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Maintenance of Supplies and Equipment

Army Materiel Maintenance Policy

By Order of the Secretary of the Army:

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History. This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

Authorities. The authorities for this regulation are DoDI 4151.18, DoDI 4151.22, and DoDM 4151.25.

Applicability. This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. This regulation also applies to the maintenance of all materiel owned or supported by the Army; except materiel purchased with non-appropriated funds in accordance with AR 215–1. It is also applicable to special intelligence property, real property, foreign materiel used for training, leased/rented materiel (unless the lease or rental agreement dictates otherwise), medical, materiel maintenance in accordance with AR 12–1; and those aspects of combat and materiel development that impact the materiel maintenance function. The provisions of this regulation are applicable to all Army and civil-funded property under the direct control of the U.S. Army Corps of Engineers.

Proponent and exception authority. The proponent on this regulation is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the command or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific requirements.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Deputy Chief of Staff, G–4 team at usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Distribution. This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

*This regulation supersedes AR 750–1, dated 2 February 2023.

Summary of Change

AR 750–1
Army Materiel Maintenance Policy

This major revision, dated 29 April 2026—

- Updates roles and responsibilities (chap 2).
- Adds responsibilities for the Chief, National Guard Bureau (para 2–9).
- Deletes roles and responsibilities of the Deputy Chief of Staff, G–9 (formerly para 2–11).
- Deletes Sustainable Readiness Model (formerly para 3–2).
- Updates the Army Maintenance Standard (para 3–2).
- Deletes non-combat operations maintenance plans (formerly para 4–2).
- Adds Army Equipment Services Optimization Program (para 4–3).
- Updates Maintenance Expenditure Limit (para 4–8).
- Deletes Manpower utilization standards (formerly para 4–14).
- Deletes Workforce Utilization Standards (formerly para 4–14).
- Updates reporting depot maintenance workload distribution and execution (para 5–4).
- Updates Depot Maintenance Core Logistics Capabilities (para 5–5).
- Updates sustainment maintenance for combat vehicles (para 6–1).
- Deletes Maintenance Training Aircraft (formerly para 6–13).
- Updates Maintenance Policies of Army Watercraft (chap 7).
- Updates medical maintenance policies (chap 10).
- Updates Army Oil Analysis Program (para 12–2).
- Updates repair cycle floats (para 12–5).
- Renames Battlefield Damage Assessment and Repair to Battle Damage Repair (para 12–6).
- Updates the Army Corrosion Prevention and Control Program (para 12–16).
- Updates Maintenance of Conventional Ammunition Policy (chap 14–1).
- Updates maintenance of organizational clothing and individual equipment (chap 14–2).

- Deletes the Army Tire Program (formerly para 14–11).
- Deletes National Maintenance Program (formerly para 14–13).
- Deletes Equipment Reset (formerly chap 15).
- Deletes left-behind aviation equipment (formerly chap 16).
- Updates U.S. Army Training and Doctrine Command and U.S. Army Futures Command to U.S. Army Transformation and Training Command (throughout).

Contents (Listed by chapter and page number)

Contents—Continued

Figure List

Glossary of Terms

Chapter 1
Introduction

1–1. Purpose
This regulation establishes policies and assigns responsibilities for the maintenance of Army materiel. It provides and defines requirements for performance and management of the materiel maintenance function. It establishes two levels of maintenance: field and sustainment.

1–2. References, forms, and explanation of abbreviations
See appendix A. The abbreviations, brevity codes, and acronyms (ABCAs) used in this electronic publication are defined when you hover over them. All ABCAs are listed in the ABCA directory located at https://armypubs.army.mil/.

1–3. Associated publications
Procedures associated with this regulation are found in DA Pam 750–1.

1–4. Responsibilities
Responsibilities are listed in chapter 2.

1–5. Records management (recordkeeping) requirements
The records management requirements for all record numbers, forms, and reports required by this publication are prescribed in AR 25–400–2. Approved Army records control schedules are available on the National Archives and Records Administration website at https://www.archives.gov/records-mgmt/rcs. Retention schedules for Army users are located on the Records Management Division SharePoint Site at https://armyeitass.sharepoint-mil.us/sites/HQDA-CIO-ISES-RMR/SitePages/Records-Management-Division.aspx. Refer to AR 25–400–2 for detailed records management requirements.

Chapter 2
Responsibilities

2–1. Assistant Secretary of the Army for Acquisition, Logistics and Technology
The ASA (ALT) will—

a. Ensure that materiel developers (MATDEVs) promote interoperability in the acquisition of systems and equipment in accordance with AR 700–127.

b. Work with MATDEVs to ensure the accurate identification of Critical Program Information and Information Technology (IT)/Operational Technology critical components and implementation of appropriate protection measures.

c. Advocate maintenance considerations in role of chair for the Army Systems Acquisition Review Council (ASARC).

d. Coordinate with the MATDEVs to plan sustainment level maintenance and ensure the depot source of repair (DSOR) analysis has been completed and documented.

e. Assign the Principal Deputy Assistant Secretary of the Army (Acquisition, Logistics and Technology) (Principal Deputy, ASA (ALT)) as a co-chair for the Army Organic Industrial Base Corporate Board (OIBCB) and provide acquisition and logistics senior executive service (SES) representation to the Army OIBCB (see para 5–2).

f. Co-Chair the Organic Industrial Base Execution Council (OIBEC) with DCS G–4 (see para 5–3).

g. Assist the CG, U.S. Army Materiel Command (AMC) in the sustainment of Acquisition Program Candidate (APC) non-standard equipment (NSE), to include DSOR, fielding, coordinating disposition, packaging, storage, and disposal.

h. Establish internal procedures and controls to request and assign nonstandard line-item numbers (LINs) for the NSE procured to fill unit warfighting or force protection capability shortfalls (either through fielding or made available for unit purchase).

i. Establish the overall policy and strategic objectives for the Army Industrial Base Program.

j. Establish and maintain policy related to advanced manufacturing in accordance with AR 70–1.

k. Coordinate MATDEV Repair Cycle Float (RCF) requirements with Deputy Chief of Staff (DCS), G–4. Consolidate MATDEV requirements by LIN, command, unit identification code (UIC), and fiscal year (FY) and submit to DCS, G–4 annually.

l. Maintain an accounting of the maintenance contractor logistics support (CLS) engaged by the Army and the manpower and equipment resources required to replace it—if discontinued or exempt.

m. Establish the overall policy and strategic objectives for the Army Corrosion Prevention and Control (CPC) Program and serve as the Army CPC Executive.

n. Ensure acquisition programs executing on the Software Acquisition Pathway will be captured in a format consistent with capability of needs statements or software initial capabilities developments to document high-level, prioritized requirements or operational needs per DoDI 5000.87.

o. Ensure product support documentation addresses usage (condition) based service intervals versus time-based service intervals.

p. In coordination with the CG, AMC, develop and provide the Army standard level of repair analysis (LORA) model, the Computerized Optimization Model for Predicting and Analyzing Support Structures.

q. Make every effort to ensure that the maximum amount of competition is maintained throughout development, procurement, and sustainment phases and take necessary planning, resourcing, and contracting actions to ensure that lack of technical data does not impede the effective operation and maintenance (O&M) of systems acquired.

r. Base right-to-repair determinations and product support strategy decisions on a thorough business case analysis. Where the analysis points to organic support and repairs the ASA (ALT) will acquire sufficient IP deliverables, special tooling, manuals, test equipment, and other needed capabilities to enable effective and efficient maintenance and repair. If commercial support is required, the ASA (ALT) will seek sufficient technical data and IP rights to promote competition throughout the life cycle of the equipment.

s. Ensure right to repair provisions are included in all new contracts.

2–2. Assistant Secretary of the Army for Financial Management and Comptroller

The ASA (FM&C) will—

a. Develop and prescribe financial policy and procedures for the use of appropriated funds and non-appropriated maintenance funds.

b. Develop and prescribe financial policy and procedures for the use of sustainment maintenance funds.

c. Monitor the execution of sustainment maintenance funds.

d. Develop, present, and defend the sustainment maintenance budget.

e. Participate in the program development process through membership in the program evaluation group.

f. Provide general officer (GO) or SES representation as the chief financial officer to the Army OIBCB (see para 5–2).

g. Provide O–6 or GS–15 level representation to the OIBEC (see para 5–3).

h. Develop and prescribe policy and procedures for the collection of software cost and technical execution data.

2–3. Assistant Secretary of the Army for Manpower and Reserve Affairs

The ASA (M&RA) will provide representation to the Army OIBCB, as required (see para 5–2).

2–4. Deputy Chief of Staff, G–2

The DCS, G–2 will develop procedures related to materiel maintenance of intelligence-unique materiel.

2–5. Deputy Chief of Staff, G–3/5/7

The DCS, G–3/5/7 will—

a. Approve requirements and priorities for all equipment identified in basis of issue plans (BOIPs) (see AR 71–32).

b. Direct the coordination and use of operational test results in the development of force structure training and materiel requirements and authorizations.

c. Assist in the development of DA maintenance training.

d. Participate in maintenance requirement reviews to ensure appropriate funding priority of weapon systems is maintained.

e. Provide and regularly update the management decision package and modernization resource information submission crosswalk for intensively managed weapon systems.

f. Provide representation to the Army OIBCB.

g. Validate RCF quantities via the Annual Army Acquisition Objective (AAO) validation in AE2S. G–3/5/7 DAMO–FMD also includes RCF quantities provided by DCS, G–4 in the AAO of initial and amendment BOIPs presented at an Organizational Requirements Document Approval Board for approval.

2–6. Deputy Chief of Staff, G–4

The DCS, G–4 is responsible for developing procedures for Army maintenance operations and will—

a. Develop policy that governs maintenance activities for the total Army.

b. Serve as the proponent for the Department of Defense (DoD) inter-Service, interdepartmental, and interagency maintenance support programs, and associated area support designations within the Army.

c. Validate maintenance requirements for the program objective memorandum (POM).

d. Provide program guidance for the following materiel maintenance programs and projects:

(1) Maintenance expenditure limits (MELs) (see para 4–8).

(2) Maintenance award programs (see para 12–1).

(3) Special repair authority (SRA) (see para 3–13b).

(4) RCF (see para 12–5).

e. Serve as the proponent for the functional requirements for maintenance management of Global Combat Support System–Army (GCSS–A) to include Logistics Modernization Program (LMP), Enterprise Aviation (EAVN)/Aircraft Notebook, or any other maintenance Automated Information System (AIS) used to support Army maintenance programs.

f. Develop basic functional guidance for the automated submission of sustainment maintenance requirements.

g. Program requirements to support all sustainment maintenance programs, including maintenance engineering, maintenance support services, and sustainment maintenance.

h. Conduct sustainment maintenance requirement reviews with representation from the following organizations when developing the POM:

(1) AMC.

(2) AMC life cycle management command (LCMCs).

(3) U.S. Army Sustainment Command (ASC).

(4) ASA (ALT) program executive officers (PEOs).

(5) Program managers (PMs).

(6) DCS, G–3/5/7.

(7) ASA (FM&C).

(8) Army Budget Office.

(9) Program Analysis and Evaluation.

(10) Other Headquarters, Department of the Army (HQDA), army command (ACOM), Army service component command (ASCC), direct reporting unit (DRU) headquarters staff as required.

i. Verify and monitor execution of the Maintenance Requirements Reviews.

j. Exercise staff supervision for management of the Army sets, kits, outfits, and tools (SKOT).

k. Co-chair the Army OIBCB with the Principal Deputy Assistant Secretary of the Army (Acquisition, Logistics and Technology) (Principal Deputy, ASA (ALT)) (see para 5–2).

l. Co-chair the OIBEC with ASA (ALT) (see para 5–3).

m. Validate ACOM, ASCC, and DRU RCF requirements annually as part of the AAO validation process.

n. Coordinate with ASA (ALT), DCS, G–3/5/7, and DCS, G–8 to validate RCF requirements and requests to redistribute or divest excess.

o. Plan and program resources to support the DCS, G–3/5/7 maintenance burden data requirements and associated logistical data elements needed to determine maintenance force structure requirements.

p. Serve as the Army Staff (ARSTAF) proponent for NSE maintenance.

q. Provide oversight for maintenance of the Material Enterprise Nonstandard Equipment Database.

r. Monitor the repair of NSE.

s. In coordination with ASA (ALT), coordinate the development of APC sustainment strategies and sustainment strategies for NSE identified for long-term storage.

t. Advise the Army Acquisition Executive during ASARCs on logistics considerations and other related matters.

u. Assist in the development and provide oversight to the implementation of policies related to maintenance support for installation base operations (BASOPS) equipment, performed on a non-reimbursable basis by service providers.

v. Assist ACOM, ASCC, and DRU commanders, MATDEVs, and other commanders and agency directors in identifying requirements for maintenance facilities and, when approved in accordance with AR 420–1, their design and construction.

2–7. Deputy Chief of Staff, G–6

The DCS, G–6 will assist to coordinate plans, and procedures for the maintenance of Army's command, control, communications, and computers and IT equipment and systems using the Army maintenance system.

2–8. Deputy Chief of Staff, G–8

The DCS, G–8 will—

a. Participate in annual maintenance requirement reviews to ensure maintenance funding and prioritization in compliance with programming goals and objectives.

b. Provide GO or SES level representation to the Army OIBCB (see para 5–2).

c. Provide O–6 or GS–15 level representation to the OIBEC (see para 5–3).

d. Coordinate with the DCS, G–4 to redistribute or divest excess RCF assets.

e. Capture, at the LIN level, DCS, G–3/5/7 approved RCF authorizations in Army Equipping Enterprise System (AE2S).

f. Evaluate DCS, G–4 validated RCF requirements for affordability and determine the Army procurement objective (APO) quantity as appropriate.

g. Ensure RCF requirements are the same LIN and modernization as supported assets.

h. Validate RCF requirements and update AE2S with approved requirements.

i. Validate asset availability, procure assets, and provide disposition of excess to support the approved RCF requirements.

j. Fulfill software support responsibilities in paragraph 5–11*b*.

2–9. Chief, National Guard Bureau

The CNGB will—

a. Provide overall coordination and administration for developing materiel maintenance plans, programs, and budgetary requirements pertaining to the Army National Guard (ARNG).

b. Manage the ARNG sustainment maintenance.

c. Develop, program, budget, and defend sustainment maintenance requirements for ARNG materiel in accordance with Defense Finance and Accounting Service–Indianapolis (DFAS–IN) Manual 37–100 and Department of Defense Directive (DoDD) 5105.77.

d. Coordinate ARNG sustainment maintenance requirements determination with AMC LCMCs to ensure ARNG Field/Sustainment maintenance is programmed in sustainment maintenance workload projections.

e. Be a party to all memorandums of agreement (MOAs) and memorandums of understanding (MOUs) involving field/sustainment maintenance of ARNG materiel.

f. Develop a field/sustainment maintenance requirement determination process for ARNG materiel.

g. Provide representation to the Army OIBCB.

h. Provide O–5 (lieutenant colonel) or GS–14 level representation to the OIBEC (see para 5–3).

i. Maintain and repair tactical NSE procured with unit or state funds.

j. Develop and manage Command Maintenance Discipline Program (CMDP) checklists and inspection criteria for ARNG in accordance with the Director's priorities.

k. Coordinate with The Adjutant General of each State to:

(1) Direct and manage all sustainment maintenance operations applicable to all Federal supplies and equipment issued to ARNG units and activities within the State.

(2) Ensure that commanders provide adequate time for all Soldiers to spend 25 percent of their inactive duty training (IDT) performing required operator preventive maintenance checks and services (PMCS) on individual and organizational equipment.

(3) Ensure that commanders provide adequate time for the armorer, chemical, biological, radiological, and nuclear (CBRN), medical maintenance personnel; communications noncommissioned officer (NCO); and mechanics to spend 50 percent of their IDT and annual training (AT) time engaged in maintenance performance or training, including conducting 25 percent of field level scheduled and unscheduled maintenance on unit equipment in their respective functional areas.

(4) Establish a Maintenance Assistance and Instruction Team (MAIT)/Command Maintenance Evaluation and Training (COMET) program (see para 12–10).

(5) Evacuate equipment and materiel requiring sustainment maintenance as directed by the CNGB.

(6) Establish field maintenance facilities to provide support for home station equipment.

(7) Designate specific ARNG unit(s) to use and support an approved unit training equipment site (UTES) operation. This will include adjusting operating costs within and between using unit(s) for related maintenance and training.

(8) Designate type and quantity of home station equipment to be located at the UTES.

l. Coordinate to ensure the surface maintenance manager (SMM) will—

(1) Plan, execute, and direct the surface maintenance human resources program.

(2) Plan, develop, and manage in-State maintenance training and coordinate the out-of-State maintenance training.

(3) Implement and administer the safety, hazardous waste, and industrial hygiene programs for all surface maintenance facilities.

(4) Serve as the principal State advisor to the facilities management office on surface maintenance facilities construction.

(5) Analyze, coordinate, and manage on hand equipment readiness for the State.

(6) Provide technical supervision to all surface maintenance activities and exercise operational and administrative control over combined support maintenance shops (CSMSs), maneuver area training equipment sites (MATES), UTES, and field maintenance shops (FMSs).

(7) Manage surface maintenance funds.

(8) Appoint in writing a primary and alternate individual to assume duties as CSMS, MATES, FMS, or UTES supervisor as the shop supervisor.

(9) Manage the SMM office, providing control and direction for all matters relating to office administration.

(10) Ensure compliance with the AMC business procedures when scheduling and executing sustainment maintenance operations.

(11) Ensure each State, Territory, and District of Columbia prepare and maintain a current state maintenance support plan (MSP) located on the National Guard Bureau (NGB) Guard Knowledge Network website under the Logistics Maintenance Branch.

m. Coordinate with the State Army Aviation Officer (a member of the State Adjutant General's staff) to—

(1) Analyze, coordinate, and manage the operational readiness (OR) of aviation assets.

(2) Ensure the aviation logistics programs are in accordance with applicable materiel and maintenance regulatory requirements.

(3) Acquire and maintain a self-sufficient military capability and capacity for field and sustainment maintenance in support of combat, combat support, and combat service support (CSS) elements.

(4) Supervise implementation of aviation sustainment programs.

(5) Maintain ARNG aviation assets using Department of the Army (DA) readiness goals (RGs) listed in AR 700–138.

(6) Ensure compliance with aircraft safety messages and aircraft modifications orders.

(7) Program funds for field and sustainment maintenance and rank order any unfinanced requirements.

(8) Administer the ARNG Aviation Maintenance Program.

(9) Supervise ARNG maintenance and technical personnel.

(10) Ensure logistics regulatory requirements are implemented and followed through the complete aviation cycle.

(11) Report compliance with aircraft safety messages requirements and aircraft modifications through the U.S. Army Aviation and Missile Command (AMCOM) Message Tracking System at https://amtracks.redstone.army.mil/.

(12) Perform maintenance at the lowest level possible according to the maintenance allocation chart (MAC). This process must preclude table of distribution and allowances (TDA) maintenance activities

from absorbing maintenance workloads that should be performed at modified table of organization and equipment (MTOE) field maintenance units.

(13) Train personnel designated as operators and crewmembers to properly operate and perform PMCS on their assigned equipment.

(14) Assign maintenance responsibilities for unit equipment to specific individuals.

(15) Schedule maintenance time and give equal emphasis to preventive maintenance training.

(16) Require compliance with prescribed preventive maintenance procedures.

(17) Require that all equipment be maintained to the maintenance standard (see para 3–2).

(18) Require that all before, during, and after operations checks be accomplished each time the equipment is operated or used.

(19) Submit the following forms to the supporting maintenance facility for maintenance support beyond the unit's capability:

(a) DA Form 5990 – E (Maintenance Request (EGA)) or DA Form 2407 (Maintenance Request).

(b) DA Form 5988 – E (Equipment Maintenance and Inspection Worksheet (EGA)) or DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

(20) Maintain records applicable to hand receipt, operation, maintenance, modification materiel readiness reports, and transfer of equipment as prescribed in appropriate publications.

(21) Maintain accountability and serviceability of component of end item (COEI), basic issue items (BII), and additional authorization list and ensure shortages are on valid requisition.

2–10. Chief of Army Reserve

The CAR will—

a. Develop materiel maintenance plans, policies, programs, and budgetary requirements pertaining to the U.S. Army Reserve (USAR).

b. Manage the USAR sustainment maintenance program.

c. Develop, program, budget, and defend sustainment maintenance requirements for USAR materiel.

d. Coordinate USAR depot maintenance requirements determination with AMC LCMCs to ensure USAR depot maintenance is programmed in depot maintenance workload projections.

e. Coordinate all MOUs and MOAs involving sustainment maintenance of USAR materiel.

f. Develop a sustainment maintenance requirement determination process for USAR materiel consistent with policy and guidance in this regulation.

g. Provide representation to the Army OIBCB (see para 5–2).

h. Provide O–5 or GS–14 level representation to the OIBEC (see para 5–3).

i. Provide administrative, logistical, and technical assistance to Army reserve units outside the continental United States (OCONUS) in support of Army materiel maintenance programs.

j. Ensure that maintenance supports readiness. Hold commanders at all levels accountable for the conduct of maintenance operations.

k. Develop and manage CMDP checklists and inspection criteria for U.S. Army Reserve Command (USARC) in accordance with the commander's intent and objectives.

l. Supervise maintenance operations at all levels in the command.

m. Establish and supervise maintenance training for equipment operators and crews.

n. Establish maintenance training strategy to build personnel military occupational specialties proficiency for the conduct of maintenance operations.

o. Provide timely and accurate cost, readiness, and maintenance data to management systems.

p. Acquire and maintain a self-sufficient military capability and capacity for field and sustainment maintenance in support of combat, combat support, and CSS elements.

q. Program funds for field and sustainment maintenance.

r. Perform maintenance at the lowest level possible according to MACs. This process must preclude TDA maintenance activities from absorbing maintenance workloads that should be performed at MTOE field maintenance units.

s. Comply with materiel maintenance standards found in applicable technical publications, maintenance related logistical performance and readiness standards found in paragraph 3–2 of this regulation, and DA Pam 750–1.

t. Establish a warranty control office and officer to implement the Army Warranty Program in accordance with AR 700–139.

u. Comply with all local, state, federal, and host nation environmental regulations and policies in accordance with AR 200–1.

v. Appoint a designated representative for the SRA and Modification Work Order (MWO) programs.

w. Plan for and provide maintenance and repair parts in support of contingency or emergency plans, as directed.

x. Submit sustainment maintenance requirements in accordance with resource G–4 formulation guidance.

2–11. The Surgeon General

TSG will—

a. Integrate the development of concepts, doctrine, and plans for maintenance of medical materiel with strategic stakeholders, such as the Defense Health Agency (DHA), AMC, and T2COM.

b. Develop medical force structures, organizations, and capabilities to provide required maintenance services for medical materiel.

2–12. Commanders at all levels

Commanders at all levels will—

a. Emphasize the importance of safety and maintenance, holding subordinates accountable for the conduct of maintenance operations. Maintenance is a command responsibility.

b. Develop, implement, and execute a CMDP in accordance with commander’s intent and objectives. CMDP checklists and inspection criteria are established at the ACOM, ASCC, DRU, and NGB level. DCS, G–4 will provide a baseline CMDP checklist.

c. Develop and operationalize a Command Maintenance Program that includes all assigned equipment.

d. Commanders must designate, at a minimum, one full day for Command Maintenance to be conducted on a weekly basis.

e. Provide leadership and management control of materiel maintenance programs of subordinate commands and activities. Emphasize the conduct and supervision of PMCS performed at unit level. Maintain materiel at the maintenance standard specified in paragraph 3–2 of this regulation and DA Pam 750–1.

f. Develop and sustain a high degree of maintenance discipline, including management of repair parts, shop stock and bench stock in accordance with AR 710–2.

g. Establish, maintain, and conduct training with operators, crews, and maintenance personnel to properly use and maintain equipment.

h. Include Army Safety standards in all maintenance operations to reinforce the Army's safety culture and overall readiness (see AR 385–10).

i. Establish, maintain, and conduct training of leaders at all levels to supervise maintenance operations and to motivate subordinates to use and maintain equipment properly and safely.

j. Conduct inspections and staff visits to determine the adequacy of command maintenance operations.

k. Ensure that corrective actions are complete; ensure accuracy of readiness reports.

l. Provide materiel maintenance support to all assigned units and activities.

m. Recommend improvements to the Army maintenance system.

n. Ensure that the submissions of product quality deficiency reports (PQDRs) and equipment improvement recommendations (EIRs) are accomplished in accordance with Defense Logistics Manual 4000.25, AR 702–7–1, DA Pam 750–1, and DA Pam 738–751.

o. Encourage establishment of an aggressive awards program for operators and maintainers.

p. Maintenance plans will be created in Global Combat Support System–Army (GCSS–A) in accordance with the Army Equipment Services Optimization Program (AESOP) adopting usage-based service intervals.

q. Train personnel in various battle damage repair (BDR) skills.

r. Ensure modifications to assigned equipment are compliant with AR 750–10.

s. Corps and above will have a supplement to policy for their organization that provides additional details or specific instructions that elaborate on Army policy. Division and below units performing maintenance will have a maintenance standard operating procedure (SOP) signed by the unit commander.

t. Ensure maintenance personnel are trained in nuclear hardness maintenance (HM).

2–13. Commanders, Army commands, Army service component commands, and direct reporting units

The commanders of ACOMs, ASCCs, and DRUs will—

a. Ensure that maintenance enables readiness. Commanders at all levels are accountable for the conduct of maintenance operations.

b. Ensure evaluation of maintenance is included in the command inspection program.

c. Develop and manage CMDP Checklists and inspection criteria in accordance with the commander's intent and objectives. DCS, G–4 will provide a baseline CMDP checklist.

d. Ensure maintenance operations are conducted and supervised at all levels within command.

e. Establish and supervise training programs for equipment operators, crews, and maintenance personnel in the conduct of maintenance operations.

f. Provide timely and accurate cost and maintenance data to management systems.

g. Program funds to support equipment maintenance operations and prioritize any unfunded requirements.

h. Comply with materiel maintenance standards.

i. Execute and monitor the AESOP.

j. Establish a warranty control office to implement the Army Warranty Program in accordance with AR 700–139.

k. Comply with all local, state, federal, and host nation environmental regulations and policies in accordance with AR 200–1.

l. Designate points of contact for the coordination of SRA and unique item tracking (UIT).

m. Ensure joint technical inspection (TI) is conducted and verified by a logistics assistance representative (LAR) from the Logistic Readiness Center (LRC)/Army Field Support Battalion (AFSBn). U.S. Army Materiel Support Command-Korea (MSC–K) is authorized to conduct joint TIs.

n. Ensure subordinate commanders with sustainment maintenance missions comply with AMC business rules and procedures.

o. Ensure that all assigned personnel conducting supply and maintenance tasks are properly trained.

p. Ensure that assigned maintenance personnel are properly utilized in accordance with the MTOE or modification table of distribution and allowances (MTDA) positions for which they have been requisitioned.

q. Submit the depot maintenance workload distribution (DMWD) requirements report for prior and current budget years.

r. Review the Army's approved Master Divestiture List prior to repairing equipment that should be replaced or divested from the Army inventory.

2–14. Commanding General, U.S. Army Western Hemisphere Command

The CG, USAWHC will—

a. Conduct a continuing analysis and evaluation of the USAR materiel maintenance program to attain the objectives of the program by all subordinate commands.

b. Allocate resources to those TDA maintenance activities established by the USARC in the continental United States (CONUS) to support the USAR materiel maintenance program. Use AR 570–4 to determine work force requirements of maintenance activities.

c. Execute and monitor AESOP.

2–15. U.S. Army Transformation and Training Command

The CG, T2COM will—

a. Develop Army maintenance concepts and doctrine for two-level maintenance: field and sustainment.

b. Determine automated systems for support of the Army maintenance system.

c. Evaluate fielded systems to update maintenance training for field and sustainment maintenance operations.

d. Ensure that existing and newly identified maintenance tasks are in the MAC and are aligned with training and doctrine.

e. Ensure that doctrinal, training, and leader development keeps pace with approved maintenance management programs and terminology.

f. Develop training programs of instructions required for supporting maintenance military occupational specialties.

g. Ensure BDR techniques are included in all resident maintenance training courses and doctrinal literature.

h. Ensure PMCS instructions are included in resident training courses.

i. Develop and update concepts and doctrine for employing depot level repair (DLR) organizations in a theater of operations.

j. Integrate Army CPC in all resident maintenance training courses (see para 12–16).

k. Participate in planning for Logistics Demonstrations and maintenance TM verifications.

l. Review the acquisition life cycle sustainment plans (LCSPs).

m. Ensure sustainment for equipment and systems fielded for Army Modernization experimentation and assessment through:

(1) Cross-functional teams and partnerships with PEOs and AMC.

(2) Sustainment of experimental equipment until the capability is transitioned to a MATDEV, AMC, or fully divested.

(3) The establishment of a Program of Record, transition sustainment responsibilities to the MATDEV while ensuring uninterrupted support to the fielded force.

n. Support AESOP efforts by providing data analysis, assessment, and engineering to assist in the development and implementation of usage-based intervals.

o. Provide life cycle maintenance engineering support for materiel acquired by the Army.

2–16. Commanding General, U.S. Army Materiel Command

The CG, AMC will—

a. With regard to planning, programming, and budgeting:

(1) Develop Army sustainment level maintenance concepts and support systems in accordance with the DCS, G–4 (Maintenance Programs and Policy Directorate), capability developers (CAPDEVs), and MATDEVs.

(2) Manage the sustainment maintenance system, including forward repair activities (FRAs).

(3) Provide timely and accurate cost, readiness, and maintenance data for base commercial equipment.

(4) Host an annual synchronization meeting with all ACOMs, ASCCs, and DCS, G–4 for LRC POM requirements.

(5) Executive Deputy to the Commanding General will represent AMC at the Army OIBCB (see para 5–2).

(6) Co-chair the OIBEC with DCS, G–4 (Chief, Sustainment Maintenance Division) (see para 5–3).

(7) Review and verify LCMC, ACOM, ASCC, and DRU nominations for fielded equipment and submit requirements to the DCS, G–4 (Sustainment Maintenance Division) to begin the staffing process for the AAO.

(8) Submit sustainment and field level maintenance funding requirements in accordance with programming guidance.

b. With regard to programs:

(1) Establish, operate, and manage the Logistics Assistance Program (LAP) in accordance with AR 700–4.

(2) Ensure that spares and repair parts are available in sufficient quantities to support materiel throughout its life cycle in concert with supply chain risk management and security measures.

(3) Manage the Army Chemical Agent Resistant Coating (CARC) and camouflage painting pattern (CPP) programs.

(4) Establish internal business rules and procedures necessary to implement the SRA or one- time repair (OTR) processes. LCMCs may authorize units to perform sustainment level repairs of major end items and components after validating capability to enable forward sustainment level repairs.

(5) Manage sustainment level repairs.

(6) Manage the DoD Inter-Service, interdepartmental and interagency maintenance support programs within the Army.

(7) Manage and maintain Army pre-positioned stocks (APS) in accordance with TM 38–470.

c. With regard to data collection and warehousing:

(1) Support DCS, G–4 requirements for logistical data elements necessary to meet DCS, G–3/5/7 maintenance force structure requirements determination.

(2) Serve as the Army's lead materiel integrator.

d. With regard to the Army Oil Analysis Program (AOAP):

(1) When resources allow, operate a capability to analyze oil and manage the execution of the AOAP, to include data analysis to inform optimized original equipment manufacturer (OEM) time-based TM oil change intervals.

(2) Designate an Army PM for the AOAP.

(3) Responsible for laboratory instruments, sampling supplies, other materials, data repository, and data analysis.

(4) Serve as proponent for Technical Bulletin (TB) 43 – 0211 and as Army coordinating authority for AOAP procedures and material contained in all Army and Joint Service regulations, TBs, pamphlets, and field manuals (FMs).

(5) Serve as the Army's functional manager for the Joint Oil Analysis Program in accordance with AR 700–132.

(6) Ensure AMC LCMCs—

(a) Evaluate historic sampling data to optimize OEM usage-based TM oil change intervals.

(b) Sampling data collection must be connected to accurate usage data.

(c) Notify the DCS, G–4, Chief, Field Maintenance (DALO–MMD) once the necessary sampling data is obtained to determine and modify OEM time-based TM oil change intervals for a weapon system.

(d) Request removal of systems from AOAP and cease collection of lubricant samples once the necessary sampling data is obtained to optimize OEM usage-based TM oil change intervals for a weapon system.

