

Department of the Army
Pamphlet 750-1

Maintenance of Supplies and Equipment

Leader's Unit Maintenance Handbook

Headquarters
Department of the Army
Washington, DC
3 October 2003

UNCLASSIFIED

SUMMARY of CHANGE

DA PAM 750-1
Leader's Unit Maintenance Handbook

This revision--

- o Addresses the movement to two levels of maintenance (chap 1).
- o Describes the evolution in Army maintenance (chap 3).
- o Removes the maintenance check lists 10/20 standard from this pamphlet and refers the soldier to the applicable technical manual maintenance checklist (chap 5).
- o Adds reference to key maintenance enablers including embedded diagnostics and prognostics, interactive electronic technical manuals, and automatic identification technology throughout.

Maintenance of Supplies and Equipment

Leader's Unit Maintenance Handbook

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History. This publication is a major revision.

Summary. This pamphlet provides an

overview of the wide spectrum of maintenance topics required for day-to-day operations within an Army unit.

Applicability. This pamphlet applies to the Active Army, the Army National Guard of the United States, and the U.S. Army Reserve units that perform or supervise logistics functions. During mobilization, chapters and policies contained in this pamphlet may be modified by the proponent.

Proponent and exception authority. The proponent of this pamphlet is the Deputy Chief of Staff, G-4 (DALO-SMM). The Deputy Chief of Staff, G-4, has the authority to approve exceptions to this pamphlet that are consistent with controlling law and regulation. The Deputy Chief of Staff, G-4, may delegate this approval authority, in

writing, to a division chief within the proponent agency in the grade of colonel or the civilian equivalent.

Suggested improvements. Users are invited to submit comments and suggested improvements to this regulation. Internet users can submit their comments and suggested improvements on electronic DA Form 2028 (Recommended Changes to Publications and Blank Forms). Anyone without internet access should submit comments and suggested improvements on DA Form 2028 directly to HQDA, ODSC, G-4 (ATTN: DALO-SMM), 500 Army Pentagon, Washington, DC 20310-5000.

Distribution. This publication is available in electronic media only and is intended for command levels A, B, C, and D for the Active Army, the Army National Guard of the United States, and the U.S. Army Reserve.

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Glossary

Chapter 1 Introduction

1-1. Purpose

The purpose of this pamphlet is to aid commanders, supervisors, and leaders in implementation and compliance with Army Regulation (AR) 750-1. For aviation equipment sustainment guidance, the appropriate sections of AR 750-1, Department of the Army (DA) Pamphlet (Pam) 738-751, the Unit Level Logistics System—Aviation (ULLS-A) User Manual, and other applicable references should be read.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and terms used in this publication are explained in the glossary.

1-4. Overview

a. Chapter 1 provides an overview, an objective, a leadership self-test, and other assistance to the unit leader and commander.

b. Chapter 2 describes key unit personnel and responsibilities for maintenance operations.

c. Chapter 3 discusses the Army maintenance organization and policy as outlined in AR 750-1 and other applicable publications. The primary focus of chapter 3 is the Army Maintenance Standard and how to achieve that standard.

d. Chapter 4 guides the reader on how the Army unit maintenance process works and provides addresses to Internet sites of technical references.

e. Chapter 5 describes the role and importance of preventive maintenance checks and services (PMCS) to unit maintenance programs. It also includes a list of technical manuals (TMs) recorded on compact disks (CDs) available at the Logistic Support Agency (LOGSA) website.

f. Chapter 6 discusses some of the Army's enablers, policies, and programs most critical to the success of Army maintenance, with the focus on unit-level maintenance.

1-5. Unit maintenance

Unit maintenance is the most critical of all of the building blocks in the Army maintenance system. The primary focus of this guide is the company, detachment, and small-unit and the activity commander, supervisor, and small unit leader. This pamphlet, which contains the elements to help this key leadership group get started in the best direction for its unit and stay on course, has been aligned with AR 750-1 in an effort to simplify cross-referencing and research and answer questions not addressed in this pamphlet. This pamphlet is designed to assist the reader in the systematic achievement of a successful unit maintenance operation. The objective of this pamphlet is to sustain the highest possible level of materiel readiness by meeting and achieving the Army Maintenance Standard.

