	
TOTAL PAGES	9	N	TPAGES	
7B-10	10	A	EXCD	
7B-11	11-16	E	BUNO	
7B-17	17-20	E	TEC	
7B-21	21-23	E	ORG	
7B-24	24-26	E	MSN1	
7B-27	27-29	N	HRS1	RJ
7B-30	30-32	E	MSN2	
7B-33	33-35	N	HRS2	RJ
7B-36	36-38	E	MSN3	
7B-39	39-41	N	HRS3	RJ
7B-42	42-43	E	SUPTCD	
7B-44	44-45	N	TOTFLT/TOT HRS	RJ
7B-46	46	E	OPS	
7B-47	47-48	N	CJ	RJ
7B-49	49-57	E	MISNUM	
	58-63	N	PUC	Note 1
NOT USED	64-73			
NONE	74	N		
DCF	75-77	E	DPCODE/SUPORG	Note 2
DCF	78	E	AWAY	
7B-79	79-80	E	RECTYP	7B

NOTES: 1. Machine generated.

2. Enter the local supply organization code of where the document originated.

Record Type 7C

DESCRIPTION	Naval Aircraft Flight Record (Aircrew Data)
SOURCE DOCUMENT	NALCOMIS

SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
TOP RIGHT	8	N	PAGENR	
7C-9	9	N	LINE	
7C-10	10	A	EXCD	
7C-11	11	A	FSTINT	
7C-12	12	A	LSTINT	
7C-13	13-21	N	SSN	
7C-22	22	A	SPQUAL	
7C-23	23	E	SVC	
7C-24	24-26	N	FPT	RJ
7C-27	27-29	N	CPT	RJ
7C-30	30-32	N	SCT	RJ
7C-33	33-35	N	ACT	RJ
7C-36	36-38	N	SIM	RJ
7C-39	39-41	N	NIGHT	RJ
7C-42	42	E	TLNDG1	
7C-43	43-44	N	NLNDG1	RJ
7C-45	45	E	TLNDG2	
7C-46	46	N	NLNDG2	
7C-47	47	E	TLNDG3	
7C-48	48	N	NLNDG3	
7C-49	49	E	TLNDG4	
7C-50	50	N	NLNDG4	

7C-51	51	E	TAPP1
7C-52	52	N	NAPP1
7C-53	53	E	TAPP2
7C-54	54	N	NAPP2
7C-55	55	E	TAPP3

Record Type 7C (continued)

DESCRIPTION	Naval Aircraft Flight Record (Aircrew Data)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
7C-56	56	N	NAPP3	
7C-57	57	E	TAPP4	
7C-58	58	N	NAPP4	
7C-59	59-61	E	TRACD1	Note 1
7C-62	62-64	E	TRACD2	Note 1
7C-65	65-67	E	TRACD3	Note 1
NOT USED	68-73			
NONE	74	N		
DCF	75-77	E	DPCODE/SUPORG	Note 2
DCF	78	E	AWAY	
7C-79	79-80	E	RECTYP	7C

NOTES: 1. Marine Corps mandatory (only applies to individuals assigned to Marine Corps activities), USN optional.

2. Enter the local supply organization code of where the document originated.

Record Type 7D

DESCRIPTION	Naval Aircraft Flight Record (Personnel Data)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
7B-17	8-11	N	SYLLAB	Note 1
7B-21	12-14	E	ORG	
7C-10	15	A	EXCD	
7C-11	16	A	FSTINT	
7C-12	17	A	LSTINT	
7C-13	18-26	N	SSN	
7C-23	27	E	SVC	
7E-16	28-31	N	DATE	
7E-29	32	N	ASC	Note 1
7E-33	33	A	SSC	Note 1
7D-34	34-47	OTHER	NAME	LJ
7D-48	48-49	E	GRADE	
7D-50	50-53	N	NATOPS	
7D-54	54-57	N	MED	
7D-58	58-61	N	INST	
7D-62	62-65	N	WATER	
7D-66	66-69	N	PHYSIO	
NOT USED	70-74			
DCF	75-77	E	DPCODE/SUPORG	Note 2
DCF	78	E	AWAY	
7D-79	79-80	E	RECTYP	7D

NOTES: 1. Marine Corps mandatory (only applies to individuals assigned to Marine Corps activities), USN optional.