(e) Develop AOAP command requirements to align with the Army's AOAP program objectives and adjust laboratory requirements to correspond to anticipated sampling requirements.

e. With regard to requirements development:

(1) Manage and staff requirements for the MAC.

(2) Develop and provide sustainment maintenance requirements to the DCS, G–4.

(3) Conduct sustainment maintenance requirements review with LCMCs.

(4) Perform initial provisioning in accordance with AR 700–18.

f. With regard to supporting major subordinate commands (MSCs):

(1) Provide maintenance support to field level units, as necessary.

(2) Evaluate and resolve technical and maintenance problems that units provide in deficiency reports.

(3) Manage and update SKOT component listings.

(4) Establish theater foundation Army field support brigade or logistics task force for coordination of AMC maintenance support provided to the theater.

g. With regard to sustainment maintenance:

(1) Ensure LCMCs and the depots comply with Section 2464, Title 10, United States Code (USC), DoD, and Army core policies.

(2) Maintain the RCF program in accordance with this regulation.

(3) Maintain accountability of RCF assets in LMP and document supply transactions in GCSS–A.

(4) Establish a written agreement with supporting field maintenance activities to maintain RCF assets according to the Army maintenance standard written in paragraph 3–2 and DA Pam 750–1.

(5) Ensure depots and supporting field maintenance activities maintain RCF assets according to the maintenance standard in paragraph 3–2 of this regulation and DA Pam 750–1.

(6) Account for RCF on the Accountable Property System of Record (APSR).

(7) Report RCF maintenance readiness in a separate report—monthly—in accordance with AR 700–138.

(8) Program funding requirements for the sustainment of RCF assets.

(9) Assign sustainment subject matter experts to support MATDEVs in development of sustainment maintenance support analysis and strategies and with codifying the analysis and strategy in the LCSP.

(10) Ensure compliance with maintenance business procedures when scheduling and executing sustainment maintenance operations.

h. With regard to Installation Maintenance Support:

(1) Provide BASOPS and field level maintenance; CPC; condition classification of materiel; and warranty program support; test, measurement, and diagnostic equipment (TMDE) calibration and repair support; and programs at the installation and garrison LRC/AFSBn.

(2) Provide timely and accurate cost and maintenance data for base commercial equipment and management systems.

(3) Provide and maintain a self-sufficient capability and capacity for field and selected sustainment maintenance provider support of combat, combat support, and CSS elements.

(4) Program funds to sustain equipment readiness and prioritize any unfunded requirements.

(5) Comply with materiel maintenance standards and maintenance related logistical performance and readiness standards.

(6) Establish a warranty control office to implement the Army Warranty Program in accordance with AR 700–139.

(7) Comply with all local, state, federal, and host nation environmental regulations and policies in accordance with AR 200–1.

(8) Provide air traffic control materiel support.

(9) Determine if reimbursement for fabrication services of field or sustainment maintenance activities is authorized.

(10) Designate points of contact for the SRA, MWO, UIT, and RCF programs.

(11) Ensure that the LRC/AFSBn provide maintenance support to the USAR when required, as established by AR 5–9.

(12) Ensure that assigned maintenance personnel are properly utilized in accordance with the MTOE or MTDA positions for which they have been requisitioned.

(13) Provide field maintenance as required for USAR units and maintenance activities located in the installation support area; in-house and contractor maintenance will be provided in accordance with this regulation.

(14) Provide logistical support to ARNG and USAR units during AT, as required.

(15) Maintain an effective liaison program to the supported USAR maintenance activities, including ground, air, watercraft, rail, and water and petroleum within the logistical area of responsibility (AOR).

(16) Provide for backup equipment recovery support from commercial sources through the efforts of the supporting installation. Costs will be provided through Operation and Maintenance, Army (OMA) Reserve Program elements.

(17) Ensure winterization of equipment destined for geographic regions where temperatures from negative 25 degrees Fahrenheit to negative 60 degrees Fahrenheit is conducted.

(18) Ensure compliance with primary integrated product support (IPS) policies and procedures and provide matrix support to the assigned PM.

(19) Ensure coordination of Army Logistics Product Data program standards, policies, and power logistics software.

(20) Develop industrial base requirements, registry process control, and management of the non-recurring engineering technical data.

(21) Manage the Logistics Civil Augmentation Program and maintain its support contract. The contract is written for peacetime planning and contingency operations.

(22) In coordination with ASA (ALT), serve as the Army lead to repair NSE, including arranging for commercial maintenance contract support. Assume responsibility for all sustainment funding (capture all costs associated with maintaining NSE in serviceable condition) for NSE held in storage.

(23) Provide ACOMs, ASCCs, and DRUs access to the Material Enterprise NSE Database for viewing NSE general maintenance guidance and other relevant NSE information.

(24) Manage and update the Material Enterprise NSE database in coordination with the DCS, G–4.

(25) Publish procedures that provide users with specific guidance regarding the repair of tactical NSE at posts, camps, stations, and forward stationed locations.

(26) Turn-in NSE stored at the depot and dispose of unserviceable NSE in accordance with the Defense Logistics Agency–Disposition Services (DLA–DS) policies.

(27) Submit budget request to the ASA (ALT) (DASA–PPR) for NSE sustainment costs.

(28) Evaluate all available methods of support for LRC/AFSBn before requesting expansion of existing maintenance provided capabilities exceeding the current maintenance support structure. Workload cross leveling inherent in the U.S. Army Installation Management Command structure, MOUs, or MOAs with other ACOMs, inter-Service support agreements (ISSAs), or contracts will be considered prior to expansion.

2–17. Commanding General, U.S. Army Intelligence and Security Command

The CG, INSCOM will maintain assigned command-unique intelligence materiel.

2–18. Commanding General, U.S. Army Test and Evaluation Command

The CG, ATEC will—

a. Provide technicians to AMC upon request to support hardness surveillance (HS).

b. Schedule with AMC vehicle inspection requirements.

2–19. Capability developers

The CAPDEVs, as defined in AR 700–127, will—

a. Include management and performance of the materiel maintenance function in the development of concepts, doctrine, materiel requirements, organizations, and management information systems.

b. Determine the maintenance impact of new materiel or concepts.

c. Assist in planning for logistics demonstrations or maintenance assessment/maintenance evaluation and conduct analyses of results.

d. Balance performance capabilities with those of reliability, availability, maintainability, and supportability.

e. Determine capabilities and develop the documentation for training devices.

f. Coordinate with MATDEVs and the LCMCs to ensure materiel maintenance considerations, to ensure electronic technical manual and interactive electronic technical manuals (IETMs) are included in capabilities documents.

g. Determine skill requirements for BDR and develop techniques and criteria for making repair, evacuation, and mutilation decisions based on time limits and available skills.

h. Review all new and revised technical and equipment manuals at the TM verification in accordance with AR 25–30.

i. Review all new and revised MAC no later than the maintenance demonstration.

j. Incorporate corrosion resistance into design and ensure CPC measures are taken to extend the life cycle of Army weapon systems prior to fielding as related to reliability, availability, maintainability, and supportability.

k. Ensure requirements for winterization kits that facilitate operation in areas where temperatures are from negative 25 degrees Fahrenheit to negative 60 degrees Fahrenheit.

l. Represent SKOT users for all matters associated with the review and update of SKOT and corresponding component lists.

2–20. Materiel developers

The MATDEVs, as defined by AR 700–127, will—

a. Coordinate the materiel maintenance considerations to be included in requirement documents with CAPDEVs, including the LCMCs.

b. Ensure that the materiel fielding plan meets the requirements of the Army maintenance system.

c. Ensure that reliability, availability, and maintainability are included in design parameters and demonstrated during operational testing.

d. Ensure that reliability centered maintenance (RCM) is a basic precept in developing the maintenance concept (see Aeronautical Design Standard–79–Handbook) for aircraft and aviation systems.

e. Ensure product support management and product support analysis results are incorporated in initial maintenance planning and development concepts.

f. Ensure trained personnel, TMDE, facilities, specialized tools with containerization (if applicable), support equipment, repair parts, and publications are available when the system is delivered to the user.

g. Participate in planning and conducting logistics demonstrations and operational maintenance testing.

h. Comply with the policy and responsibilities for type classification, material release, fielding, and transfer process as described in AR 770–2 and AR 770–3 in the performance and management of the material maintenance function.

i. Comply with policies and responsibilities for the protection of Critical Program Information and Information-Communication Technology critical components to ensure protective measures during maintenance and supportability (see AR 70–77).

j. Develop BDR techniques, procedures, and related tool and materiel requirements in accordance with CAPDEVs. The developers will also incorporate BDR concepts into new materiel development.

k. Determine the RCF maintenance requirement using the methodology in table 12–1 and coordinate requirements with ASA (ALT), DCS, G–4, DCS, G–8, and DCS, G–3/5/7.

l. RCF requirements must be documented in the LCSP and be reviewed and updated every 5 years or sooner if dictated by operations availability and readiness requirements.

m. Ensure that performance-based product support strategies are compatible with Army maintenance doctrine and that all statutory and regulatory requirements governing depot maintenance are preserved (see AR 700–127).

n. Ensure that data collected from all levels of maintenance are analyzed and used for reliability improvement and updating logistical and manpower data bases used in determining Army force structure maintenance requirements purposes.

o. Design equipment with the need for a minimum number of common and special tools.

p. Fulfill software support responsibilities in paragraph 5–11*a*.

q. Develop a system or commodity-based special tools SKOTs as directed by the maintenance CAPDEV and will submit requirements and documentation for special tools to the maintenance CAPDEV for review in accordance with AR 700–127.

r. Establish and maintain The Age Exploration Program (AEP)— The AEP, as an integral component of the RCM (in accordance with DoDM 4151.25) should be tailored to the weapon system component's unique characteristics and failure patterns throughout its life cycle. To ensure consistency, the development of each AEP should refer to the DoD Condition-based maintenance plus (CBM+) guidebook. The AEP should be resourced and initiated during the Materiel Solution Analysis and Technology Maturation and Risk Reduction phases to support data-driven sustainment planning. The AEP findings should be integrated into maintenance engineering analysis and maintenance schedules for limited, data-driven overhaul intervals that optimize equipment longevity and sustain mission readiness. The AEP–

(1) Identifies age-dependent failure modes across subsystems through targeted analysis and testing.

(2) Develops condition-based overhaul thresholds that maintain operational performance at reduced cost.

(3) Informs maintenance task development for limited overhaul intervals that avoid unnecessary full-system resets.

(4) Continuously reports performance metrics via RCM audit reports, sustainment reviews, and integrated logistics assessments.

s. Include requirements for compliance with Federal environmental quality standards for equipment procured and supported by the Army in accordance with AR 200–1.

t. Coordinate BOIP feeder data with the CAPDEV to include the LCMC to facilitate planning for distribution of operator and support personnel and support equipment in accordance with AR 71–32, AR 570–4, and DA Pam 700–127.

u. Implement management controls to ensure support of the manpower requirements criteria program in accordance with AR 71–32, AR 70–1, and associated publications.

v. Ensure the BOIP feeder data documents the major item system map.

w. Ensure that RCF requirements established for equipment being fielded are based on usage data for similar items or best available engineering data.

x. Coordinate with ASA (ALT), DCS, G–3/5/7, DCS, G–4, and DCS, G–8 to ensure RCF requirements are documented at AMC level in conjunction with materiel fielding plan development.

y. Provide procedures and help desk assistance to facilitate the repair or replacement of automation system tactical computer exchange (TCX) items authorized for repair or replacement at the field or sustainment maintenance level.

z. Ensure requirements for lubricant analytical devices or instruments are coordinated with ASC PM AOAP.

aa. Establish sustainment maintenance support programs for a new system and its secondary items so that the depot is ready to perform depot maintenance not later than 4 years after initial operational capability (IOC).

bb. Ensure the acquisition and supportability strategies address CBRN survivability for each Army mission critical system required to withstand nuclear weapons effects and chemical, biological, radiological, and environmental contamination. Ensure preservation of survivability features during the system's entire life cycle.

cc. Comply with the policy and responsibilities for the development, authentication, printing, distribution, and sustainment process for technical/equipment publications as described in AR 25–30.

dd. MATDEVs will update TMs for programs before the system is transferred to sustainment.

Chapter 3
Maintenance Policies and Structure

Section I

Maintenance Policies

3–1. Overview

a. Army maintenance preserves the required performance capabilities of Army materiel or returns those assets to their baseline performance capabilities.

b. Army maintenance follows the principle that the useful service life of Army equipment is achieved when the item is operated within its intended purpose and is maintained in accordance with its designed engineered specifications. When an equipment item reaches the end of its useful service life, the Army uses acquisition, rebuild, overhaul, or comprehensive repair statement of work to replace or extend the equipment service life.

c. The Army uses four core maintenance processes to manage equipment during its useful service life: performance observation, maintenance plans, fault repair, and single-standard repair.

3–2. The Army maintenance standard

a. The Army has one maintenance standard. This mandatory standard is defined by the TM–10 series and TM–20 series, and in the appropriate or applied technical data plans.

b. Army equipment meets the maintenance standard when the following conditions exist:

(1) The equipment is fully mission capable (FMC).

(2) All faults are identified following prescribed intervals using the “items to be checked” column of the applicable TM–10 series and TM–20 series PMCS tables. Aviation faults are determined by using the aircraft preventive maintenance inspection and service in accordance with TM 1–1500–328–23.

(3) All repairs, services, and other related work that will correct field level equipment and materiel faults for which the required parts and supplies are available have been completed.

(4) Parts and supplies required to complete the corrective actions, but which are not available in the unit, are requisitioned in accordance with AR 710–2.

(5) Corrective actions that are not authorized at field level by the applicable TM’s MAC must be conducted by sustainment level with appropriate turn-in documentation. See AR 710–2, AR 710–4, and DA Pam 710–2–2 as applicable for supply turn-in policies and procedures.

(6) Maintenance Plans (scheduled services) are performed at the service interval required by the applicable TM or Maintenance Action Message (MAM). Units are authorized maximum 10 percent variance when performing maintenance plans because of competing mission requirements. When the service exceeds the 10 percent variance, the equipment is administratively designated not mission capable (NMC) until the service is completed. The variance is determined by the equipment technical manual.

(7) All MWOs are applied to equipment and documented in Maintenance Management Information System (MMIS) in accordance with AR 750–10 and safety of use messages (SOUMs) in accordance with AR 750–6. One-time messages and emergency safety of flight messages are completed in accordance with AR 750–6 and AR 95–1. All maintenance messages, including software updates, are applied and reported in the MMIS in accordance with AR 750–10.

(8) All authorized BII and COEI are present and serviceable or on a valid supply requisition. For aircraft, all authorized flyaway items and items listed on the aircraft inventory master guide are present and serviceable or on a valid supply requisition.

(9) All maintenance advisory messages and maintenance information messages providing directives for weapon system software updates are applied to equipment and reported in the MMIS in accordance with AR 750–10.

c. Fleet utilization tracking is required for all Army tactical equipment tracking miles/hours/kilometers.

d. The Army maintenance standard applies to all equipment except equipment used as training aids that require frequent disassembly and assembly.

e. Proper use, care, handling, and conservation of materiel in accordance with applicable technical publications are mandatory.

3–3. Maintenance priorities

a. Army maintenance tasks and operations are conducted in mission priority sequence based on the importance of the maintenance work to be done. In the Army's overall logistics management system, relevance and importance are expressed as urgency of need. Commanders will determine the appropriate maintenance priority on any work request, based upon the organization’s urgency of need designator (UND) as prescribed in DA Pam 750–1.

b. UND is assigned by the DCS, G–3/5/7 in accordance with the criteria in DA Pam 750–1.

c. Maintenance units or activities manage repair of materiel by maintenance priority designator and analysis of impact on unit readiness. The usual sequence of work will be to repair the oldest job with the highest priority first. However, analysis of unit materiel readiness may dictate resequencing maintenance work.

3–4. Maintenance resourcing

a. All Army organizations that have the responsibility to maintain and repair equipment will be adequately equipped, staffed, and funded for that purpose. The planning, programming, budgeting, and execution (PPBE) process is used to implement this policy. Staff advice and assistance in resource development for maintenance programs will be provided to ACOMs, ASCCs, DRUs, and ARSTAF by the DCS, G–4.

b. All commanders will ensure that assigned and attached military maintenance personnel are used in maintenance operations as in paragraphs 3–9 and 3–10.

c. Resource requirements for maintenance operations to support Regular Army and Reserve Component (RC) installations and non-deployable TDA organizations will be programmed and submitted during the PPBE process to the appropriate HQDA staff element.

3–5. Army maintenance management metrics

a. All Army MTOE, TDA, and contract maintenance operations will provide maintenance support within the timeframe required by requesting organization commanders. The time required for maintenance organizations to respond to user organization requests for maintenance services will be determined and assigned by following the policy on maintenance priorities prescribed in paragraph 3–3 and DA Pam 750–1. All organizations in the Army will implement a system of metrics by which commanders, leaders, and managers will assess the success of maintenance operations for which they are responsible. Metrics, mission performance scorecards, and the historical records that are derived from them will be used as objective evidence for implementing operational improvements where necessary and as justification for additional resources when required.

b. For Army-level maintenance management performance, the primary metrics used at HQDA are located in DA Pam 750–1.

c. Army maintenance organizations will minimize total logistics response time–maintenance (TLRT–M) and turnaround time (TAT).

3–6. General policies

a. Commanders will achieve readiness objectives in AR 700–138 and meet the Army maintenance TLRT–M and TAT standards and OR rate goals in DA Pam 750–1.

b. Maintenance operations will be performed by military personnel in combat or hazardous duty areas as determined by the combatant commander. A workforce comprising military personnel, Government employees, and contractor maintenance organizations may perform field maintenance operations in garrison, field, or sustainment locations. In garrison field maintenance or sustainment locations, contracted maintenance services are authorized to supplement manpower shortfalls in MTOE field maintenance organizations when commanders determine that their maintenance capacity is exceeded. Commanders will not sacrifice a Soldier’s maintenance proficiencies through the misutilization of contracted personnel.

c. ACOM, ASCC, and DRU commanders will address contract maintenance requirements during the planning, programming, and budgeting process.

d. ACOM, ASCC, and DRU commanders will designate a sustainment maintenance activity for the cleaning of equipment identified to have evidence of human tissue and body fluids when cleaning requirements exceed organic field maintenance capability as determined by the brigade commander. This activity must have the capability to disassemble and assemble equipment that is returned from field maintenance units to ensure proper cleaning. The ACOM, ASCC, and DRU commanders will augment the unit

and activity with appropriate resources (mortuary affairs, preventive medicine teams, and local chaplains), as required. Preventive medicine personnel will certify cleaning prior to release of equipment to combatant command forces, repair facilities, or U.S. customs officials for shipments to CONUS.

e. Commanders will not allow their equipment to be modified except under the provisions of a valid MWO.

f. ACOM, ASCC, and DRU commanders may authorize the fabrication of repair parts and components based on a valid supply requisition that cannot be obtained through the supply system in time to meet the required delivery date. Aircraft components that are critical to flight safety, and any other weapon system component designated as a safety related item or critical program information, are not authorized to be fabricated. Unit personnel will not fabricate parts for the sole purpose of returning items to stock.

g. Maintenance will be managed at the serial number-level of detail or item unique identification (IUID) in accordance with AR 700–145 and DA Pam 700–145.

h. The maintenance of all end items and class IX (CLIX) repairable items with a maintenance code of F, H, D, or L will be managed at the serial number-level of detail unless otherwise authorized by the DCS, G–4.

i. Serial numbers for the above items will be recorded in maintenance AIS and on data plates permanently affixed to the items or on various machine-readable automatic identification technology (AIT) devices and media. Examples of these are affixed or etched bar code labels, affixed or etched data matrix labels, and embedded chips.

j. Commanders cannot change the serial number or Unique item identifier (UII) assigned to an item, regardless of minor, major, or complete reconfigurations or recapitalizations. In the IUID, serial numbers cannot be changed.

k. At the sustainment level, the generation of serial numbers for manufactured items or assignment of serial numbers during depot level materiel change operations will be governed by applicable DoD and Army policy and implementing AMC instructions.

l. Serial number entries are mandatory in the indicated data fields of maintenance management forms and records.

m. Quality control must be fully integrated into maintenance operations ensuring:

(1) The identification of equipment faults.

(2) Compliance with repair procedures and equipment standards contained in the TMs and equipment-specific publications.

(3) The correct technical status symbol (X,/,-) is entered in GCSS–A for the reported fault.

n. Technical Bulletin Medical (TB MED) 750–2 covers maintenance procedures unique to medical materiel.

o. TMDE will be calibrated in accordance with TB 43–180 and AR 750–43 unless otherwise directed by DCS G–4.

p. Maintenance policies and procedures for non-tactical vehicles (NTVs) will comply with policy in AR 58–1.

q. Consolidated express and military-owned demountable containers will be maintained within the capability of the using unit or activity. Additional maintenance policies are contained in Defense Transportation Regulation 4500.9–R, Chapter 604.

3–7. Materiel status data flow reporting policy

a. Enterprise Materiel Status Reporting (EMSR) is an enterprise level materiel readiness reporting solution.

b. Army Enterprise Systems Integration Program (AESIP) pulls EMSR data automatically from GCSS–A on a scheduled date; no user interaction is required.

c. All Army agencies, CLS, and activities performing maintenance on Army equipment are responsible for reporting maintenance and readiness information to AMC, following procedures in DA Pam 750–1.

d. Maintenance, logistics, and readiness managers will obtain required access to enterprise systems to view readiness data/reports reported through the EMSR.

e. In the event GCSS–A lacks an automated readiness reporting capability through EMSR for a particular system or fleet (that is, APS Fleets and certain Aviation equipment), the CG, AMC will provide guidance on reporting equipment readiness directly into the AESIP Portal. Any exception to this policy will be granted on a case-by-case basis and only with the approval of DCS, G–4.

Section II

The Army Maintenance System

3–8. Army maintenance system levels

a. The Army maintenance system consists of two levels: field maintenance and sustainment maintenance.

(1) Field maintenance repairs and returns equipment to the operator or the user.

(2) Sustainment maintenance overhauls major end items and components and returns equipment and components to the supply system. In times of maintenance transformation or contingency operations, the traditional roles and partnership of all AMC organizations and source of repairs (SORs) may be blended to meet repair requirements (see para 5–1*b*).

b. Maintenance tasks will be performed in accordance with the Technical Manual and the MAC.

3–9. Field maintenance

a. The fundamental element of field maintenance is the requirement for PMCS.

b. Field level maintenance is the foundation of Army maintenance and requires continuous emphasis from all commanders and leaders. Operator and crew proficiency are critical to readiness and must be made a priority by leaders at all levels. Operators or crews performing PMCS from the applicable TM–10 series is the cornerstone of the Army maintenance system. Commanders must provide and protect adequate time for all Soldiers to train and achieve required levels of proficiency.

(1) Deficiencies detected during the before operations portion of the PMCS which render the equipment NMC in accordance with the Technical Manual or violate a safety directive must be corrected before the mission.

(2) Deficiencies detected during the mission rendering the equipment NMC must be corrected during the mission or as soon as possible.

c. Recovery vehicle policy.

(1) Wheeled and tracked recovery vehicles will only be operated by properly trained and certified recovery personnel.

(2) At a minimum, there must be at least one wheel recovery additional skill identifier (ASI) H8 certified recovery operations individual or the equivalent in the vehicle while performing recovery missions for wheeled recovery vehicles, and at least two certified ASI H9 track recovery specialists or the equivalent for tracked recovery operations.

(3) A wheel ASI H8 recovery specialist or a track ASI H9 recovery specialist cannot be substituted to perform recovery operations with equipment they have not been properly trained on and certified for by the U.S. Army Ordnance School (USAOS).

d. Authority to perform communications security (COMSEC) repair cannot be delegated. Request for waivers will be submitted through command channels to Director, Communications Security Logistics Activity (CSLA) (AMEL–LCA).

e. Field maintenance organizations are authorized to perform all maintenance tasks coded C, and F as outlined in the equipment TM MAC when skilled maintainers, required SKOT, TMDE, and other necessary resources are available to perform the maintenance task.

f. USAR specific requirements—

(1) USAR maintenance activities were established to perform field level maintenance, which is beyond the USAR commander's capability to perform during scheduled training assemblies. Geographical support boundaries are assigned by the USARC. The maintenance activities are designated for ground support equipment (GSE), watercraft, or ground and watercraft.

(2) Equipment concentration sites (ECSs) have a maintenance branch with a mission to support units in the surrounding geographical area and a storage branch for that equipment beyond the capability of the owning unit commander to store, maintain, or use at the home station. Preference for storage location should be at the unit’s mobilization or AT site to minimize transportation costs and time delays during mobilization.

(3) Area maintenance support activities (AMSAs) and ECS, with an assigned maintenance support mission for small arms, are authorized to perform field maintenance. This support can be performed at the unit’s home station using maintenance contact teams or at the AMSA or ECS when the small arms are evacuated to these facilities by the owning unit. MTOE maintenance personnel may perform duties of

TDA maintenance activities to reduce backlog, maintain skills, and update military occupational specialty (MOS) training.

(4) USAR TDA maintenance activities are authorized to perform field level maintenance contingent upon availability of required resources and skilled personnel. An alternate field maintenance activity within the geographic support area may be used. When used, an installation support activity or contract may be required. Items requiring field maintenance may be evacuated to the most cost-effective location for repair or replacement.

g. ARNG specific requirements—

(1) FMS in the ARNG will provide field maintenance that is beyond the capabilities of owning units. Owning units will perform field maintenance, including maintenance plans, within the capability of the unit during IDT and AT periods. Unit commanders will advise supporting FMS supervisor of field maintenance requirements that are beyond their unit's capability. FMSs will perform the following maintenance functions for surface equipment—

(2) Maintain liaison with supported unit commanders.

(3) Service all equipment issued under warranty as specified in the manufacturer's service manual or materiel fielding plan.

(4) Maintain authorized repair parts and supplies for the unit, when the CLIX is located at the FMS.

(5) Furnish contact teams to perform field maintenance and inspection when this is more economical than scheduling equipment into the shop.

(6) Augment maintenance that is beyond the capability of units using training sites.

(7) Handle equipment evacuation in accordance with DA Pam 750–1.

(8) The ARNG CSMS will perform field and limited sustainment maintenance on all surface equipment.

h. The CSMS is under the control and supervision of the state SMM and provides field and sustainment maintenance to:

(1) Equipment pre-positioned at a co-located MATES and UTES.

(2) Augment support to non-collocated MATES.

(3) Supported FMSs.

(4) Any DoD agency when authorized by CNGB.

(5) Organization requiring assistance of servicing MTOE medical devices (see para 10–2).

3–10. Sustainment maintenance

a. Sustainment maintenance is the second level of the Army maintenance system. Sustainment maintenance is characterized by the performance of more complex maintenance tasks, using trained personnel, tools, and equipment for categories of work (see para 5–1*b*).

b. The CG, AMC may grant authority to field maintenance units to perform sustainment level maintenance tasks as outlined in the equipment TM MAC when skilled maintainers, required SKOT, TMDE, and other necessary resources are available to perform the maintenance task.

c. AMC designated sustainment maintenance activities are authorized to perform the full range of maintenance tasks.

d. MTOE sustainment maintenance personnel may perform duties at TDA maintenance activities to maintain skills and update MOS training.

e. Sustainment maintenance personnel will perform TIs of class II, V, VII, VIII, and IX materiel to determine serviceability and completeness.

f. Sustainment maintenance activities may provide support to field level maintenance units for unique item support.

g. Depot maintenance (a distinct subset of sustainment maintenance) supports both the combat forces and the Army supply system. Depot maintenance will be performed by TDA industrial-type activities operated by the Army. Depot level maintenance may also be performed by contract, installation support activities, and interdepartmental or interagency agreement:

(1) Depot level maintenance provides technical support to field maintenance units and activities. In overseas areas, a depot FRA may be established to support combatant commanders.

(2) An FRA is an AMC-resourced, directed, and controlled activity operated by contractor or organic personnel that provides sustainment level support forward of the depot. Where possible, FRAs will provide support for multiple weapon systems or commodities.

h. Repair of selected economically repairable components will return the items to a serviceable condition. These items will be repaired and returned to the supply support activity (SSA). Repair and return to supply will be accomplished only at the direction of the CG, AMC.

i. Sustainment maintenance activity personnel, to include Government contractors if designated in the applicable contract, performing maintenance on Army equipment, will use approved Logistics Information System (LIS).

Section III

Maintenance Providers

3–11. Logistic Readiness Center/Army Field Support Battalion maintenance operations

a. The core mission of the LRC/AFSBn is to provide BASOPS support for AMC garrison TDA units with BASOPS equipment and field level maintenance, as defined in paragraph 3–9 of this regulation.

b. The senior commander (SC) as defined in AR 600–20 establishes support requirements for their AOR in coordination with ACOM, ASCC, or DRU commanders as needed. The terms of reimbursement for the support provided by the LRC is dependent upon the criteria a unit falls into as follows:

(1) LRC/AFSBn provides field level maintenance to MTOE Regular Army units that do not have HQDA authorized field level maintenance capabilities per unit MTOE or an assigned supporting field level maintenance capable unit (for example, Support Maintenance Company) within SC AOR. Units will reimburse the LRC/AFSBn for CLIX parts only (see fig 3–1).

(2) LRC/AFSBn provides field level maintenance to MTOE Regular Army units that have HQDA authorized field level maintenance capabilities per unit MTOE or an assigned supporting field level maintenance capable unit (for example, Support Maintenance Company) within SC AOR. Units will reimburse the LRC/AFSBn for CLIX parts and labor.

(3) LRC/AFSBn provides field level maintenance to Army National Guard and U.S. Army Reserve(non-deployed or non-mobilized) and non-garrison TDA units on a reimbursable basis to LRC/AFSBn for CLIX parts and labor.

(4) LRC/AFSBn provides field level maintenance to Army National Guard and U.S. Army Reserve deployed or mobilized units in accordance with Army Mobilization guidance.

(5) All other LRC support provided not defined in paragraph 3–11*b*(1) through (4) will be reimbursable for CLIX parts and labor.

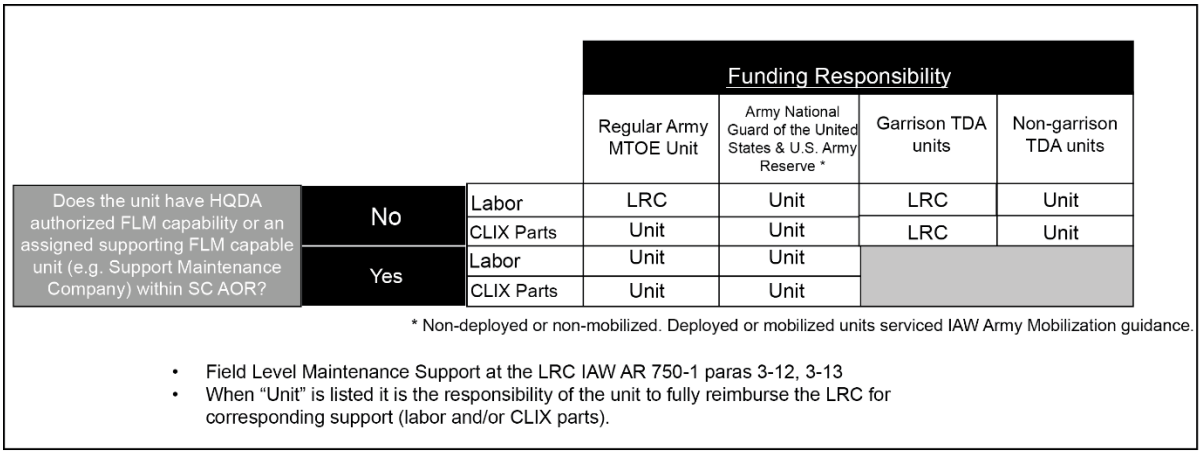

Figure 3–1. Logistic Readiness Center field level maintenance matrix for funding responsibility

c. Forecasting and programming requirements in the POM—

(1) The CG, AMC will program field level maintenance requirements in the POM to support garrison TDA unit BASOPS equipment maintenance (CLIX parts and labor) and field level maintenance for units

that do not have HQDA authorized field level maintenance capabilities (labor) as defined in paragraph 3–11*b*(1)–(4).

(2) ACOM, ASCC, and DRU commanders will program field level maintenance labor and parts requirements into their POM submission for External Field Level Maintenance support to units and locations that qualify as defined in paragraph 3–11*b*(1)–(5) and to the extent possible in support of paragraph 3–12*b*(1)–(2).

