

- (2) Maintain ARNG aviation assets at the DA readiness goals listed in AR 700–138.
- (3) Ensure compliance with safety-of-flight requirements and aircraft modifications.
- f. The State Aviation Maintenance Officer is a member of the AASF commander’s staff and will—
  - (1) Administer the ARNG Aviation Maintenance Program.
  - (2) Supervise ARNG maintenance and materiel technical personnel.
  - (3) Ensure logistics regulatory requirements are implemented and followed through the complete aviation cycle.
  - (4) Maintain ARNG aviation assets in the highest state of readiness.
  - (5) Report compliance with safety-of-flight requirements and aircraft modifications.
  - (6) Report deficiencies in quality, materiel, or maintenance per DA Pam 738–751.
- g. Commanders and supervisors responsible to the State Adjutant General will—
  - (1) Train personnel designated as operators and crewmembers to properly operate and perform PMCS on their assigned equipment.
  - (2) Assign maintenance responsibilities for unit equipment to specific individuals.
  - (3) Schedule maintenance time and give equal emphasis to preventive maintenance training.
  - (4) Require compliance with prescribed preventive maintenance procedures.
  - (5) Require that all equipment be maintained to the maintenance standard outlined in paragraph 3–2.
  - (6) Require that all before, during, and after operations checks be accomplished each time the equipment is operated or used.
  - (7) Submit DA Form 2404 (Equipment Inspection and Maintenance Worksheet), DA Form 2407, or electronic unit level logistics system (ULLS) DA Form 5988–E (Equipment Inspection/Maintenance Worksheet (Automated)) or electronic ULLS DA Form 5990–E (Maintenance Request), to the supporting maintenance facility for backup maintenance support beyond the unit’s capability. Electronic ULLS-generated forms will be the primary method used to transmit requests when the units have the capability.
  - (8) Maintain records applicable to hand receipt, operation, maintenance, modification materiel readiness reports, and transfer of equipment as prescribed in appropriate publications.
  - (9) Submit requests for replacement of basic issue items (BII), component of end items (COEI), initial troop installed and authorized (ITIA) items, and repair parts for equipment under their control.

## **Chapter 3**

### **Maintenance Policies and Structure**

#### **Section I**

#### **Maintenance Policies**

##### **3–1. Overview**

a. Army maintenance is founded on the principle that the useful service life of Army equipment is achieved when the item is operated within its intended purpose and parameters and is maintained in accordance with its designed or engineered specifications. When an equipment item achieves its useful service life, the Army will use acquisition or recapitalization to replace or renew service life of the equipment. The Army relies on four core maintenance processes to manage equipment during the course of its useful service life to achieve a high state of readiness. They are performance observation, scheduled services, fault repair, and single-standard overhaul.

(1) Performance observation is the foundation of the Army maintenance program. Performance observation is the basis of the preventive maintenance checks and services known as PMCS that are required by all equipment TMs in the before, during, and after operation checks. Through observation, the operator documents observed performance against established standards and reports problems that degrade equipment before they become catastrophic. The 10– and 20–series TMs designate the standards for all equipment. This allows leaders the ability to designate the time and location of repair that saves precious manpower and materiel resources. It is also the most effective method of managing a large fleet of equipment when time and labor are limited and distances between support and the supported equipment are great. The Army will automate the recording and transmitting of PMCS data, which are appropriately captured by operator observation and embedded sensors to conduct diagnostics or prognostics.

(2) Scheduled services are specified maintenance actions performed at specific intervals when equipment, components, and systems are routinely checked, adjusted, changed, analyzed, lubed, and so forth, in accordance with the designers and engineers specifications. The Army uses scheduled services to focus manpower resources on equipment to maintain its operational and useful service life. Services on equipment include more than the application of a lubrication order or performance of service tasks. They include repair of faults and deficiencies as determined by performance observations, system and component checks, and analysis and updates. Maintenance personnel should use scheduled services to replace faulty items or projected component failures based on analysis, engineering documentation, and so forth. This will result in a higher level of reliability in combat and is more cost effective. The Army

leverages scheduled service time to maintain equipment service life and increase readiness. This supports wartime readiness and training.

(3) Fault repair is the process taken by operators and maintenance personnel to repair an equipment item, restoring it to full functionality as originally designed or engineered. Faults include deficiencies and shortcomings. The Army uses trained personnel, TMDE, technical information, and tools to accomplish this process. Fault repair is based on a mechanic/technician accurately diagnosing all equipment, component, assembly, and subassembly malfunction the first time, ordering the correct repair parts, and applying them immediately. The Army prioritizes repair of deficiencies based upon criticality. The goal of the Army is to correct all deficiencies and shortcomings as they occur. The correction of all faults, deficiencies, and shortcomings as established by Army TMs is the basis for the Army standard.

(4) Single-standard overhaul is a repair process that seeks to ensure a single repair standard is applied to all secondary items and components for all class IX components repaired and returned to supply. This process ensures common component quality and predictable service life using the best technical standard. This ensures that users do not waste manpower resources troubleshooting failures and replacing components needlessly. For specific guidance on single standard repair, see paragraph 7–13.

b. To meet its transformation objectives, the Army is developing an emerging maintenance policy for reducing the forward deployed logistics footprint. This emerging “replace forward, repair rear” policy will replace the Army’s current “fix forward” policy for future Army units. This policy is required to sustain future combat units at high levels of mission readiness while having a smaller logistics footprint in forward areas. Additionally, given the continuing merger of what we know today as “organizational” and “direct support” maintenance as is evident in the design of force twenty-one (FXXI) and striker brigade combat team units, and the emergence of an NMM for all component repair at installation/theater and depot level, the Army is examining the elimination of our current four-level maintenance system in favor of a more-simplified two-level maintenance system.

c. The Army allocates resources to commanders to maintain its equipment at prescribed readiness levels. Commanders apply manpower and equipment resources, allocated dollars, and The Army Maintenance Management System (TAMMS) to perform maintenance on Army equipment. When resources are allocated and applied correctly, unit commanders will realize the useful service life of their equipment and achieve prescribed readiness levels.

### **3–2. The Army maintenance standard**

a. The Army has one maintenance standard. 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– and 20–series PMCS table. Aviation faults are determined by using the aircraft preventive maintenance inspection and service (PMIS) per TM 1–1500–328–23.
- (3) All repairs, services, and other related work that will correct unit-level equipment/materiel faults for which the required parts/supplies are available have been completed in accordance with DA Pam 738–750 or DA Pam 738–751.
- (4) Parts and supplies required to complete the corrective actions, but which are not available in the unit, are on a valid funded requisition in accordance with AR 710–2.
- (5) Corrective actions that are not authorized at unit level by the MAC must be on a valid DS maintenance request (DA Form 2407/5990–E).
- (6) Scheduled services are performed at the service interval required by the applicable technical publication. Due to competing mission requirements, units are authorized a 10 percent variance when performing scheduled services. Procedures to apply this variance are found in DA Pam 738–750 for ground equipment and TM 1–1500–328–23 for aviation equipment. (afloat prepositioning ships (APS)–Afloat is excluded from this variance requirement.)
- (7) All emergency and urgent MWOs are applied to equipment in accordance with AR 750–10. In addition, actions required by one-time safety-of-use messages and emergency safety-of-flight messages are completed per AR 750–6 and AR 95–1.
- (8) All authorized BII and COEI are present and serviceable or on a valid supply request. For aircraft, all authorized flyaway items and items listed on the aircraft inventory master guide are present and serviceable or on a valid supply request.

b. The maintenance standard is based on TM 10– and 20–series PMCS.

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

d. Proper use, care, handling, and conservation of materiel per applicable technical publication are mandatory.