1-6. Leadership

Leadership and commitment strengthen the probability of success of any task, mission, or course of action. Maintenance tasks require effective leadership to get the job done in accordance with policy and in the best manner possible. The U.S. Army is made up of such elements as people, doctrine, organizations, weapons, and equipment. Leadership brings all of these elements together and makes them work. Good leaders are developed through a never-ending process of self-study, education, training, and experience. This pamphlet has been developed with that purpose in mind.

1-7. Leadership questions

In order for leaders and a chain of command to be effective, an organization must first be structured for success. Thus the unit leader must be able to answer yes to the following questions, to ensure actions are not counterproductive to the mission:

a. Am I giving maintenance the adequate amount of time, resources, attention, and priority in order to accomplish assigned missions and tasks?

b. Have I allotted prime-time training for care, preservation, and maintenance of equipment and maintenance training?

c. Am I technically competent enough to supervise my soldiers and inspect my unit's equipment? If not, what corrective action can I or have I instituted?

d. As a commander, supervisor, or small-unit leader, do I lead by example? Have I been in the motor pool or equipment storage area today? Are my assigned vehicle and personal equipment at or above standard and examples and models for all to follow?

e. Do I foster an ownership relationship between the soldiers and their equipment?

f. Do I know the maintenance system within my organization and do my unit and its personnel comply and use it?

- g. Do my soldiers have the necessary tools (to include current TMs) to perform maintenance adequately?

1–8. Unit maintenance and the levels of maintenance

Unit maintenance is the most important building block and the path to success in Army maintenance. If an organization's maintenance management focus is not on unit maintenance first, then that unit risks failure in overall maintenance mission accomplishment. If unit maintenance does not succeed, then the entire organization risks failure in its primary mission. Currently the Army maintenance system consists of four levels of maintenance: unit, direct support (DS), general support (GS), and depot. These levels are fully described in AR 750–1, chapter 3. The Army is undergoing a major reorganization and transformation of force structure and capabilities. The end-state of this managed change process is called the objective force. As we evolve toward the objective force, we also transform toward a two-level maintenance structure, the field level and the sustainment level. Although the mix of maintenance tasks for the objective force maintenance levels has not yet been finalized, the unit leader and the tasks that will be assigned to units will remain critical to overall mission success.

1–9. Getting the maintenance job accomplished

Unit maintenance operations must be conducted in accordance with Army policy and procedures for a unit to have an efficient and effective organization. Army policy and procedures are found in AR 750–1, DA Pam 738–750, and DA Pam 738–751. The Unit Level Logistics System–Ground (ULLS–G) is the Army's software—that is, the Standard Army Management Information System (STAMIS)—that helps commanders to implement policy and procedures with the benefits of automated records and reports. ULLS–G software is used by Army ground organizations and ULLS–A software is used by aviation organizations.

1–10. Equipment maintenance and evaluation

a. Observation by the equipment operator or user of equipment performance and condition is necessary for an Army maintenance program. Performance and condition observation is the basis of the Army PMCS. Utilization of PMCS is crucial to the success of unit maintenance operations and is thus required by all printed equipment technical manuals (TM), electronic technical manuals (ETM), and interactive electronic technical manuals (IETM) for the before, during, and after equipment operation checks. Through observation, an operator identifies performance of equipment against an established technical standard and reports problems before they become catastrophic. The operator and maintenance standards found in the TM –10/–20 series specify the technical standards for all equipment.

b. Unit leaders must also observe and react to unit maintenance operations to ensure that operators, crews, and maintenance soldiers work as a team to sustain equipment at the Army Maintenance Standard.

1–11. Essential elements of effective maintenance management

The Army has developed numerous solutions to typical unit-level maintenance problems and management challenges. Headquarters, Department of the Army (HQDA), develops and funds programs based on input from the field level, to provide Army leaders a set of procedures and a funded vehicle to accomplish specific tasks. Some of the Army programs enablers and policies that are most critical to the success of unit-level maintenance are listed below and found in chapter 6:

- a. National Maintenance Program (NMP).
- b. Army Oil Analysis Program (AOAP).
- c. Recognition of soldiers and units.
- d. Safety of use messages (SOUM), maintenance advisory messages (MAM), and ground precautionary message (GPM).
- e. Maintenance assistance and instruction team (MAIT).
- f. Publications.
- g. Single stock fund.
- h. Recapitalization program.
- i. Automatic identification technology (AIT).
- j. Army warranty program concepts and policies.
- k. Tools and the tool improvement program suggestions.
- l. Test, measurement, and diagnostic equipment (TMDE) program.
- m. Facilities.
- n. Logistics assistance program (LAP).