(3) ACOM, ASCC, and DRU commanders will program in accordance with the Army mobilization policy and coordinate with their LRC and Theater Maintenance Activity to forecast field level maintenance requirements and inform annual POM submissions. This coordination is necessary for the LRCs to properly plan to support the required level of reimbursable workload.

3–12. External maintenance support operations

a. External maintenance support operations are a support concept to ensure units without HQDA authorized field level maintenance capability or units lacking the tools or personnel to perform field level maintenance have the means to accomplish repair of equipment. Senior Commanders must maximize all organic maintenance capability and capacity within their AOR logistics footprint (for example, Echelons Above Brigade, Echelons Above Division, Support Maintenance Company before forwarding work for external maintenance support at LRC or Theater Maintenance Support, Materiel Support Center Korea (MSC–K), Theater Logistics Support Center–Europe, or other field level maintenance operations as outlined in DA Pam 750–1).

(1) HQDA authorized field level maintenance capability is categorized as the authorized personnel and equipment on the MTOE to conduct field level maintenance work.

(2) Maintenance capability is categorized as skills, expertise, or specialized repair shops and tools necessary to conduct field level maintenance work.

(3) ACOM, ASCC, or DRU commanders must coordinate procedures and requirements with the CG, AMC for work order support.

(4) Units with HQDA authorized field level maintenance or maintenance capability within SC field level maintenance AOR request a support work order from external field level maintenance organizations, the unit will fully reimburse CLIX parts and civilian labor when applicable.

b. Senior commanders assigned Field Level Maintenance capable units within its AOR (for example, Support Maintenance Company) provide Field Level Maintenance support to customer units when:

(1) Customer units do not have HQDA authorized Field Level Maintenance capability per unit MTOE or have a dependency statement in their MTOE narrative as defined in paragraph 3–11*b*(1)–(5).

(2) When customer unit is within the confines of the SC assigned field level maintenance (that is, Support Maintenance Company) AOR.

c. In the event a unit's external field level maintenance provider is unavailable (for example, a Support Maintenance Company deployment), units are authorized to obtain maintenance support from the local LRC and will reimburse CLIX parts and labor.

d. If SC units incur a shortfall in available funding required to cover the cost of CLIX parts and labor at the LRC, it will be the responsibility of the ACOM, ASCC, or DRU headquarters to submit an unfunded requirements request.

e. TDA organizations must adhere to the following:

(1) TDA organizations with authorized BASOPS follow paragraph 3–11*a*.

(2) TDA organizations which augment MTOEs must request maintenance support through the MTOE chain of command they are directly supporting.

(3) TDA organizations not covered in paragraph 3–11 must coordinate with their ACOM for guidance on how to receive external maintenance support.

f. All unit commanders must establish a method to obtain and transfer funding for any reimbursable requirements prior to the transfer of work to the external field level maintenance organization.

g. The CG, AMC may workload qualified LRC/AFSBn to perform national maintenance repairs on a reimbursable basis. Any new national maintenance workload requirements must go through the POM process and be recognized and resourced before implementation or execution of new mission.

h. LRC/AFSBn must be readily expandable to support mobilization and contingency maintenance requirements.

3–13. Delegation of authority to field commands to perform sustainment maintenance

a. General. It is Army policy to improve the Army's forward repair capability and capacity. The Commander, AMC is the delegation authority to enable commands and maintenance activities to perform sustainment level tasks. Consistent with the responsibilities prescribed in paragraph 2–16, the Commander, AMC will identify opportunities and recommend solutions to improve Army forward repair capability and consider requests to perform sustainment level tasks to ensure commands have the appropriate skills, tooling, facilities, and experience to perform the requested tasks while also ensuring safety, quality, and compliance with U.S. law. The DCS, G–4 will identify opportunities and recommend resourcing and policy solutions to improve Army forward repair capability and capacity. The Commander, AMC will provide updates to the Organic Industrial Base (OIB) Corporate Board on the disposition of all approved and unapproved requests.

b. Special repair authority (Project Code 065). SRA is an authorization by AMC to provide a maintenance organization with authority to perform maintenance to the national standard on an item of equipment for a period not to exceed 5 years. The following policy applies to SRA:

(1) Work performed under an SRA will be directly funded with customer O&M appropriation funds.

(2) SRA approval will be based on the overall stock position of an asset. SRAs will not be approved when like serviceable assets are available or where assets exist to meet readiness, and mission needs within required timelines. Army policy is not to repair more than national requirements.

(3) Only maintenance organizations that have technical skills, tools, test equipment, necessary facilities, quality assurance (QA)/quality control (QC), and testing capability to perform DLRs will be approved. These qualifications must be confirmed by AMC in accordance with their published internal operating procedures and the LMP Business Process Manual (BPM).

(4) SRAs will not be approved for items that are on the current and subsequent FY workload plan in LMP.

(5) An SRA will not be required for those SORs that have been technically certified to perform DLRs in accordance with the applicable depot maintenance work requirement (DMWR), national maintenance work requirement (NMWR), or applied technical data plan in support of the Army working capital fund (AWCF).

(6) SRA renewals are allowed when a requirement still exists for the basic SRA approved workload for 1 year. If required, the initiator will begin the renewal process 90 days before the expiration of the original SRA.

(7) LMP will be used to apply for SRA authorizations. Instructions for accessing and using this solution are contained in the BPM. LMP provides an automated process to manage the creation, workflow, reporting, review, and approval process for SRAs.

(8) Commander, AMC may delegate approval or disapproval authority to the LCMCs. This delegation of authority is addressed in AMC's BPM.

(9) The total processing time for each SRA request will not exceed 60 calendar days. If the repair of an item involves a critical safety item (CSI), then AMC processing time will be extended to 60 days, and the total processing time will be extended to 120 days.

(10) If a requesting organization does not agree with AMC's disapproval of an SRA request, they may request the SRA disapproval be reviewed by DCS, G–4 by using the rebuttal process as defined in the BPM.

c. One-time repair (Project Code 064). OTR is an authorization by AMC to provide a maintenance organization with a one-time authorization to perform maintenance to the national maintenance standard on an item of equipment when it is in the Army's operational, readiness interest or critical to mission accomplishment. The following policy applies to OTRs:

(1) Work performed under an OTR will be directly funded with customer O&M appropriation funds.

(2) OTR approval will be based on the overall stock position of an asset. OTRs will not be approved when like serviceable assets are available or where assets exist to meet readiness or mission requirements within required timelines. Army policy is not to repair more than national requirements.

(3) The approval authority for an OTR is AMC. The CG, AMC will approve or disapprove OTRs in accordance with their published internal operation procedures.

(4) OTRs will not be approved for items that are on the current FY workload program unless a critical mission readiness need cannot be satisfied by the supply system within the required timeline.

(5) Only maintenance organizations that have technical skills, tools, test equipment, necessary facilities, QA/QC, and testing capability to perform DLRs will be approved. These qualifications must be confirmed by AMC in accordance with their internal operating procedures.

d. Organizational functions.

(1) The CG, AMC is responsible for monitoring and validating maintenance operations performed under the SRA or OTR to assure the quality, safety, and technical standards are met. The CG, AMC will determine if the number of repairs under a specific SRA warrants addition to the SOR workload. The CG, AMC will also determine the frequency of an OTR warrants issuance of an SRA.

(2) The maintenance activity performing repairs under SRA or OTR authorization is responsible to maintain work order data.

e. Special repair authority and one-time repair reporting requirements.

(1) The CG, AMC will submit quarterly reports to the DCS, G–4 (Sustainment Maintenance Division) outlining all SRA and OTR approvals and disapprovals.

(2) ACOM, ASCC, DRU commanders, and ARNG commands, as directed by the CNGB, having activities performing work under an SRA or OTR will develop a monthly report to AMC in spreadsheet format using the below data elements. Monthly reports will be in accordance with DA Pam 750–1.

f. Monthly reporting. LCMCs will review each monthly report for accuracy and completeness and then provide a consolidated report no later than the 15th of each month to Commander, AMC, 4400 Martin Road, Redstone Arsenal, AL 35898–5035.

g. Rules. The CG, AMC will establish the internal business rules and procedures necessary to implement the SRA and OTR processes.

h. Quarterly reporting. The ACOM, ASCC, DRU commander, or other command performing work under an SRA or OTR will submit a quarterly report in accordance with DA Pam 750–1.

Chapter 4
Maintenance Operations

Section I

Materiel Maintenance, Repair, and Evacuation

4–1. General

a. Proper performance of PMCS by the equipment operator or crew will ensure early detection of faults and need for required maintenance.

b. The MAC specifies tasks that will be performed at each level of maintenance.

c. The economic reparability of unserviceable materiel will be determined by field units in accordance with paragraph 4–5 prior to initiating any repair action to repair the materiel, to ensure the most cost-effective use of maintenance resources.

d. Uneconomically repairable materiel will not be evacuated beyond the level authorized to dispose of or reuse the materiel. Disposal of COMSEC equipment through DLA–DS channels or at the field maintenance level is prohibited. All COMSEC equipment must be turned in by user organizations to the supporting retail level SSA and shipped to Tobyhanna Army Depot for disposal in accordance with AR 710–4.

e. All actions relative to the inspection, classification, verification, and disposition of uneconomically repairable materiel will be accomplished in an accurate and timely manner in accordance with AR 710–4.

4–2. Maintenance plans

Maintenance plans (scheduled services) will align maintenance requirements closer to the actual usage of equipment rather than time-based intervals. Maintenance plans will be conducted in accordance with the TM or published MAM adopted usage-based intervals. The PM and the LCMC will approve all work packages and maintenance actions messages through the Army Equipment Safety and Maintenance Notification System in accordance with AR 750–6 and post them in MMIS.

4–3. Army Equipment Services Optimization Program

a. The AESOP transitions equipment scheduled services from time-based service intervals to usage-based service intervals.

b. The objective of the AESOP is to afford units more time for troubleshooting, unscheduled maintenance, and other readiness-generating tasks.

c. The transition from time-based equipment maintenance service intervals to usage-based service intervals does not alter or replace operator PMCS requirements.

d. The AESOP is conducted in four phases:

(1) *Phase I – Recommendation Phase.* This phase consists of recommendations from DCS, G–4, HQ AMC, equipment PMs, MATDEVs, and ACOM commanders to nominate equipment for a focused assessment to determine if those platforms are over-serviced.

(2) *Phase II – Assessment Phase.* This phase consists of developing revised usage-based intervals for evaluation and transition scheduled service from time-based to usage-based intervals; publishing a MAM outlining the revised intervals; implementing those intervals at the unit level; and reviewing data from the assessment period.

(3) *Phase III – Approval Phase.* This phase consists of reviewing recommendations made as a result of focused assessments to ensure Technical Manuals describe scheduled maintenance intervals based on usage. The recommendations are codified as part of usage-based service intervals, changes to technical manuals are conducted and it becomes the Army standard.

(4) *Phase IV – Continuous Assessment.* Lead by the CG, AMC, this phase consists of ongoing monitoring of platforms to assess implemented revised intervals to make further service scheduled optimization adjustments as required.

e. Fleet utilization.

(1) Fleet utilization is required quarterly (every 90 days) by 10-mile exercise of tactical/combat wheeled vehicles and 5-miles for tracked combat vehicles for Regular Army units and every 120 days for ARNG and USAR units with a D1 notification in GCSS–A.

(2) Additional fleet utilization instructions can be found in the associated MAM.

f. Engineering assessments will be completed through OEM to develop and implement usage-based intervals for current and future fielded equipment. When developed in conjunction with the OEM, equipment scheduled service intervals will be developed based on usage-based and implemented as the standard.

g. Equipment usage data in the tactical enterprise logistics systems (TELS) matches the odometer reading monthly. Commanders will validate at least 25 percent of equipment usage in TELS versus equipment actual odometer reading quarterly. Units will validate different equipment each quarter. If the quarterly validation determines that usage data is more than 20 percent inaccurate, the unit must validate 100 percent of unit equipment usage data and make corrections as required.

4–4. Low Usage Program maintenance plans

a. Equipment not identified in the AESOP may be placed in the Low Usage Program (LUP) at the commander's discretion, if they meet the low-usage criteria. The implementation of LUP does not relieve commanders of the responsibility for adequate maintenance of their equipment.

b. For mandatory procedures relating to the LUP and specific criteria for equipment to be placed in a low-usage status see DA Pam 750–1.

4–5. Unserviceable materiel

a. Unserviceable major end items that cannot be repaired at field level may be repaired by a local sustainment repair activity when such capability and capacity is authorized on a reimbursable repair and return basis. If no such capability exists or is insufficient to the requirement, then the item must be turned into a depot through the appropriate SSA as a supply transaction. Exceptions to this are for critical medical devices and ARNG, and USAR equipment undergoing depot repair. ARNG and USAR equipment unless directed otherwise by HQDA, will remain on ARNG and USAR property records to meet the provisions of DoDI 1225.06.

b. Field and sustainment maintenance unit commanders are authorized to provide support to other units when maintenance requirements exceed capabilities.

c. Materiel will be protected (packaged or crated) to prevent further damage during transfer or turn-in. This may include all BII and COEI.

4–6. Technical Inspections

a. A TI will be performed prior to repair, evacuation, or turn-in of unserviceable end items. TIs are conducted by technically qualified individuals assigned to a field level or sustainment level maintenance activity. Inspections will be performed according to equipment maintenance and serviceability standards. The results of TIs will be used to determine the following:

(1) Serviceability.

(2) Economic repairability of the item.

(3) Extent of maintenance effort and repair parts required to restore the item to the prescribed serviceable condition.

(4) If equipment is rendered unserviceable due to other than fair wear and tear.

(5) Estimated cost of damage (ECOD).

(6) If all applicable MWOs have been applied.

b. An MOS-qualified maintainer trained on the equipment to be inspected can develop the ECOD or actual cost of damage. A designated member in the maintenance activity or repair section will verify all TIs at the level designated in the Source, Maintenance, and Recoverability code in accordance with the TM. If the condition code (CC) is determined to be H or P, it will be verified using the procedures prescribed in DA Pam 750–1. Technical inspectors and maintenance personnel will not make any assessment regarding negligence or willful misconduct.

4–7. Verification inspections

a. Verification inspections of major end items will be conducted to ensure the accuracy of a TI when it results in unserviceable, uneconomically repairable CC of H or P.

b. ACOM, ASCC, and DRU commanders will ensure—

(1) TIs resulting in unserviceable, uneconomically repairable CCs of H or P are verified using independent inspections from the LCMC or sustainment activity prior to requesting disposition instructions. The individual performing the initial CC classification will not perform verification inspection.

(2) Inspectors conducting verification inspections are technically qualified in the equipment commodity they are inspecting.

4–8. Maintenance expenditure limit

a. The MEL is the total acceptable cost to repair a major end item or a repairable secondary item to a fully serviceable condition and return the item to service. The MEL ensures economic and operational effectiveness of Army maintenance at all levels and is expressed as a percentage of the item's replacement cost. The replacement cost for a major end item is the standard price. The replacement cost for a repairable secondary item differs based on the level of maintenance.

b. Field level maintenance will use the standard price for any repairable secondary items that are repairable at the field level.

c. Sustainment level maintenance will use the last acquisition cost (LAC) from the LMP for repairable secondary items.

(1) Request disposition instructions through the decision support tool (DST), in accordance with ACOM, ASCC, or DRU policy for equipment that exceeds the MEL.

(2) Required repairs will not be broken into separate job estimates to bypass prescribed MELs.

d. MEL will be expressed as a percentage of the standard price.

(1) MEL will be reviewed at least annually and updated as required.

(2) MELs will be established for all items except the following:

(a) Materiel procured with non-appropriated funds.

(b) Installed building equipment (IBE) as defined in AR 420–1.

(c) Non-type classified training devices used exclusively by training institutions and schools.

(d) Non-type classified equipment and items of nonstandard materiel that do not require national level materiel management or logistics support.

(e) Materiel exempt from type classification.

(f) Class V materiel.

e. For mandatory procedures relating to MEL see DA Pam 750–1.

f. ACOM, ASCC, and DRU commanders have approval authority on requests for waiver of published MEL when the required maintenance can be accomplished at field or sustainment level maintenance or by local contract.

g. Approval authority is limited to a specific model or serial numbered major end item. In approving such requests, commanders will ensure the following:

(1) A replacement item is not available by the required delivery date.

(2) Resources are available or can be made available to the requesting organization to do the repairs prior to the required delivery date.

(3) Requesting organizations develop a repair cost estimate and justification for retention.

(4) MEL Waivers will be submitted on a DA Form 7723 (Maintenance Expenditure Limit (MEL) Waiver).

4–9. Turn-in policy for serviceable excess and unserviceable repairable parts and components

a. Unserviceable repairable items will be turned in to the SSA.

b. All Army commanders and maintenance managers will ensure critical items, critical program information, intensively managed items, and automatic return items are turned in within the timeframes established by applicable directives, program protection plans, AR 710–4 and AR 725–50. Commanders will use management information and reports from supply and maintenance management automated LIS, to assist them in meeting the turn-in time standards.

4–10. Equipment transfer and turn-in

a. All DST directed transfers between ACOMs, ASCCs, and DRUs must be coordinated and formalized through a jointly approved lateral transfer document prepared by the losing accountable officer (see AR 710–4). Transfers to other DoD military departments or other Government agencies will be conducted in accordance with AR 710–1.

b. Equipment that is transferred between ACOMs, ASCCs, and DRUs, including USAR and ARNG, transferred into the APS, prepared for storage below the national level, and other specified stocks will meet the following requirements:

(1) The maintenance standard as defined in paragraph 3–2 of this regulation, unless otherwise directed by HQDA. Maintenance plans will be current as of the date of shipment from the losing organization. The criteria for services are suspended during shipment and will resume upon acceptance at gaining site.

(2) The results of TM–10 series and TM–20 series PMCS and preventive maintenance inspection and service acceptance inspections (record copy of DA Form 2404, DA Form 5988–E (Equipment Maintenance and Inspection Worksheet (EGA)), or DA Form 2408–13–3 (Aircraft Technical Inspection Worksheet) and other records required by DA Pam 95–4 will accompany the equipment).

(3) Gun tubes will have a minimum of 500 rounds of effective full charge remaining when transferred into APS. On transfers other than into Army war reserve stocks, gun tubes will have a minimum of 75 effective full charge rounds remaining.

(4) Winterization of equipment destined for geographic locations where temperatures range from negative 25 degrees Fahrenheit to negative 60 degrees Fahrenheit.

(5) Equipment accepted for overhaul will not be directly transferred between ACOMs, ASCCs, and DRUs.

c. Equipment transfers between ACOMs, ASCCs, and DRUs in unit sets (force package fielding) will meet the requirements listed in paragraph 4–10*b* as well as the following:

(1) Requisitions for repair parts with estimated delivery dates past the transfer date will be canceled unless the requisition is from previous FY funds. These requisitions will be moved and allowed to come in to prevent de-obligation of prior year funds. Appropriate funds (price from current Army Enterprise Materiel Master or WebFLIS) will be transferred to AMC.

(2) Outstanding field and sustainment maintenance requests that cannot be completed prior to transfer will—

(a) Require the gaining and losing ACOM, ASCC, and DRU commanders to negotiate an acceptable solution such as delayed transfer dates for specific pieces of equipment. Agreement requires concurrence of DCS, G–3/5/7.

(b) Be cancelled. Appropriate funds (current Army Enterprise Materiel Master or WebFLIS price) will be transferred to AMC as outlined in transfer MOA.

(3) ACOM, ASCC, and DRU commanders, and agency directors are responsible for funding temporary duty related to their responsibilities for transfers as outlined in transfer MOA.

d. CG, AMC responsibilities for unit set transfers between ACOMs, ASCCs, and DRUs include the following:

(1) Serving as an arbitrator for transfers as outlined in paragraph 4–10*b*. If AMC is an active party in the transfer, the DCS, G–4 (Maintenance Directorate) will be the arbitrator.

(2) Receiving funds transferred from losing ACOMs, ASCCs, and DRUs as established in paragraph 4–10*c*(2)(*b*).

(3) Performing corrective actions at the receiving or handoff site to ensure equipment is in the same condition as reflected by record copy of acceptance inspection required in paragraph 4–10.

(4) Providing total package fielding support to gaining ACOM, ASCC, and DRU.

e. Equipment transferred between ACOMs, ASCCs, and DRUs in other than unit sets will meet the requirements in paragraph 4–10. In addition, equipment will not be transferred until all corrective actions requiring parts are completed and field and sustainment maintenance requests are completed.

f. Exceptions to the turn-in policy are—

(1) Aviation equipment transferred between property accounts will conform to the serviceability criteria contained in TM 1–1500–328–23 or the disposition instructions.

(2) Frequently assembled and disassembled equipment used as training aids (CC F or less) that requires sustainment maintenance prior to transfer or reissue.

g. Equipment used for BASOPS or for the original purpose operator or crew training that meet the transfer and turn-in standard in accordance with paragraph 4–10*a*.

4–11. Controlled exchange

a. Controlled exchange is the removal of serviceable components from unserviceable, economically repairable end items for immediate reuse in restoring a like item or weapon system to an FMC condition. The unserviceable component must be used to replace the serviceable component or retained with the end item that provided the serviceable component.

b. Controlled exchange is authorized only when—

(1) Required components are not available from the source of supply within the issue priority designator indicated on the maintenance request.

(2) A valid requisition is submitted to replace the unserviceable item.

(3) The maintenance effort required to restore all the unserviceable repairable materiel involved to a mission capable condition is within the MAC authorization and the capability of the unit performing the controlled exchange.

(4) The end item or weapon system from which the serviceable component is removed is classified NMC supply (NMC–S).

(5) Aircraft from which a serviceable component is removed must be classified as one of the following: NMC–S, NMC maintenance (NMC–M), or partial mission capable (PMC).

(6) Aircraft maintenance manual instructions require that a known serviceable component be temporarily used while troubleshooting. Such components may be temporarily exchanged from an FMC or PMC aircraft.

(7) The end item or weapon system will not be degraded to an uneconomically repairable condition.

(8) The end item or weapon system from which the serviceable component was removed is protected from further degradation.

(9) The unserviceable component is tagged and installed on, or retained with, the end item or weapon system from which the serviceable like item was removed. In addition, the removal of the component must be recorded on DA Form 5990–E/DA Form 2407, DA Form 5988–E/DA Form 2404, or DA Form 2408–13–3 (Aircraft Technical Inspection Worksheet) for the end item or weapon system. This is to retain the identity and integrity of the repairable end item or weapon system.

(10) The organization performing the controlled exchange takes prompt action to restore the unserviceable materiel to an FMC condition.

c. When the controlled exchange satisfies a requirement already in the Army supply system, that requisition will be either canceled or used to restore the unserviceable end item or weapon system to FMC.

d. As a result of a controlled exchange, the controlled exchange report will log the transaction and detail both the donor and recipient information (see Display Controlled Exchange Report in the GCSS–A End User Manual Plus). All the unserviceable repairable materiel involved is owned or under control of the organization performing the controlled exchange.

e. Controlled exchange is authorized when it is the only means reasonably available to eliminate an adverse effect on the OR of the unit, organization, or activity performing the controlled exchange.

f. Controlled exchange by field and sustainment levels of maintenance will be authorized only when—

(1) It is the only means of providing an FMC end item or weapon system to a supported unit within the time frame indicated by the issue priority designator on the maintenance request.

(2) It is for other than aviation equipment, approved by the first O–5 commander of the owning equipment or sustainment maintenance commander. Approval process for aviation equipment will be in accordance with DA Pam 750–1.

g. During mobilization or combat, ACOM, ASCC, and DRU commanders may modify the controlled exchange conditions as deemed necessary.

h. Controlled exchange is not authorized when the investigating officer has not formally released materiel involved in a mishap.

i. Controlled exchange is not authorized on RCF assets.

j. Controlled exchange documents will be maintained in TELS.

4–12. Army Fire Suppression and Environmental Control System policy

Only technicians who are properly trained and certified can service pressurized fire suppression and environmental control systems. Air condition/environmental control system technicians must be trained and certified. Training and certification must be in accordance with the environmental protection agency and Occupational Safety and Health Administration standards. For aviation related requirements, once the system is evacuated of refrigerants an aircraft maintainer can complete maintenance without a certification requirement.

Section II

Maintenance Management

4–13. Materiel records and reports

Land vehicle, aircraft, and water vessel inspection, maintenance, and service records will be retained in accordance with National Archives and Records Administration approved Records Schedules. Materiel data records and reports for maintenance management and performance of maintenance are prepared and maintained in accordance with applicable manuals and publications.

4–14. Maintenance management systems

a. DCS, G–4 mandates the use of approved standard Army LIS, which takes precedence over the manual system.

b. The primary functions of maintenance management include forecasting, distribution, scheduling, and production control of maintenance workloads, including inspections, services, repairs, and warranty claim actions for Army equipment.

c. Approved TELS (GCSS–A, LMP, EAVN, and so on) is the DA standard and takes precedence over all manual systems. Materiel management procedures for each authorized TELS can be found in each system applicable end-users-manual.

d. Army operating force unit personnel use the Army's approved TELS for medical device reporting and ordering of medical repair parts.

Section III

Technical Assistance

4–15. Logistics Assistance Program

The U.S. Army LAP supports units throughout the full range of national requirements, fostering self-reliance in maintenance. LAR and contract support are reserved for complex issues beyond unit capabilities and used sparingly to augment, not replace, Soldier maintenance.

a. AR 700–4 contains LAP policy and procedures for providing technical assistance to users during and after equipment fielding.

b. The CG, AMC will provide and manage a worldwide LAP for proponent materiel by determining requirements and establishing, staffing, and maintaining logistics assistance offices. CG of the U.S. Army Corps of Engineers, CG of U.S. Army Signal Command, and CG of U.S. Army Installation Command will provide logistics assistance personnel for materiel as part of their proponent responsibilities.

Section IV

Contract Maintenance Support

4–16. Private enterprise

a. When the Army maintenance system cannot provide required support, commanders rely on the private enterprise system to support its maintenance requirements.

b. The ACOM, ASCC, and DRU commanders will ensure that essential quality requirements for maintenance service contracts are defined, quantified, measured, and assessed during the contracted-out support process. Solicitations and contracts for maintenance services will require:

(1) Quantitative measures of quality and performance.

(2) Contractors to submit historical data that will show the capability to achieve these quantitative measures.

(3) Specific contractual provisions for obtaining contractor conformance, such as award and incentive fee provisions for meeting performance quality and cost standards.

(4) Test and evaluation to be performed to demonstrate performance and corrective actions to be taken on deficiencies revealed.

(5) For medical devices, only the CG, AMC can authorize contract maintenance to support an MTOE unit.

c. Commanders contracting for commercial field or sustainment repair of equipment will ensure that the contract requirements package include provisions for collection of work order DA Form 2407 data from the contractor. Contractors will provide negotiated and approved data via TELS, pursuant to the terms of the applicable contract.

d. All contracting support is requested by submitting a requirements package to the contracting office in accordance with AR 715–9.

e. Only contracting officers may prepare contracts.

f. The requiring activity director is responsible for nominating a contracting officer representative in accordance with AR 715–9.

g. In the event of contractor deficiencies or noncompliance with the terms of the contract, the contracting officer representative should document and communicate the deficiencies to the contracting officer for corrective action.

h. All contracts must be administered in accordance with the Federal Acquisition Regulation (FAR).

4–17. Prohibitions

a. Maintenance by contract personnel is prohibited when any of the following conditions exist:

(1) The maintenance workload to be performed is necessary for individual MOS skill set proficiency and unit training.

(2) Qualified contract personnel are not available and cannot be trained and provide maintenance support when needed.

(3) Organic resources are available and contract maintenance support will result in higher cost of maintenance support to the Army.

(4) The product or service is available from another DoD component or another Federal department or agency.

b. Approval is required for weapons systems requiring CLS forward of the Corps Rear Boundary. PEOs/PM/LCMCs responsible for weapon systems operating forward of the Corps rear boundary during Large Scale Combat Operations will request approval in accordance with AR 715–9.

c. Contractors performing maintenance on COMSEC equipment must comply with training, certification, and security clearance requirements in accordance with AR 25–12, if provided in the terms of the controlling contract.

4–18. Foreign private enterprise limitations

a. Foreign private enterprise, a commercial company or business owned and controlled by private entities rather than by the government and is located outside of the United States, can be used for contracts awarded and performed OCONUS when one or more of the following situations exist:

(1) U.S. contractor or DoD sources lack the capacity to perform the task in the time required. In this situation, use of foreign private enterprise is interim in nature until U.S. capability can be developed or expanded.

(2) Use of foreign private enterprise has been predetermined by international agreement.

(3) The necessity for establishing an alternate foreign source has been determined formally by DoD as being in the best interests of U.S. strategic or tactical objectives.

(4) Use of foreign private enterprise will not affect the development or maintenance of U.S. national capabilities.

b. The use of foreign contractual services will be contingent on U.S. contracting authority certification of security, quality, capability, and capacity (see para 11–2*c*).

4–19. Readiness of modified table of organization and equipment units

Contractual services to support readiness of MTOE units will be allowed, but generally limited to a short term—

a. Pending the attainment of a field or sustainment capability, or to allow for peak workloads of a transitory nature. For OCONUS, when the using field level maintenance organization or activity does not have the capability to provide field level maintenance to an acceptable level of readiness.

b. When required, programmed, and contracted by the MATDEV for an interim period to attain an earlier operational status for initial fielding of new military materiel.

c. For the completion of overhaul or modification of military materiel when—

(1) The extent or complexity of the modification or modernization work to be accomplished requires the technical qualifications of the OEM.

(2) Repairing complex electronic devices that require long-term training for skill development and standalone test equipment.

4–20. Classified communications security

Proposals for contract maintenance support of classified COMSEC and signals intelligence (SIGINT) and electronic warfare (EW) equipment must undergo an assessment of risks to national security prior to using commercial maintenance sources. The National Security Agency (NSA) must conduct this special risk assessment. The proposal, including performance work statement (PWS) with additional information identifying the COMSEC, SIGINT, EW equipment, density supported, and levels of maintenance to be performed will be submitted through DCS, G–3/5/7 (DAMO–SO). Proposals will be forwarded to 400 Army Pentagon, Washington, DC 20310–0400, to Director, NSA (S–04), Fort Meade, MD 20755–6000. Classified equipment not under NSA cognizance being considered for maintenance support contracts to contractors other than OEMs will be given an assessment of risk as prescribed above. Approval by HQDA is required prior to contract award. In the event of approval from NSA or HQDA, then the provisions of chapter 4 apply to further processing.

Section V

Inter-Service Maintenance Support

4–21. General

a. The ISSAs will be fully explored prior to submission of requests through ACOM, ASCC, and DRU commanders to the DCS, G–4 (Maintenance Directorate) for additional or expanded maintenance facilities. This includes modernization of tooling and materiel of non-MTOE support and sustainment level maintenance facilities. ISSAs will comply with DoDI 4000.19 and AR 5–9.

b. The ISSA may be used to provide maintenance support services when:

(1) Support is the least costly to the Government.

(2) The supporting agency or component has the available capability and capacity to render required support.

(3) Support will reduce in NMC materiel or provides the potential for reducing investment and operating and sustainment costs.

c. The ISSA will not be used to document the transfer of responsibility for a function or mission from one DoD component to another.

4–22. Provisions of inter-service support agreements

The ISSAs—

a. Specify responsibilities for furnishing repair parts and other support materials required for the completion of the maintenance operations.

b. Make suitable provisions for the interchange of maintenance performance and management data between all parties to the agreement.

4–23. Personnel support

When another DoD component or Federal Government agency has the available capability, except for personnel, and the provision of the support is to the overall advantage of the Government, the matter will be referred to DCS, G–4 (Maintenance Directorate) for resolution prior to establishing duplicate facilities.

4–24. Reciprocal support

Upon request, the Army may provide maintenance support to other DoD components and Federal Government agencies to the extent that its military requirements will permit and if available capabilities and capacities exist. This support will be executed at the lowest command level.

4–25. Funding support

Each Army element is responsible for programming, budgeting, and funding to support the ISSAs to which it is a party. Whenever workforce or fund requirements exceed available resources, ACOM, ASCC, and DRU commanders will seek DCS, G–4 (Maintenance Directorate) approval.

4–26. Transfer of resources

a. The transfer of resources (personnel, funds, and materiel) resulting from establishment, modification, or termination of local support agreements will be accomplished in accordance with existing Army and DoD procedures.

b. Army agencies will provide inter-Service support on a reimbursable basis.

c. Non-reimbursement arrangements are authorized for service provided in combat areas.