### **3–3. Total logistics response time and maintenance turnaround time**

a. All Army MTOE, TDA, and contract maintenance operations will provide maintenance services 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 outlined in paragraph 3–7. Commanders will use the following metrics to ensure compliance with this policy:

(1) *Total logistics response time (TLRT)*. (See fig 3–1.) This is the period of time that elapses between the time an item of equipment or component becomes unserviceable and the time that the item or component is returned to serviceability status after receiving requested maintenance services. The item or component may undergo some or all of the status changes as outlined in DA Pam 738–750, table B–21. Customer wait time (CWT) is a DOD-wide and Army-wide metric that recognizes that war-fighter-support requirements have the highest priority.

(2) *Turnaround time (TAT)*. This is the period of time that elapses between the time that a maintenance organization accepts a unit/organization work order, followed by accomplishment of the work, and the time at closeout of the work order.

*b.* Army maintenance organizations will take steps to minimize TAT and provide assistance to supported organizations so that their overall CWT is minimized.

*c.* The USAMC Logistics Support Activity (LOGSA) will extract the following maintenance TLRT and TAT historical information from the work order logistics file (WOLF) and maintain historical status in the logistics integrated database (LIDB):

- (1) TLRT time status.
  - (2) MTOE TLRT status.
  - (3) TDA TLRT status.
  - (4) Contractor TLRT status.
- (a)* TAT status.
- (b)* MTOE maintenance organization TAT. (See fig 3–2.)
- (c)* TDA maintenance organization TAT. (See fig 3–3.)
- (d)* Contractor maintenance organization TAT. (See fig 3–4.)

---

**Total Logistics Response Time–Maintenance (LRT–M) Status Report  
(MTOE, TDA, and Non-Government Customer Organizations)**

UIC WXXXXX

**LRT–M Report Description and Instructions**

LRT–M metric = customer response time (CRT) + support maintenance turnaround time (TAT)

CRT = work order (WO) submission time and customer pick-up time

WO submission time = date NMC status reported on AMSS to date WO is accepted at DS maintenance

Customer pick-up time = date customer notified of WO completion to date customer returns item to FMC status on AMSS

TAT = Date of acceptance of customer WO to date services are completed and WO is closed

Army standard for LRT–M = CRT (3 days) + TAT standard for customer-assigned maintenance priority designator (MPD)

TAT standard for MPD 01–03 = 5 days

TAT standard for MPD 04–08 = 8 days

TAT standard for MPD 09–15 = 30 days

TAT standard for TAT longer than 30 days = Number of days between date of acceptance of the WO and the customer assigned required delivery date (RDD).

**LRT–M Report Data and Format**

Number of CWOs in period	Last Reporting Period:	Last Quarter:	Fiscal Year To Date:
Number of CWOs in period that met the Army Maintenance LRT–M standard	Last Reporting Period:	Last Quarter:	Fiscal Year To Date:
Number of CWOs in period that failed to meet the Army Maintenance LRT–M standard	Last Reporting Period:	Last Quarter:	Fiscal Year To Date:
Number of CWOs in period that failed to meet the Army Maintenance LRT–M standard because of excessive CRT	Last Reporting Period:	Last Quarter:	Fiscal Year To Date:
Number of CWOs in period that failed to meet the Army Maintenance LRT–M standard because of excessive TAT	Last Reporting Period:	Last Quarter:	Fiscal Year To Date:

Figure 3–1. Sample total logistics response time–maintenance status report

---

## Maintenance Turnaround Time (TAT) Report: MTOE

Force Tree Selected: STANDARD FORCE	From: 2000-11-01
MACOM: EUSA - EIGHTH US ARMY	To: 2000-12-05
Total Items Selected: (insert number)	Date Grouping Method: Yearly
Report: Maintenance Summary	UIC Type: Maintenance Organization
	Maintenance Unit Type: MTOE

### Total Number Of Closed Work Orders

MACOM	Division	UIC	MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
EUSA	2nd Inf	All	All	86	22	30	20	14

### Number Of Work Orders Closed Within MPD Timeframe

MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
All	82	20	28	20	14

Organizational rating (based on total work orders) : Green

**Ratings:**

Green: Percentage of work orders (WOs) closed within MPD timeframe equals 90% or greater

Amber: Percentage of WO's closed within MPD timeframe equals 70% to 89%

Red: Percentage of WO's closed within MPD timeframe equals 69% or lower

Figure 3-2. Sample MTOE maintenance organization turnaround time report

---

### Maintenance Turnaround Time (TAT) Report: TDA

Force Tree Selected: STANDARD FORCE

From: 2000-11-01

MACOM: FORSCOM

To: 2000-12-05

Total Items Selected: (insert number)

Date Grouping Method: Yearly

Report: Maintenance Summary

UIC Type: Maintenance Organization

Maintenance Unit Type: TDA

#### Total Number Of Closed Work Orders

MACOM	Division	UIC	MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
FORSCOM	Wuv1C9	All	All	86	22	30	20	14

#### Number Of Work Orders Closed Within MPD Timeframe

MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
All	82	20	28	20	14

Organizational Rating (based on total work orders): Green

#### Ratings:

Green: Percentage of work orders (WOs) closed within MPD timeframe equals 90% or greater

Amber: Percentage of WO's closed within MPD timeframe equals 70% to 89%

Red: Percentage of WO's closed within MPD timeframe equals 69% or lower

Figure 3-3. Sample TDA maintenance organization turnaround time report

---

## Maintenance Turnaround Time (TAT) Report: Contractor

Force Tree Selected: STANDARD FORCE	From: 2000-11-01
MACOM: FORSCOM	To: 2000-12-05
Total Items Selected: (insert number)	Date Grouping Method: Yearly
Report: Maintenance Summary	UIC Type: Maintenance Organization
	Maintenance Unit Type: Contractor

### Total Number Of Closed Work Orders

MACOM	Division	UIC	MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
FORSCOM	Wuv1C9	All	All	86	22	30	20	14

### Number Of Work Orders Closed Within MPD Timeframe

MATCAT4	# Work Orders	MPD 01-03	MPD 04-08	MPD 09-15	Other
All	82	20	28	20	14

Organizational Rating (based on total work orders): Green

**Ratings:**

Green: Percentage of work orders (WOs) closed within MPD timeframe equals 90% or greater

Amber: Percentage of WOs closed within MPD timeframe equals 70% to 89%

Red: Percentage of WOs closed within MPD timeframe equals 69% or lower

Figure 3-4. Sample contractor maintenance organization turnaround time report

### 3-4. Maintenance resourcing

*a.* All Army organizations having the responsibility to maintain and repair equipment will be adequately equipped, staffed, and funded for that purpose. The Army Planning, Programming, Budgeting, and Execution System (PPBES) will be used to implement this policy. Staff advice and assistance in resource development for maintenance programs will be provided to MACOMs and the Army staff, HQDA (ARSTAF) by the Office of the Deputy Chief of Staff, G-4 (ODCS, G-4).

*b.* MTOE and deployable modification table of distribution and allowance (MTDA) organizations will be augmented in peacetime garrison operations when maintenance soldier availability of maintenance man-hours is less than the MTOE/MTDA projected wartime availability of maintenance man-hours. This policy is to ensure that MTOE equipment will always be ready to meet Army mission requirements. Augmentation will be programmed along with other training and operations resources under the staff supervision of ODCS, G-4. When MACOM commanders augment military organizations with contract logistics support, the methodology at appendix B will be used to compute requirements. MACOM commanders will ensure that assigned/attached maintenance soldier personnel are used in maintenance operations at the minimum rate of 50 percent of total soldier available time. All MSC commanders operating under the Standard Army Maintenance System (SAMS) have the responsibility to include accurate monthly man-hour utilization rates in their quarterly command review and analysis or similar performance-monitoring program.

*c.* Resource requirements to support active Army and reserve component (RC) installations and nondeployable TDA

organizations, including their maintenance operations, will be programmed and submitted in POM packages to HQDA in accordance with the HQDA Resource Formulation Guide.