1–12. Future logistics—the road ahead

General Eric K. Shinseki, former Chief of Staff of the Army, planned our transformation into the 21st century. The sustainable portion is reprinted here to remind the maintenance community of its tasks toward that transformation:

“We will aggressively reduce our logistics footprint and replenishment demand. This will require us to control the

numbers of vehicles we deploy, leverage reach back capabilities, invest in a systems approach to the weapons and equipment we design, and revolutionize the manner in which we transport and sustain our people and materiel. We are prepared to move to an all wheel formation as soon as technology permits. Our commitment to meeting these challenges compels comprehensive transformation of the Army. To this end, we will begin immediately to transition the entire Army into a force that is strategically responsive and dominant at every point on the spectrum of operations. We will jumpstart the process by investing in today's off-the-shelf technology to stimulate the development of doctrine, organizational design, and leader training even as we begin a search for new technologies for the objective force. Doing so will extend our technological overmatch."

Chapter 2 Personnel and Responsibilities

Section I Unit Maintenance

2-1. Maintenance mission

Commanders of units, leaders of small units, and supervisors of activities occupy the most critical positions in the maintenance process. If commanders and other leaders give maintenance operations the appropriate priority in relationship to overall unit mission requirements, the chances for unit success and mission accomplishment are improved. In addition, other behaviors exist that are required of these leaders if the maintenance mission is to succeed. The policies contained in AR 750-1, the procedures contained in DA Pam 738-750 and DA Pam 738-751, and the automated processes contained in ULLS-G and ULLS-A are the foundation on which unit maintenance operations are built. Army organizations implement the policies in AR 750-1 and follow the procedures in the two pamphlets, while using the ULLS-G and ULLS-A software as enablers. Each level of command has its assigned and implied responsibilities, and it takes dedication, teamwork, and coordination to get the maintenance job done and implemented correctly.

2-2. Command emphasis

Some of the key questions that unit commanders, small-unit leaders, and activity supervisors must ask are—

- a. Am I technically competent enough to supervise my soldiers and inspect my equipment?
- b. Have I been in the motor pool, hangar, or equipment storage area today?
- c. Have I established maintenance as a priority in my unit?
- d. Have I allotted prime training time, strictly for the care, preservation, and maintenance of equipment and maintenance training?
- e. Do I foster an ownership relationship with regard to equipment?
 - (1) *Leadership.*
 - (a) Do my soldiers have maintenance discipline, and what am I doing to foster it?
 - (b) Are subordinate leaders present and active participants during scheduled maintenance periods?
 - (2) *Management.*
 - (a) Have I established the Army Maintenance Standard (AR 750-1) as the objective for maintenance operations in my unit?
 - (b) Am I familiar with the elements of the Army Maintenance Standard (see AR 750-1, para 3-2)?

Table 2-1
Elements of the Army Maintenance Standard

Element	Short title
Fully mission capable (FMC)	FMC status
Equipment faults identified	Faults identified
Unit repairs and services	Services/repairs done
Parts/supplies needed to complete repairs/work on funded requisition	Parts on order
Uncorrected faults above unit level on valid work request	Work orders submitted
Scheduled services performed at required intervals	Services completed on time

Table 2-1
Elements of the Army Maintenance Standard—Continued

Applicable emergency modification work orders (MWOs) applied and completed; SOUMs and safety-of-flight (SOF) messages implemented	MWOs/SOUMs/SOF
Basic issue items (BII), component of end item, and aircraft flyaway items on hand/serviceable or on funded requisition	BII/associated support items of equipment (ASIOE)/flyaway