Chapter 5
Sustainment Maintenance

5–1. General

a. This chapter provides policy and responsibilities governing sustainment maintenance.

b. The term sustainment maintenance consists of materiel maintenance or repair requiring the overhaul, upgrading, or rebuilding of end items, parts, assemblies, or subassemblies and the testing and reclamation of equipment as necessary, regardless of the source of funds for the maintenance or repair or the location at which the maintenance or repair is performed. The term also includes the following:

(1) All aspects of software maintenance classified as depot maintenance and repair described in paragraph 5–11.

(2) Interim contractor support (ICS) or CLS (or any similar contractor support), to the extent that such support is for the performance of services described above.

c. In accordance with 10 USC 2460, sustainment maintenance does not include the procurement of major modifications or upgrades of weapon systems that are designed to improve system performance. A major upgrade program covered by this exception could continue to be performed by private or public sector activities. Sustainment maintenance will not include the procurement of parts for safety modifications. However, it will include the installation of parts for safety purposes.

d. MATDEVs will establish sustainment maintenance support programs for a new system and its secondary items so that the SOR is ready to perform sustainment maintenance not later than 4 years after IOC.

e. Sustainment maintenance will be performed by selected TDA industrial activities operated by the Army, other military Services or Government agencies, or by private-sector firms.

f. When directed by the CG, AMC, overseas sustainment maintenance will be performed within the theater of operations to achieve the readiness or sustainability goals of deployed forces or when more cost-effective. When evaluating cost effectiveness, RCF, spare parts, facilities, transportation, plant

equipment, test equipment, personnel, supply pipeline costs, and the impact on the CONUS base, including mobilization or surge capability will be considered.

g. Overseas sustainment maintenance will include the cost accounting and production reporting provisions of DFAS–IN Manual 37–100.

h. Commanders with an overseas FRA are encouraged to make the necessary improvements in accordance with Army policies. This decision is made in coordination with the theater commander and aims to provide essential in-country, forward sustainment support. The goal is to ensure sustainment personnel or CLS operations are available to maintain mission critical systems and components effectively.

5–2. Organic Industrial Base Corporate Board roles and responsibilities

a. The ASA (ALT) establishes the overall policy and strategic objectives for the Army OIB program.

b. The ASA (ALT) relies on the OIBCB to implement strategic guidance, monitor, and evaluate OIB performance, identify deficiencies and problems, and recommend corrective action.

c. The Army OIBCB officers include the Principal Deputy, ASA (ALT); Assistant Division Commander for Support (ADCS), G–4; Executive Deputy to the Commanding General AMC.

d. The Executive Deputy to the CG, AMC establishes and maintains a long-term Army OIB Modernization Strategy Implementation Plan for the Army OIBCB approval. The Army OIB Modernization Strategy Implementation Plan will be reviewed and revised as directed by the Army OIBCB co-chairs.

e. The Army OIBCB is responsible for—

(1) Implementing strategic direction provided by the ASA (ALT).

(2) Meeting semi-annually or as required to provide corporate level strategic direction and policy recommendations across the OIB Enterprise, to include resource guidance, to ensure the OIB effectively supports Army readiness.

(3) Governing the implementation of the Army OIB Modernization Strategy Implementation Plan by establishing goals, objectives, and strategic indicators and metrics that will define the future Army OIB.

(4) Monitoring OIB corporate metrics such as total revenue, productive yield, repair cycle time, carryover, and performance-to-promise.

(5) Reviewing OIB enterprise programs and statutory compliance such as capital investments programs, core capabilities, and "Distribution of Depot Maintenance Workloads (50/50 rule)."

(6) Resolving issues associated with OIB enterprise policies, guidance, programs and processes, reviewing each one and directing that the appropriate corrective actions be taken, to include establishing forums and study and working groups, as directed by the Army OIBCB (see AR 15–1).

(7) Resolving OIB enterprise issues raised by other Army agencies, other Services, or Office of the Secretary of Defense (OSD).

(8) Providing guidance to the OIBEC.

f. The purpose of the Army OIBCB is to monitor OIB performance including customer requirements and quality of support, capacity, funding, workforce, productivity, efficiency, capital investments, quality workplace environment standards, identifying issues, and directing corrective actions. The Army OIBCB's strategic guidance and direction provided by the ASA (ALT) is implemented by the Army's OIB stakeholders. The OIB primary stakeholders include ASA (ALT); DCS, G–4; AMC; AMCOM; ARNG; USAR; and PEOs. The Army OIBCB also provides direction to the OIBEC which has day-to-day oversight of inter-Army and intra-Army depot maintenance and manufacturing programs to include sponsored and funded workloads of the organic Army maintenance depots and arsenals. The OIBEC is co-chaired by AMC Deputy, G–3 (Supply Chain Management Directorate) and Chief, G44–M (Sustainment Maintenance Division) and reports directly to the co-chairs of the Army OIBCB.

g. The OIBCB provides corporate level strategic direction and policy recommendations across the various elements of the Army considering the role that depot maintenance plays as a critical component of overall force readiness and logistics transformation. The OIBEC fulfills the oversight and management function necessary to improve the manner and method for which the Army OIB operations are executed.

h. The Army OIBCB ensures that the Army OIB enterprise complies with all DoD and Army policies, regulations, and guidance, to include the following specific Federal statutory provisions:

(1) *10 USC 2460.* The term "depot-level maintenance and repair" does not include the procurement of major modifications or upgrades of weapon systems that are designed to improve program performance. A major upgrade covered by this exception could continue to be performed by private or public sector activities (see para 5–1*c*).

(2) *10 USC 2464.* According to 10 USC 2464, the Secretary of Defense (SECDEF) must maintain "a core logistics capability that is Government-owned and Government-operated [to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, or other emergency requirements."

(3) *10 USC 2466.* As written in 10 USC 2466, not more than 50 percent of the depot maintenance funds will be contracted for performance by non-Federal Government personnel.

(a) Although 10 USC 2466 requires the Army to meet an aggregate minimum funding in DMWD ratio of 50/50, ASA (ALT) requires the ARNG, USAR, AMC, and the program executive offices with which the LCMCs work to meet an annual target of 52 percent organic and 48 percent contract.

(b) In the event the Army year-end projections for the current or budget year should project that the work performed by the Federal workforce will be 52 percent or less, ASA (ALT) will provide OSD with a Management Action Plan outlying actions that will be taken to meet the provisions of 10 USC 2466 no later than 15 March.

(4) *10 USC 2474:* in accordance with 10 USC 2474, the Service Secretary designates a Center of Industrial and Technical Excellence (CITE) for each non-base realignment and closure affected DoD depot based on core competencies and provide appropriate reports to Congress. This statute also authorizes the Service Secretary to authorize the head of the CITE to enter into public-private partnerships for work related to the CITE designation and consistent with the needs of the department to maximize the utilization of the CITE capacity, reduce the cost of products, and foster cooperation between the armed forces and private industry, and other statutory objectives.

5–3. Organic Industrial Base Execution Council responsibilities

The OIBEC is responsible for—

a. Providing strategic oversight of the integration and execution of depot maintenance and manufacturing programs accomplished within the OIB, to include sponsored and funded workloads for the organic Army maintenance depots and manufacturing arsenals, program executive offices, RC, inter-service, and the ACOMs' contractor and organically operated sustainment level tasks performed at the field maintenance level.

b. Assessing strategic level indicators, metrics, and parameters to ensure Army OIB enterprise goals and objectives are met consistent with all statutory, regulatory, and Army strategic readiness system requirements. Recommending OIB program policy changes as appropriate to the Army OIBCB.

c. Recommending to the Army OIBCB the rightsizing, that is, the capabilities and capacity, of the organic Army maintenance depots and manufacturing arsenals, as well as the Army's contractor and organically operated sustainment maintenance activities at the field maintenance level, based on valid workload and core requirements.

d. Establishing and maintaining a long-term Army OIB strategic plan for Army OIBCB approval. The OIB strategic plan will be reviewed and revised accordingly on an annual basis.

e. Identifying the requirement for the development of DSTs, such as Depot Maintenance Operations Planning System (DMOPS), to assist the Army OIBCB and OIBEC in fulfilling their responsibilities.

f. Meeting quarterly as necessary and reporting to the Army OIBCB at a minimum of two times a year. The OIBEC will support the Army OIBCB meetings that may be scheduled as required to resolve issues that cannot be deferred until an Army OIBCB meeting is held.

g. Reviewing, streamlining, and consolidating all statutory, regulatory, and internal reports to improve the timeliness, accuracy, and utility of the information collected and analyzed, and to identify overlap, gaps, and eliminate duplicative tasking orders and reporting requirements.

5–4. Reporting depot maintenance workload distribution and execution

a. Not more than 50 percent of the funds made available in an FY to a military department or defense agency for sustainment level maintenance and repair workload may be used to contract for the performance by non-federal government personnel, per 10 USC 2466. Any such funds that are not used for such a contract will be used for the performance of sustainment level maintenance and repair workload by employees of the DoD. The percentage limitation includes depot maintenance ICS, CLS, and similar contracts as required by 10 USC 2460.

b. All Army ACOM, ASCC, and DRU commanders will report the funding executed to accomplish sustainment maintenance level tasks designated or coded as D or L, regardless of source of funds or the location where the maintenance is performed. The Secretary of Defense is required to submit a report to

Congress not later than 90 days after the date on which the President's budget is submitted to Congress each FY for each of the Armed Forces (other than the Coast Guard) and each Defense Agency (10 USC 2466(d)(1)). The report must show the percentage of funds that were obligated or planned for obligation during the preceding FY, current FY, and budget year for the performance of depot maintenance and repair workload by the public and private sectors. The DCS, G–4 (Sustainment Maintenance Division) will prepare and issue a data call with supplemental instructions for the completion of the annual 50/50 report no later than December of each year.

c. Amounts obligated for the performance of sustainment level maintenance and repair workload by non-Federal Government personnel at a CITE under any contract will not count for purpose of applying the percentage limitations to 10 USC 2466(a) if the personnel are provided by private industry or other entities outside the DoD pursuant to a public or private partnership.

5–5. Depot maintenance core logistics capability

a. Core is the Government-owned and Government-operated capability necessary to maintain and repair weapon systems and other military equipment. Core logistics capabilities are essential for national defense. The Army OIB must ensure a ready and controlled source of technical competence and resources to effectively respond to Joint Chiefs of Staff contingency plans. Core capabilities are the minimum facilities, equipment, and skilled personnel necessary to effectively respond to national defense requirements.

b. The workload required to maintain a core logistics capability will not be contracted out to non-government personnel including contractors working in Government depots. The intent of core depot maintenance is to ensure the Government possesses organic technical skill sets and competencies to respond to military mobilization, contingencies, and other emergencies.

c. The DCS, G–4 in coordination with ASA (ALT), DCS, G–3/5/7, and the CG, AMC will use the DoD Depot Maintenance Core Capabilities Determination Process in DoDI 4151.20. Core capabilities and the workload required to support these capabilities will be reviewed every 2 years.

d. The core logistics analysis and applicable core analysis will be conducted in accordance with AR 700–127.

e. Pursuant to 10 USC 2464, the Secretary of War is required to submit a Biennial Core Report to Congress each even-numbered year identifying the Core Logistics Capability requirements and workload necessary to sustain Core repair capabilities.

5–6. Inter-Service depot maintenance agreements

a. Inter-Service maintenance is applicable to all acquisition and logistic support activities planning, requiring, or providing depot maintenance support. The primary objective is to leverage the DoD's existing maintenance capabilities instead of expending funds to establish new maintenance capabilities. This reduces redundant capabilities while sustaining essential mission support needs.

b. ACOM commanders, directors of activities and organizations will seek mutually beneficial support arrangements with other Army organizations and with other Services and agencies when feasible and when not detrimental to mission and military requirements.

c. Inter-service depot maintenance agreements will be documented in accordance with DoDI 4151.26.

5–7. Sustainment maintenance source of repair selection

a. The weapon system PM, PEO, and the MSC commander will adhere to current public laws, DoDDs, and Army policies in determining a sustainment maintenance SOR. Planning for sustainment maintenance SOR will commence at Milestone A. In accordance with DoDI 4151.24, a logical decision process will be used to assign the sustainment maintenance SOR to either an Army, inter-Service, or contract source. This process must address legislative and DoD policy requirements such as core logistics capability requirements, the DMWD on contracted sustainment maintenance workload, and competition for reassignment of workload valued at $3 million or greater.

b. To the extent legislation and policy permit, workload determined not to be needed to sustain sustainment maintenance core capability will be evaluated to determine whether such workload is appropriate for contracting, including contracting under full and open competition, where appropriate. The most cost-effective alternative sustainment maintenance support will be established from among inter-Service, intra-Service, and contract sources. In the case of systems and equipment used by more than one military

Service or DoD agency, workload must be consolidated into a single common or Joint Service contract consistent with the readiness requirements of the Army.

c. All new sustainment maintenance workload and planned changes of performance location for existing workload will be subject to a Joint Service review and SOR assignment to a specific depot facility in accordance with the provisions of the Joint depot maintenance program. Changes of performance location from an organic sustainment level activity to another SOR must comply with 10 USC 2469. This requires that changes in such workload with a value of $3 million or more to be made using merit-based selection procedures for competitions among all depot level activities of the DoD or competitive procedures for competitions among private and public sector entities.

d. The PM or PEO will, in conjunction with the MSC inter-Service support office director, identify the requirement for the sustainment maintenance assignment. The CG, AMC, as the responsible office for sustainment maintenance, will take action to initiate the appropriate Joint Service review. The CG, AMC will track the Joint Service review to completion and will ensure all necessary inter-service coordination actions are properly executed.

e. Upon completion of the Joint Service review and release of the Joint Service decision, the CG, AMC will notify the appropriate PM, PEO, and MSC inter-Service support office director of the implementation actions necessary.

f. Each PM and PEO will ensure that the decision analysis, including core capability, risk, and best value analysis, supporting the SOR decision is performed and documented in the Milestone ASARC acquisition decision memorandum. The results will be presented and reviewed at the Milestone B ASARC. Documentation should be updated throughout the life cycle of the system.

5–8. Special manufacturing authority

a. Special manufacturing authority (SMA) is defined as the authority to manufacture, modify, or fabricate parts, supplies, or components or other materiel within the Defense Logistics Agency (DLA) inventory beyond what is required to support depot level maintenance requirements. AMC may approve depot manufacturing that directly aligns with the depots CITE.

b. Army depot commanders, through their assigned LCMC, will request approval from AMC to perform manufacturing workloads that are not directly related to an assigned repair program prior to accepting such workload. The CG, AMC may approve SMA for depots to manufacture such materiel when the work directly aligns with the depot's CITE designation.

c. Army depot commanders will coordinate directly with the three primary manufacturing Arsenals through the CG, AMC to align manufacturing workloads to the appropriate activity as early as possible in the decision-making process. The three primary Arsenals include: Rock Island Arsenal – Joint Manufacturing and Technology Center, Illinois; Pine Bluff Arsenal, Arkansas; and Watervliet Arsenal, New York.

d. Army depot commanders will provide the CG, AMC, through their LCMC, an annual report that identifies all approved SMA for the previous FY by the last business day of each October. The report should include the details for each SMA granted, to include the monetary value of such workloads. The CG, AMC must provide DCS, G–4 (Sustainment Maintenance Division), a copy of the report by the first business day of each November.

5–9. Contracting with commercial sources

The negotiating, awarding, funding, and managing of national maintenance contracts are the responsibility of the CG, AMC. Included are proprietary contracts and contracts for workloads beyond the core capability in organic depots. A depot is permitted to negotiate, award, and administer a maintenance contract when the services of a contractor are needed to support the completion of an authorized in-house job order and to surge to meet emerging contingency requirements.

5–10. Reimbursable programs

a. A sustainment repair and return program is a process where a piece of equipment is forwarded to a depot, FRA, or contract facility for repair. The same or like item is returned to the forwarding activity. An MOA will be established between the customer and the depot. The rate charged to the customer will be a burdened rate to include all local installation overhead and the applicable AWCF surcharge.

b. Maintenance transactions to a depot for repair and return may be executed by Army National Guard and U.S. Army Reserve to ensure the provisions of DoDI 1225.06 are met. An MOA will be established between the supported component and depot. The rate charged to the customer will be a burdened rate

to include all local installation overhead and the applicable AWCF surcharge. Sustainment maintenance of USAR materiel will be provided by MOU or MOA with Office of the Chief of Army Reserve.

5–11. Software Support

a. Historic approaches and procedures for software sustainment in acquisition programs have transitioned to enable a continuous integration/continuous delivery (CI/CD) model. MATDEVs are responsible for full life cycle support of software system and components. MATDEVs will identify software support funding requirements through the annual POM process, managed by the DCS, G–8.

b. For systems employing a CI/CD model or planning for future software capability development, this may require research, development, test & evaluation funding. For systems that do not anticipate future capability development, this may require O&MA funding. The DCS, G–8, with support from ASA (ALT), the CG, AMC, ASA (FM&C) and DCS, G–4, will establish the appropriate funding lines to enable the PEOs and Project Managers to resource support activities for the programs.

c. Systems that have already transitioned to sustainment will continue to be supported by AMC using O&MA funding. By exception, these systems may identify if they require funding other than O&MA to support future capability development.

5–12. Planning, programming budgeting, and execution of depot maintenance workload

a. Planning.

(1) Sustainment maintenance support will be planned and completed by the combined use of government and commercial sources.

(2) An organic sustainment maintenance capability will be established and sustained based on workloads generated by those weapon systems and materiel that are essential to completion of the Army's primary roles and missions. This capability will be sized to a 40-hour work week strategy in accordance with DoDI 4151.20 and forecasted in LMP.

(3) DoD 4151.18–H will be used to determine the required capacity of depot level activities.

(4) Resource planning for sustainment maintenance manpower, floor space, and plant equipment will provide for the efficient accomplishment of all depot materiel maintenance programs.

b. Programming and budgeting.

(1) Requirements determination will be based on information from the AAO, initial issue quantity (IIQ), equipment modernization and fielding plans, demand history, field operating costs, readiness factors, and other appropriate sources. Force structure, operating tempo, flying hours, equipment identified for divestiture, and prior program and budget guidance and decisions are also considered. Items scheduled to be divested from the inventory within 5 years will not be considered for sustainment maintenance. Modification efforts requiring sustainment maintenance prior to application of the modification or conversion kit will be programmed in conjunction with existing sustainment maintenance repair schedules.

(2) Prioritization of sustainment maintenance end item requirements will be in accordance with the latest DCS, G–3/5/7 prioritization guidance and published POM guidance.

(3) All supported organizations of sustainment maintenance, regardless of source of funds, appropriation, or SOR, will program requirements for the current year, 1 budget year, and 5 out-years for the POM submission. Any requirements entered in DMOPS should also be entered into LMP. For execution of requirements, the supported organization should plan to identify the requirement to the appropriate LCMC no later than the end of the first quarter in the year of execution. When entering requirements in LMP, current year and 1–year schedules should be loaded as a minimum. The remaining 5 years should be loaded in quarterly buckets.

(4) Each year the CG, AMC will submit their sustainment maintenance requirements to DCS, G–4, (Maintenance Director), and the Sustaining Program Evaluation Group for consideration in the Army's POM submission.

(5) The DCS, G–4, (Maintenance Director) will issue a comprehensive annual POM Program Requirements Guidance to assist ACOM commanders in developing their POM requirement submission, to include a directed prioritization matrix. The DCS, G–4 (Sustainment Maintenance Division) will lead a functional review of all POM requirements for sustainment maintenance and sustainment system technical support (SSTS) requirements review, sustainment maintenance requirements, and their respective funding are regularly updated in DMOPS to maintain visibility of the balance between required workload programs and approved sustainment maintenance funding. In preparation for the annual Sustainment Maintenance Requirements Review (SMxRR) MSC commanders will load their depot maintenance

requirements data in DMOPS. MSC commanders can adjust their data during the SMxRR, when requested by Army leaders. MSC commanders will retain the supporting documentation for 5 years.

(6) Automated management information systems will be used to the maximum extent feasible so that the determination and distribution of workloads may be completed in an effective and timely manner and to efficiently manage program execution.

(7) Sustainment maintenance cost and technical data will be collected utilizing LMP to facilitate defensible planning and programming. Data collection will be in accordance with HQDA and OSD policy.

(8) Both the MATDEV and the Life Cycle Software Engineer Center will collect cost and technical software execution data to facilitate defensible planning and programming. Data collection will be in accordance with HQDA and OSD policy.

c. Deferred maintenance and financial reporting.

(1) Procurement request order numbers for depot level deferred maintenance will be recorded in DMOPS at priority 155 (deferred maintenance).

(2) The Federal Accounting Standards Advisory Board requires the DCS, G–4 to provide supplemental information on deferred maintenance as part of the Army's financial statement. Army financial data will be submitted not later than 10 days after the FY ends. The Army Budget Office will disclose in a financial statement the materiel amounts of unfunded deferred maintenance on the national level, deferred field maintenance, and deferred maintenance on property plant and equipment.

(3) The two acceptable methods of measuring deferred maintenance are: the condition survey method and the life cycle cost forecast method, both of which are defined in the Federal Accounting Standards Advisory Board, Statement of Federal Financial Accounting Standards No. 6, Accounting for Property, Plant, and Equipment.

(4) The DoD Financial Management Regulations allows the DCS, G–4 to report deferred maintenance on weapon systems using the cost assessment survey. The survey is based on the condition of reportable assets, life cycle cost forecast of cumulative deferred maintenance, or other methods if the accounting method is adequately described in the financial statements.

(a) When reporting deferred maintenance, deferred maintenance scheduled to be completed in future years must be addressed.

(b) Cost assessment of depot level maintenance requirements is completed annually for weapon systems and related support equipment. The cost assessments are based on condition assessments, scheduled comprehensive repair, and other special depot maintenance programs that may involve reconstitution of the force.

5–13. Mobilization planning

a. Requirements identified specifically for mobilization, surge, or reconstitution purposes will be separately identified to prevent mixing of mobilization requirements with normal maintenance requirements.

b. Maintenance mobilization workload requirements include cyclic, normal overhaul, rebuild, battle, crash damage overhaul, activation of items taken from long-term storage, modifications, fabrication, manufacture, reclamation, disassembly, and maintenance assistance (support for deployed and redeploying units).

c. A sustainment maintenance mobilization plan will be developed and include major and secondary items, ARNG, and USAR requirements, inter-Service and interdepartmental orders, and essential contracts.

d. Sustainment maintenance mobilization secondary items requirements will be forecast in accordance with the mobilization schedule.

e. The principal for the agent's commitment at the time of the initial inter-service depot maintenance agreements will project inter-service maintenance mobilization requirements. Negotiated inter-service depot maintenance agreements will remain in effect after the date of mobilization.

f. Mobilization requirements to support allies will consist of continuation of agreements in effect on date of mobilization. Unless more specific information is available for a program, depot maintenance workloads generated through international logistics for those engaged or mobilized countries will increase at the same rate as a comparable Army item during a period of mobilization.

g. Closed loop support procedures will be implemented for critical items for which production cannot satisfy mobilization demands (see AR 710–1). Closed loop support programs will be identified with the appropriate management interest item code.

h. Repair and overhaul MELs will be relaxed or eliminated.

i. Plans will be reviewed at least every 2 years in conjunction with the core computation process.

j. Sustainment maintenance mobilization plans will include the following:

(1) Sustainment maintenance mobilization requirements for materiel that is not the responsibility of AMC but is accomplished in CONUS sustainment.

(2) Requirements in terms of, skills, and support equipment required by deploying and deployed units. The CG, AMC will coordinate with the CG, USAWHC in identifying these requirements.

(3) Requirements in terms of, skills, and support equipment required for reconstitution of equipment based on increased operational tempo, equipment availability data, and defense guidance.

(4) A depot maintenance mobilization workload (DMMW) distribution plan developed using mathematical modeling techniques. The techniques used should provide for a gradual post mobilization buildup from peacetime to full capacity within 6 months after mobilization. This technique will incorporate the requirements to reconstitute force structure capabilities at the end of conflicts based on timeframes identified in the defense guidance.

(5) To identify DMMWs in excess of capacity (see AR 700–90), DMMW will be initially assessed against core capability and capacity (see AR 700–90). If DMMW is less than core capability, core will be reassessed using approved methodology. DMMW in excess of organic capacity and beyond the capability of all depots will be assigned to an alternate source.

5–14. Depot maintenance plant equipment

a. Depot maintenance plant equipment (DMPE) requirements will be identified in the depot MSP for all new equipment entering the Army inventory. DMPE may consist of items on hand not requiring modification, on hand requiring modification or adapters, and new equipment.

b. MATDEVs will ensure that required DMPE capability is developed and procured for new weapon systems to coincide with the generation of the first repairable assets.

c. The CG, AMC is responsible for coordination to assure DMPE is available at the maintenance activity to support assigned depot maintenance programs. The programs will be based on requirements developed during programming and budget cycles.

d. An annual commitment for DMPE will be established against the AWCF and programmed DMPE projects.

e. Depot manuals will be acquired and prepared for DMPE. Maximum use of OEM manuals will be used.

5–15. Aviation depot maintenance round-out units

The Aviation Depot Maintenance Round-Out Unit (ADMRU) program consists of four Theater Aviation sustainment maintenance groups (TASMG) and the HQ, ADMRU. Respective State Adjutant Generals operationally control the four TASMG and the HQ, ADMRU during garrison operations with direct doctrinal and operational guidance from the NGB Aviation and Safety Division. TASMG perform field and sustainment level maintenance on ARNG aircraft and components in support of the ARNG Army Aviation Support Facilities. Performing sustainment maintenance, SRAs, and OTRs operations assists with maintaining required skill sets, as well as supports the ARNG aviation aircraft fleet. The HQ, ADMRU is responsible for mobilization planning and coordination with the CG, AMC to include specialized training and classification missions in support of AMC. HQ, ADMRU, in conjunction with the CG, AMC, is responsible for controlling, maintaining, refurbishing, and new procurements in support of the Theater Aviation Maintenance Program equipment package.

5–16. Reclamation

Reclamation is the process of removing required serviceable and economically repairable components from potential DoD excess or surplus property. These parts are returned to the proper supply activity for future requirements. Residue is processed as disposable property. AR 710–1 contains the policy for controlling the reclamation of Army-managed equipment at the national level.

5–17. Bill of material for materiel requirements planning

A bill of material (BOM) is the formally structured list of basic parts and materiel contained in equipment weapon systems, their components and assemblies, depending on the type of BOM. The primary purpose of a BOM is to provide the official basis to identify and determine material requirements and shortages (planned or actual) as a result of the materiel requirements planning (MRP). The MRP process

works to ensure the correct repair parts and components are identified and available to meet the maintenance, repair, overhaul, or fabrication schedule while maintaining the lowest possible level of materiel on hand. The CG, AMC will ensure that current BOM and other updated technical and engineering data are the basis for MRP and long-term decision-making in support of DMWR and work breakdown structure actions.

5–18. Repair parts support
Army sustainment maintenance activities performing DLRs are authorized to store and requisition spares, repair parts, and consumable items to support their maintenance programs and fabrication requirements. The CG, AMC will provide guidance on funding requirements and repair parts management.

5–19. Sustainment maintenance reporting and recording
All applicable documents and records will be processed during sustainment maintenance. Government contractors are required to report work order information for sustainment maintenance contracts to Army maintenance systems as directed by DCS, G–4, if indicated in the terms of the controlling contract. Personnel preparing maintenance contract requirements packages will ensure that the provisions of this regulation are included in all applicable maintenance contracts.

Chapter 6
Commodities Maintenance

Section I

Combat Vehicles

6–1. Sustainment maintenance
ACOM, ASCC, and DRU commanders will report combat vehicles requiring sustainment maintenance support to AMC. The CG, AMC will evaluate the condition of the vehicle and issue appropriate maintenance guidance or disposition instructions. Selection criteria for equipment:

a. All major end items that are type classified standard and meet condition requirements as determined by AMC.

b. All major end items type classified standard in an unserviceable condition beyond the capability of field level maintenance.

c. Major end items that have a record of frequent and repetitive maintenance events that the accumulative cost over an annual period would exceed the MEL for the weapon system (see para 4–8).

d. Combat vehicles will be selected for sustainment repair on a condition basis when return to the Army maintenance standard indicates that sustainment level repair is in the best interest of readiness and cost.

e. When comprehensive repair on combat vehicles requires extensive modernization in accordance with a DMWR, NMWR, or technical data plan.

6–2. Army National Guard sustainment maintenance

a. All sustainment maintenance for ARNG end items, except aircraft, will be on a repair- and-return basis. Surface equipment that requires unscheduled or urgent sustainment repair will be reported to NGB–Maintenance Office for consideration on a case-by-case basis. Army surface equipment will be selected for sustainment repair under the following criteria:

(1) All major end items that are type classified standard and meet condition requirements as determined by the commodity command.

(2) All major end items type classified standard in an unserviceable condition beyond the capability of field maintenance.

(3) Major end items that have a record of frequent maintenance failure requiring extensive repairs and for which the repair of recurring failures, if overhauled at a depot facility, would be cost effective.

(4) Combat vehicles will be selected for sustainment repair on a condition basis when TI by sustainment maintenance indicates that depot repair is in the best interest of economy and readiness.

(5) Towed and self-propelled artillery weapons, mortars, and recoilless rifles will be selected for sustainment repair in accordance with TMs.

b. The following will be provided for current year requirements, as directed by the CNGB:

(1) The CNGB will provide the commodity commands with a funding request for major end items and calibration services or repair support.

(2) Calibration services and red tag repair of TMDE will be funded by the NGB and provided by the Army TMDE activity to the states.

(3) A schedule for sustainment maintenance will be provided to each state concerned. If directed by the CNGB, the state will provide the necessary forms and shipping documents. If directed by the CGNB, the state will retain ownership of the item during the entire repair and return process, or the item may be exchanged. Transportation costs of a major item to and from sustainment facility will be coordinated by CNGB.

(4) Reconditioning and repair of combat vehicle tracks and road wheels and related rubber products will be funded directly by the NGB.

(5) For repairs or services for non-major items provided through the AMC sustainment system, requests for secondary items and fuel tank recoating will require units to do the following:

(a) For field level or sustainment level maintenance assistance, states will request support from the commodity command having responsibility for the item.

(b) For aviation field level maintenance support, they should request assistance through NGB Aviation or their regional Aviation Classification and Repair Activity Depot (AVCRAD).

Section II

Army Aircraft

6–3. Functional responsibilities, program objectives, and maintenance support concept

a. The functional responsibilities of the Army aviation maintenance activities are to—

(1) Produce safe, reliable, and FMC aircraft.

(2) Sustain materiel in an operational status and restore equipment to an FMC condition.

(3) Enhance or upgrade aircraft functional usefulness through MWO, materiel change, and product improvement.

b. The program objective of Army aviation maintenance is to provide robust modular maintenance and logistics support to aviation weapon systems end item users. This includes repair of airframes, engines, aircraft subsystems, avionics, communications, navigation, aircraft survivability equipment, aerial weapon systems, fire control, fire direction items, and other mission support equipment packages necessary to support the total aviation weapon system life cycle support.

6–4. Aviation field maintenance

Field maintenance operations are resident in each aviation brigade. Aviation maintenance, aviation support companies, AVCRADs, and Army aviation support facilities provide responsive maintenance support and perform all maintenance functions as designated by the MAC in technical publications.

(1) Authorized maintenance includes the following:

(a) Replacement and repairs of modules and components.

(b) Repair of end items that can be efficiently accomplished with available skills, TMDE, tools, and materiel.

(2) Repair materiel for return to user and emphasize support of readiness requirements.

(3) Inspect, troubleshoot, test, diagnose, repair, adjust, calibrate, and align aircraft system modules and components. Module and component disassembly and repair normally will be limited to tasks requiring cleaning and the replacement of seals, fittings, and items of common hardware.

(4) Determine the condition of specified modules and components removed prior to the expiration of the time between overhauls.

(5) Perform aircraft weight and balance inspections and other special inspections that exceed an aviation maintenance company or Army aviation flight activity capability.

(6) Provide responsive maintenance support and technical assistance using maintenance support teams during aircraft recovery and evacuation procedures.

(7) Inspect, troubleshoot, test, diagnose, repair, adjust, calibrate, and alignment of aviation system specific GSE for flight and non-flight items.