2. Enter the local supply organization code of where the document originated.

Record Type 7E

DESCRIPTION	Naval Aircraft Flight Record (Logistics Data Depart)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
TOP RIGHT	8	N	PAGENR	
7E-9	9	N	LEGNR	
7E-10	10	A	EXCD	
7E-11	11	A	TMZONE	
7E-12	12-15	N	TIMDEP	
7E-16	16-19	N	DTEDEP	
7E-20	20-23	E	ICAODP	
NOT USED	24-36			
7E-37	37-39	N	PRI1	RJ
7E-40	40-42	N	PRI2	RJ
7E-43	43-45	N	PRI3	RJ
7E-46	46-48	N	PRI4	RJ
7E-49	49-51	N	PRI5	RJ
7E-52	52-56	N	CPCRGO	RJ
7E-57	57-59	N	OPPAX	RJ
7E-60	60-64	N	OPCRGO	RJ
7E-65	65	A	OPCCD1	
7E-66	66	A	OPCCD2	
7E-67	67-69	N	MAXPAX	RJ
7E-70	70-74	N	MAXCGO	RJ
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
7E-79	79-80	E	RECTYP	7E

NOTE: Enter the local supply organization code of where the document originated.

Record Type 7F

DESCRIPTION	Naval Aircraft Flight Record (Logistics Data Arrive)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
TOP RIGHT	8	N	PAGENR	
7F-9	9	N	LEGNR	
7F-10	10	A	EXCD	
NOT USED	11			
7F-12	12-15	N	TIMARR	
7F-16	16-19	N	DTEARR	
7F-20	20-23	E	ICAOAR	
7F-24	24	A	SS	
7F-25	25-28	N	DIST	RJ
NOT USED	29-74			
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
7F-79	79-80	E	RECTYP	7F

NOTE: Enter the local supply organization code of where the document originated.

Record Type 7G

DESCRIPTION	Naval Aircraft Flight Record (Weapons Proficiency Data)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP LEFT	1-7	E	DOCNUM	
TOP RIGHT	8	N	PAGENR	
7G-9	9	N	LINE	
7G-10	10	A	EXCD	
7G-11	11	N	LINENR	
7G-12	12-18	E	TNGAR1	LJ
7G-19	19-20	N	TNGHR1	RJ
7G-21	21-27	E	TNGAR2	LJ
7G-28	28-29	N	TNGHR2	RJ
7G-30	30-33	E	ORD1	LJ
7G-34	34-35	E	DEL1	
7G-36	36-37	N	RUNS1	RJ
7G-38	38-40	E	SCORE1	RJ
7G-41	41-44	E	ORD2	LJ
7G-45	45-46	E	DEL2	
7G-47	47-48	N	RUNS2	RJ
7G-49	49-51	E	SCORE2	RJ
7G-52	52-55	E	ORD3	LJ
7G-56	56-57	E	DEL3	
7G-58	58-59	N	RUNS3	RJ
7G-60	60-62	E	SCORE3	RJ
7G-63	63-64	E	CD1	
7G-65	65-67	N	DATA1	RJ
7G-68	68-69	E	CD2	
7G-70	70-72	N	DATA2	RJ

DESCRIPTION	Naval Aircraft Flight Record (Weapons Proficiency Data)			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
NOT USED	73-74			
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
7G-79	79-80	E	RECTYP	7G

NOTE: Enter the local supply organization code of where the document originated.

Record Type A

DESCRIPTION	MAF/WO A Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	
A08	8-10	E	JCNORG	
A11	11-13	N	JCNDAY	
A14	14-16	E	JCNSER	
A17	17-18	E	JCNSUF	
A19	19-21	E	WC	
A22	22-28	E	WUC	LJ
A29	29-31	E	ORG	
A32	32-33	N	TRCODE	
A34	34	N	ML	
A35	35	E	AT1	
A36	36-38	E	MAL1	
A39	39-40	N	IP	RJ
A41	41-44	N	MHRS	RJ
A45	45-47	N	EMT	RJ
A48	48-51	E	TEC	
A52	52-57	E	BU/SERNO	RJ, ZF
A58	58	E	WD	
A59	59	E	TM	
A60	60-61	E	POS	
A62	62-64	E	FID	
A65	65-68	E	SAFSER	
A69	69-73	E	METER	
NOT USED	74			

DESCRIPTION	MAF/WO A Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
DCF	75-77	E	DPCODE/SUPORG	Note 1
DCF	78	E	AWAY	
-	79	A	RECTYP	A
NOT USED	80			

NOTE: Enter the local supply organization code of where the document originated.