### **3–5. Maintenance records**

*a.* Accuracy and completeness of records are fundamental to the ability of the Army to manage maintenance programs. Commanders will assure that records of maintenance operations are accurate and complete. Resource requirements submitted in accordance with paragraph 3–3 will be based upon command historical records and such Army information resources as the LIDB and Operating and Support Management Information System (OSMIS). Records from such AIS as ULLS, SAMS, Global Combat Support System–Army (GCSS–A), Standard Depot System, or other HQDA-approved systems may also be used.

*b.* Historical records and other reports of maintenance operations will be promptly forwarded as required to information resources such as the LIDB in accordance with DA Pam 738–750 and DA Pam 738–751. (See para 4–14.)

*c.* Organizational and DS/GS maintenance information will be maintained and accessible from the WOLF module of LIDB and from other available database files. WOLF information will be made available to various users Army-wide for planning, programming, budgeting, program execution, and logistics management purposes. (See para 4–14 of this regulation for more information on WOLF.)

*d.* Historical information on depot maintenance operations will be archived by USAMC and provided on demand to appropriate users.

### **3–6. General policies**

*a.* An officer or civilian equivalent qualified in maintenance management will be appointed as maintenance officer, in writing, at each level of command. Maintenance officers will provide staff supervision of materiel maintenance operations within the organization. MTOE units that have insufficient officers for these duties may appoint a qualified noncommissioned officer as the maintenance officer.

*b.* Standing operating procedures (SOPs) will be established and maintained by all Army organizations and activities performing maintenance operations.

*c.* Maintenance support programs will be structured to meet materiel system readiness objectives as defined by AR 700–138.

*d.* Army design priorities in the development of new weapon and equipment end items include embedded diagnostics and prognostic capabilities, modular design, and replacement at the point of failure. The top design priority is the application of embedded diagnostics and prognostics. All Army program/project managers and materiel developers will assure that they include embedded diagnostics and prognostics on all new and upgraded weapon systems and coordinate this with the program manager TMDE. The Army will not field systems or upgrade equipment without embedded diagnostics and prognostics. Design features will minimize repair time and reduce operations and sustainability costs and the need for additional special tools by developing accurate first-time fault diagnosis and component replacement.

*e.* Repair will be done by replacing components at the point of failure, whenever possible, using the lowest level maintenance activity that has the capability and authority to perform the work.

*f.* Maintenance operations will be performed by military personnel in areas that are forward of the division rear boundary in deployed organizations except as outlined below. A workforce that is comprised of military, government civilian, and/or contractor maintenance organizations may perform maintenance operations that are in garrison locations.

(1) Contractor maintenance personnel will not be permanently stationed in areas forward of the division rear boundary. (Also see AR 715–9.) Contractor maintenance personnel may travel forward of the division rear boundary on a case-by-case basis, as approved by the responsible area commander, to provide temporary on-site maintenance support. Civilian maintenance personnel such as contractors, government employees, local nationals, and so forth, may be authorized by the theater commander to be stationed behind the division rear boundary after an appropriate risk assessment has been performed.

(2) In garrison locations, contractors and contracted maintenance services are authorized to supplement manpower shortfalls in MTOE organizational and DS/GS maintenance when commanders determine that their organic maintenance capability cannot perform to the required standard. Commanders will not augment maintenance operations at the expense of soldier readiness and proficiency in their MOS. MACOM commanders will address contract maintenance requirements during the planning, programming, and budgeting process as outlined in paragraph 3–4.

*g.* All Army maintenance operations will be conducted in accordance with the environmental security provisions of AR 200–1 and the underlying Federal, State, and local laws and directives. Commanders will aggressively support environmental protection programs and policies in their maintenance and supply operations. Commanders will use the DA standard environmental security AIS for hazardous materials and hazardous waste management to assist them in complying with Federal, State, and local environmental laws and regulations while accomplishing their maintenance support missions. Commanders desiring exemption to the requirement for use of the Army standard environmental security software must submit requests through their MACOM to HQDA, ATTN: OACSIM.

*h.* Commanders will establish policies for the evacuation of unserviceable equipment that are based, in part, on maintenance time standards and maintenance capabilities outlined in the MAC.

*i.* MACOM commanders may authorize the fabrication of repair parts and components based on valid supply requisitions that cannot be obtained through the supply system in time to meet the requester's RDD. Aircraft components that are critical to flight safety, and any other weapon system component designated as a safety related item, are not authorized to be fabricated. Fabrication of parts will not be made for the sole purpose of returning items to stock.

*j.* Modification or alteration of Army materiel is forbidden, except as authorized by AR 750-10. Modification of equipment outside of the factory must be accomplished via a documented, official MWO. Commanders will not allow their equipment to be modified except under the provisions of a valid MWO.

*k.* The Army will, to the maximum extent possible, use common maintenance terminology and data in maintenance management programs and literature.

(1) The Commander, TRADOC will ensure that doctrinal, training, and leader development literature keeps pace with approved maintenance management programs and terminology.

(2) HQDA (DALO-SM) will coordinate with the Office of the Secretary of Defense (OSD) and other military departments and Services to develop common maintenance management and logistics terminology for use in Army maintenance management documents.

*l.* All end items and class IX repairable items (Army master data file (AMDF) price greater than \$1,000) with a maintenance repair code MRC of F, H, D, or L will have a permanent serial number affixed to that item.

*m.* The serial number assigned to an item will not be changed, regardless of changes in configuration, without written approval by the applicable commodity command. Serial numbers are mandatory entries in the indicated data fields of all maintenance management forms.

*n.* TMDE will be calibrated per DA TMDE Calibration and Repair Support Program. (See AR 750-43 for detailed guidance.)

*o.* Quality control must be fully integrated into maintenance operations to ensure—

(1) The identification of equipment faults.

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

### 3-7. Priorities

*a.* This policy outlines the assignment of maintenance priorities within TAMMS. Army maintenance tasks and operations will be conducted in established maintenance mission priority sequence, based ultimately upon the mission of the requesting organizations and the relevance and importance of the maintenance work that must be done. In the Army's overall logistics management system, relevance and importance are expressed as urgency of need. Requesting organization commanders will determine the appropriate maintenance priority on any work request, based upon the organizations urgency of need and urgency of need designator (UND). Once the UND has been selected, it will be used in table 3-1 to identify the correct maintenance priority designator (MPD). Table 3-2 indicates the Army maintenance TAT standard (upper limit) that is associated with the customer MPD that is entered on a work order.

**Table 3-1**  
**Priority designator (relating force/activity designator to urgency of need)**

Force activity designators (FADs)	Urgency of need designators (UND)		
	A	B	C
I	01	04	11
II	02	05	12
III	03	06	13
IV	07	09	14
V	08	10	15

**Table 3–2  
Maintenance priority designator and turnaround time standards**

MPD	TAT standard
01–03	5 days
04–08	8 days
09–15	30 days <sup>1</sup>

Notes:

<sup>1</sup> Customer organizations may specify a required delivery date that is longer than 30 days when mission schedules permit.

*b.* UND A will be assigned to unserviceable equipment under the following circumstances:

- (1) The unit/activity is unable to perform its assigned operational mission.
- (2) Materiel to be repaired is MTOE equipment that is reportable under AR 220–1 and TDA equipment that is reportable under AR 700–138 and listed on the current maintenance master data file (MMDF) received from LOGSA.
- (3) The unit/activity is unable to perform assigned training missions.
- (4) Repair of essential facilities of an industrial/production activity manufacturing, modifying, or maintaining mission-essential materiel is required.
- (5) The materiel is an intensively managed or critical item.

*c.* UND B is used in assignment of maintenance priorities for repair of materiel when—

(1) The unit/activity’s ability to perform its assigned operational mission is impaired. Without such materiel, the unit/activity may temporarily accomplish assigned missions, but at reduced effectiveness and efficiency below the level of acceptable readiness.