6–5. Army National Guard aviation field maintenance
As directed by the CNGB, ARNG aviation maintenance support will conform to NGB policy contained in National Guard (NG) Pam 750–2. Army aviation flight activity and Army aviation support facilities will perform field level maintenance authorized by and detailed in NG Pam 750–2 (Army National Guard Aviation Logistical Program). These include diagnosis, servicing, preventive maintenance intermediate, phased maintenance, special inspections, aircraft recovery and evacuation, aircraft weighing, maintaining authorized RCF aircraft, minor airframe repair, avionics, and armament repair.

a. Requests to exceed maintenance authority will be forwarded to the supporting AVCRAD. Requests to exceed expenditure limits will be forwarded to Chief, NGB (NGB–AVN–A) through the supporting AVCRAD.

b. In peacetime, the ARNG TASMG perform field and sustainment maintenance in support of regional ARNG aviation assets. Additionally, the TASMG performs limited sustainment airframe repairs, aircraft painting, major airframe repair, sustainment maintenance on components in accordance with sustainment maintenance approval requirements. See NG Pam 750–2 for more detailed information.

6–6. Aviation sustainment maintenance

a. Sustainment maintenance will only be accomplished by authorized organizations as permitted in this regulation. The sustainment maintenance base is comprised of the ARNG AVCRADs, TASMG, OEMs, OIB facilities, and designated contract maintenance support activities. Army aircraft may be accepted into national base facilities for programmed or unprogrammed maintenance. Accountability will be transferred to AMC when aircraft are accepted for programmed depot maintenance. Aircraft accepted for un-programmed depot maintenance will normally be processed on a repair and return to user basis.

b. Sustainment maintenance for Army aviation consists of aircraft rebuild, overhaul, crash and BDR, and major airframe modifications.

c. Aircraft will be selected as candidates for overhaul during peacetime under the aircraft condition evaluation program as described in DA Pam 750–1.

d. Aircraft requiring crash or BDR will be reported and disposed of in accordance with instructions received from AMC using procedures prescribed in TB 43–0002–23.

e. Aircraft programmed for sustainment overhaul or crash and BDR will have MWOs installed during the overhaul process. Aircraft requiring sustainment level modifications not scheduled for overhaul or crash and BDR will be modified and documented in accordance with AR 750–10. Candidates for conversion should also be evaluated for overhaul through coordination between AMC, ACOMs, ASCCs, and DRUs.

f. Personnel preparing maintenance contract requirement packages will ensure that the provisions of this regulation are included in all applicable maintenance contracts.

6–7. Army National Guard sustainment maintenance
As directed by the CNGB, aircraft that require unscheduled sustainment repair will be reported to ARNG. Aircraft will be selected for sustainment repair based on rebuild induction criteria or when estimated cost of repair exceeds field level maintenance capabilities.

6–8. Aircraft parts that have been exposed to fire and saltwater immersion
Aircraft parts, components, or assemblies that have been exposed to fire or saltwater immersion will not be reused locally under any circumstance. Items condemned or returned for inspection and overhaul will be annotated on all applicable accompanying documentation, including DD Form 1577 (Unserviceable (Condemned) Tag – Materiel) or DD Form 1577–2 (Unserviceable (Reparable) Tag – Materiel), stating the item has been exposed to fire or saltwater immersion.

6–9. Items removed from crash-damaged aircraft
Items removed from a crashed aircraft or an aircraft that has been involved in a mishap will not be reused regardless of apparent serviceability until such items have been subjected to a thorough inspection in accordance with paragraphs 6–8 and 6–10.

6–10. Inspection and testing of crash-damaged components and assemblies

a. All functional components and assemblies (such as engines, transmissions, pumps, valves, generators, and blades) will be inspected and tested in accordance with the applicable sustainment maintenance

work requirement. Components not designed as overhaul items will be inspected and tested in accordance with the applicable technical manual. An item will either be condemned locally or evacuated to a sustainment maintenance facility according to the recoverability code assigned to the item.

b. All items that are locally condemned will require a completed DD Form 1577. This tag will be annotated to reflect that the item has been removed from a crashed aircraft or an aircraft that has been involved in a mishap. Mutilation of condemned aeronautical items will be accomplished in accordance with TM 1–1500–328–23.

c. All items that are evacuated to a sustainment maintenance facility will require a statement on all applicable accompanying documentation, including DD Form 1577–2, stating that the item has been removed from a crashed aircraft or an aircraft that has been involved in a mishap.

6–11. Nondestructive testing of structural parts and assemblies of aircraft

The inspection and testing of structural parts and assemblies will, at a minimum, require a complete visual inspection but may require additional nondestructive testing in accordance with the applicable technical manual. Army military personnel performing nondestructive testing will be a graduate of MOS 15D initial entry training school. For all Civilian DoD personnel and non-DoD personnel performing inspections in accordance with the technical order, they will be qualified and certified to the current National Aerospace Standard (NAS) 410. At a minimum, the production managers of aviation field and sustainment level maintenance organizations will document its procedure on training and certifying their inspectors in accordance with NAS 410.

6–12. Shipment of unserviceable aircraft

Unserviceable items selected for disposal by AMC will not be reinstalled in an aircraft. Action will be taken to ensure that the airframe attaching elements of the removed items are protected from deterioration or contamination while awaiting the replacement item. However, if the unserviceable aircraft is to be shipped or transferred off post or off station for repair, the unserviceable or interchangeable item must be installed or completely secured to prevent possible damage, deterioration, or contamination during movement of the aircraft. All unserviceable components will be individually tagged with DD Form 1577–2 and suitable entries made in the aircraft equipment records.

Chapter 7
Maintenance of Watercraft and Rail Equipment

Section I

Watercraft

7–1. General

a. This section applies to all Army watercraft systems (AWS), operators and support personnel up to the sustainment level worldwide.

b. The objective of Army watercraft maintenance operations is to ensure safe, seaworthy, reliable, and FMC watercraft readiness status. The Army watercraft system is made up of diverse maintenance activities to sustain watercraft combat readiness.

c. The four major functional responsibilities of the Army watercraft maintenance are—

(1) Sustaining materiel in an operational status.

(2) Restoring it to a serviceable condition.

(3) Updating or upgrading its functional usefulness through MWO, materiel change, and product improvement.

(4) Maintaining materiel in accordance with TMs and commercial manufacturer standards.

d. Watercraft field level maintenance is characterized by on/off system maintenance and includes inspect, test, service, adjust, replace, and repair of watercraft components, modules, sub-assemblies, assemblies, and systems returning them to a serviceable condition.

e. On condition cyclic maintenance (OCCM) is characterized by sustainment level scheduled services.

f. OCCM is required to meet vessel specific maintenance requirements and federal statutory and regulatory requirements.

g. Army watercraft operations are defined in AR 56–9 and TM 55–500 except for tactical river crossing materiel, non-MTOE, TDA watercraft, and watercraft used by the U.S. Army Corps of Engineers in its civil works projects or activities (except those items of marine engineering materiel to be activated in the time of mobilization).

7–2. Maintenance policies

a. Product development manager army watercraft systems (PdM AWS) is responsible for providing efficient and effective life cycle management of the global watercraft fleet by delivering safe, suitable, and supportable systems. The PdM AWS responsibilities range from research, development, test, and evaluation and NEF/new equipment training of acquisitions to fleet management and project management of the existing legacy fleet. The PdM AWS oversees the command, control, communications, computers, cyber, intelligence, surveillance, and reconnaissance (C5ISR) upgrades in coordination with the CG, AMC as well as manages the Service Life Extension Program and the Sales and Exchange of the AWS.

b. The CG, AMC ensures that fielded systems are maintained and ready for operations with maintenance management, supply support and technical publications through the employment of U.S. Army Tank-automotive and Armaments Command (TACOM). The CG, AMC is responsible for planning and funding sustainment level maintenance to include OCCM for AWS. The CG, AMC through TACOM provides sustainment level maintenance support that ensures the operational readiness for AWS to include any unforecasted system failures.

c. The CG, AMC, through the employment of U.S. Army Communications-Electronics Command (CECOM), ensures that fielded AWS C5ISR systems are maintained and ready for operations with maintenance management, supply support and technical publications. The CG, AMC is responsible for funding and planning of sustainment level maintenance for AWS C5ISR.

d. The Chief, U.S. Army Maritime Standards & Safety Office (MSSO) provides safety oversight of DA controlled leased watercraft operated on inland waterway or oceans. The MSSO functions as the primary advisor to the Army's Chief of Transportation on all watercraft safety issues.

7–3. Maintenance management

a. Maintenance management of AWS is the priority of all commanders at echelon. The Vessel Master and Chief Engineer are responsible for ensuring that maintenance management functions are performed in accordance with AR 56–9.

b. TELS is the only authorized information system for all field level maintenance, supply, licensing, and dispatching operations. Operators will use TELS while operating AWS while in port and deployed away from home station to process maintenance and supply requisitions to the source of supply activity.

7–4. Field Level maintenance

a. The mission of a vessel's crew is to ensure the vessel meets statutory and regulatory requirements, and perform the PMCS, scheduled, and unscheduled maintenance to keep AWS systems operational.

b. The vessel crew will adhere to all regulations, policies, apportionments, and respective allocations.

c. Unscheduled maintenance is conducted by the crew to maintain or restore serviceability of the vessel while underway.

d. The Vessel Master and the Chief Engineer are the approval authority for the conduct of repairs while the vessel is underway.

e. If the maintenance workload exceeds the capability of the crew, the vessel must be evacuated to higher echelon through coordination with the CG, TACOM.

7–5. Sustainment level maintenance

a. Sustainment maintenance of AWS involves a series of inspections, certifications, and condition-based maintenance actions designed to ensure that a watercraft's structure, machinery, and other equipment are maintained in an operational, seaworthy, and safe condition. The CG, AMC is responsible for programming and executing this action. Sustainment level maintenance includes:

(1) Restoring watercraft and their systems to a serviceable condition.

(2) Restoring watercraft and their systems to a like-new condition.

(3) Contract maintenance support for sustainment level services.

(4) Repair, overhaul, or rebuild of watercraft components, including modules and assemblies that have been removed from the vessel.

b. Pier-side sustainment level maintenance does not require dry-dock or shipyard facilities but require tools and support equipment and personnel resources exceeding the authorizations of field level maintenance activities.

c. Pier-side sustainment level maintenance is coordinate by TACOM according to the language of a specific services contract tailored to those repairs.

7–6. Phased maintenance

a. Phased maintenance is a service that occurs two years after a 48-month OCCM is complete.

b. Phased maintenance does not occur on vessels on a 36-month or 72-month OCCM cycle.

c. The CG, AMC is responsible for programming and executing phased maintenance. Phased maintenance provides watercraft commands a scheduled maintenance stand down planned into the AWS operational cycle. The phased maintenance service covers all deferred field and sustainment level maintenance actions and the application of any modernization upgrades to vessel systems or components approved by the PdM AWS.

d. The objective of phased maintenance is to reduce the level of work and time required to complete OCCM by repairing faults early and prevent complex maintenance issues, resulting in an increased level of readiness of the vessel throughout its life cycle.

e. The marine condition survey findings (for sustainment actions), modernization upgrades (equipping actions) and outstanding field level requirements (unit actions) are completed during phased maintenance operations.

7–7. On condition cyclic maintenance

a. General. OCCM is the sustainment level maintenance that is performed to ensure compliance with international and national maritime regulatory guidance for minimum safety standards at sea.

(1) OCCM consists of a series of inspections and maintenance service actions that are designed to ensure that a watercraft's structure (internal and external), piping, main, and auxiliary engines, electrical installations, lifesaving appliances, fire detecting, and extinguishing equipment, pollution prevention equipment, and other equipment is maintained in a suitable, seaworthy, and safe condition.

(2) The CG, AMC is responsible for programming and executing this action.

(3) Army watercraft undergo OCCM in accordance with the intervals established in table 7–1. The intervals are maximum time intervals allowed. When a deviation of more than 3 months is anticipated, the owning unit commander will request a waiver with justification through the appropriate ACOM, ASCC, and DRU commander to the CG, TACOM.

Table 7–1
Watercraft cyclic maintenance

Class and type of watercraft	OCCM interval
Active Component on condition cyclic maintenance interval by class and type of watercraft	
Class A	
LSV	48 months
LCU	48 months
MSV (L)	48 months
Class B	
LCM 8	36 months
MWT CF	36 months
ST 900	36 months
Army prepositioned stocks OCCM intervals by Class and type of watercraft	

Table 7–1
Watercraft cyclic maintenance—Continued

Class and type of watercraft	OCCM interval
Class A	
LCU	60 months (48 months if vessel is activated)
Class B	
MWT CF	72 months pending Marine Condition Survey determination (36 months if vessel is activated for contingencies)
ST 900	4 months (48 months if vessel is activated for contingencies)

(4) The CG, AMC through the CG, TACOM provides policy and procedures for watercraft inspections and surveys above operator level PMCS. Marine condition surveys are inspections performed by qualified marine surveyors in accordance with TB 55–1900–201–45/1; Federal law; American Bureau of Shipping (ABS) criteria; and International Convention for Safety of Life at Sea standards.

(5) A marine condition survey will be performed no later than 180 days prior to the scheduled OCCM cycle. This survey will provide the basis for written specifications by which OCCM is accomplished. At the time of dry-docking, a dry-dock inspection will be performed to identify additional repair or maintenance requirements not identified during the 180-day dockside inspection.

(6) Scheduled surveys required by the U.S. Coast Guard and the ABS for retention of load line certifications will be accomplished in accordance with federal law and TB 55–1900–201–45/1.

b. Surveys. In addition to the 180-day marine condition survey, TACOM personnel will coordinate an underwater hull survey as defined by TB 55–1900–201–45/1.

c. Inspector qualifications. Only qualified technical experts will perform marine condition surveys on Army watercraft. The marine surveyor will prepare written repair specifications and estimated repair costs required to return a watercraft to CC B as defined by AR 725–50.

d. Responsibilities.

(1) The CG, AMC through the CG, TACOM is responsible for the performance of all marine condition surveys incident to repair or overhaul Army watercraft when the maintenance or repair action is to be accomplished at the sustainment level.

(2) Maintenance organization personnel at the retail level are responsible for performing marine condition surveys to evacuate or repair Army watercraft through the TELS work order to the next highest level.

(3) When qualified marine surveyors are not available at support facilities, assistance will be requested through AMC.

e. Maintenance. The OCCM statement of work is based on the condition and class of vessel. At a minimum, the following maintenance actions will be accomplished:

(1) Bottom cleaning and painting up to the deep-load waterline in accordance with TB 43–0144.

(2) All repairs below the deep-load waterline as identified during dry-dock inspection or the underwater hull survey.

7–8. Watercraft command, control, communications, computers, intelligence, surveillance, and reconnaissance

The CG, CECOM and PEO C3N provides centrally managed sustainment maintenance support for C5ISR subsystems of Army watercraft.

a. All C5ISR faults which cannot be resolved at the field level will be reported to the mission command support center (MCSC) for repair.

b. Emergency repairs to C5ISR subsystems otherwise covered under this paragraph may be performed by field level activities.

c. Parts repair and replacement information from field level activities will be provided to the MCSC within five business days to support the centralized data and configuration management process. All C5ISR maintenance actions will be in GCSS–A.

Section II

Rail Materiel

7–9. General
The term rail materiel includes locomotive power, general rolling stock, and special-purpose mobile rail materiel owned and operated by the Army.

7–10. Maintenance policies
For rail equipment maintenance, inspection, and recordkeeping, see AR 56–3.

7–11. Maintenance operations
a. Field and sustainment maintenance.
(1) Rail transportation companies that may be expanded by Army mobile rail teams will provide field and sustainment maintenance to using units, pursuant to the terms of the applicable contract. For support of DA utility rail materiel in CONUS where no support companies are available, the field and sustainment maintenance personnel will perform all functions with the mobile rail repair shops (see AR 56–3).
(2) The CG, AMC will furnish the services of the mobile rail support shop for DA utility railroads on an as required basis and will direct its operation as follows:
(a) Army-owned rail equipment will receive free mobile rail services.
(b) Defense supply depots and other DoD agencies may receive mobile shop services on a reimbursable basis.
(3) DA rolling stock moving over interchange in CONUS will have running repairs performed in accordance with AR 56–3.
(4) Accountability, maintenance, and readiness data for captive fleet and Defense Freight Railway Interchange Fleet will be maintained on GCSS–A.
b. Sustainment maintenance. Sustainment maintenance will be programmed by the CG, AMC based on inspections by rail maintenance technicians.
c. Installations electing not to use mobile rail support shops. Senior Commanders may contract the service to an outside source if cost-effective or may retain the work in-house if qualified personnel are available and support equipment is authorized.

Chapter 8
Maintenance of Electronics, Digital Systems, Communications Security, Network and Test Measurement and Diagnostic Measurement Systems

Section I

Communications Security Materiel

8–1. General
a. The maintenance of COMSEC and controlled cryptographic item (CCI) materiel are greatly influenced by the security training and certification requirements concerning personnel, operations, and maintenance of COMSEC and CCI materiel. COMSEC equipment includes cryptographic equipment, crypto-ancillary equipment, cryptographic production equipment, and authentication equipment. These requirements are contained in AR 25–12, AR 380–40, and AR 380–67.
b. COMSEC materiel consists of the following:
(1) Publications and classified equipment that are managed within the communications materiel control system.
(2) Publications and unclassified COMSEC equipment that are managed within the Army maintenance and supply systems.
(3) Any Class II or VII Item with a controlled inventory item code of “9,” “D,” “E,” or “F” and an FSC of 5810.
c. The CG, AMC is responsible for the national logistics support of Army COMSEC materiel.
d. Commanders at all levels are responsible for the proper maintenance of COMSEC materiel under this regulation.

8–2. Maintenance policies

a. TMDE used for maintenance of COMSEC materiel will be calibrated under AR 750–43, TB 43–180, or specifications issued by the CG, AMC.

b. All maintenance will be accomplished on COMSEC materiel under the concepts and policies set forth in chapter 3 of this regulation and in this section as modified by COMSEC directives and materiel publications.

c. The provisions of DoDM 5220.22, Volume 2 and the FAR that pertain to contract maintenance apply to COMSEC materiel. Commanders and contracting officers will ensure that contractors meet all applicable criteria contained in this regulation, AR 380–40, and TB 380–41. Requests for policy waivers and exceptions to established COMSEC procedures will be submitted through command channels to the Director, CSLA (AMEL–LCA–D), 2133 Cushing Street, Suite 3600, Fort Huachuca, AZ 85613–7041 for approval.

8–3. Modification of communications security materiel

Modification of Army-owned COMSEC materiel is prohibited unless authorized in writing by CSLA and will be reported in accordance with AR 750–10. Unauthorized modification of COMSEC equipment is a reportable COMSEC incident.

8–4. Qualification and maintenance training policy for communications security equipment

a. The personnel qualification requirements for certification of COMSEC materiel maintenance technicians are established in AR 25–12. All personnel who install, maintain, or repair COMSEC equipment will be certified on a Department of Defense (DD) Form 1435 (COMSEC Maintenance Training and Experience Record) as required in AR 25–12.

b. National policy for COMSEC materiel maintenance training standards and maintenance operations are contained in DoDI 8523.01 which is informed by NSA Committee on National Security Systems Instruction (CNSSI) 4000 and CNSSI 4001.

c. CNSSI 4000 provides criteria for COMSEC awareness training requirements for all other communications-electronics (CE) technicians. Such COMSEC awareness training is a prerequisite to their performing maintenance at any level on COMSEC equipment containing embedded cryptographic components.

d. Adherence to the COMSEC training and maintenance policies and procedures contained in the referenced publications is required. COMSEC awareness training will be documented on DD Form 2625 (Controlled Cryptographic Item (CCI) Briefing) and copies retained in personnel files and unit security records in accordance with AR 25–12. Maintenance supervisors will establish a file containing a copy of DD Form 2625 for each assigned technician under their control in maintenance facilities authorized to work on systems containing cryptographic components. DD Form 1435 (COMSEC Maintenance Training and Experience Record) is used as a record of COMSEC equipment certifications by Limited and Full/Depot maintenance technicians. This record is not required for technicians performing field level maintenance.

e. COMSEC maintenance activity directors will establish and maintained on shop stocks in accordance with AR 380–40 and AR 710–4. Cannibalization of COMSEC materiel will be accomplished according to paragraph 8–10*a*, after approval by Commander, U.S. Army Communications–Security Logistics Activity, (AMEL–LCA–D), 2133 Cushing Street, Suite 3600, Fort Huachuca, AZ 85613–7041.

8–5. Evacuation of unserviceable communications security materiel

a. COMSEC equipment will be evacuated to a capable repair activity only after a qualified CE equipment operator or certified maintainer in accordance with AR 25–12.

b. Unserviceable classified COMSEC materiel will be evacuated through the Communications Security Materiel Control System by COMSEC accounts to the Commander, Tobyhanna Army Depot (COMSEC) account 5B1099, 11 Hap Arnold Blvd., Building 73, Tobyhanna, PA 18466–5110. Unserviceable unclassified COMSEC materiel will be evacuated through supply channels to the Commander, Tobyhanna Army Depot (Department of Defense Activity Address Code (DoDAAC)) W81U11, 11 Hap Arnold Blvd., Building 73, Tobyhanna, PA 18466–5110.

c. Components, assemblies, and parts that have manufacturing defects will be removed from the materiel at the authorized maintenance level. The removal will be reported on Standard Form (SF) 368 (Product Quality Deficiency Report (PQDR)) as a Category II PQDR. When practical, exhibits (defective components, parts, or assemblies), PQDRs will be submitted through Product Data Reporting and Evaluation

Program at https://www.pdrep.csd.disa.mil/. Parts not forwarded will be tagged with DA Form 2402 (Maintenance Tag) and held for further disposition instructions.

8–6. Controlled cryptographic items

a. CCIs are unclassified COMSEC items. Accounting, requisitioned, and issuing procedures are in AR 710–4 and AR 380–40.

b. CCI end items must be unkeyed prior to storage when not in operational status or when being turned in through channels for maintenance.

c. COMSEC equipment, including unclassified items containing a classified cryptographic key that cannot be destroyed, will be safeguarded, controlled, and protected based on the classification of the key.

d. COMSEC materiel disposition instructions will be provided by U.S. Army CSLA Serialization Team on how to proceed on a case-by-case basis. Support group @ usarmy.huachuca.cecom.ilsc-csla-serialization-iuid.mesg@army.mil.

Section II

Army Tactical Intelligence, Electronic Warfare, and Sensors Materiel

8–7. General

a. This section applies to the maintenance of Army tactical communications, command, control, and computer, intelligence and electronic warfare (IEW), and sensors equipment.

b. The CG, AMC is responsible for the support of IEW materiel.

c. Joint operations equipment developed for special operations forces units are exempt from the requirements of this section.

d. The IEW sustainment regional support center is an integrated repair activity that provides units with a dedicated support structure for low density IEW systems.

e. C5ISR Sustainment maintenance: C5ISR equipment requiring DLR, overhaul, rebuild, or comprehensive repair during peacetime will be candidates for the CECOM C5ISR life cycle analysis team (CLAT) and sustainment maintenance. ACOM and ASCC commanders, will report C5ISR equipment requiring sustainment maintenance support to receive disposition instructions.

(1) C5ISR equipment selected for the CLAT will be provided a subject matter expert evaluation and certification of the C5ISR asset with a focus on physical condition and corrosion. CLAT will utilize a standardized inspection criteria and inspection work sheets for each family of C5ISR equipment, that is, TMs, special TI and repair, inspections workbook/checklist.

(2) C5ISR equipment identified as being part of this inspection program will normally be evaluated every 5 years but may be evaluated more frequently as field conditions or usage factors dictate. C5ISR evaluations and Physical Inspections will provide a metric-based assessment of the condition of the evaluated systems. The CECOM CLAT will provide the Weapon System Directorate, integrated logistic support (ILS) Managers the evaluation and inspection data for their review and analysis assisting them in identifying and prioritizing candidate assets for the C5ISR depot maintenance program.

8–8. Intelligence, electronic warfare, and sensors field level maintenance

a. IEW maintenance personnel perform field level maintenance. This typically includes replacement of line replaceable units (LRUs), circuit card assemblies, and piece parts when authorized by the MAC.

b. The CG, AMC provides direct, on-site, and forward maintenance and repair support for C5ISR, sensors, and non-standard electronics systems.

c. IEW maintenance activities are authorized to establish and maintain bench and shop stock, in accordance with the FAR, Defense FAR Supplement, AR 710–2 and contract for supporting IEW equipment repair.

Section III

Sustainment Information Systems

8–9. General

a. Logistics information technology domain maintenance and life cycle management. Logistics IT provides automation capability to the warfighter during operational and tactical operations. This section will

detail Logistics IT domain maintenance and life cycle management for both field and sustainment level of maintenance. The logistics IT domain includes LIS, GCSS–A, EAVN, CSS very small aperture terminal (VSAT), Combat Service Support Automated Information Systems Interface (CAISI), personal digital assistants, and maintenance support devices. Equipment will be identified with LINs in support of life cycle management. Logistics IT equipment with LINs are readiness reportable.

b. Information technology maintenance. IT maintenance will address five support elements: 1: hardware, 2: software, 3: network and communications, 4: operator functional business tasks, and 5: training.

c. Logistics information technology field level maintenance. Operators of IT systems will perform PMCS in accordance with the manufacturer owner manual, hardware end user manuals and system user manuals for each LIS.

(1) At operator level, logistics IT, hardware becoming NMC will be evacuated to the Sustainment Automation Support Management Office (SASMO) without delay. The operator will record the discrepancy upon discovery in the approved LIS. Screen print of error messages will be printed and provided to SASMO to isolate or target malfunctions when possible.

(2) The SASMO personnel will replace NMC equipment with TCX stock to return the customer to FMC. The NMC TCX item will be work ordered to sustainment level maintenance without delay.

(3) Operator will take the necessary action to ensure correct power source/supply is provided during tactical and non-tactical operations. Operator will become familiar with manufacturer hardware power specifications. Computers and associated peripherals may require stable undisrupted power from a reliable source.

(4) Maintenance of VSAT and CAISI hardware includes daily PMCS by the owning organization. Daily check of CAISI antenna for obstructions is needed to ensure continued undisrupted operations. Operator will ensure the Pedestal unit is properly secured during inclement weather and free from vehicle traffic. The 250-foot fiber optic cord must be secure to prevent possible damage. VSAT hardware failure will be reported to the SASMO.

(5) The SASMO personnel will support the user or operator in diagnosis and restoration of logistics IT equipment to an operational status. Failed LRUs will be turned into the supporting Tobyhanna Army Depot FRA (sustainment level maintenance) through the SASMO.

(6) To the greatest extent possible, the SASMO personnel, in coordination with the maintainer, will provide a mobile support team to restore and repair logistics IT equipment onsite.

(7) TCX for logistics IT equipment will be managed at field level maintenance as follows:

(a) The SASMO personnel or supporting maintenance activity will provide a replacement logistics IT LIN to unit personnel using a TCX asset from on hand TCX assets and work order the inoperative NMC TCX to the supporting Tobyhanna FRA maintenance activity.

(b) Accountability for TCX assets is maintained by the SSA on the stock record account. SASMO personnel manage TCX assets as operational exchange or swap out. SASMO personnel will ensure TCX and SASMO MTOE equipment remain separate. Once SASMO personnel have an NMC TCX item, it will be work ordered to supporting FRA facility without delay.

(c) TCX will be used to replace customer logistics IT LIN equipment and annotated on appropriate GCSS–A business processes. SASMO personnel will make notations on DA Form 2407/DA Form 5990–E when serial number item is exchanged. Unit APSR must be updated with current serial numbers. The tactical situation may require that the SASMO and support operations personnel determine best and safe customer support business practices. IUID marking of computers may enhance this procedure.

(d) Prior to issue of TCX to a customer, SASMO personnel will determine fair wear and tear in accordance with paragraph 3–10*e*.

(e) TCX is composed of NSE computer systems and their associated peripheral equipment used to operate or support logistics IT applications. TCX will be located at the SASMO and must be 100-percent deployable. Management of NSE is provided in chapter 9 of this regulation.

(f) When TCX is zero balance and the SASMO cannot replace or swap out hardware, the SASMO personnel will work order the customer hardware to the supporting FRA and inform them that the item requires priority. Logistics IT systems are unit reportable and sustainment maintenance must provide increased support.

(8) The SASMO personnel provide logistics IT management, plans, policies, and procedures for logistics automation functions and systems to the sustainment brigade, area support and backup support to the battalion support battalion SASMO in the support footprint. The SASMO personnel will task organize to meet operational and tactical missions. The SASMO is a staff element of support operations and

reports logistics IT equipment and tactical network status, as needed. Logistics IT Software management is defined as and Application Software. The SASMO personnel will receive logistics IT new or change TELS software updates from CECOM, Software Engineering Center–Lee (SEC–Lee). The SASMO personnel will ensure all customers are current with Logistics IT Software configurations. Information assurance (IA) updates must be uploaded upon notification from CECOM, SEC–Lee.

(9) Physical security requirements of logistics IT equipment are the responsibility of both the unit commander and SASMO personnel.

(10) Information security is the responsibility of the operator and unit commander. Operators will logout when not physically located at GCSS–A client workstation or LIS. Operators will complete IA training in accordance with AR 25–2. Operators will ensure other operators do not perform tasks with current credentials of login. Do not share passwords.

(11) Logistics IT Hardware maintenance management is recorded and managed in APSR. All LINs must be entered and configured as unit MTOE or TDA equipment. The SASMO personnel will utilize approved TELS to receive hardware and software work orders and document field level maintenance activities.

(12) Unit commanders will ensure logistics IT equipment is recorded in the APSR and match approved equipment records.

(13) Warranty management of logistics IT equipment at field level maintenance includes maintaining manufacturer integrity at operator and SASMO levels. The program executive office for Enterprise Information Systems and the CECOM LCMC LRC are the Army lead organizations for logistics IT sustainability and are responsible for the management of Life Cycle Management of LINs.

(14) Any computers procured by an ACOM, ASCC, and DRU to support a logistics IT may be repaired using these procedures, provided the ACOM, ASCC, and DRU has coordinated and funded that support. Sustainment costs are directed to commanders who purchase this equipment. CECOM, SEC–Lee will provide software and functional operator support through the Customer Support Office.

(15) Tactical Logistics IT Network “configuration” using CSS VSAT and wireless CAISI will be provided by the SASMO. Network maintenance includes the planning, configuring, supervising, and controlling of systems authorized to operate on the tactical network. CSS VSAT and CAISI is organizational property and may require support operations assistance in positioning of network devices throughout the area of operations.

(16) SASMO personnel will develop a “Tactical Network Diagram” for the purpose of network troubleshooting, supporting theater positioned equipment requirements and geographical locations, providing support to incoming forces during rotational operations, documenting network security information, and detailing geographical obstacles for CAISI “line-of-sight.” The SASMO personnel will maintain the “Tactical Network Diagram” to brief commanders and support operations. Network recovery is essential for GCSS–A since equipment master records are managed at the Enterprise Server. SASMO will support disconnected operations when tactical operations prevent connectivity, during actual movements and during routine “downtime” maintenance. The SASMO personnel will develop and maintain a “Tactical Network Diagram” detailing CSS VSAT and CAISI geographic locations, client workstations on the network, configuration security settings and internet protocol addressing, systems on network such as MC4, Transportation Coordinator’s Automated Information for Movements System, Movement Tracking System, and other logistics systems. The SASMO personnel must maintain control to ensure maximum bandwidth. The diagram will also detail public and private networks established to enhance user access. The diagram is used for network maintenance and hand-off to incoming rotational units.

(17) The SASMO personnel will provide operator functional business task (over-the-shoulder) support to customers. The SASMO is the organic asset to provide limited support when information business process becomes a problem. Communications to a central help desk may be limited during tactical operations and thus SASMO provides that support. The logistics community has an enormous operator and supervisor customer base. Communications to sustainment level support (help desks) may not be available during contingency operations or deployments.

(18) The SASMO personnel will not perform computer internal component repair unless directed by ACOM, ASCC, or DRU.

(19) Training is a maintenance enabler at the lowest level. Business process information may not find its way to the operator. SASMO provides that enabler to enhance automated logistics readiness through recovery operator training. SASMO personnel will provide information to commanders related to sources of training. Resident and online, interactive baseline training are a few of the sources. Academic training

is a supervisor responsibility and not a SASMO responsibility. SASMO is organized and staffed to provide limited customer functional support for logistics IT business activities.

d. Logistics information technology sustainment level maintenance. AIS will be maintained as follows:

(1) Hardware maintenance at sustainment levels includes various organizations. The CG, AMC provides logistics IT equipment repair. The SASMO will not be required to seek warranty support.