Record Type B

DESCRIPTION	MAF/WO B Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	
B08	8-11	N	RECDAT	
B12	12-15	N	RECTIM	
B16	16-18	E	RECEOC	LJ, Note 1
B19	19-22	N	INDAT	
B23	23-26	N	INTIM	
B27	27-29	E	INEOC	LJ, Note 1
B30	30-33	N	COMDAT	
B34	34-37	N	COMTIM	
B38	38	N	AWMRS1	
B39	39-42	N	AWMHR1	RJ
B43	43	N	AWMRS2	
B44	44-47	N	AWMHR2	RJ
B48	48	N	AWMRS3	
B49	49-52	N	AWMHR3	RJ
B53	53	A	JS1	
B54	54-57	N	JSDAT1	
B58	58-61	N	JSTIM1	
B62	62-64	E	JSEOC1	LJ, Note 1
B65	65	A	JS2	
B66	66-69	N	JSDAT2	
B70	70-73	N	JSTIM2	
B74	74-76	E	JSEOC2	LJ, Note 1
NOT USED	77			
DCF	78	N	CORRCD	

DESCRIPTION	MAF/WO B Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
	79	A	RECTYP	B
NOT USED	80			

NOTE: Only the first position is entered. The second and third positions are computer generated.

Record Type C

DESCRIPTION	MAF/WO C Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	
C08	8	A	JS3	
C09	9-12	N	JSDAT3	
C13	13-16	N	JSTIM3	
C17	17-19	E	JSEOC3	LJ, Note 1
C20	20	A	JS4	
C21	21-24	N	JSDAT4	
C25	25-28	N	JSTIM4	
C29	29-31	E	JSEOC4	LJ, Note 1
C32	32	A	JS5	
C33	33-36	N	JSDAT5	
C37	37-40	N	JSTIM5	
C41	41-43	E	JSEOC5	LJ, Note 1
C44	44	A	JS6	
C45	45-48	N	JSDAT6	
C49	49-52	N	JSTIM6	
C53	53-55	E	JSEOC6	LJ, Note 1
C56	56	A	JS7	
C57	57-60	N	JSDAT7	
C61	61-64	N	JSTIM7	
C65	65-67	E	JSEOC7	LJ, Note 1
NOT USED	68-77			
DCF	78	N	CORRCD	
	79	A	RECTYP	C
NOT USED	80			

NOTE: Only the first position is entered. The second and third positions are computer generated.

Record Type D

DESCRIPTION	MAF/WO D Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	
D08	8	A	JS8	
D09	9-12	N	JSDAT8	
D13	13-16	N	JSTIM8	
D17	17-19	E	JSEOC8	LJ, Note 1
NOT USED	20-77			
DCF	78	N	CORRCD	
-	79	A	RECTYP	D
NOT USED	80			

NOTE: Only the first position is entered. The second and third positions are computer generated.

Record Type E

DESCRIPTION	MAF/WO E Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	Note 1
E08	8-12	E	MFGR1	LJ
E13	13-22	E	SER1	LJ
E23	23-37	E	PART1	LJ
E38	38-41	N	DATREM	
E42	42-46	E	TIMCY1	LJ
E47	47-51	E	TIMCY2	LJ
E52	52-56	E	TIMCY3	LJ
NOT USED	57-77			
DCF	78	N	CORRCD	
-	79	A	RECTYP	E
NOT USED	80			

NOTE: Do not enter E record if AT1 (Block A35) is equal to L, N, or W.

Record Type F

DESCRIPTION	MAF/WO F Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	
F08	8	N	INTIND	Note 1
F09	9-10	N	TDCODE	RJ
F11	11-14	N	TDCBAS	RJ
F15	15	A	TDCREV	
F16	16	N	TDCAMD	
F17	17-18	N	TDCPRT	RJ
F19	19-20	E	TDCKIT	LJ
F21	21	E	INVCDE	
F22	22-27	N	PUC	
NOT USED	28-77			
DCF	78	N	CORRCD	
-	79	A	RECTYP	F
NOT USED	80			

NOTE: Enter 1 if not blank.

Record Type G

DESCRIPTION	MAF/WO G Record			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	Note 1
G08	8-12	E	MFGR2	LJ
G13	13-22	E	SER2	LJ
G23	23-37	E	PART2	LJ
G38	38-42	E	TIMCY4	LJ
G43	43-47	E	TIMCY5	LJ
G48	48-52	E	TIMCY6	LJ
NOT USED	53-77			
DCF	78	N	CORRCD	
-	79	A	RECTYP	G
NOT USED	80			

NOTE: Do not enter G record if AT1 (Block A35) is equal to N or W.