(2) The materiel is equipment readiness code (ERC)–A or ERC–B materiel and is not reportable under AR 220–1 or AR 700–138 or listed on the current MMDF (for example, not reportable on DA Form 2406, DA Form 3266–1 (Army Missile Materiel Readiness Report), or DA Form 1352 (Army Aircraft Inventory, Status, and Flying Time)).

(3) USAR and ARNG TDA maintenance activities are authorized to upgrade the UND when a not mission capable (NMC) deficiency is found. Only NMC parts are requisitioned when upgraded.

*d.* UND C is used in assignment of maintenance priorities for all other materiel not listed above, including ERC C materiel.

*e.* Maintenance units/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.

*f.* As a general rule, an issue priority designator (IPD) used on a requisition perpetuates the maintenance priority designator assigned on DA Form 2407. AR 725–50 describes in detail supply priority designators.

### **3–8. Maintenance of low usage equipment**

*a.* Services for equipment that have accumulated or are anticipated to be less than 65 percent of the mileage/hours of operation specified in DA Pam 738–750, chapter 3, may have unit (20–series) and DS services (34–series) extended. Use of low-usage criteria does not relieve commanders of the responsibility for adequate maintenance of their equipment.

*b.* All service and lubrication tasks in the equipment’s 20– and 34–series TMs/lubrication orders (LOs) must be performed before the equipment is placed in low-usage status. The date, miles, kilometers, or hours when the equipment was placed into low-usage status will be entered on the DD Form 314 or ULLS-equivalent form.

*c.* Equipment that exceeds the specified criteria at any time during the year will be immediately returned to scheduled servicing at normal TM/LO intervals from the date and usage data that was entered in the DD Form 314 or electronic ULLS-equivalent form.

*d.* Servicing, evaluating, and exercising recoil mechanisms and gun tubes will be done per applicable technical bulletins (TBs) and TMs.

*e.* Communications and other subsystems mounted on equipment in low-usage status will be serviced when the primary system is serviced.

*f.* Low-usage equipment service standards do not apply to armament subsystems, equilibrating systems, fire control components, sighting components of combat vehicles and missile systems, and air traffic control equipment.

*g.* Operator/crew level (10–series) maintenance intervals in TMs/LOs will not be changed to low usage.

*h.* The AOAP schedule will not be extended.

*i.* Specific criteria for equipment being placed in a low-usage status are—

(1) Tactical vehicles and all trailers that have accumulated or are anticipated to accumulate less than 65 percent of the listed equipment utilization rate in accordance with DA Pam 738–750, chapter 3.

(2) Combat vehicles (except armament, equilibrating systems, fire control components, and sighting components), missile systems (except fire control components), material handling equipment, and construction equipment anticipated to accumulate less than 65 percent of the listed equipment utilization rate in accordance with DA Pam 738–750, chapter 3.

(3) Generators; pumps; air compressors; support equipment (reserve osmosis water purification unit (ROWPU), bath units, and so on); watercraft; rail equipment; power-driven nuclear, biological, chemical (NBC) equipment; engine driven heaters; and air conditioners anticipated to accumulate less than 75 hours in the current year.

(4) Communication equipment in communication shelters anticipated to accumulate less than 75 hours of operation in the current year. All remaining communications equipment, such as ground/vehicle mounted radios, switchboards, and so forth, will be serviced annually if they are anticipated to accumulate less than 75 hours of operation in the current year. Hours of operation are estimates only and are not intended to be formally tracked.

(5) Non-power-driven NBC equipment anticipated to accumulate less than 75 hours of operation in the current year.

(6) Tenting and canvas items, immersion heaters, field ranges, and space heaters or stoves that are not used will be erected or assembled annually.

(7) Small-arms and crew-served weapons (machine guns, mortars, and so forth) that are maintained in a humidity-controlled area and not removed (for any reason) at any time during the year will be serviced annually.

*j.* All equipment, except that stated in (6) and (7), above, will be inspected/exercised by operators semiannually. Inspection/exercise will include the following:

(1) Ensure that PMCS (through monthly) are being performed.

(2) Tactical vehicles and trailers and combat vehicles will be driven at least 5 miles to ensure mission capability. Mounted radios will have all PMCS (except semiannual and annual checks and services) performed per the communication equipment operator's TM.

(3) Construction, engineer, and materiel handling equipment, wreckers, and combat vehicles will be operated sufficiently to ensure hydraulic systems reach operating temperature and are mission capable.

(4) Generators, air compressors, support equipment, pumps, and power-driven NBC equipment will be operated for 30 minutes under load or 1 hour no load.

(5) Small-arms and crew-served weapons will be inspected, without leaving humidity-controlled room, for rust and corrosion. High-humidity-area inspections may be required more often.

(6) Visual inspections will be performed by the operator/crew to identify, report, or remove any new corrosion that may have formed.

### **3–9. Maintenance of medical material**

Maintenance policies, programs, and procedures unique to medical materiel will be maintained in accordance with AR 40–61.

### **3–10. Maintenance of consolidated express and military-owned demountable containers**

Consolidated express (CONEX) and military-owned demountable containers (MILVANs) are maintained within the capability of the using unit or activity. Additional maintenance policies are contained in DOD 4500.9–R, Part II.

### **3–11. Maintenance of facilities engineering equipment**

Maintenance policies and procedures unique to those non-type-classified and nonstandard items of equipment used by DEH or DPW personnel to accomplish their installation's facilities engineering mission are contained in AR 420–18.

### **3–12. Turn-in policy for serviceable excess and unserviceable repairable parts and components**

*a.* Unserviceable repairable items will be turned in to supporting supply support activities (SSAs) in an expeditious manner consistent with the cost of the items and their criticality to Army readiness programs.

*b.* All Army commanders and maintenance managers will ensure that critical items, intensively managed items, and automatic return items are returned to turn-in channels within the timeframes established by applicable directives and as required by AR 710–2 and AR 725–50. Commanders will use management information and reports from supply and maintenance management automated information systems, such as ULLS, SAMS, and Standard Army Retail Supply System (SARSS), to assist them in meeting the turn-in time standards.

(1) Using units will turn in unserviceable recoverable parts and assemblies to the supporting SSA within 72 hours of identification, classification, and/or removal from the end item. Serviceable excess will be turned in to the SSA within 72 hours of change to excess status. This policy implements provisions of AR 710–2 on disposal of materiel for the return of excess and not repairable this station (NRTS) repair parts to supply and maintenance channels.

(2) DS and GS organizations and activities will turn in serviceable excess and NRTS repairable items to the supporting SSA within 72 hours of completion of the maintenance tasks that removed the component from the end item and that classified the component as NRTS. This policy implements the provisions of AR 710–2 for excess serviceable and unserviceable items and applicable portions of AR 725–50.

*c.* Expedited local processing, cleaning, preservation, and preparation for shipment:

- (1) *Damaged items.* No damage statement will be required to turn in an item to the repairing facility.
  - (2) *Steam cleaning.* Steam cleaning of major assemblies and components will not be required at any level below installation and is not required at installation level for assemblies repaired at depot. Any cleaning to facilitate diagnosis or repair will be done in accordance with applicable environmental regulations. Steam cleaning, if required for overhaul/rebuild of the assembly, will be accomplished by the organization that performs this maintenance. The only authorized exception to this procedure is when steam cleaning is required to meet agricultural inspection standards.
  - (3) *Lubricants.* Lubricants will not be drained prior to turn-in. Exceptions include when a metal shipping container is not available and/or the major assembly cannot be otherwise safely transported to the repair location. If the repairing organization does not have sufficient approved capacity to collect and dispose of used lubricant, the supporting maintenance organization will be notified for disposition instructions.
  - (4) *Shipping.* Major assemblies and components will be shipped under transportation priorities applicable to the supply priority designators and procedures outlined in AR 725–50.
  - (5) *Packaging and preservation actions.* These will comply with AR 710–2.
  - (6) *Inspections.* After the initial inspection is performed by the supporting DS/GS maintenance activity, intermediate supply activities will not require additional classification inspections.
  - (7) *Movement and movement control.* Where possible, the major assembly or component will be shipped directly to the repairing activity. Only the associated documentation will be routed normally through appropriate supply and/or transportation management activities.
- d. The repairing activity will report any missing parts and damage-in-shipment discrepancies using established discrepant shipment procedures in AR 725–50. Other inconsistencies between the repairing facility’s classification inspection and the initial classification inspection will be reported back to the shipping organization commander.