(2) The decision to repair or upgrade computers considered as NSE, personal digital assistants, AIT, and associated devices will be based on a cost-benefit analysis. The following factors should be considered during the decision process:

(a) Cost of replacement from General Services Administration schedule.

(b) Warranty.

(c) Age of the equipment.

(d) Mission impact.

(e) Extent of repair or upgrade.

(f) Cost of repair or upgrade.

(g) Parts availability.

(h) Manpower availability.

(i) Estimated service life after repair or upgrade.

(j) Most timely method of returning equipment to the end user.

(3) The maintenance of MTOE, TDA military equipment, standard, or unique Army systems will have priority over the repair of locally procured logistics IT systems. The cumulative cost to repair or upgrade a logistics IT computer must not exceed 65 percent of the replacement cost of the individual LRU.

(4) Unit commanders must be able to produce records when required, such as—

(a) Copy of buy versus repair cost-benefit analysis. If audited, the unit must be able to produce these reports upon direction from higher HQs.

(b) Cost of expenditures and work requests in support of the logistics IT computer repair and upgrade effort must be maintained. If audited, the repair shop must be able to produce these reports upon direction from higher HQs.

(5) Logistics IT equipment computer will not be upgraded if the upgrade requires replacement of more than 50 percent of the internal major shop replaceable units or assemblies (motherboard, hard drive, disk drive, compact disk, central processor, and memory chips).

(6) Upgrade of a logistics IT computer must retain the original system configuration integrity of fit and form. The upgrade may improve the function but must not change fit or form (for example, a logistics IT computer will not be upgraded if the upgrade requires replacement of the external LRU case (the black box) or modification of the internal chassis).

(7) After redeployment to home station, units coordinate with SASMO, FRA, and TELS System Managers to:

(a) Wipe hard drives and reimage computers with software and all updates.

(b) Load home station unit information (UICs and DoDAACs).

(c) Inspect and clean computer hardware.

(d) Inspect and test VSATs and CAISIs in an operational scenario to confirm they are mission capable.

(e) Coordinate FRA repair, as required.

(f) Coordinate replacement of hardware classified “non-repairable” by the FRA (through SASMO or system managers).

(8) Residual modules will not be used to assemble additional logistics IT equipment. After repair or upgrade of a NSE computer, removed Shop Replaceable Units will not be retained. Cascading is authorized; residual assemblies may be used for an upgrade to another NSE computer. However, this additional upgrade must be coordinated between the SASMO and supporting FRA. All residual parts must be sanitized and turned in to the supporting FRA for approved disposition action. During deployments, mission requirements will dictate the scope of this requirement, but all modules must be accounted for. The program executive office for Enterprise Information Systems and the CECOM LCMC are the Army lead organizations for logistics IT sustainability and are responsible for the management of the FRA.

(9) The procurement of limited additional equipment and software (special tools and diagnostic software to support logistics IT systems) is authorized. Owning organizations will fund this requirement. TMDE will not be required to support Logistics IT equipment repair efforts.

(10) Any computers procured by an ACOM, ASCC, and DRU to support a logistics IT may be repaired using these procedures, provided the ACOM, ASCC, and DRU has coordinated and funded that support.

(11) The Electronic Sustainment Support Center at the Tobyhanna Army Depot FRA is an integrated maintenance activity that provides the field with a dedicated support structure for TELS hardware. The FRA also supports tier III office automation equipment at selected installations and, when deployed, as part of the AMC logistics support element.

(12) Software support is provided by CECOM, SEC–Lee. Each TELS has a system manager for life cycle management of software maintenance. Updates are distributed by software change packages and interim change packages. Each SASMO receives these packages and must maintain baseline configuration management for all customers. GCSS–A client workstations operating software and application software is also a SASMO responsibility. IA security updates must be also managed by SASMO. Maintenance recovery of software includes information security. Violations of IA must be reported to the commander. This causes reduced readiness of logistics IT.

(13) Fielding of hardware will be coordinated with ACOM, ASCC, and DRU G–4 (Logistics Automation Office).

(14) DA messages and all Army activities taskings for logistics IT system testing, requests for information and status reports will be coordinated with ACOM, ASCC, and DRU.

e. Information system and network configuration management plan. All information system and network configuration management plans will include strategy to ensure the latest security and application updates are applied in a proactive and controlled manner. Specific requirements can be found in AR 25–2.

8–10. Repair parts supply for information technology

a. Cannibalization of uneconomically repairable IT prior to turn in to DLA Disposition Services is limited to those serviceable parts immediately needed to repair inoperable IT.

b. Commanders may authorize controlled exchange of IT repair parts based on automation systems readiness (see paragraph 4–11). This is a sustainment maintenance capability only.

c. Logistics IT computer parts required for non-warranty repairs should be purchased using the ACOM, ASCC, or DRU government purchase credit card.

8–11. Army Warranty Program for information technology

a. Items for Army use should be acquired with warranties only when the warranty is in the Army's best interest. Acquiring commanders or activity directors will establish local warranty implementation procedures (see AR 700–139).

b. Warranty support will be counted as depot maintenance when reporting under the 50/50 rule. Warranty support that is contracted will not be counted as depot maintenance when reporting under the 50/50 rule.

8–12. Base operations information technology

IT obtained for BASOPS support through the information management area process is supported through the directors of information management and the DCS, G–6. Although these systems are not part of tactical automation, maintenance may be obtained through the depot after coordination with AMC.

Section IV

Test, Measurement, and Diagnostic Equipment

8–13. Test, Measurement, and Diagnostic Equipment

a. The objectives of the Army TMDE Program are to improve OR of Army equipment, enhance safety, detect impending component failure and conserve TMDE resources through the application of interval analysis and TB 43–180. TMDE repair will be accomplished in accordance with AR 750–43, DA Pam 750–43, and TB 43–180.

b. The CG, AMC will manage and execute responsibilities for calibration and repair of general-purpose TMDE and selected special-purpose TMDE civilian operated calibration support activities (laboratories), facilitate TMDE quality control, and provide additional support to the military area TMDE support teams.

c. Unit commanders will adhere to the calibration intervals in accordance with TB 43–180. The TB 43–180 does not replace or modify procedures for equipment under manufacturer's warranty.

d. ACOM, ASCC, and DRU commanders will ensure subordinate commands participate in the Army TMDE Program and incorporate TMDE program processes, as outlined in DA Pam 750–43, in local SOPs.

e. Enrollment of TMDE equipment in the Army TMDE Program is mandatory.

8–14. Test, measurement, and diagnostic equipment support and management

TMDE repair support will be provided by the following:

a. Equipment owners and users will perform field level maintenance on their assigned TMDE.

b. Regionally aligned TMDE support teams and area support TMDE centers will support and repair general-purpose and selected special-purpose TMDE.

c. Maintenance organization responsible for maintaining the associated system or end item will provide repair support for the remaining special-purpose TMDE.

d. Field and sustainment maintenance activities will perform field level maintenance on general-purpose TMDE and provide support services for organic and supported unit's special-purpose TMDE.

8–15. Army National Guard test, measurement, and diagnostic equipment support

As directed by the CNGB, States will coordinate directly with supporting area TMDE support teams for calibration services and repairs provided to the State under NGB-funded programs.

Chapter 9
Maintenance of Non-Tactical Equipment and Training Aids

Section I

Non-Tactical Vehicles

9–1. General

Commanders are responsible for ensuring Army NTV maintenance is performed in accordance with the OEM manuals and AR 58–1.

9–2. Repair parts

a. Repair parts for an NTV are obtained under the provisions of AR 58–1.

b. Cannibalization of uneconomically repairable Army-owned NTVs prior to turn in to DLA–DS is authorized if serviceable parts are deemed mission critical and not available by local vendor.

Section II

Training Aids, Devices, and Visual Information Equipment and Systems

9–3. Training aids and devices

a. This section provides maintenance policy for training aids and devices. It supplements policies in AR 25–1, AR 350–38, and AR 700–127.

b. Army training aids and devices categories are type classified and not type classified. Training aids and devices managed by TDA activities include the following:

(1) Type classified training aids and devices used to support a special training requirement.

(2) Not type classified training aids and devices developed or commercially acquired to support general military training and training on more than one type of item materiel. These are usually assigned to and maintained by training and visual information (VI) support centers for loan to units and activities.

c. Maintenance policy is as follows:

(1) Type classified and non-type classified training aids and devices will be maintained in accordance with this regulation.

(2) Operator or crew training equipment will be maintained to the Army maintenance standard outlined in paragraph 3–2 and the turn-in or transfer standard in paragraph 4–10.

(3) Equipment (end items and major assemblies) that is frequently disassembled and assembled for instructional purposes will not be maintained to Army maintenance standard. Equipment will be transferred or turned in under CC F.

(4) Locally fabricated training aids and devices will be maintained by the training and VI support center.

9–4. Visual information equipment and systems

This paragraph provides maintenance policy for VI equipment and systems. It supplements policies in AR 25–1 and AR 700–127.

a. VI materiel includes photographic, television, audio, and graphic art items that furnish an audiovisual product or service.

b. Chief of Public Affairs will validate authorization of type classified VI materiel prior to documentation in a Common table of allowances, TDA, table of organization and equipment (TOE), or MTOE to ensure compliance with DoDI 5040.02.

c. Class VI materiel assigned to an audiovisual facility or other TDA activity, including broadcast radio and television, will be commercially acquired. The logistics supportability of commercially acquired materiel is the responsibility of the procuring activity. Local procurement will be coordinated with the local common support audiovisual activity for consolidation of contracts for maintenance services and adherence to standards and class VI architecture; see DA Pam 25–91 for guidance. Broadcast radio and television materiel and systems costing over $5,000 will be procured, managed, and supported by the Office of the Assistant Secretary of Defense (Public Affairs), and the American Forces Information Service.

d. Maintenance policy is as follows:

(1) A maintenance plan as part of the logistics support plan will be developed and fielded with the materiel. Commercial off-the-shelf materiel procurement will include the equivalent of an MSP or justification for contract maintenance or inter-service support.

(2) Support requirements beyond the user's authority or capability and all not type-classified audiovisual materiel will be referred to the common support VI activity or the Director of Information Management.

(3) ACOM, ASCC, or DRU commanders manage maintenance of VI equipment and activities integrated with training device support activities. Contract requirements will be submitted to the supporting Director of Information Management.

Chapter 10
Maintenance of Medical Devices

10–1. General

a. Purpose. Establish Army policy specific to medical materiel.

(1) Maintenance of medical materiel includes maintenance and medical maintenance operations.

(2) The objective of medical maintenance operations is to provide robust maintenance and logistics support to medical commodity end item users.

(3) Major functional responsibilities of the Army medical maintenance activities are—

(a) Sustaining materiel in an operational status.

(b) Restoring materiel to a serviceable condition.

(c) Responding to safety recalls and health device alerts.

(d) Performing scheduled and unscheduled services on medical devices (MD) to the Army maintenance standard defined in paragraph 3–2.

(e) Protecting the safety of all patients and staff that are exposed to medical devices.

b. Scope. This section applies to all Army Forces with Medical Devices including both field and sustainment levels.

c. Specific policies. For policies that are specific to medical materiel maintenance in TDA Army medical organizations, refer to AR 40–61.

(1) Army TDA units with fielded standard LIN/ nonstandard LIN MD are responsible for establishing an MOA with the local medical maintenance activity in accordance with the installation support plan. Prior to purchasing equipment, coordination must occur to ensure the maintenance activity has the appropriate tools, TMDE, and training to support the medical devices.

(2) Army TDA units with standard LIN equipment are responsible for establishing an MOA with the local medical maintenance activity in accordance with the installation support plan.

10–2. U.S. Army Medical Logistics Command

a. The U.S. Army Medical Logistics Command (AMLC), serves as the LCMC for medical materiel, provides critical sustainment level support, including Integrated Logistics Support Center & LAP, Sustainment Level Maintenance and the Forward Repair Activity-Medical. The Commander, AMLC can provide Field Level Maintenance per paragraph 10–2*d* through support agreements.

b. AMLC fulfills its mission by delivering integrated life cycle logistics sustainment, data management, and data analysis for Army operational forces. This includes core competencies in medical supply chain management and medical devices maintenance planning and management, as well as in Army Centralized class VIII materiel contingency programs, such as APS and the Medical Materiel Readiness Program.

c. The Commander, AMLC serves as the Army proponent for medical materiel maintenance planning and management for operational forces.

d. The Commander, AMLC provides reinforcing field and sustainment level maintenance support for medical devices utilized by various components, including:

(1) Regular Army.

(2) ARNG.

(3) USAR.

(4) Army prepositioned stock.

(5) Authorized DoD activities.

(6) Other Federal agencies as directed.

e. AMLC plays a critical role in providing operational medical logistics support to establish and sustain a theater of operations in support of Army and Joint Forces. This support is executed through the AMLC's medical materiel centers and includes:

(1) Providing field level medical device maintenance support to operational Army and Joint units, including theater lead agents for medical materiel.

(2) Offering reinforcing medical materiel and maintenance support for forward-positioned APS programs to enhance readiness. This includes coordination with Army Sustainment Command for AMLC hand-off of equipment and medical capabilities to designated deploying Army units, as well as field level maintenance for units without organic capabilities.

f. AMLC is the reimbursable field level maintenance activity for organizations with insufficient capability/capacity-MOA in interim.

10–3. Medical maintenance policies

a. Commanders will utilize organic 68A, Biomedical Equipment Specialist (BES) for medical maintenance support before utilizing external support. When no Army medical maintenance activities are available, commanders must coordinate with local AMLC LARs or through usarmy.detrick.amlc.mbx.ilsc-lap@army.mil. TOE commanders will report the status of medical device and sets in accordance with AR 220–1 and AR 700–138.

b. Medical maintenance support missions will be accomplished with applicable standards pertaining to the maintenance of MD including, but not limited to:

(1) Documenting maintenance of radiation emitting MD in accordance with 21 CFR and TB MED 750–2.

(2) Maintaining a safe environment of care for the patient and staff in accordance with 21 CFR and the Safe Medical Devices Act of 1990.

(3) Performing electrical safety in accordance with the National Fire Protection Association (NFPA) 99.

(4) Managing MD program according to TB MED 750–2, FM 4–02, and TM 3–34.46.

c. TSG will be informed through AMC from the AMLC regarding the use of field and sustainment contract maintenance for medical materiel fielded to TOE units.

d. IPS plans will be adhered to throughout the life cycle of medical materiel to ensure adequate logistics support (see AR 700–127 for additional information on IPS).

e. Nonstandard equipment procured through the Operational Needs Statements/Joint Urgent Operational Needs Statement process will require a MSP to be approved and developed prior to procurement. If AMLC is the planned support in the MSP, documented coordination must be made prior to nonstandard medical devices being procured.

f. The specific maintenance policies that apply to the ARNG are as follows:

(1) State maintenance officers must coordinate medical maintenance support.

(2) Medical maintenance requirements beyond unit capabilities may be supported from the following resources:

(a) Other ARNG medical maintenance resources in the State (when available).

(b) Refer to paragraph 10–3 to receive support for resources below:

1. Home Station Medical Maintenance Support.

2. U.S. Army Medical Materiel Agency (USAMMA) Medical Maintenance Operations Divisions.
3. DHA organizations with area support responsibilities.

10–4. Maintenance management

a. Commanders of Army Forces with MTOE assigned medical devices will publish SOPs or policies which govern field level medical device maintenance management programs for their organizations as appropriate. Commanders will appoint medical maintenance managers in writing.

b. Commanders will use organic assets first and then supporting field level support to provide organizational level maintenance operations; the records of services will remain with each organization UIC. Primarily, maintenance records will be documented using TELS applications and using the approved reporting architecture for medical technologies.

c. Medical maintenance managers will follow DA Pam 750–1 guidance for establishing a medical maintenance shop when supporting outside customers.

d. Medical maintenance managers at each organization will publish internal and external SOPs that detail medical device maintenance management programs. The SOPs will be updated at least every 12 months. Requirements are in DA Pam 750–1.

e. Medical maintenance managers will establish support relationships with Army medical maintenance activities when maintenance requirements exceed the organic capability. Other than Army and DHA support relationships will only be used when directed by Army Medical Logistics Command.

f. When using other than Army or DHA support relationships, the work must be accurately transferred from the external agencies' system of record back to the equipment's GCSS–A work order.

g. Use assigned 68A, BES to the maximum hours available installation safety office command readiness. Do not assign BES additional duties that may adversely affect the performance of medical maintenance mission or routinely use BES for other than the maintenance of MD that would cause the organization to fall below readiness standards in accordance with AR 220–1.

h. Medical devices overdue for scheduled services (or with no documented service records) must be deadlined as NMC–M.

(1) Report medical devices that have not received required scheduled services as NMC–M.

(2) Consider these medical devices unsafe for patient or staff use.

(3) Suspend medical devices from use until required services are successfully performed by qualified personnel as directed by TM, OEM, and regulatory requirements.

(4) Commander will not circle "X" any MD for any type of use (training, patient care, exercises).

i. Medical devices must have a TI performed and documented by a 670A-Health Service Maintenance Technician, 68A, BES, Civilian Biomedical Equipment Technician (BMET) or Contract BMET prior to initial issue, to ensure compliance with manufacturer specifications and NFPA 99 standards.

j. The medical maintenance manager will provide maintenance input to the unit's overall maintenance manager.

10–5. Preventive maintenance checks, electrical safety inspections, and calibration, verification, and certification services

a. All Army TOE units with authorized MD must provide safe environments to prevent electrical shock and other safety hazards related to MD usage.

b. Medical maintenance personnel perform calibration, verification, and certification (CVC) services on medical devices.

c. Perform CVC services on medical devices in accordance with the applicable MAC or other reference document, for example, manufacturer literature or TB MED 750–2.

d. Refer to TB MED 750–2 for instructions to complete manual forms.

e. Only MOS-qualified 68A/670A personnel or industry or DoD trained civilians and contractor personnel are authorized to perform maintenance and calibration services on medical devices to verify that the equipment meets performance requirements outlined in the applicable MAC or manufacturer's literature.

(1) In accordance with 21 CFR 1020, the manufacturers of MD that produce ionizing radiation must provide assembly instructions, written maintenance instructions and those maintenance interval schedules required to keep the equipment in compliance with all specific performance criteria.

(2) BES will perform annual CVC services on medical devices that produce ionizing radiation in accordance with TB MED 750–2.

(3) Army medical forces 68A/670A/civilian BMETs will perform CVC services on MD immediately after any unscheduled service that could affect the equipment's overall calibration integrity. This includes repair parts replacement or certified component exchanges.

f. Scheduled CVC services will be performed on all MD in accordance with the manufacturer's technical manual or Army device TM, with a minimum required interval of annual. These services will be performed as stated in the applicable MAC or manufacturer's literature prior to patient use. In the event MAC is unavailable or does not specify, CVC services will be performed at the first authorized level of maintenance that has the capability and TMDE to do so.

10–6. Test, measurement, and diagnostic equipment

a. Medical special-purpose TMDE is medical materiel used specifically for the test, calibration, and repair of medical device. TMDE does not include items used to diagnose or treat patients.

(1) The Program Executive Office (PEO) Soldier's Project Manager Soldier Medical Devices (PM SMD) will provide life cycle management for all type classified medical special-purpose TMDE in support of TOE medical organizations. Special-purpose TMDE life cycle management includes the acquisition, approval, and the modernization of special-purpose TMDE.

(2) All TMDE will be calibrated in accordance with calibration intervals specified in TB 43–180.

(3) U.S. Army Medical Materiel Center–Europe is the designated source to provide repair and calibration support services for type classified medical special-purpose TMDE within the U.S. European Command, U.S. Central Command and U.S. Africa Command areas of responsibility.

(4) USAMMA Medical Maintenance Operations Division, CA is the designated source to provide repair and calibration support to services for type classified medical special-purpose TMDE for Army CONUS and U.S. Indo-Pacific Command.

(5) TMDE required by the Army Medical Department (AMEDD) Army school curriculum to provide individual training will not require cyclic calibration unless training efficiency or safety is adversely affected. U.S. Army Medical Command policy specifies that all general-purpose TMDE and special-purpose TMDE used in AMEDD school training courses will be calibrated.

(6) USAMMA Medical Maintenance Operations Divisions, CA, and U.S. Army Medical Materiel Center–Europe activities providing special-purpose TMDE calibration and repair support will conduct all TMDE support operations in the TMDE TELS.

b. Medical special-purpose TMDE support will be accomplished as follows:

(1) All special-purpose TMDE owners or users will perform operator level maintenance.

(2) Special-purpose TMDE repair and calibration support will be obtained in accordance with TB 43–180.

(3) Special-purpose TMDE calibration intervals are specified in TB 43–180 or manufacturer instructions.

c. Unit commanders are responsible to validate current requirements with on hand TMDE.

(1) Disposition for all excess medical TMDE–SP will be in accordance with U.S. Army turn in procedures.

(2) Commanders will coordinate through T2COM for requests to modify or change TOE documents and forward to the DCS, G–3/5/7 Organizational Integrator for review by DCS, G–3/5/7 (DAMO). Requests for changes to TDA documents will be made by using the Automated 4610 TDA Equipment Request Tool in the Force Management System Website (FMSWeb).

d. The Medical Center of Excellence Fielded Force Integration Directorate and PM SMD must confirm the BOIP for all LIN special-purpose TMDE requirements.

10–7. Modification and alteration of medical devices

Approved modifications of medical devices will be designated as mandatory modifications or QA, minor alteration, and other alterations as shown below. Modifications and alterations will be recorded in maintenance records in accordance with TB MED 750–2 user procedures. Minor alterations without manufacturer consent may negate any further manufacturer product liability.

a. A MWO is a mandatory modification that changes the function, performance, or capability of the medical devices. MWOs are announced by MMIS messages.

b. A quality assurance alteration (QAA) is a change required to correct safety hazards, faults, or deficiencies in medical devices. QAAs are announced by MMIS.

c. A minor alteration is any necessary change to medical devices that will enhance or improve its safe operation without altering its basic characteristics. These alterations may be performed only when manufacturer representatives or qualified medical maintenance activities have the capabilities to do so and are approved by the Army Medical MATDEV.

d. Component modernization is the upgrade of medical device by manufacturer-authorized changes. Qualified 68A/670A/ BMET Civilians/BMET Contractors may conduct component modernization in accordance with manufacturer specifications, pursuant to the terms of the applicable contract.

Chapter 11
Life Cycle Maintenance Support

11–1. General

a. For policies and procedures relating to life cycle management support see AR 700–127.

b. Total ownership cost reduction is an Army objective throughout the life cycle of the weapon system. The Chief of Staff, Army and the Army Acquisition Executive identified the reduction of operating and support costs as a high priority and vital to realizing modernization efforts. The system's total ownership cost includes costs associated with acquiring, operating, modifying, maintaining, supplying, and disposing of weapon and materiel systems. Reducing total ownership cost is instrumental, not only to reducing fiscal demands on the operational commander, but also to generating savings that can be reinvested in support of Army modernization objectives.

c. Establishing and sustaining comprehensive maintenance support throughout the entire life cycle is required to assure that materiel can be maintained in its operational environment with minimum resources for achieving OR and sustainability. The engineering and technical capability required to ensure Army equipment is maintainable within the Army standard maintenance system is called systems technical support (STS) for systems that are in production and SSTS when systems are out of production. Engineering and technical support capabilities include the following functions:

(1) Conduct product support analyses.

(2) Development and update of the maintenance concept, including the LORA, the MSP, the depot support plan, logistics management data, the MAC, and all equipment publications, including the DMWRs.

(3) Establishment and sustainment of a stockpile reliability program.

(4) Management of the Army's sample data collection projects.

(5) Providing LARs for major weapon systems or commodities of equipment.

(6) Processing EIRs and PQDRs.

(7) Engineering services/Engineering design changes for:

(a) Safety and capability modifications.

(b) Correction of systemic deficiencies.

(c) Re-engineering to compensate for obsolescence.

(d) Integration with new systems/requirements.

(8) Maintenance and use of technical data packages.

(9) TM updates/IETM.

(10) Airworthiness certification.

(11) Technical/maintenance guidance/assistance to field units; maintenance help desk support.

(12) CBM+.

(13) Life cycle logistic tools.

11–2. Use of military, civilian, contractor, local national maintenance personnel

a. Contractors, DA Civilians, and local national maintenance personnel may be used in a supporting role to meet the defense objective of ensuring that enough trained personnel are available to maintain the DoD-wide force and support structure in accordance with AR 70–1, AR 700–127, and the requirements of this regulation.

(1) Military personnel will perform maintenance in combat or hazardous duty areas to the extent adequate personnel are available. The employment of civilians in hazardous duty areas for the performance of maintenance of field equipment that can be maintained by a Soldier is strongly discouraged.

(2) Where conditions are not conducive, civilians will not be permanently stationed in combat areas or hazardous duty areas as determined by the combatant commander (see AR 715–9). Civilians may travel

forward to a brigade combat team operational area on a case-by-case basis as individual equipment failures occur to provide temporary onsite maintenance and technical advice, for example, sustainment level maintenance assistance teams and modification application teams.

(3) Outside the brigade operational area, in addition to military personnel, civilian maintenance personnel (contract, TDA, and local nationals) may be acceptable as a prudent risk on the probability of maintenance services being continued in wartime and in support of other contingency operations.

b. The Army will rely on the competitive private enterprise system, both U.S. and foreign, for maintenance support service to the maximum extent that is consistent with effective and efficient accomplishment of Army programs and missions.

c. The use of foreign private enterprise will be limited to the following situations:

(1) DoD organic or DoD contract maintenance support activities lack the capacity to perform the task in the time required.

(2) Use of foreign private enterprise has been predetermined by international agreement.

(3) Use of foreign private enterprise will not affect the development or maintenance of U.S. national capabilities.

(4) The use of foreign contractual services will be contingent on U.S. contracting authority certification of quality, capability, and capacity.

d. Contract maintenance will not be used when:

(1) In-house activities are necessary for individual and unit training of military personnel.

(2) It will result in higher cost of current maintenance support to the Army than organic support.

(3) The product or service is available in the local area or from another DoD component or other Federal department or agency.

11–3. Planning for contractor support, fielding and post fielding

a. Logistics support of Army materiel performed under contract by commercial organizations, including the original manufacturer, is considered contractor support. Support may include materiel and facilities as well as services such as maintenance, supply, distribution, training, software support, repair, overhaul, and the collection and development of maintenance data as required by AR 700–127. Contractor maintenance personnel will not normally be allowed to perform field maintenance tasks except the following:

(1) To address manpower requirements criteria shortfalls during peacetime operations.

(2) To support equipment services when the equipment maintenance plan designates contract support as part of the materiel acquisition strategy.

b. The decision to use contractor support is accomplished as part of the SOR analysis during the ILS process in accordance with AR 700–127 and must be documented as part of the Milestone B ASARC. The plan for use of maintenance CLS will include a plan for the capture of contractor man- hours expended in support of Army equipment.

c. Proposals for contract support of classified equipment will adhere to the following:

(1) All contract support of COMSEC, SIGINT, and EW equipment must undergo an assessment of risks to national security before a cost study is performed to use commercial maintenance sources. The installation security manager in coordination with the ACOM, ASCC, and DRU (security and commercial activity managers) must conduct this special risk assessment. HQDA, NSA, and the AMC must approve this assessment and selection of a contractor facility. The proposal, including PWSs with additional information identifying the COMSEC or SIGINT and EW equipment, density supported, and levels of maintenance to be performed, will be submitted through the appropriate AMC LCMC and DCS, G–3/5/7 (DAMO–FDI), 400 Army Pentagon, Washington, DC 20310–0400, to the Director, NSA (S–04), Fort Meade, MD 20755–6000.

(2) Classified equipment not under NSA cognizance being considered for maintenance support contracts to contractors other than OEMs will be given an assessment of risk as prescribed above.

11–4. Planning, programming, and budgeting for systems technical support and sustainment systems technical support

a. During the development and production phases of the weapon system life cycle, STS will be planned, programmed, and budgeted for by the PM of the weapon system. STS will be funded with procurement dollars.

b. Utilizing a condition-based, incremental, and time-phased approach to Transition to Sustainment (T2S), STS will transition, with funding, to SSTS and will be planned, programmed, and budgeted for by

the supporting AMC LCMC. SSTS will be funded with OMA dollars. STS funding will transition from procurement to OMA concurrent with the transition of programming responsibility from the PM or PEO to AMC. The PM, as the total life cycle systems manager and in collaboration with AMC, is responsible for presenting all sustainment cost estimates for their systems and providing to DCS, G–4 (Maintenance Directorate) for inclusion in the sustainment program evaluation group as part of the POM submission.

c. For those weapon systems currently managed by PEOs or PMs that are forecast to transition to sustainment during the POM years, the PEOs or PMs will develop weapon system schedules in coordination with the gaining AMC LCMC. PMs will develop a process to track and monitor STS costs prior to the system transitioning so that data can be used as baseline information for SSTS projected requirements during the validation process. For programs being terminated, program termination plans will include all total life cycle considerations with commensurate resourcing requirements for areas, such as SSTS and all depot maintenance.

d. SSTS requirements will be developed by weapon system and function and type of program. The AMC LCMCs will validate and certify all SSTS requirements and cost estimates, whether contractual or organic, prior to submission. Annual HQDA onsite reviews are conducted with MSCs to assist in the validation process. Supporting documentation used in support of the MSC SSTS requirements validation will be retained for HQDA review. Supporting documentation will show how the work was quantified in terms of both workload (such as hours, quantities, and tasks) and associated costs. Examples of supporting documentation include program office estimates, workload, and cost projections derived from estimating tools such as engineering estimates, models, and simulations. The MSC commander will certify in writing the SSTS requirements for submission to AMC. The CG, AMC will compile the MSC data for submission to HQDA in support of the POM each year, and the CG, AMC, or a designated representative will certify in writing the SSTS POM submission. The documentation will include an accounting of the execution of SSTS dollars by spending category against those dollars originally budgeted.

e. The latest DCS, G–3/5/7 prioritization guidance for sustainment of fielded equipment will be used, and a priority will be assigned based on the criteria established in the guidance. Funds will be applied in priority order. The CG, AMC will provide justification for any deviation. A copy of the latest prioritization guidance may be obtained from DCS, G–3/5/7 (DALO–SMM), 500 Army Pentagon, Washington, DC 20310–0500.

Chapter 12
Maintenance Programs

12–1. Maintenance Award Program

a. Purpose. The Chief of Staff, Army Award for Maintenance Excellence (AAME) Program is conducted each year to recognize Army units and activities that have demonstrated excellence in maintenance operations.

b. Objective. The objectives of the AAME Program are to—

(1) Improve and sustain field maintenance readiness.

(2) Assess the maintenance component of unit readiness.

(3) Improve efficiency and reduce waste.

(4) Recognize outstanding maintenance accomplishments and initiatives.

(5) Ensure the best units compete.

(6) Provide positive incentives for extraordinary maintenance efforts.

(7) Promote competition amongst ACOMs, ASCCs, and DRUs.

c. Responsibilities.

(1) The Chief of Staff, Army has delegated the awards ceremony down to senior commander. The senior commander will present the AAME plaques to the winners for their superior maintenance operations.

(2) The DCS, G–4 will—

(a) Provide program funding guidance, policy, and overall supervision of the program.

(b) Determine the most appropriate means of award presentation and coordinate the annual award ceremony.

(c) Establish guidance for the AAME field and depot level competitions.

(d) Conduct the Army board that selects six nominees to the SECDEF Maintenance Awards Program.

(3) The Commandant, USAOS will—

(a) Serve as responsible official for administration of the AAME Program.

(b) Assist the DCS, G–4 in the development and coordination of updates and modifications to policy and administrative instructions.

(c) Develop, revise, and maintain security of assessment protocols used to select semifinalists, runners-up, and winners.

(d) Convene the HQDA assessment board and conduct onsite evaluation team visits.

(e) Assist the DCS, G–4 in determining the most appropriate means of award presentation and coordinating the annual award ceremony.

(f) Assist the DCS, G–4 with the development and preparation of the nomination packet instructions for the AAME field and depot level competitions.

(g) Publish the full instructions and guidance for nomination packets on the USAOS website, that is available at https://goordnance.army.mil/aame/index.html.

(h) Assist the Army board that selects six nominees to the SECDEF Maintenance Awards Program.

(i) Host an annual after-action review with DCS, G–4, ACOM, ASCC, and DRU representatives.

(4) ACOM, ASCC, and DRU commanders will—

(a) Promote competition at all levels of command and develop awards to recognize units and activities participating in all levels of the competition process.