Record Type H-Z

DESCRIPTION	MAF/WO H-Z Records			
SOURCE DOCUMENT	NALCOMIS			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
TOP OF FORM	1-7	E	DOCNUM	Note 1
H-Z08	8	N	FPIND	Note 2
H-Z09	9	N	AWPIND	Note 2
H-Z10	10	E	AT2	
H-Z11	11-13	N	MAL2	
H-Z14	14-18	E	MFGR3	LJ
H-Z19	19-33	E	PART3	LJ
H-Z34	34-40	E	REFSYM	LJ
H-Z41	41-42	N	QTY	RJ, ZF
H-Z43	43-44	N	PRI	
H-Z45	45-48	N	DATORD	
H-Z49	49-52	E	REQNUM	
H-Z53	53-56	N	DATREC	
NOT USED	57-77			
DCF	78	N	CORRCD	
H-Z79	79	A	RECTYP (INDEX)	Note 3
NOT USED	80			

NOTES: 1. Do not enter H-Z records if AT1 (Block A35) is equal to L or N.

2. Enter 1 if not blank.

3. Enter alpha character entered in index block. If index is blank, do not enter data on that line.

Record Type 79

DESCRIPTION	Monthly Summary Record			
SOURCE DOCUMENT	NONE			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
MASTER RECORD	1-6	E	BU/SERNO	Note 1
MASTER RECORD	7-10	E	TEC	Note 1
MASTER RECORD	11-13	E	ORG	Note 1
MASTER RECORD	14-19	N	PUC	Notes 1,10
	20-23	N	DATE	Note 2
	24-26	N	NMC HRS SCH	Note 3
	27-29	N	NMC HRS UNS	Note 3
	30-32	N	NMC HRS SUP	Note 3
	33-35	N	FLTHRS	Notes 4, 8
	36-38	N	NR FLTS	Notes 5, 8
	39-41	N	SHPOPS FLTHRS	Notes 6, 8
	42-44	N	SHPOPSNRFLTS	Notes 7, 8
	33	A	SE METER TYPE	Notes 9, 11
	34-37	N	SE UTILIZATION	Notes 3, 9
	45-47	N	EIS	Note 3
	48-50	N	EOS	Note 3
	51	E	INVCDE	Notes 12, 13
NOT USED	52-54			
	55-57	N	PMC HRS MNT	Note 3
	58-60	N	PMC HRS SUP	Note 3
	61-63	N	FMC HRS MNT	Note 3
	64-66	N	FMC HRS SUP	Note 3

DESCRIPTION	Monthly Summary Record			
SOURCE DOCUMENT	NONE			
SOURCE FIELD	RECORD POSITIONS	A, N, E, OTHER	DATA ELEMENT	SPECIAL INSTRUCTIONS
	67-72	N	SCIR HRS	Note 3
NOT USED	73			
	74	N	CORRCD	Notes 2 or 10
	75-77	E	DPCODE/SUPORG	
	78	E	AWAY	
	79-80	N	RECTYP	79

NOTES: 1. Obtain data from master record.

2. Month and year of accounting period for which data is summarized (in MMYY format).

3. SCIR Reporting contains logic in determining data elements.

4. FLT HRS = total accumulation of Block 7B-27, 33, and 39 of OPNAV 3710/4 source document rounded to nearest whole number. If total accumulation of FLTHRS is .1 or greater, reflect 1 whole hour.

5. NR FLTS = total accumulation of Block 7B-44 of OPNAV 3710/4 source document.

6. SHPOPS FLT HRS SHPOPSNRFLTS = total accumulation of Block 7B-27, 33, and 39 of OPNAV 3710/4 source document, rounded to nearest whole number, when OPS (Block 7B-46) is equal to A or B.

7. SHPOPS NR FLTS SHPOPSNRFLTS = total TOT FLTTOTFLT (Block 7B-44) of OPNAV 3710/4 source document when OPS (Block 7B-46) is equal to A or B.

8. Applies only if first position of TEC is equal to A, K, or N.

9. Applies only if first position of TEC is equal to G, H, or S.

10. Blank if first position of TEC is not equal to A, K, or N.

11. Obtain data from position 1 of meter in master record.

12. When INVCDE on equipment master record is equal to 0 (zero), do not produce 79 record for forwarding purposes.

13. Obtain from equipment master record unless TRCODE of 03 is encountered as the last inventory transaction then enter 9.