## **Section II**

### **The Army Maintenance Structure**

#### **3–13. The Army maintenance system**

- a. The Army maintenance system is comprised of two management categories: field (tactical) and national (sustainment). The field category manages the unit and DS levels of maintenance activities conducting repair and return to user maintenance actions; the national level is composed of GS and depot levels supporting repair and return to stock activities. The CG, USAMC is the NMM and is fully responsible for national maintenance.
- b. Maintenance tasks will be performed in accordance with the MAC.

#### **3–14. Unit/organizational-level maintenance**

- a. Unit maintenance is the first and most-critical level of the Army maintenance system. It is the foundation of the maintenance system and requires continuous emphasis by all commanders. Commanders must establish a command climate that ensures that assigned equipment is maintained to the maintenance standard defined in paragraph 3–2. Commanders are responsible for providing resources, assigning responsibility, and training their soldiers to achieve this standard.
- b. The cornerstone of unit maintenance is the operator/crew performing PMCS from the applicable TM 10–series. The before- and during-PMCS checks concentrate on ensuring equipment is FMC.
  - (1) Faults detected during before-operations checks that make the equipment not FMC or violate a safety directive must be corrected before the mission.
  - (2) Faults detected during the mission affecting FMC must be corrected during the mission.
  - (3) Faults detected before or during the mission not affecting FMC may be corrected, if time permits, or recorded/reported for correction after the mission.
  - (4) After-operations checks detect faults resulting from the mission and ensure the identification and correction of faults to maintain the equipment to the maintenance standard.
- c. Unit mechanics will use the TM 10– and 20–series to identify and correct faults. The TM 20–series PMCS tables are used to perform scheduled PMCS services that sustain and extend the FMC time of the equipment.
- d. Maintenance operations normally assigned to unit maintenance include—
  - (1) Performance of PMCS.
  - (2) Inspections by sight and touch of external and other easily accessible components per the TM 10– and 20–series.
  - (3) Lubrication, cleaning (including corrective actions to repair corrosive damage), preserving (including spot painting), tightening, replacement, and minor adjustments authorized by the MAC.
  - (4) Diagnosis and fault isolation as authorized by the MAC.
  - (5) Replacement of unserviceable parts, modules, and assemblies as authorized by the MAC.
  - (6) Requisition, receipt, storage, and issue of repair parts.
  - (7) Verification of faults and level of repair of unserviceable materiel prior to evacuation.

- (8) Evacuation to the appropriate maintenance support activity of unserviceable reparable beyond the MAC authorization to correct/repair.
- (9) Recovery or transportation of equipment to and from the supporting maintenance activity.
- (10) Accomplishment of all tasks required by the AOAP.
- (11) Materiel readiness reporting per AR 700-138 and current MDMF.
- (12) Ensuring that TM 10- and 20-series level modification applications are properly coordinated with the Installation MWO coordinator in accordance with AR 750-10.
  - e.* Performance of unit-level maintenance will be documented using the automated forms and records in ULLS-ground (ULLS-G) and ULLS-aviation (ULLS-A) or AR 700-138, DA Pam 738-750, and DA Pam 738-751 for manual operations. This information is used to assist commanders in establishing, monitoring, and evaluating their maintenance program. In addition to the regulatory guidance in this publication, doctrinal and technical guidance for unit-level maintenance operations is found in DA Pam 750-35 and DA Pam 750-1.
  - f.* OMS in the ARNG will provide unit maintenance that is beyond the capabilities of owning units. Owing units will perform unit maintenance, including scheduled services, within the capability of the unit during IDT and AT periods. Unit commanders will advise supporting OMS forepersons of unit maintenance requirements that are beyond their unit's capability. OMSs will perform the following maintenance functions for surface equipment:
    - (1) Maintain liaison with supported unit commanders.
    - (2) Schedule maintenance services, when feasible, to coincide with quarterly and semiannual services.
    - (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 when the PLL is located at the OMS.
    - (5) Furnish contact teams to perform unit maintenance and inspection when this is more economical than scheduling equipment into the shop.
    - (6) Provide backup unit maintenance that is beyond the capability of units using training sites.
    - (7) Provide administrative and operational control support for assigned unit assets, including readiness reporting to parent organizations.
    - (8) Perform DS maintenance when authorized by the SMM.
    - (9) Equipment evacuation is handled as follows:
      - (a) Process and evacuate equipment to consolidated maintenance centers (CSMs)/MATES, when required. Movement of this equipment will be supported by unit personnel.
      - (b) Movement of equipment to OMS requiring unit maintenance/repairs will be supported by unit personnel.
  - g.* The operation and supervision of an organizational maintenance sub-shop (OMSS) is the responsibility of the parent OMS.
  - h.* UTES in the ARNG is an activity authorized to perform in-storage unit maintenance and, when authorized by the SMM, limited DS maintenance. The UTES is under the control and supervision of the SMM. This activity will perform the following functions:
    - (1) Maintain and secure major items of equipment positioned at the UTES.
    - (2) Accomplish the required in-storage unit, and limited DS maintenance, on all organic and hand-receipted equipment positioned at the UTES.
    - (3) Maintain BII, COEI, and ITIA or an authorized or additional authorized list required by each owning unit for all major items of equipment positioned at the UTES.
    - (4) Requisition, stock, maintain, and issue unit-level class IX items in support of the equipment positioned at the UTES.
    - (5) Submit DA Form 2407 if using manual system, or DA Form 5990-E if using ULLS, to the combined support maintenance shop (CSMS) for all DS and GS maintenance requirements for organic and hand-receipt equipment positioned at the UTES. The UTES foreperson or a formally designated representative will sign each work order request submitted with a priority of 03 through 10.
    - (6) Submit feeder data via ULLS-G for each unit positioning equipment at the UTES per AR 700-138 current MDMF.
    - (7) Ensure that forms are completed per DA Pam 738-750 and are submitted to the property book officer and automatic data processing (ADP) activity.
  - i.* The MATES is an ARNG TDA maintenance facility which, when collocated with a CSMS, provides full-time unit-level support on ARNG equipment assigned to the site. When a MATES is not collocated with a CSMS, the MATES provides unit-, DS-, and GS-level support to assigned equipment and units. The MATES provides support in the conduct of maintenance training. MATES operations are outlined in National Guard Bureau (NGB) Pam 750-2.
  - j.* USAR maintenance activities have been established to perform unit-level maintenance, which is beyond the Army Reserve commander's capability or authorization to perform during scheduled training assemblies. Geographical support boundaries are assigned by the USARC. The maintenance activities are designated as (G) for ground support equipment, (W) for watercraft, or (G/W) for ground and watercraft.

k. Equipment concentration sites (ECS) have a maintenance branch with an area support mission and a storage branch for that equipment beyond the capability of the owning unit commander to store, maintain, or use at home station. Preference for storage location should be at unit's mobilization or annual training site to minimize transportation costs and time delays during mobilization.

l. Area maintenance support activities (AMSA) and ECS, with an assigned maintenance support mission for small arms, are authorized to perform maintenance support through the DS level. This support can be performed at the units home station using maintenance contact teams or at the AMSA/ECS when the small arms are evacuated to the AMSA/ECS by the owning unit.

m. Maintenance activities may be authorized by USARC to perform limited DS-level maintenance.