(b) Validate, select, and endorse nomination packets submitted by subordinate organizations in accordance with published guidelines and forward to USAOS.

(c) Work with and mentor units to improve their competitiveness. Provide board members and onsite evaluation team members to support the assessment process as required by the USAOS.

(d) Commanders (or equivalent) will conduct their programs within the policy established in this paragraph.

d. Categories of competition and evaluating procedures. Categories of competition and unit nominating and evaluation procedures can be found in DA Pam 750–1.

e. Secretary of Defense Maintenance Award Program.

(1) The SECDEF Maintenance Award Program annually recognizes the top six field maintenance units and one depot across all military services. The SECDEF Maintenance awards are presented to the two top units in each of the three field categories and one depot in the depot category. The SECDEF Phoenix trophy is awarded to the best of the six field level units. The Robert T. Mason Award for Maintenance Excellence trophy is awarded to the best organic depot.

(2) The AAME Program and AMC depot competition is used as the gateway to determine the SECDEF Maintenance Award Program submissions for the Army. Army units and AMC depots must compete and be selected winners or runners-up in the AAME Program to be nominated for the SECDEF Maintenance Award Program. DCS, G–4 will hold a selection board and nominate two field level AAME winners or runners-up in each of the three categories. The CG, AMC will select the depot level AAME winner for the SECDEF Maintenance Award Program. The DCS, G–4 will review the competitor to ensure that the submission meets the competition criteria prior to submission.

12–2. Army Oil Analysis Program

a. Purpose. AOAP samples component lubricants to enable data-driven maintenance actions.

b. Applicability. AOAP only applies to Aviation Ground Support Equipment (AGSE). AGSE hydraulic samples are required every 30 days and will be mailed or delivered to the appropriate laboratory, however, special samples may be submitted from any weapon system when unit maintainers suspect contamination or an impending failure in engines, transmissions, or hydraulic systems. Special samples may also include grease samples, filters, mishap investigations, and debris collected on magnetic chip detectors.

c. Questions. For questions regarding AOAP, contact: usarmy.redstone.asc.mbx.aoap@army.mil or (256) 955–0236.

12–3. Army Modification Program

Modifications to Army materiel are either mandatory MWOs that are emergency, urgent, or routine or are alternate changes that include minor alterations and special-purpose or special mission modifications. Policy and procedures are in AR 750–10, AR 220–1, AR 700–138, DA Pam 750–1, and DA Pam 738–751.

12–4. Army's Critical Safety Item Program

a. An item will be identified as CSI when failure of that item could result in loss of or serious damage to the aircraft or weapon system, an unacceptable risk of personal injury or loss of life, or an uncommanded engine shutdown that jeopardizes safety. Damage sufficient to create a class A mishap or a mishap of severity category I constitutes substantial damage. All CSIs will be considered as flight safety critical aircraft parts.

b. CSIs will be purchased or repaired or overhauled only from only approved sources. The objective is to achieve competition among approved CSI suppliers and their products and to ensure that potentially new CSI suppliers and their products are effectively evaluated prior to delivery of CSIs to the Army.

(1) Offers of surplus material of CSIs will be considered only for procurement provided approved documentation substantiating the following criteria:

(a) Government contract QA inspections will be performed on the surplus offers to ensure the criteria are met and all critical characteristics identified on the component drawings, in the solicitation or contract, and in the QA letter of instruction are acceptable.

(b) Supplementary QA provisions may be provided where verification of critical safety characteristics cannot be performed without degradation of the CSI.

(2) Local purchase of CSIs is prohibited unless justified by unusual and compelling urgency.

(3) Prior to installation of replacement CSIs not drawn from "ready for issue" inventory (for example, CSIs obtained from aircraft recovery sites or other salvage or cannibalization activities), the CG, AMCOM will ensure that all required maintenance actions and configuration changes are in conformance with current fleet technical documentation and that applicable acceptance test procedures have been satisfied.

c. Service depots and other government organic facilities are authorized to manufacture CSIs in accordance with the following:

(1) Depots and other government facilities are candidates to be alternate sources for routine, repetitive, production lot manufacturing of CSIs provided AMC confirms they meet all the requirements established for alternate source qualification.

(2) Depots and other government facilities are authorized to manufacture CSIs in limited quantities on a one-time basis without undergoing the full alternate source qualification process only when the following conditions are satisfied:

(a) Execution of all phases of one-time manufacture processing will be done on an emergency basis and will be given high priority.

(b) Quantities in excess of the immediate need may be manufactured where additional items are necessary for testing (for example, first article, fatigue strength, other destructive tests) or the economics of production, part usage, and production processes indicate this is clearly advantageous to the government. This authority for one-time manufacture will not be used to circumvent alternate source qualification requirements for repeat or routine production. This one-time manufacture requirement does not apply to items produced to support research, development, test, or evaluation. The parts produced in accordance with this process will be coded, tracked, and disposed of as military unique CSIs.

d. Modifications of CSIs during installation or repair to make the item fit or function are prohibited unless approved by AMCOM. CSIs that need to be modified to make them fit or function properly will not be installed until the problem has been reported to AMCOM and disposition is provided in accordance with discrepant material review processes.

e. In the repair or overhaul of aviation systems and equipment, only conforming CSIs purchased from sources approved by AMCOM will be used. This is regardless of whether the repair or overhaul is performed by the Government or a contractor.

f. PQDRs will be submitted, investigated, and tracked where deficiencies are identified or suspected on CSIs. PQDRs will be submitted on CSIs where there is a defect or nonconforming condition detected on new or newly reworked Government-owned products, premature equipment failures, or products in use that do not fulfill their expected purpose, operation, or service because of deficiencies in design, specification, material, manufacturing, and workmanship. Deficiencies relating to critical characteristics or those that potentially impact safety will be classified as category 1 PQDRs.

g. When CSIs are no longer required by an Army aviation activity, the CSIs and associated documentation will be provided to the DLA Disposition Services for disposal as required by DoDM 4140.01 and in accordance with DoDM 4160.21.

12–5. Repair cycle floats

a. RCF is a DA authorized quantity of selected class VII end items with a LIN and national item identification number (NIIN).

b. The system of record for RCF asset accountability is the LMP. RCF assets must be coded as a readiness float within the system of record maintenance master data file (MMDF).

c. The CG, AMC will account for RCF assets and issue floats in the LMP to GCSS–A in support of requesting unit or depot in accordance with DCS, G–3/5/7 priorities.

d. Responsibilities for Army RCFs are as follows:

(1) The ASA (ALT) will—

(a) In coordination with the combat developer assess whether there is a maintenance float requirement and provide this information to the combat developer. The combat developer will calculate RCF requirements using the formula in table 12–1 for new ground acquisition or RCF formula for Aviation programs as part of the requirements process. This will establish the initial RCF component with the overall approved AAO. Coordinate with the DCS, G–8, DCS, G–4 and DCS, G–3/5/7 (DAMO–AV) to determine the APO quantity associated with RCF quantity.

(b) Request access to the RCF requirements in DCS, G–8, Force Development AE2S to facilitate AAO and APO reviews and confirm RCF requirements by LIN and FY no later than the second quarter of each FY utilizing previous FY data.

Table 12–1
Repair cycle float authorization formulas[1]

Time frame	Formula
RCF Formula for Systems- Before Fielding (Used by MATDEVs)	Requirement = (RG x IIQ) x [MTTR/(MTBF+MTTR)]

Note:

[1] RG = readiness goal from AR 700–138.

[2] For initial computation during acquisition development, MTTR and MTBF is in days.

[3] The MTBF and MTTR are those operational requirements specified for that system by the CAPDEV, documented in the initial capabilities document, and included in the product support analysis requirements.

[4] When these elements are in rounds, hours, miles, or events, they must be converted to days. During development, MTBF and MTTR data will be obtained from the product support analysis requirements.

[5] Supported assets and supported LIN on hand exclude RCF assets.

[6] IIQ = Initial Issue Quantity.

[7] MTTR = mean time to repair.

[8] MTBF = mean time between failure.

(2) The DCS, G–3/5/7 will, annually—

(a) Evaluate DCS, G–4 proposed AAO RCF adjustments and approve RCF requirements in accordance with Army priorities and established modernization plan.

(b) Provide approved AAO for execution.

(c) Update MMDF based on DCS, G–3/5/7 approved RCF requirements.

(3) The DCS, G–3/5/7 (DAMO–AV) will review, validate, approve, and centrally manage aircraft RCF requirements to meet the needs of the Army and are accounted for based on evolving distribution priorities. Central management of float aircraft is required due to low density of the population, aircraft production timelines, DLR timelines, rate of attrition, and evolving operational requirements.

(4) The DCS, G–4 will, annually—

(a) Provide oversight of the RCF computation and annual submission process to assess the effectiveness of the program and provide any updates based on Army priorities.

(b) Recommend to DCS, G–3/5/7 approval or disapproval of RCF requirements.

(c) Validate the requirements for ground and aviation systems.

(5) The DCS, G–8 will—

(a) Evaluate DCS, G–4 validated RCF requirements for affordability and determine the APO quantity as appropriate.

(b) Ensure RCF requirements are the same LIN and modernization as supported assets.

(c) Validate RCF requirements and update AE2S with approved requirements.

(d) Validate asset availability, procure assets, and provide disposition of excess to support the approved RCF requirements.

(6) The CG, AMC will—

(a) Review and verify ACOM, ASCC, and DRU RCF nominations.

(b) Fund second destination transportation requirements.

(c) Maintain accountability of RCF assets in LMP and the APSR and ensure float transactions are documented in GCSS–A.

(d) Ensure RCF maintenance readiness is separately reported monthly in accordance with AR 700–138.

(e) Program funding requirements for the sustainment of RCF assets.

(7) ACOM, ASCC, and DRU commanders will—

(a) Appoint in writing as an additional duty an RCF coordinator.

(b) Establish subordinate RCF managers.

(c) Submit RCF nominations third quarter annually to AMC.

(d) Ensure aviation RCF is in accordance with this paragraph.

(e) Ensure RCF supply transactions are conducted according to AR 710–4 and DA Pam 750–1.

(f) Ensure joint TI is conducted and signed by a LAR, LRC/AFSBn representative.

12–6. Battle damage repair and expedient repair

a. BDR is essential repair, which may be improvised, carried out rapidly in a hostile environment to return damaged or disabled equipment to temporary service. The purpose of BDR is to return disabled equipment rapidly to combat or to enable the equipment to self-recover.

b. Expedient repairs are temporary in nature to restore equipment to a specified condition by non-conventional or improvised repair, both deployed and in garrison, bounded by legal constraints. Maintainers will perform repairs that are more reliable as the situation allows. Examples of expedient repairs include replacing a damaged hose with a fabricated hose without a national stock number (NSN), installing a repair part fabricated with advanced manufacturing, using alternative fully functional batteries, but not the NSN stated in the TM, and sealing electrical wires to prevent electrical shorts when wet or contact to grounds or other wires. For mandatory BDR procedures see DA Pam 750–1.

12–7. Army Chemical Agent Resistant Coating, Camouflage, and Marking Program

a. CARC refers to a coating system, not a single coating. Application of the CARC system consists of four distinct steps, each of which is critical to the performance of the overall system. The steps are cleaning, pretreating, priming, and top coating. Missing a step can result in failure of an entire coating system. Lists of approved elements of the CARC system are in the current revision of MIL–DTL–53072. The CARC system (or other approved coating system) used on equipment protects the underlying materials, often metal, from corrosion as one of its primary functions. Each specification within the CARC system has an approved and validated qualified product database (QPD). Use only those items validated and listed on the QPD at https://qpldocs.dla.mil/search/default.aspx.

b. CARC coating system and CPP responsibilities are as follows—

(1) The CG, AMC is the Army leader for providing management and direction of the CARC painting and marking program. AMC, MSC commanders will ensure that the CARC system requirements are included in all sustainment maintenance. The CG, AMC in coordination with DCS, G–3/5/7, PEO, and PMs provide appropriate CARC color schemes for new procurement processes.

(2) The CG, T2COM provides management and direction for CPP, of Army materiel as follows—

(a) U.S. Army Combat Capabilities Development Command (DEVCOM) Army Research Laboratory (ARL), Materials and Manufacturing Sciences Division, Materials Development and Transition Branch (FCDD–RLW–MC), Coatings and Corrosion Team is the technical authority for CARC systems. The ARL is responsible for researching, developing, and maintaining CARC protective coatings, the testing and qualification of these products, the technical instruction on paints and painting procedures, providing technical content to the specification and related CARC documents and the shelf-life validation and extension. The ARL Materials and Manufacturing Sciences Division Chief, which includes the ARL Specifications & Standards Office, is also responsible for developing, writing, managing, and maintaining these material specifications along with the QPD.

(b) Development of camouflage patterns, and color or colors for Army materiel.

c. Policies for painting.

(1) The CARC system is the approved coating for all combat and combat support equipment; tactical vehicles; aircraft, including unmanned; and essential GSE and repairable containers such as engine, transmission, and all ammunition containers, including appropriate kits, except as stated in paragraphs 12–7*c*(9)(*a*) through 12–7*c*(9)(*f*).

(2) Coatings (paint) will be applied only when the present paint is unserviceable or if directed by HQDA. Vehicles may be completely recoated (repainted) when 25 percent or more of the total vehicle painted area has been determined to be unserviceable by supervisory maintenance personnel. For aircraft, repair painting is restoration of a noncompliant coating system to an area equal to or less than 50 percent, and complete painting is restoration of a noncompliant coating system to an area greater than 50 percent.

(3) Repainting for the sole purpose of achieving uniformity or for cosmetic purposes is prohibited.

(4) Tactical equipment designed for single color CARC system requirement will be painted with an approved color based upon contingency mission environment.

(5) Complete repainting may be performed at field and sustainment levels where Occupational Safety and Health Administration approved facilities are available in accordance with TM 43–0139 for Army Ground Equipment and TM 1–1500–345–23 for aircraft. Aircraft complete painting will be performed at sustainment level. For vehicles, the threshold for complete repainting is 25 percent or more of the total vehicle area deemed unserviceable. Below this threshold, spot painting to repair damaged CARC system and prevent corrosion will be done at the field level.

(6) Spot painting of the coating system to prevent corrosion at the field level using a brush, roller, or spray can (or other approved CARC repair product forms) will be done in accordance with TB 43–0242 for Army Ground Equipment and TM 1–1500–345–23 for aircraft. Spot painting includes restoration of painted surfaces after repair.

(7) Spot painting and marking of equipment painted with the CARC system will be with CARC system only. The use of any unauthorized, non-CARC system coating on any equipment painted with the CARC system is strictly prohibited.

(8) Damaged paint, particularly the primer(s), must be repaired in a timely manner to maintain or reestablish corrosion protection. Scratches, chips, or marring of the paint observed during PMCS will be repaired at field level to prevent corrosion damage (see TM 43–0242 for Army Ground Equipment and TM 1–1500–345–23 for aircraft).

(9) Surfaces not requiring coatings will not be painted. For example, items made of fabric, that have anodized, or parkerized surfaces will not be typically painted. Do not paint the following with the CARC system:

(a) Painted items that attain surface temperatures of 400 degrees Fahrenheit and higher, serve a heat-conducting function, or serve a function of expanding and contracting during operation. Examples are manifolds, turbo chargers, cooling fins, and rubber hoses.

(b) Displacement watercraft that will be subject to prolonged saltwater immersion, such as the logistical support vessel and the landing craft utility (see TM 43–0243 for Spot painting of Army Watercraft Systems).

(c) Non-deployable equipment and fixed installation systems such as railroad rolling stock and fixed power generation systems.

(d) Installation/TDA equipment such as military police cars, non-tactical fire trucks, and buses.

(e) Aluminum transmissions that are enclosed in combat vehicle power pack compartments. However, any ferrous components of the transmission must be protected with CARC or other rust-preventive agent.

(f) Medical devices.

(10) Environmentally acceptable coatings that do not violate Federal, State, and local laws will be used at all times in accordance with technical data packages provided to depots, arsenals, and contractors.

(11) CARC system-protected surfaces are not to be covered with petroleum or other products to improve the appearance of the equipment. Use of these products will reduce the chemical protection provided by the CARC system and increase the probability of injury.

(12) Waivers and exceptions for CARC system requirements will be considered on a case-by-case basis and may only be authorized by the exception of policy of this regulation after considering stake-holder recommendations and justification. At a minimum, stakeholders should include the Army Corrosion Control Prevention Executive; DCS, G–4's ARL; DEVCOM ARL; and the appropriate centers (for example Ground Vehicle System Center or Aviation and Missile Center) and AMC MSC in their recommendation and justification. Full coordination with stakeholders must be made at least 30 calendar days prior to any deadline for decision.

(a) The requestor will coordinate the DA Form 5 (Army Staffing Form) with stakeholders who will provide concur or non-concur recommendation to AMC and the milestone decision authority (MDA) for review and consideration.

(b) For equivalency of corrosion protection, the requestor will provide ARL actual data or objective quality evidence by an independent third-party who validates the non-CARC coating(s) as intended to be applied meets, at least, the same level of corrosion protection as would be provided by the CARC system components for pretreatments, primers, and topcoats for the same application, with preference given to the highest performing CARC. The data or objective quality evidence will include outdoor exposure testing, and the testing required in the latest versions of the applicable CARC system specifications covered by MIL–DTL–53072 for cleaning, pretreatments, primers, and topcoats. For equivalency of critical attributes such as chemical agent resistance, spectral reflectance, visual color and gloss the requestor will provide a detailed survivability and protection analysis to ensure the assets, assets in nearby vicinity and unit or battalion the asset will be deployed with will not be compromised in terms of survivability and protection. Analysis will include a percentage of enhancement or vulnerability for requested waiver. This will include perception test and similar to ensure zero compromise of all mission assets and rigorous data collected. Commercial comparisons are not considered valid data.

(c) The 30-day coordination period begins when ARL agrees they have sufficient information to evaluate whether the proposed coating system can provide corrosion performance equivalency and data to support dismissal of critical attributes such as chemical agent resistance, spectral reflectance, visual color and gloss or any element being requested to be exempted. Any decision to accept less than the corrosion performance equivalency of CARC or other requirements such as chemical agent resistance, spectral reflectance, visual color, gloss—will be documented in the Systems Engineering Plan, the Test and Evaluation Master Plan and the LCSP. All supporting rationale and life cycle cost estimates used in making the decision will be provided to ARL upon approval of the waiver and exception.

(13) Waivers or exceptions to CARC system policy for CBRN mission critical systems or CBRN contamination survivability requirements require a waiver/change approval from DCS, G–3/5/7 in accordance with AR 15–41.

(14) Temporary color change will only be approved by AMC (G–4) or MDA. This action will be coordinated with ARL.

d. Policies for CPP.

(1) CPP is a camouflage designed to improve concealment by making materiel blend in with their surroundings and falsify information about the asset.

(2) CPP may include a single color, such as tan or green, or use a multiple color design as developed by the Ground Vehicle Systems Center and approved by CG, T2COM.

(3) CPP for new equipment will be specified in the technical data package and will be applied at the time of manufacture.

(4) Camouflage colors must meet requirements for spectral (gloss) and infrared reflectance, in addition to color as outlined in MIL–DTL–53072 and established by DEVCOM ARL Coatings and Corrosion Team.

(5) When available, CPP will be applied to equipment during depot rebuild/overhaul, product improvement programs, and comprehensive repair programs. If the three-color pattern has not been developed, a single color base coat will be applied. Where possible, depots will apply colors that conform to unit contingency missions if requested.

(6) Field and sustainment activities will accomplish CPP of equipment having only a base coat. Patterns may be obtained from the DEVCOM Ground Vehicle System Center. If requirements exist that differ from the approved patterns and color scheme, ACOM, ASCC, and DRU commanders must request development of the required pattern and color scheme thru DEVCOM Ground Vehicle Systems Center for all ground equipment.

(7) ACOM, ASCC, and DRU commanders are assigned responsibility and authority to camouflage paint equipment with patterns appropriate for contingencies. When a unit has more than one contingency plan, the CPP for the primary contingency will be used. Priority should be given to early deploying units.

(8) CPP will not be changed for training exercises.

(9) CPP will not be applied to—

(a) Equipment not requiring open-area concealment.

(b) Non-deployable equipment and fixed installation systems.

(c) Equipment that must be painted in accordance with regulation or policy established by other Services or Government agencies.

(d) Rotary and fixed-wing aircraft. However, GSE must have CPP applied in accordance with this regulation.

(e) Components of systems or items that can be transported in various modes and can be constructed or assembled into a variety of configurations.

(f) Stackable containers used in the Defense Transportation System, except missile containers that are a component of a weapon system.

(g) Canvas covers, tarpaulins, end curtains, seats, and backrests.

(10) Equipment will not be decorated with individual characteristic designs such as caricatures or cartoons.

(11) The style, size, and exact location of markings for all Army materiel will be specified in applicable TB and other DA technical publications, including technical data packages.

(12) Aviation equipment will be marked according to TM 1–1500–345–23.

(13) Special markings for NTVs are included in AR 58–1.

(14) Technical data, where appropriate, will be contained on metal or plastic plates or decals.

(15) The Red Cross insignia for Army medical vehicles and AMEDD equipment will consist of a red cross composed of four square-shaped arms bordering on a center square of the same size and superimposed on a square white field slightly larger than the cross.

(16) Under tactical conditions, when requirements for concealment outweigh those for recognition, all conspicuous markings may be obscured or removed by the authority and at the discretion of the major organization commander present. Protective Red Cross markings may be obscured only at the direction of the responsible major tactical commander.

(17) Overseas commanders may deviate from this regulation when host countries require special markings in accordance with international agreements. For aviation, refer to TM 1–1500–345–23.

(18) Before Army materiel is sold or permanently transferred from the jurisdiction of the DA, all Army identification markings will be removed or permanently obliterated by sanding or chipping.

(19) Markings on the exterior of tactical equipment will be applied or over-sprayed with qualified CARC products.

(20) Safety marking, including hazard warning and caution information, for non-tactical equipment, tactical equipment not subject to the Army camouflage policy, and equipment at fixed facilities will comply with the provisions of AR 58–1. Materiel painted in camouflage requiring hazard warning and caution information will have this information applied in a contrasting color.

(21) Tactical equipment in CONUS and OCONUS units and activities without an identifiable contingency mission or plan may maintain equipment in single color CARC that best conforms to the local terrain to minimize repainting costs without affecting unit readiness:

(a) Equipment with three-color camouflage paint may not be repainted in single color CARC for the sole purpose of achieving uniformity.

(b) It is acceptable to have a mix of three and single color vehicles in a unit or activity.

(c) Equipment may be repainted from three color to single color CARC only when a qualified field sustainment or depot maintenance personnel determines 25 percent or more of the total vehicle painted area is unserviceable.

12–8. Product quality deficiency reports and equipment improvement reports

Reporting instructions for PQDRs and EIRs are contained in AR 702–7–1 and DA Pam 738–751.

12–9. Administrative storage of materiel

a. Administrative storage is the placement of materiel in a limited care and preservation status for short periods of time. This applies to MTOE and TDA units. Procedures for the administrative storage of materiel can be found in DA Pam 750–1.

b. ACOM, ASCC, and DRU commanders responsible for administrative storage will—

(1) Furnish assistance to commanders as required in carrying out an administrative storage program.

(2) Monitor the status of materiel in administrative storage in their commands.

(3) Designate an installation representative to conduct a command level review of administrative storage to reassess and revalidate the requirement.

(4) Forward results of these reviews, with appropriate recommendations, to the DCS, G–4 (Maintenance Directorate) when circumstances are beyond the capability of the ACOM, ASCC, and DRU commander to resolve.

c. Equipment in administrative storage will have all major subsystems exercised as directed by applicable TMs. Any faults detected will be corrected. The materiel will then be completely reprocessed as directed by applicable TMs if it is to be returned to administrative storage.

d. Before equipment is placed in administrative storage, it must meet the maintenance standard prescribed in paragraph 3–2 and DA Pam 750–1.

e. Equipment in administrative storage is accounted for in accordance with AR 710–4; asset reports are submitted under AR 710–3 and materiel condition status reports under AR 220–1 and AR 700–138.

f. Administrative storage of aircraft will be considered in the same category as short term storage and accomplished in accordance with the applicable TM. In no case will aircraft remain continuously in administrative (short-term) storage for more than 45 days. At the end of that time, aircraft will be restored to an FMC status or placed in intermediate storage up to, but not exceeding, 180 days.

12–10. Maintenance Assistance and Instruction Team Program/Command Maintenance Evaluation and Training

a. The MAIT/COMET Program is designed to—

(1) Increase readiness of equipment and units consistent with assigned goals needed to carry out the Army mission.

(2) Assist commands in readiness inspections.

(3) Provide effective and responsive assistance and instruction to commanders at all levels in resolving logistic issues to meet mobilizations and contingency operations within organic, attached, and supported units.

(4) Augment the commander's capability for providing maintenance and associated logistic assistance, instruction assistance, and instruction to organic, attached, and supported units.

(5) Identify systemic problems in maintenance management and help improve management of maintenance workload at field and sustainment levels.

b. ACOM and ASCC commanders, except the CG, AMC; CG, T2COM; and the CG, U.S. Army Transportation Command will—

(1) Establish a MAIT/COMET Program to support Regular Army units.

(2) Establish a MAIT/COMET Program at the Regional Readiness Command or comparable level to support Army Reserve units.

(3) Ensure that MAITs/COMETs are technically self-sufficient for the routine support mission.

(4) Provide for the temporary augmentation of MAIT/COMET to fill short-term or infrequent requirements for equipment and management skills not available from local resources.

(5) Ensure that sufficient funds and personnel are budgeted and allocated for MAIT/COMET operations.

(6) Coordinate technical assistance programs to provide maximum benefit to supported units with minimum resources.

(7) Ensure that any acronym that could be misconstrued as being MAIT/COMET is not used.

(8) Review MAIT/COMET operations annually to ensure maximum program effectiveness.

(9) Submit recommendations for MAIT Program improvement or deviation to DCS, G–4 (DALO–MMD), 500 Army Pentagon, Washington, DC 20310–0500.

(10) Upon request, provide backup MAIT/COMET support to units of the ARNG. Such support should be reciprocal and is normally reimbursable.

c. The CNGB will ensure that MAIT/COMET Program services are furnished to units of the ARNG.

d. Corps, divisions, separate brigades, installations, senior-level ARNG and USAR Geographical Functional Commands commanders will—

(1) Have operational control of assigned MAITs/COMET.

(2) Ensure that MAIT/COMET members are technically competent and possess the ability to provide quality assistance and instruction.

(3) Ensure that assigned MAIT/COMET personnel receive training to maintain technical competence and remain current with changing logistics policies and procedures and instructional techniques. The MAIT/COMET will receive new equipment training.

(4) Request assistance from supporting activities or higher HQs to correct problems that cannot be corrected within the command.

(5) Request, through channels, modifications to TOE, MTOE, or TDA for personnel and equipment in support of the MAIT Program.

(6) Provide resources needed to carry out the MAIT/COMET Program.
(7) Periodically evaluate MAIT/COMET performance and effectiveness.
(8) Provide for periodic conferences between MAITs/COMETs evaluation and inspection teams to highlight and resolve possible conflicts in interpretation of logistic policy and procedures.
e. Commanders of units visited will—
(1) Ensure that appropriate personnel, materiel, and records are available for the MAIT/COMET during scheduled assistance and instruction visits.
(2) Take prompt action to correct identified problems.
(3) Request assistance from supporting activities or higher HQs to correct problems that cannot be corrected by the unit.
f. For mandatory procedures relating to the MAIT/COMET Program see DA Pam 750–1.

12–11. Command Maintenance Discipline Program
The CMDP is a commander's program. It does not prohibit or replace the formal or informal evaluation of maintenance programs conducted at the discretion of commanders such as MAIT, COMET, or Inspector General inspections. The CMDP is a tool to evaluate unit maintenance programs on a day-to-day basis. The CMDP is oriented to enable combat readiness and sustainability. The overriding principle of CMDP is the Soldier's and units' abilities to maintain their equipment in any environment. The DCS, G–4 will provide a baseline CMDP checklist. CMDP checklists and inspection criteria are established at ACOM, ASCC, DRU, and NGB level. Division and below unit commanders will conduct a CMDP inspection annually. Corps and ASCC unit commanders will conduct a CMDP inspection biennially.

12–12. Unique Item Tracking Program
a. The objective of the UIT Program is to maintain visibility of each uniquely identified asset for the primary purpose of inventory control and engineering analysis. Security, accountability, safety, maintenance, OR, warranty applicability, and other areas that may benefit from the tracking process will be subsets of the inventory control or engineering analysis functions. UIT by serial number of selected items and installed components is required by Defense Logistics Manual 4000.25–2, Volume 2, DoDI 4140.07, and AR 710–3.
b. UIT reporting requirements for Army-controlled small arms, security risk I nonnuclear missiles and rockets, CCIs, and radiological testing and tracking assets are set forth in AR 710–3. Additional assets for which serial number tracking via UIT is deemed necessary will be approved by the DCS, G–4 (Maintenance Directorate).
c. All assets within the supply system subject to UIT will be tagged with a UII that specifically identifies individual assets being controlled or managed. A UII can be the item's serial number, and the vehicle identification number, if no other UIT asset has the same identifier within the NSN or NIIN. Installed components, as specified in AR 710–3, also require UII assignment.
d. All UIT programs will include provisions for data entry and tracking using AIT. In that regard, MATDEVs will ensure that new procurements of serial-number-tracked assets include provisions for AIT-readable serial number markings to be applied during manufacture.

12–13. Serialized Item Management Program
DoDI 4151.19 and AR 710–3 establish a Serialized Item Management program.

12–14. Ground safety notification system
The Ground Safety Notification System is used to disseminate maintenance information or MAMs to the field. These messages include the SOUM and the ground safety action. Mandatory procedures for the Ground Safety Notification System can be found in AR 750–6.

12–15. Maintenance messages
Maintenance messages (maintenance, sustainment, logistics supply, technical, or operational) that are not related to safety can provide new or different pertinent non-safety information (see AR 750–6). Prior to publishing, all maintenance messages will be coordinated through the appropriate AMC commodity command safety office to ensure their content is not safety related. The only authorized method of informing ACOMs, ASCCs, and DRUs of hazardous equipment conditions is through the Ground Safety Notification System.

12–16. Army Corrosion Prevention and Control Program

a. The Army CPC Program responsibilities are in AR 11–42. This regulation establishes policies and responsibilities to implement CPC of Army materiel.

b. Maintenance and storage are essential to the effective CPC program implementation. The suggested corrective and preventive actions that are within the operator's capability are further established in the DA Pam 750–1.

c. CPC Surveys are an integral part of the field maintenance and should be collective efforts between AMC, T2COM, and host commands, as further established in the DA Pam 750–1.

d. Unit Corrosion Monitors (UCMs) are critical in implementing effective CPC programs. Roles and responsibilities of UCMs are further established in DA Pam 750–1 and AR 11–42.

Chapter 13
Advanced Manufacturing for Field Maintenance Applications

13–1. Advanced Manufacturing for Field Maintenance Applications

For policy regarding advanced manufacturing please see AR 70–1, AR 700–127, DoD Instruction 5000.93, and Army Directive 2025–14.

Chapter 14
Additional Areas of Maintenance Information

14–1. Maintenance of conventional ammunition

Ammunition maintenance consists of all actions necessary to retain ammunition in, or restore it to, an FMC condition. Munitions maintenance and surveillance procedures will be complied with in accordance with DA Pam 742–1.

14–2. Maintenance of organizational clothing and individual equipment

The organization clothing and individual equipment issued to Soldiers will be inspected to determine serviceability and maintained in accordance with AR 700–84.

14–3. Unit maintained equipment

Unit maintained equipment (UME) is equipment on the unit APSR that remains at home station after the main body deploys for a rotational programmed mission and is accounted for and sustained by the rear detachment until the main body redeploys from the rotational programmed mission. UME procedures in DA Pam 750–1 are mandatory.

14–4. Nuclear Hardness Maintenance and Hardness Surveillance Program

a. Objective. The objective of the Nuclear HM/HS Program is to ensure the survivability of mission critical systems to the effects of nuclear weapons; to protect the investment made in hardening systems; and to ensure compliance with DoDI 3150.09.

b. Applicability.

(1) The Nuclear HM/HS Program applies to those systems that are identified as mission critical by their capabilities documents, that have nuclear survivability requirements, and that incorporate hardening to meet those requirements, in accordance with DoDI 3150.09. The U.S. Army Nuclear and Countering Weapons of Mass Destruction Agency maintains the list of Army mission critical systems with nuclear hardness requirements.