### **3-15. DS maintenance**

a. DS maintenance is characterized by—

- (1) One-stop service to supported units.
- (2) Highly mobile, weapon-system-oriented maintenance.
- (3) Backup support to unit-level maintenance.

b. Divisional maintenance units will support organic elements of the division. Attached units are required to coordinate with the parent units for support. Nondivisional maintenance units will provide support on an area basis as backup support to divisional DS units.

c. DS units may grant authority to supported units to perform the DS level of repair if the supported unit has the capability and capacity to perform the repair.

d. Nondivisional DS maintenance units may be assigned installation maintenance missions to ensure unit mission capability is maintained. These assignments will be approved and monitored by the installation materiel maintenance officer (IMMO).

e. MTOE DS maintenance personnel may perform duties of TDA maintenance activities to maintain skills and update MOS training.

f. All MTOE DS maintenance units will be provided adequate capability for furnishing on-site technical advice and maintenance support.

g. DS maintenance personnel will perform technical inspections of class II, VII, and IX materiel to determine serviceability and completeness.

h. DS units will be the primary reentry point for unserviceable repairable class IX materiel to the SSA.

i. Ensure that 30-series level modification applications are properly coordinated with the installation MWO coordinator in accordance with AR 750-10.

j. Operations assigned to DS units will normally include the following:

(1) Inspection of all items to—

(a) Verify serviceability of the item.

(b) Determine if unserviceable items were rendered unserviceable due to other than fair wear and tear. If negligence or willful misconduct is suspected, repair will not be made until a release statement is received per AR 735-5.

(c) Determine economic reparability of excess and accident-damaged equipment.

(2) Repair of unserviceable economically repairable end items per the maintenance expenditure limit (MEL). These will be repaired and returned to the user.

(3) Repair of all economically repairable components will return the items to a serviceable condition. These items will be repaired and returned to the requesting maintenance facility. Repair and return to supply will only be accomplished at the direction of the NMM.

(4) Provision of proactive materiel readiness and technical assistance of unit maintenance elements, including—

(a) Visits to supported units on a regular basis.

(b) Advice to supported units in proper methods for performing maintenance and related logistics support.

(c) Coordination with supported units to perform technical inspection when requested.

(d) On-site assistance to supported units.

(5) Diagnosis and isolation of materiel or module malfunctions, adjustment, and alignment of modules that can be readily completed with assigned tools and TMDE.

(6) Performance of light body repair, including straightening, welding, sanding, and painting of skirts, fenders, body, and hull sections when required to stop corrosion or retain structural integrity.

(7) Evacuation of economically repairable end items to designated maintenance facilities when repair is beyond authorized capability or capacity. Evacuation and return after repair will be through maintenance channels.

(8) Evacuation of maintenance repair code D, H, and L economically repairable components to the supporting supply activity if repairs are beyond MAC F-coded repairs.

(9) Evacuation of economically repairable components that can be returned to a serviceable condition using MAC F-level repair to designated maintenance facilities when repair is beyond capability or capacity. Evacuation and return after repair will be through maintenance channels.

(10) Providing backup DS maintenance support to other DS units and requesting backup support from other DS and GS units as required.

(11) Fabrication as identified by the appropriate TM.

k. The ARNG CSMS will perform DS and GS maintenance on all Federal surface equipment. The CSMS is under the control and supervision of the SMM and provides DS and GS maintenance to—

(1) Equipment prepositioned at a collocated MATES and/or UTES.

(2) Backup support to noncollocated MATES.

(3) Supported OMSs.

(4) Any DOD agency when authorized by CNGB.

l. USAR TDA maintenance activities are authorized to perform limited DS and GS maintenance as authorized by the USARC. The authorization is contingent upon availability of required resources and skilled personnel. An alternate DS activity within the geographic support area may be used when the activity backlog exceeds 21 days. If used, an installation support activity (ISA) or contract may be required. Components and/or end items requiring DS repair will be evacuated to the most cost-effective location for repair or replacement.

### **3-16. GS maintenance**

a. GS maintenance is characterized by—

(1) Commodity-oriented repair of components and end items in support of the NMP.

(2) Backup maintenance support to DS units.

(3) Job shop/bay or production line operations with the capability to task/organize to meet special mission requirements.

(4) Location at echelons above corps.

b. GS units may grant authority to supported units to perform the next-higher level of repair for repair and return to user only if the supported unit has the capability and capacity to perform the repair.

c. GS maintenance units will be assigned installation maintenance missions to ensure unit mission capability is maintained. These assignments will be approved and monitored by the IMMO.

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

e. All MTOE GS maintenance units will be provided adequate capability for furnishing on-site technical advice and maintenance support.

f. GS maintenance personnel will perform technical inspections of class II, VII, and IX materiel to determine serviceability and completeness.

g. Operations assigned to GS level will normally include—

(1) Diagnosis, isolation, and repair of faults within modules/components per the MAC. Components repaired and returned to stock will be repaired to the overhaul standard. Overhaul is defined as maintenance that restores equipment or components to a completely serviceable condition with a measurable (expected) life. This process involves inspection and diagnosis, according to the depot maintenance work requirements or similar technical directions, that identifies all components exhibiting wear and directs the replacement or adjustment of those items to original equipment specification.

(2) Performance of heavy body, hull, turret, and frame repair per the MAC.

(3) Area maintenance support, including technical assistance and on-site maintenance as required or requested.

(4) Collection and classification of class VII materiel (less aircraft, ammunition, missiles, and medical materiel) for proper disposition.

(5) Operation of cannibalization points, when authorized by MACOM commanders. (See AR 710-2.)

(6) Evacuation of unserviceable end items and components through the appropriate supply support activity.

(7) Fabrication or manufacture of repair parts, assemblies, components, jigs, and fixtures when approved by the MACOM commanders.

(8) Request for backup support as required.

(9) Assurance that TM 40-series level modification applications are properly coordinated with the installation MWO coordinator in accordance with AR 750-10.

### **3-17. TDA installation maintenance**

a. IMMAs will perform DS- and GS-level maintenance. IMMAs will also perform unit-level maintenance for MTOE units that do not have organic unit maintenance capability. Procedures for establishing, operating, transferring, or discontinuing IMMAs are in DA Pam 750-13.

b. IMMAs will not be work-loaded to the detriment of TOE and TDA units. This is to ensure that TOE DS and GS maintenance units maintain skill proficiencies and mission capabilities.

c. There is only one IMMA at an installation. IMMAs do not include—

(1) MTOE units.

- (2) Area maintenance and supply facilities (AMSF).
- (3) Communications security (COMSEC) communications logistics support facility (CLSF).
- (4) Regional training site-maintenance (RTSM).
- (5) MATES operated by the ARNG.
- (6) Maintenance activities operated by the Army Reserve.
- (7) Area maintenance facilities (AMFs).
- d. Installation commanders will appoint the IMMO on orders.
- e. The IMMO will review all installation maintenance activities on an annual basis to ensure continued effectiveness and economical support and recommend TDA maintenance consolidations, when required, through the chain of command.
- f. Operations assigned to an IMMA will normally include—
  - (1) Maintenance and issue of operational readiness float when the IMMA is assigned the mission.
  - (2) Operation of a cannibalization point.
  - (3) Maintenance technical assistance to supported units and activities.
  - (4) Maintenance of all materiel required to operate the installation.
- g. IMMAs must be readily expandable to support mobilization workloads and maintenance requirements when MTOE units are displaced or inactivated.
- h. Centralized maintenance production planning and control activities are established under the control of the IMMO.
- i. The DS and GS maintenance workload requirements that are beyond the IMMA's capability or capacity will be done by other DS or GS activities in the geographical support area. This workload will be accomplished on a reimbursable basis and may also be done by ISSA or contract. Contracts with commercial sources are administered per the forward repair activity (FAR).

**3-18. Specialized repair authority**

- a. A specialized repair authority is an authorization by HQ USAMC to perform specific MRC D and L repairs at GS level that will be valid for a period of 1 year. All work performed under the specialized repair authority will be directly funded with customer-level Operations and Maintenance, Army (OMA) funds for items repaired and returned to owning units. Work performed under the specialized repair authority on Army working capital fund (AWCF) components will be funded with AWCF funds.
- b. The Commander, HQ USAMC, as the NMM, will have the authority to approve or recommend disapproval of specialized repair authority requests submitted by the MACOMS. Approval authority may be delegated to the MSC commander as appropriate. Final disapproval authority will reside with DCS, G-4. The Commander, HQ USAMC will establish the business rules necessary to implement the specialized repair authority process.
- c. Requests for specialized repair authority approval will be submitted in the sample format at table 3-3.

**Table 3-3**  
**Sample format for a request for specialized repair authority authorization**

1. Unit identification code (UIC) of requesting activity/unit.
2. NSN of item.
3. Federal Logistic Record (FED LOG) source of supply code (B14, B16, and so forth).
4. Nomenclature.
5. End item application (end item code).
6. FED LOG maintenance repair code (D or L).
7. Repair of NSN. (List specific depot-level tasks proposed to be performed by the specialized repair authority.)
8. Skills, tools, TMDE, facilities, and publications on hand at the requesting unit. (If needed, add a continuation sheet.)
a. Skills (including certification for soldering).
b. Tools/equipment. (State if required or on hand.)
c. TMDE/test program set (TPS). (State if required or on hand.)
d. Facilities. (State if required or on hand.)
e. Publications.
9. Yearly number of items to be repaired.

**Table 3-3**

**Sample format for a request for specialized repair authority authorization—Continued**

---

10. Cost-benefit analysis.
a. Buy costs (FED LOG price less turn-in credit).
b. Local repair costs.
(1) Direct labor hours (x rate).
(2) Indirect labor hours (x rate).
(3) Average parts cost (total per repair).
(4) Overhead costs (hours x rate).
c. Unit savings (a - b).
d. One-time start-up costs that are nonrecurring, including facilitation. (Amortize against item 9.)
e. Total estimated savings (item 10c x 9). (Instructions keyed to numbers on format.)
11. Readiness benefit.
12. Maintenance liaison engineer comments.
13. Prior one-time repairs.
14. Submitting activity POC.

---

*d.* All specialized repair authority requests will be submitted through the appropriate MACOM headquarters through HQ USAMC (AMCLG-LMM) to the respective USAMC MSC identified as the agency responsible for management of the item for which the specialized repair authority is sought. The MSC commander will forward a recommendation to Commander, U.S. Army Material Command, ATTN: NMO, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001.

*e.* HQ USAMC will—

- (1) Ensure that the national stock number (NSN) is not excess to the national requirements objective (RO).
  - (2) To assist HQDA (DALO-SMM) in the approval/disapproval decision process, each specialized repair authority request forwarded for disapproval recommendation will have the following information:
    - (a) The national RO.
    - (b) Current depot program (maintenance activity and annual production requirements, year-to-date (YTD) production).
    - (c) Current NMP source of repair (maintenance activity/activities), annual production requirements, YTD production)
    - (d) The total number of unserviceable assets (wholesale and retail).
    - (e) The total number of serviceable assets (wholesale and retail).
    - (f) The number of issuable assets not in war reserves or programmed requirements.
    - (g) Any new or existing procurement actions, including delivery schedule.
    - (h) The average monthly demand for the item (wholesale and retail).
    - (i) Item manager's name and phone number.
  - (3) Ensure the requesting organization has the skills, equipment, and necessary facilities to conduct the requested repair.
  - (4) Maintain the specialized repair authority database, including the data identified in (2), above.
  - (5) Submit reports to HQDA (DALO-SMM) on a quarterly basis comprised of the data outlined in (2), above. Courtesy copies of the reports will be provided to the specialized repair authority's performing unit's MSC and MACOM. (Report control symbol (RCS) exempt per AR 335-15, para 5-2a(5).)
  - (6) Determine the amount of depot workload man-hours offset by all specialized repair authorities.
- f.* The MACOM specialized repair authority POC will report the following data to the NMM at HQ USAMC (AMCLG-LMM) on a quarterly basis (RCS exempt per AR 335-15, para 5-2a(5)):
- (1) Date repaired.
  - (2) Specialized repair authority number.
  - (3) Repaired component national item identification number (NIIN)/part number (where applicable) and serial number (where applicable).
  - (4) Parts replaced and associated cost.
  - (5) Labor hours and labor cost.
  - (6) Total cost.

- (7) Total man-hours and cost expended by DOD employees.
- (8) Total man-hours and costs expended by contractors.
- g. MACOMS are also required to provide, on a quarterly basis, the information listed in *e*, above, (less specialized repair authority number) for one-time repairs to HQ USAMC (AMCLG-LMM).
- h. The HQDA target for processing a specialized repair authority request is 60 days from receipt by the appropriate HQ USAMC MSC.

### **3-19. Authorization for ARNG maintenance facilities**

- a. Requests to establish surface maintenance facilities will be submitted to Headquarters, National Guard Bureau, ATTN: NGB-ARL-M, 111 South George Mason Dr., Arlington, VA 22204-1382, for approval. Requests to establish Army aviation activities will be in accordance with NGR 95-1 and submitted to Headquarters, National Guard Bureau, ATTN: NGB-AVN, 111 South George Mason Dr., Arlington, VA 22204-1382, for approval.
- b. These requests will include—
  - (1) List of units by TOE, authorized and on-hand equipment density to be supported, and the MTOE/TDA maintenance capabilities of the designated parent unit.
  - (2) How the facilities are acquired, leased, or licensed and the estimated cost.
  - (3) The annual cost, if the facility is leased.
  - (4) Renovation and/or rehabilitation costs that are required before occupancy.
  - (5) Estimated annual operations and maintenance cost of proposed facility.
  - (6) The effect that relocation will have on the technician workforce.
- c. Upon approval of a maintenance facility request, the State Adjutant General will publish a change to the State equipment maintenance support plan.
- d. NGB Pam 570-1 prescribes the manning criteria for maintenance activities.
- e. Criteria for the construction of maintenance facilities are prescribed in NGR 415-10.

### **3-20. Designation of parent units in the ARNG**

- a. The parent unit of a CSMS or support MATES is an ARNG MTOE unit that possesses a DS or GS maintenance capability. When the State troop structure does not provide a unit with the required MTOE maintenance capability, authority will be requested from the CNGB to modify the TDA to reflect the necessary maintenance capability. Where partial mobilization would have an adverse impact on the State, the adjutant general may request an exception to this policy from the CNGB.
- b. The parent unit of an Army aviation activity is the ARNG MTOE unit supported by the facility with the greatest aviation maintenance capability. NGB-AVN has determined total equipment requirements for Army aviation activities based on assigned missions. TDAs have been established that represent differences between equipment authorizations of the parent unit and equipment required to perform assigned missions.
- c. Requests to establish an OMS/UTES will include the following factors:
  - (1) Support to a minimum of three MTOE company-size units, or an equipment density of three work bays. A request to establish an OMS/UTES to support less than three units will include complete justification for the requirements and specify why the units cannot depend on existing facilities for support.
  - (2) Density and type of equipment to be supported.
  - (3) Availability of facilities and additional facilities required.
  - (4) Geographic location of proposed site for the facility in relation to units to be supported. Unit integrity is the primary consideration, but it is not intended that every battalion-size organization be supported by a separate OMS. The maintenance support plan can be developed to require dependent units to be supported by the OMS nearest the equipment requiring the maintenance support.
  - (5) The parent unit should be an MTOE unit having a unit maintenance capability; that is, battalion maintenance platoon, battalion maintenance section, or the maintenance sections of a separate company. If this is impractical, authority may be requested from the CNGB to assign another activity as parent unit. Unit maintenance tools and equipment that are not available in the approved TOE of the parent unit or other units supported by the OMS will be requested for inclusion on the State area command TDA.
  - (6) The OMS should be located at, or near, the parent unit armory.
- d. Upon approval by the CNGB, a State may be authorized an OMSS as follows:
  - (1) Authorization may be made for the specific purpose of supplementing available shop space of a parent OMS or an OMSS may be requested for NGB consideration when a unit is located an appreciable distance from the parent OMS.
  - (2) The OMSS will be designated with the parent OMS number and an alphabetic suffix; that is, the first sub-shop of OMS 3 will be designated 3A.
- e. Each State, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands will prepare and maintain a

current State surface equipment maintenance support plan located on the NGB Web site under Army research lab (ARL)-M.