(2) This maintenance policy is independent of hardness assurance.

c. Program policy.

(1) HM is a unit responsibility. Effective nuclear HM depends on proper maintenance in accordance with a system's TMs. HM begins with routine PMCS. MATDEVs will develop checks and services requirements and ensure they are included in mission critical systems' TMs.

(2) HM service checks must be completed following any standard maintenance work.

(3) For HM and HS responsibilities of the MATDEV, see AR 700–127 and DA Pam 700–127.

(4) For information on survivability of Army personnel and materiel, see AR 70–75.

Appendix A

References

Section I

Required Publications

Unless otherwise stated, Department of the Army publications are available on the Army Publishing Directorate website at https://armypubs.army.mil/. DoD publications are available on the Executive Services Directorate website at https://www.esd.whs.mil.

AR 5–9
Installation Agreements (Cited in para 2–16*h*(11).)

AR 40–61
Medical Logistics Policies (Cited in para 10–1*c.*)

AR 70–1
Army Operation of the Adaptive Acquisition Framework (Cited in para 2–1*j*.)

AR 71–32
Force Development and Documentation Consolidated Policies (Cited in para 2–5*a*.)

AR 95–1
Flight Regulations (Cited in para 3–2*b*(7).*)*

AR 200–1
Environmental Protection and Enhancement (Cited in para 2–10*u.*)

AR 215–1
Military Morale, Welfare, and Recreation Programs and Nonappropriated Fund Instrumentalities (Cited on title page.)

AR 220–1
Army Unit Status Reporting and Force Registration–Consolidated Policies (Cited in para 10–3*a*.)

AR 420–1
Army Facilities Management (cited in para 2–6*v*.)

AR 700–127
Integrated Product Support (Cited in para 2–1*a*.)

AR 700–138
Army Logistics Readiness and Sustainability (Cited in para 2–9*m*(5).)

AR 700–139
Army Warranty Program (Cited in para 2–10*t*.)

AR 710–1
Centralized Inventory Management of the Army Supply System (Cited in para 4–10*a*.)

AR 710–2
Secondary Item Policy and Retail Level Management (Cited in para 2–12*f.*)

AR 710–4
Property Accountability (Cited in para 3–2*b*(5).)

AR 715–9
Operational Contract Support Planning and Management (Cited in para 4–16*d.*)

AR 750–6
Army Equipment Safety and Maintenance Notification System (Cited in para 3–2*b*(7).)

AR 750–10
Army Modification Program (Cited in para 2–12*r*.)

DA Pam 738–751
Functional Users Manual for the Army Maintenance Management System–Aviation (Cited in para 2–12*n*.)

DA Pam 750–1
Army Materiel Maintenance Procedures (Cited in para 1–3.)

DoDI 1225.06
Equipping the Reserve Forces (Cited in para 4–5*a*.)

DoDI 4151.18–H
Depot Maintenance Capacity and Utilization Measurement Handbook (Cited in terms.)

DoDI 4151.19
Serialized Item Management (SIM) for Life-Cycle Management of Materiel (Cited in para 12–13.)

DoDI 4151.24
Depot Source of Repair (DSOR) Determination Process (Cited in para 5–7*a*.)

DoDI 4151.26
DoD Inter-Service Depot Maintenance (Cited in para 5–6*c*.)

DoDI 8523.01
Communications Security (Cited in para 8–4*b*.)

DoDM 5220.22, Volume 2
National Industrial Security Program: Industrial Security Procedures for Government Activities (Cited in para 8–2*c*.)

TB MED 750–2
Operations and Management Guide for Operating Force Medical Device Maintenance (Cited in para 3–6*n*.)

Section II

Prescribed Forms

Unless otherwise indicated, Department of the Army forms are available on the Army Publishing Directorate website at https://armypubs.army.mil/.

DA Form 7723
Maintenance Expenditure Limit (MEL) Waiver (Prescribed in para 4–8*g*(4).)

Appendix B

Internal Control Evaluations

Section I

Equipment Maintenance (Assistant Division Commander for Support/Army Command, G–4)

B–1. Function
The function covered by this evaluation is equipment maintenance.

B–2. Purpose
The purpose of this evaluation is to assist the ADCS, ACOM, ASCC, and DRU G–4 in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–3. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Reperformance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on a DA Form 11–2 (Internal Control Evaluation Certification).

B–4. Key control questions
a. Are commanders actively involved in their maintenance programs?
b. Are subordinates held accountable for proper maintenance operations?
c. Is equipment being maintained to the Army maintenance standard?
d. Are units assigning proper priorities to unserviceable equipment?
e. Is a maintenance officer appointed in writing to supervise maintenance operations?
f. Are maintenance SOPs established and trained?
g. Are maintenance operations performed by military personnel in combat areas or hazardous duty areas as determined by the combatant commander?
h. Is standard Army TMDE, to include embedded diagnostics, used during maintenance operations to diagnose and repair equipment?
i. Are maintenance personnel effectively using TMDE and embedded diagnostics in maintenance operations?
j. Are controlled exchanges made only under authorized circumstances?
k. Are maintenance operations performed using the Army maintenance system?
l. Are maintenance operations performed in accordance with environmental security provisions?

B–5. Supersession
This evaluation replaces the evaluation for equipment maintenance previously published in AR 750–1, dated 2 February 2023.

B–6. Comments
Help to make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section II

Maintenance Management System (Assistant Division Commander for Support/Major Army Command, G–4)

B–7. Function
The function covered by this evaluation is maintenance management systems.

B–8. Purpose
The purpose of this evaluation is to assist the Division ADCS, ACOM, ASCC, and DRU, G–4 and commanders in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–9. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Reperformance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–10. Key control questions
a. Is GCSS–A the primary means of managing maintenance?
b. Are maintenance activities using automated procedures, processes, and forms located in appendix A?

B–11. Supersession
This evaluation replaces the evaluation for maintenance management systems previously published in AR 750–1, dated 2 February 2023.

B–12. Comments
Help make this a better tool for evaluating internal controls. Submit comments to DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section III

Manpower Utilization Standards (Assistant Division Commander for Support and Army Command, G–4)

B–13. Function
The function covered by this evaluation is manpower utilization.

B–14. Purpose
The purpose of this evaluation is to assist the Division ADCS, ACOM, ASCC, and DRU G–4 and commanders in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–15. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Reperformance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–16. Key control questions
a. Are military maintenance personnel assigned to positions that maximize the use of their MOS skills daily?
b. Do military maintenance personnel perform maintenance mission tasks at least 50 percent of total available time?

B–17. Supersession
This evaluation replaces the evaluation for manpower utilization standards previously published in AR 750–1, dated 2 February 2023.

B–18. Comments
Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4. usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section IV

Maintenance Expenditure Limits (Assistant Division Commander for Support/Major Army Command, G–4)

B–19. Function
The function covered by this evaluation is MELs.

B–20. Purpose
The purpose of this evaluation is to assist the Division ADCS, ACOM, ASCC, and DRU, G–4 in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–21. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Re-performance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–22. Key control questions
a. Are field and sustainment maintenance units and activities using MELs to determine if excess and mishap-damaged equipment is economically repairable?
b. Are conditions for waivers of published MELs being met?
c. Are Field Level organizations using the standard price for any repairable secondary items that are repaired at the field level? Are sustainment level organizations using the LAC from the LMP for repairable secondary items?

B–23. Supersession
This evaluation replaces the evaluation for MELs previously published in AR 750–1, dated 2 February 2023.

B–24. Comments
Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section V

Special Repair Authorities/One-Time Repair Authorities (Deputy Chief of Staff, G–3/5/7, U.S. Army Materiel Command)

B–25. Function
The functions covered by this evaluation are SRAs and one-time repair authorities (OTRAs).

B–26. Purpose
The purpose of this evaluation is to assist AMC in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–27. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Re-performance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and

generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–28. Key control questions

a. Has a primary point of contact for SRAs or OTRAs been assigned?

b. Is the SRA or OTRA database being maintained with status?

c. Are quarterly reports being provided?

d. Are SRA or OTRA requests acted upon (approvals and disapprovals) within the specified timelines?

B–29. Supersession

This evaluation replaces the evaluation for specialized repair authorities previously published in AR 750–1, dated 2 February 2023.

B–30. Comment

Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section VI

Special Repair Authority (U.S. Army Materiel Command Life Cycle Management Commander and Maintenance Inspector)

B–31. Function

The functions covered by this evaluation are SRA and OTRA.

B–32. Purpose

The purpose of this evaluation is to assist the AMC and maintenance inspectors in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–33. Instructions

Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Reperformance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–34. Key control questions

See paragraph 3–13.

a. Are SRA/OTRA requests being processed timely?

b. Are requests for SRA/OTRA carefully screened on obsolescent and obsolete items?

c. Are maintenance operations under the SRA/OTRA monitored to assure quality, safety, and technical standards are met?

d. Is the AMC's SRA/OTRA database being maintained for managed items?

B–35. Supersession

This evaluation replaces the evaluation for SRA previously published in AR 750–1.

B–36. Comment

Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section VII

Special Repair Authorities/One-Time Repair Authorities (Division Assistant Division Commander for Support/Overseas Major Command Deputy Chief of Staff, G–4)

B–37. Function
The functions covered by this evaluation are SRAs/OTRAs.

B–38. Purpose
The purpose of this evaluation is to assist the division ADCS/overseas ACOM, ASCC, and DRU G–4 in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–39. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Reperformance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–40. Key control questions
a. Are requests for SRA and OTRA being prepared with all required information/data?
b. Has SRA been obtained before depot repairs are performed at sustainment maintenance?
c. Are annual reports, which show number and costs of DLRs performed being submitted in a timely manner?
d. Is workload being reported to AMC quarterly?
e. Has work ceased on expired SRAs?

B–41. Supersession
This evaluation replaces the evaluation for specialized repair activities previously published in AR 750–1.

B–42. Comment
Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section VIII

Life Cycle Maintenance Support (Headquarters, Department of the Army Materiel Developer, U.S. Army Materiel Command)

B–43. Function
The function covered by this evaluation is life cycle maintenance support.

B–44. Purpose
The purpose of this evaluation is to assist AMC and MATDEVs in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–45. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Re-performance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–46. Key control questions

a. Is equipment being designed, developed, and supported within the Army maintenance system?

b. What are the top design priorities for supportability considered during the design and development phase?

c. Are MATDEVs providing materiel maintenance inputs to their Test and Evaluation Master Plan, Program Acquisition Plan, request for proposal, cost estimates, supportability strategy, reliability, availability, and maintainability rationale report, statement of requirements analysis, and the core determination analysis?

d. Is use of existing Army parts stressed in the design and acquisition of the weapon system?

e. Are technical and equipment publications being published in electronic media such as ETMs and IETMs?

f. Are maintenance service kits being developed and provided to optimize delivery of services throughout the force structure?

g. Are MATDEVs and AMC MSCs planning, programming, and budgeting for SSTS the first full FY after production ends?

h. Are SSTS requirements and cost estimates validated and certified?

i. Have the SSTS POM submissions been certified by appropriate authority?

j. Are post fielding LORA or other analyses being run using actual reliability data from fielded equipment?

k. Is the MAC updated to reflect any changes in the LORA outcome?

l. Are analyses performed and documented to ensure warranties are cost effective?

m. Are LOs being analyzed, adjusted, and published not less than every 5 years to leverage lubricant technology advances and synchronize the maintenance effort with current technology?

n. Is the use of contractor maintenance support being considered as part of the statement of requirements analysis during the ILS process in accordance with AR 700–127 and documented as part of the Milestone B ASARC?

o. Do solicitations and contracts for maintenance services require that essential quality requirements be defined, quantified, measured, and assessed during the contracted-out support process?

B–47. Supersession

This evaluation replaces the previously published evaluation(s) for life cycle maintenance support, dated 2 February 2023.

B–48. Comments

Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4 (DALO–MMD), 500 Army Pentagon, Washington, DC 20310–0500.

B–49. Supersession

This evaluation replaces the evaluation for National Maintenance Program previously published in AR 750–1.

B–50. Comment

Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Section IX

Army Depot Maintenance

B–51. Function

The function covered by this evaluation is Army Depot Maintenance.

B–52. Purpose

The purpose of this evaluation is to assist the MATDEV and the DCS, G–3/5/7, AMC in evaluating the key internal controls listed below. It is not intended to cover all controls.

B–53. Instructions
Answers must be based on the actual testing of key internal controls by utilizing one of four test methods which are Inquiry, Observations, Examination, or Re-performance. Inquiry regarding a control's effectiveness does not, by itself, provide sufficient evidence of whether a control is operating effectively and generally is corroborated through other types of control tests (observation or inspection). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2.

B–54. Key control questions
a. Are adequate controls in place to ensure that no more than 50 percent of depot maintenance workload will be contracted to be done by non-Federal employees?
b. Did MATDEVs for new systems develop a core logistics capacity at Government-owned, Government-operated facilities within 4 years of achieving initial operational capability?
c. Has a depot maintenance mobilization plan been developed that includes major and secondary items, ARNG and USAR requirements, inter-Service and interdepartmental orders, and essential contracts?
d. Have the MATDEV (for new systems), and AMC ensured that DMPE is available to support assigned depot maintenance programs including special repair authorities?
e. Have maintenance activities performing depot repairs, initiated procurement action in advance of the induction schedule, considering administrative and procurement lead times?

B–55. Supersession
This evaluation replaces the evaluation for Army depot maintenance previously published in AR 750–1, dated 2 February 2023.

B–56. Comment
Help to make this a better tool for evaluating internal controls. Submit comments to the DCS, G–4, usarmy.pentagon.hqda-dcs-g-4.mbx.publications@army.mil.

Glossary of Terms

Accountable property system of record
The government business system used to control and manage accountable property records. A subset of existing organizational processes related to the life cycle management of property that is integrated with the core financial system (AR 710–4).

Advanced manufacturing
See AR 70–1.

Area maintenance support activity
Provides, on an assigned geographical area basis, technical assistance, and unit maintenance support beyond the supported units' capabilities to accomplish during scheduled training assemblies. AMSA designations are: AMSA(G)—Maintenance support for USAR ground equipment, other than aircraft, medical, and water- craft; AMSA(W)—Support for USAR watercraft; AMSA(G/W)—Support for USAR ground and watercraft.

Army Oil Analysis Program
See AR 700–132.

Army oil analysis program evaluation criteria
See AR 700–132.

Assembly
See AR 710–1.

Battle damage repair
Essential repair, which may be improvised, carried out rapidly in a hostile environment in order to return damaged or disabled equipment to temporary service.

Calibration
Comparison of an instrument with an unverified accuracy to an instrument of known or greater accuracy to detect and correct any discrepancy in the accuracy of the unverified instrument.

Cannibalization
See DoDI 4151.18.

Capability
See DoDI 4151.26 and DoDI 5000.87.

Combined support maintenance shop
An ARNG TDA activity that provides field and sustainment levels of maintenance on Federal surface equipment issued to the ARNG.

Component
See DoDI 4151.26.

Condition-based maintenance

Critical characteristics
See DoDM 4140.01.

Critical safety item
See AR 700–145

Deferred maintenance
Authorized delay of maintenance or repair of uncorrected faults.

Deficiency
A fault or problem that causes equipment to malfunction. Faults that make the equipment NMC are deficiencies.

Depot level repairable
A CLIX item with a maintenance repair code of D or L. See AR 700–145; DoDM 4140.68.

Depot maintenance activity
See DoDI 4151.18, DoDI 4151.18–H, and DoDI 4151.26.

Depot maintenance capability
See DoDI 4151.18.

Depot maintenance capacity
See DoDI 4151.18.

Depot maintenance work requirement
A maintenance serviceability standard for depot level repairables designated for repair and return to AWCF stock It addresses repair methods, procedures and techniques, modification requirements, fits and tolerances, equipment performance parameters to be achieved, QA discipline, and other essential factors to ensure that an acceptable and cost- effective product is obtained.

Depot maintenance workload
A specific depot repair requirement for a specific item to be repaired. Units of measure include, work years, costs, and sale prices.

End item code
See DoDI 4151.26.

Equipment concentration site
Area for equipment storage and support to USAR and other authorized units during IDT, AT, and mobilization; includes a maintenance and storage branch.

Equipment improvement recommendation
Written reports on an SF 368 to report equipment faults in design operations and manufacturing of new equipment received that is below standard quality in workmanship under AR 702–7 and AR 702–7–1.

Equipment services
Specified maintenance actions performed on equipment, components, and systems when required, including providing routine checks, adjustments, changes, analysis, and lubrication, in accordance with designer and engineer specifications.

Fault
A term used to indicate that a piece of equipment has a deficiency or shortcoming.

Fault repair
The process used by operators and maintenance personnel to restore an equipment item to full functionality as originally designed or engineered.

Field level maintenance
See DoDI 4151.18.

Field maintenance activity
A USAR or ARNG activity that provides field maintenance for Federal surface equipment issued to supported units.

Fully mission capable
A materiel condition indicating that systems and equipment are safe and have all mission-essential subsystems installed and operating as designated by applicable AR. An FMC vehicle or system has no faults that are listed in the “not FMC ready if” columns of the TM XX–10 and XX–20 series PMCS tables and AR 385–10 provisions that apply to the vehicle or system or its sub-system required by AR 700–138. The terms ready and available and FMC refer to the same status: equipment is on hand and able to perform its combat missions.

General-purpose test, measurement, and diagnostic equipment
TMDE that is used or possesses the potential to be used without significant modifications for test, measurement, and diagnosis of a range of parameters for two or more items of equipment or systems.

Go/no–go (system)
Condition or state of operability of a system that can have only two parameters. Go: Functioning properly. No-go: Not functioning properly. Such conditions are displayed using meters, visual, audible alarms, sensors, or similar mechanisms.

Initial operational capability
See DoDI 4151.18.

Inspection
See DoDM 4140.27

Installation materiel maintenance activity
TDA maintenance organization set up to provide field or sustainment maintenance support for troop or installation operating equipment. An installation materiel maintenance activity operates at one or more fixed locations.

Installed building equipment
IBE includes items of real property affixed to or built into a facility that are an integral part of the facility.

Integrated logistics support
A composite of all the support considerations necessary to ensure the effective and economical support of a system for its life cycle. ILS is an integral part of all aspects of system acquisition and fielding. The principal elements of ILS related to the overall system life cycle are contained in AR 700–127.

Integrated materiel manager
See DoDM 4140.68 and DoDI 3110.06.

Inter–Service maintenance support
See DoDI 4151.26 (defining inter-service depot maintenance support).

Item unique identification
See DoDI 4151.19 and DoDI 4151.22.

Line replaceable unit
A combination of components or modules installed in an item of equipment or system that is replaceable in the operational environment (that is, under field or combat conditions). May be a printed circuit board (PCB), black box, component, major component, alternator, carburetor, avionics, tank engine, or road wheel assembly installed weapons.

Line-item number
A six-position alphanumeric number that identifies the generic nomenclature of specific types of equipment. Standard LINs consist of one alpha character followed by five numeric characters. Standards are assigned by the AMC and are listed in EM 0007 FED LOG.

Logistics information system
Legacy automated systems used to communicate with other units on vertical and horizontal flow of logistics and maintenance information and status.

Logistics product data
The portion of product support analysis documentation consisting of detailed data pertaining to the system and equipment design characteristics, including failure modes, reliability and maintainability, maintenance, supply support, human factors, packaging, handling, storage, and transportation, and environment, safety, and occupational health which contributes to the identification of the required product support resources and sustainment requirements of the products.

Maintainability
Characteristics of design that inherently provide for the retention or restoration of a specified condition within a given period when maintenance is performed by prescribed procedures and resources.

Maintenance capability
See DoD 4151.18–H.

Maintenance capacity
See DoD 4151.18–H.

Maintenance concept
The intended maintenance workload distribution within the Army Maintenance System and the force structure required to maintain the end item or weapon system. It is largely based on the organization and operation plan and is an integral portion of the logistics section of the requirement document.

Maintenance engineering
The application of techniques, engineering skills, and effort organized to ensure that the design and development of weapon systems and equipment provide adequately for their effective and economical maintenance.

Maintenance operations
The management and physical performance of those actions and tasks involved in servicing, repairing, testing, overhauling, modifying, calibrating, modernizing, and inspecting materiel in the operational inventory and the provision of technical assistance to equipment users in support units of the Army Logistics System.

Maintenance standard
A measure that specifies the minimum condition to which materiel must be restored by repair, overhaul, or some other maintenance function to ensure its satisfactory performance for a specified period of service.

Maintenance technician
Full-time technician normally having dual status as a member of a USAR or ARNG unit; military technician assigned to a USAR or ARNG TDA maintenance activity.

Materiel change
Configuration change involving substantial engineering and testing efforts on major end items to increase system/combat effectiveness or extend the useful military life.

Materiel developer
The principal Army MATDEVs are the Army PEOs or PMs. For non-PEO or PM-managed systems, other MATDEVs include AMC, U.S. Army Information Systems Command, INSCOM, U.S. Army Corps of Engineers, TSG, and Strategic Defense Command.

Materiel maintenance
The function of sustaining materiel in an operational status, restoring it to a serviceable condition, or updating and upgrading its functional usefulness through modification or other alteration.

Mean time between failure
A basic measure of reliability. The average number of failures of a specific item occurring during a specified time interval.

Mean time to repair
A basic measure of maintainability. The sum of corrective maintenance times at any specific level of repair, divided by the total number of failures within an item repaired at that level, during an interval under stated conditions.

Medical devices (including dental and veterinary items)
Consists of devices used in the medical diagnosis, therapy, and treatment of injury or disease. This equipment consists primarily of Federal Supply Catalog 6500 items used to implement health service support for the Army. It also consists of similar commercial, nonstandard items, approved by the Food and Drug Administration and marketed as medical devices, used to provide state-of- the-art patient care. The equipment is maintained and repaired by trained BES.

Medical maintenance manager
Medical maintenance personnel in the NCO or warrant officer grades or maintenance managers who have taken the medical maintenance management course if no BES NCO or warrant officers are authorized in the unit.

Mission–essential materiel
That materiel authorized and assigned to approved combat and combat support forces that should be immediately employed to: destroy the enemy or its capacity to continue war; provide battlefield protection of personnel; communicate under war conditions; detect, locate, or maintain surveillance over the enemy; and permit contiguous combat transportation and support of forces and materiel. Equipment assigned to

training missions of the same type and configuration as that assigned to combat and combat support forces and designated to be immediately employed for the purposes enumerated above is also mission-essential materiel.

Mobile contact team
USAR field maintenance personnel and AMSA or ECS maintenance technicians who visit units to provide technical assistance, make inspections, and perform maintenance when this procedure is more economical than transporting equipment or personnel to the activity.

Mobilization and training equipment site
An ARNG TDA maintenance facility which, when collocated with a CSMS, provides full-time field support to ARNG equipment assigned to the site. When not collocated, MATES provide field and sustainment support to equipment and units assigned.

Modernization
See DoDI 1225.06

Modification
Alteration, conversion, or modernization of an end item or component that changes or improves the original purpose or operational capacity in relation to effectiveness, efficiency, reliability, or safety of that item. Typically funded in PROC. Research, development, test, and evaluation may be utilized for delta testing of the new/improved capability compared to the original system and its performance improvement.

Module
An assembly containing a complete self-contained circuit or sub-circuit. It may consist of a single PCB; in which case it is synonymous with a PCB or may comprise two or more PCBs mechanically attached to one another and removable from the next high assembly as a single unit.

National maintenance work requirement
A maintenance serviceability standard for field level repairables designated for repair and return to AWCF stock. It prescribes the statement of work to be performed on an item by organic depot maintenance facilities, certified non-depot national providers, or contractors; types and kinds of materiel to be used; and quality of workmanship. The NMWR also addresses repair method, procedures and techniques, modification requirements, fits and tolerances, equipment performance parameters to be achieved, QA discipline, and other essential factors to ensure that an acceptable and cost-effective product is obtained.

Not mission capable
A materiel condition indicating that equipment cannot perform any one of its combat missions. NMC time is divided into NMC maintenance or NMC supply.

Not mission capable maintenance
Equipment that cannot perform its combat mission because maintenance work is underway or needed.

Not mission capable supply
Equipment that cannot perform its combat mission because of maintenance work stoppage due to supply backorders.

Oil analysis
A test or series of tests (spectrometric and physical property) that provide an indication of equipment component and oil condition by applying methods of quantitative measurement of wear metals and detection of contaminants in an oil sample.

On condition oil change
An oil change directed by the AOAP laboratory as a result of diagnostic test findings relative to the serviceability of the oil and its lubricating capability.

Operator or crew maintenance
Operator or crew maintenance is the cornerstone of Army maintenance, the first and most critical operation of the Army Maintenance System. It starts with the operator or crew performing PMCS using the applicable TM–10 series.

Overhaul
Maintenance performed to restore an end item to a serviceable condition in order to meet its intended economic useful life. It focuses on restoring functionality to original technical specifications without incorporating new technology or capabilities. Typically funded with OMA.

Pacing items
Major weapons or equipment systems of such importance that they are subject to continuous monitoring and management at all levels of command. Pacing items are identified in AR 220–1. Pacing items are noted on DA Form 5990–E or DA Form 2407.

Part
An item that cannot normally be disassembled or repaired or is of such a design that disassembly or repair is impractical (for example, bracket, gear, resistor, or toggle switch).

Partially mission capable
Material condition of an aircraft or training device indicating that it can perform at least one but not all of its missions because of maintenance requirements existing on the inoperable subsystem(s). PMC is divided into PMC maintenance and PMC supply.

Performance observation
The process by which the operator observes equipment performance against established standards and reports problems that degrade equipment before they become catastrophic. Performance observation is the foundation of the Army maintenance program and is the basis of PMCS that is required by all equipment TMs in the before, during, and after operation checks.

Possible days/hours
The number of calendar days/hours an item was on hand on the APSR during the DA Form 2406 report. For an item received during the reporting period, the first day/hour it was on hand is counted as a possible day. The last day an item was on hand (that is, the day it was lost from the APSR) is not counted as a possible day.

Precombat checks
Essential functional and safety checks performed by the operator/crew in accordance with the system's precombat checklist to ensure the system can perform its warfighting mission. Faults that will prevent the performance of the mission must be corrected prior to the start of the mission. All other faults are corrected or, if above operator/crew authorization to correct, reported during or after the mission.

Pre-deployment software support
Software engineering and development that occurs prior to the weapon systems achieving the Full Deployment Decision. It is software that has not been certified for release to a fielded unit and is still undergoing development.

Preliminary source of repair decision
The SOR decisions for the system and each subsystem scheduled for depot repair/overhaul as developed by the MATDEV as soon as the system and subsystems are developed enough to conduct an SOR analysis and make analysis-based decisions. This will be the SOR decision used for planning purposes until Milestone C, when the MSC assumes the SOR decision responsibility

Preventive maintenance
See DoDI 4151.22.

Preventive maintenance checks and service
Preventive maintenance checks and service is the care, servicing, inspection, detection, and correction of minor faults before these faults cause serious damage, failure, or injury. The procedures and the category of maintenance to perform PMCS are found in the TM, lubrication order, and TM –10 and –20 series.

Product support
See DoDI 4151.18.

Qualification
AMC's process for certifying sources of repair as national maintenance providers. This process has two parts: compliance and technical certification. All sources of repair must be compliant. To be compliant, an SOR must demonstrate a documented quality management system. For each component for which the national standard is a DMWRNMWR or applied technical data plan, the SOR must pass a technical certification. The technical certification validates that the SOR possesses the necessary facilities, tools, TMDE, skills, and manpower required for the repair. A technical certification is not required for components repaired to TM standard.

Readiness
See DoDM 4140.01.

Rear detachment equipment
Nondeploying equipment that is accounted for on the units APSR by rear detachment personnel.

Rebuild
Maintenance performed to restore a component to a like-new condition in appearance, performance, and life expectancy (near zero miles/near zero hours). Rebuild often incorporates new technology when practical to improve reliability and maintainability. Rebuild establishes a new economic useful life. Typically funded with OMA.

Reliability centered maintenance
See DoDI 4151.22.

Repair
Restoration or replacement of components (sustainment level) or end item (field level) which immediately addresses degradation, damage, or failures that does not extend the enhanced use leasing (EUL).

Repairable
CLIX secondary items that carry a maintenance repair code of D, F, H, or L.

Repairable item
An item that can be restored to perform all its required functions by corrective maintenance.

Replace
Replace is defined as removal of consumable or repairable unserviceable item or component, and installation of a serviceable item or component in its place. Replace is authorized by the MAC and assigned a maintenance level which is shown as the third position of the source, maintenance, and recoverability code (class II, III, V, and IX).

Reset
A set of actions at the field level to restore equipment to a desired level of combat capability commensurate with a unit's future mission. Reset reverses the effects of combat or training stress on equipment. Typically funded in OMA.

Retail inter–Service support
Support accomplished at the post, installation, and base level and between operating commands with resources that are available to the senior commander.

Scheduled preventive maintenance checks and services
Checks and services performed by unit maintenance personnel with assistance from the operation or crew in accordance with the TM XX–10 series PMCS tables and lube orders. Some equipment also requires scheduled PMCS tasks to be performed by field personnel in accordance with the equipment TM XX–20 series. All equipment faults are corrected or, if above the unit maintenance level authorization (in accordance with MAC) to correct, job ordered to field maintenance. Upon conclusion of the service, equipment should meet the TM XX–10 and XX–20 series maintenance standards.

See DoDI 4151.18 and DoDI 4151.22.Contract maintenance
Any materiel maintenance operation performed under contract by commercial organizations (including the original manufacturers of the materiel).

Serious defect (applies to ammunition)
Defect resulting from bad design, manufacturing, handling, or storage that may cause malfunctions when ammunition is handled or fired.

Service life
See DoDM 4140.27.

Service life extension program
An acquisition decision—as an aspect of a broader weapon system product support strategy to extend EUL of an end item beyond its original service life. The extent of the EUL extension is dependent on program scope, which may include item alteration, incorporation of new capabilities, or largescale redesign.

Shelf-life
See DoDM 4140.27

Single-standard repair
A process that seeks to ensure a single repair standard is applied to all end items, secondary items, and components that have been repaired and returned to supply.

Subsystem
See DoDI 4151.26.

Support equipment
All ancillary and associated equipment (mobile or fixed) required to separate and support a materiel system. This includes ASIOE such as trucks, air conditioners, generators, ground handling and maintenance equipment, tools metrology, calibration and communications equipment, test equipment, and automatic test equipment with diagnostic software for both on and off equipment maintenance.

Support system
Collectively, those tangible logistic support resources required to maintain a materiel system in an operationally ready condition. It is developed with the materiel system and merged with the ongoing logistic systems upon production and development.

Supportability
A measure of impacts to the logistical system consisting of such things as an evaluation of reliability, sustainment costs, and number of configurations.

Sustainment maintenance
Sustainment maintenance is the second operation of the Army Maintenance System. Sustainment maintenance is characterized by the performance of maintenance tasks, “off system” in a secure environment using trained personnel, tools, and TMDE. Sustainment maintenance is typically repair and return to stock and depot maintenance operations.

System
A combination of equipment end items, assemblies, major components, components, modules, and parts assembled as a single functional unit to perform a task or mission.

Tactical enterprise logistics systems
A set of synchronized logistics applications and hardware used to track maintenance, property, cost of ownership and other financial transactions related to logistics for all Army Units within GCSS–A.

Test, measurement, and diagnostic equipment
Any system or device used to evaluate the operational condition of an end item or subsystem thereof to identify and isolate any actual or potential malfunction. This TMDE includes diagnostic and prognostic equipment; semiautomatic and automatic test equipment, to include test program sets (with issued software); and calibration test or measurement equipment. When the term TMDE is used, it refers to both general-purpose TMDE and special-purpose TMDE.

Unique item identifier
See DoDI 4151.19.

Unit identification code
A six-character code assigned to a specific unit. All units’ organizations and activities use their own UIC. Contractors, manufacturers, and commercial activities do not have UICs.

Unit training equipment sites
An ARNG TDA maintenance facility, which provides full-time field maintenance support to ARNG equipment assigned to the site.

Winterization or winterized
The application or installation of auxiliary kits and equipment which may include engine pre-heaters, personnel heater kits and hardtop or insulated closures necessary to pre-heat and start equipment within one hour and maintain a temperature of 41 degrees Fahrenheit in troop compartments when in a temperature range of negative 25 degrees Fahrenheit to negative 60 degrees Fahrenheit. Also includes the use of arctic grade lubricants and fluids for engines, transmissions, gear cases and other assemblies, as necessary.