### **Section III**

#### **Depot-Level and Acquisition Maintenance Policies**

##### **3-21. Depot-level maintenance**

*a.* Depot-level maintenance is characterized by the facilities, tools, machinery, TMDE, and technical manpower needed to execute the depot maintenance workload requirements generated throughout the life cycle of the mission-essential system and may be either organic or contractor. Depot maintenance supports Army readiness through overhaul and recapitalization of major items and overhaul of all class IX components for long-range cyclic requirements planning, mobilization surge demands during times of conflict, and short-term efforts.

*b.* Depot-level maintenance supports both the combat forces and the Army supply system as shown below.

(1) Depot-level maintenance will provide technical support and backup to DS and GS maintenance units. In overseas areas, a joint decision is required between the theater Army (TA) commander and CG, USAMC to determine the relationship of USAMC supply and maintenance activities with the theater commander in peacetime. In wartime and military operations other than war (MOOTW), the theater commander assumes control of depot-level maintenance operations in the theater of operations.

(2) Depot-level maintenance provides combat-ready materiel to the Army supply system in accordance with the priorities and requirements specified by DCS, G-3.

*c.* Depot-level maintenance will normally be performed by TDA industrial-type activities operated by the Army. Depot-level maintenance may also be performed by contract, ISA, and interdepartmental or interagency agreement.

*d.* An FRA is a USAMC-resourced, -directed, and -controlled activity operated by contractor or organic personnel that provides depot-level support forward of the depot. Where possible, FRAs will provide support for multiple weapon systems or commodities. The policies for depot repairable accountability (turn-in and requisition and Army working capitol fund) apply to FRAs.

*e.* All depot-level work, regardless of where it is performed, how it is funded, or whether it is organic or contractor-based work, will be reported to the ODCS, G-4 (DALO-SMM) on a quarterly basis. (RCS exempt: see AR 335-15, para 5-2e(1).) Information will be by quarter and will include specialized repair authorities, FRAs, NMP, and depots. The fourth-quarter report will provide a rollup of all funds executed both in the private and public sectors for the year. This report will be submitted by 1 December of each year.

##### **3-22. Materiel design, acquisition, and life-cycle support**

*a.* Equipment will be designed and developed to be supported within the Army maintenance system.

*b.* Maintenance planning and execution will be oriented toward the support of combat troops through the wholesale system with the prime purpose of sustaining materiel to the Army maintenance standard as defined in appropriate TMs.

*c.* Equipment will be designed to permit on-site repair, through component replacement, to the greatest extent possible with a minimum of manpower, skills, support equipment, and external TMDE.

*d.* Inter-Service and contract maintenance support, including life-cycle contractor support programs, will be planned and executed per this regulation.

*e.* Maintenance support will be structured on a weapon system and/or materiel end item basis and will conform to the Army maintenance system.

*f.* Maintenance management and planning will maximize consistency in maintenance support between similar types of materiel.

*g.* RCM, RAM, Manpower and Personnel Integration (MANPRINT), and BDAR will be an integral part of logistics support planning by wholesale maintenance activities.

*h.* Use of existing Army and other Service materiel and maintenance support structure will be stressed in the design and acquisition of the weapon system.

*i.* The top design priorities for supportability in the development or acquisition of new weapon systems and end items are:

(1) Modular design and discard at failure instead of repair when economically practical.

(2) Increase mean time between failure (MTBF).

(3) Reduce mean time to repair (MTTR).

(4) Minimize time to diagnose, fault isolate, and replace.

*j.* Embedded diagnostics, prognostics, and automatic identification technology (AIT) are the foundation of Army preventive and corrective maintenance in all Army equipment maintenance programs.

(1) TRADOC combat developers will require, through operational requirements documents (ORDs), that sensor-based embedded diagnostics and/or prognostic capabilities and AIT are designed into all new weapons/information systems and, where possible, existing systems. These technologies will be fully implemented in the following areas:

(a) Technical literature, including electronic technical manuals (ETMs) and interactive ETMs (IETMs), for the execution of field maintenance operations.

(b) Army doctrine and training for improved methods, procedures, and combat service support.

(c) Fleet life-cycle management and inventory management programs at USAMC national inventory control point (NICP) and its associated program management organizations.

(2) Materiel developers will ensure that embedded diagnostic and prognostic technologies and AIT are incorporated in design and development of new equipment and major weapon systems and upgrades of existing weapon systems and equipment end items.

k. Transportability/mobility will be included in the design and selection of any maintenance support equipment.

l. Information and reporting systems will be established to—

(1) Measure the effectiveness of materiel maintenance and management at all levels.

(2) Identify the frequency of materiel failures and effect corrective action.

(3) Develop maintenance support parameters for future materiel systems.

(4) Update the logistics database of the materiel proponent and other logistics planning elements of the Army.

(5) Compute initial repair parts required to support repair or overhaul programs for both contract and organic activities at retail and wholesale levels.

(6) Track materiel changes.

(7) Permit serial number tracking of selected parts, components, and end items.

m. Modification/modernization of equipment by wholesale maintenance activities will be performed and reported per AR 750–10.

n. Maximum repair cost or maximum permissible overhaul costs/MEL will be established by the appropriate materiel proponent for each materiel weapon system or equipment and its subsystems, assemblies, modules, and components.

o. Army depot maintenance capabilities and capacities will be developed within guidelines established by DOD Directive (DODD) 4151.18 to—

(1) Acquire and maintain suitable levels of technical competence.

(2) Execute the depot-level maintenance workload requirements for mission-essential weapons, systems, or equipment during the life cycle.

(3) Provide technical support to all echelons of maintenance below depot as needed.

(4) Provide for mobilization and surge requirements.

(5) Tailor FRA depot maintenance workload to a level of effort that best accommodates user needs for responsive logistics support on mission-critical systems and equipment.

p. Maintenance tooling, accessory shop materiel, machine tools, and TMDE will be modernized as cost effectiveness and the need for advanced technology dictate.

q. Acquisition, calibration, repair, and certification of TMDE will be accomplished per AR 750–43 and EM 0022 as part of wholesale maintenance support.

r. Use of U.S. Army-preferred TMDE will be stressed for all levels of maintenance during the design and acquisition phases of the materiel system. TMDE used to support materiel repair will be selected per AR 750–43.

s. Depot-level maintenance SOR analysis will be conducted and documented as part of the milestone II ASARC or equivalent review for acquisition category (ACAT) II and below programs for all newly acquired systems and modifications per AR 70–1.

t. An organic depot maintenance capability will be established for all newly acquired systems or modifications that have been designated as core within 4 years of initial operational capability date per AR 70–1. Core analysis procedures are outlined in paragraph E–2 of this regulation.

## **Chapter 4 Maintenance Operations**

### **Section I Materiel Repair and Evacuation**

#### **4–1. General**

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

b. MACs specify what tasks can be performed at each level of maintenance.

c. To ensure the most cost-effective use of maintenance resources, the economic reparability of unserviceable