- f.* Have I assessed my total maintenance workload (PMCS and fault correction) for my unit?
- g.* Have I assessed the assigned strength of unit personnel and compared this to the maintenance workload (see AR 750-1, para 3-4 and app G)?
- h.* If I have a resource shortfall, have I reported the results of this assessment to my chain of command?
- i.* Do I enforce the TM -10/-20 series PMCS standard for my equipment?
- j.* Are all PMCS (daily/weekly/monthly/quarterly/semiannually/annually) actually performed for all assigned equipment?
- k.* Are scheduled PMCS and equipment services placed on the unit-training schedule?
- l.* Are PMCS being properly performed, in accordance with applicable technical publications?
- m.* Do my soldiers have the necessary tools, test equipment, supplies, and TMs for unit maintenance operations?
- n.* Am I taking advantage of the technical and logistics assistance available to me (from the Logistics Assistance Office (LAO) and the logistics assistance representatives)?
- o.* Are my subordinate leaders present and active participants during scheduled maintenance periods?
- p.* Do I review my maintenance operations transactions and reports daily?

2-3. Operators and crews

To have a successful unit maintenance program that supports mission accomplishment, leaders must start with their operators and crews. Operators and crews must know how to detect and report malfunctions as well as operate equipment properly and safely. An atmosphere of pride and "ownership" on the part of operators and crews for equipment enables that to happen. A disciplined routine and self-motivated pursuit of excellence help to ensure operators and crews that PMCS is performed and the Army Maintenance Standard is achieved and performed correctly. Do operators and crews:

- a.* Know their responsibility in achieving the Army Maintenance Standard for their assigned equipment and, on a teamwork basis, for all unit equipment (see paragraph 2-1)?
- b.* Have appropriate TMs on hand and in use during PMCS and scheduled services?
- c.* Ensure that all equipment faults are identified and corrected? If faults identified are beyond operator and crew capabilities, are they reported to unit maintenance personnel? Understand the fault-reporting process?
- d.* Verify all ASIOE is on hand or on order?
- e.* Follow TM safety procedures when operating and maintaining the equipment?
- f.* Have licenses to operate all assigned equipment?
- g.* Keep the equipment in a clean and secured condition?
- h.* Have the necessary facilities, manuals, tools, and time for maintenance?
- i.* Participate with unit maintenance personnel during services?
- j.* Have adequate supervision by technically competent leaders?

2-4. Supervisors

The unit's supervisors provide the leadership link to the operators and crews and support the achievement of the Army Maintenance Standard by—

- a.* Preparing for and ensuring that their subordinates fully participate in unit-scheduled preventive maintenance periods.
- b.* Attending, leading, and supervising preventive maintenance operations.
- c.* Being technically competent.
- d.* Knowing their responsibilities for their area of supervision and unit maintenance operations procedures.
- e.* Enforcing the Army Maintenance Standard for the equipment for which they are responsible (see para 2-1) and ensuring that the desired sense of "ownership" applies to supervisors, as well as commanders, leaders, and operators and crews.
- f.* Training operators and crews to operate and perform PMCS properly on assigned equipment.
- g.* Enforcing safety.

h. Informing their chain of command when sufficient time, personnel, funding, tools, TMs, or other maintenance means are not available to accomplish required equipment maintenance.

2-5. Personnel

Unit maintenance personnel are the first line of support to operators and crews. They assist the unit in maximizing equipment readiness by properly performing TM -20 series level maintenance and repairs.

a. The commander must ensure that the unit maintenance standing operating procedures (SOPs) provide clear guidance to the maintenance platoon/section on its responsibilities. The size of the unit maintenance organizations may vary from command to command; however, roles of unit leaders, the unit equipment records clerk, and The Army Maintenance Management System (TAMMS) clerk generally are common to all units.

b. The commander/leader often finds that unit maintenance cells are small. Critical skills that are obtained from formal training courses are often possessed only by a single individual at the unit level. In those cases where skills are “one deep,” the commander/leader must ensure that multiple individuals are cross-trained and cross-supportive. This way, the unit mission will not be hampered by a temporary absence or short-term mission overload. Some units have supply clerks authorized and assigned; others do not. Flexibility and versatility are required under these circumstances.

c. Some of the unit-level skill positions require soldiers who have undergone such extensive training that they must possess an additional skill identifier (ASI) code along with the appropriate military occupational specialty (MOS) code required for the position. In such cases, as with TAMMS clerks, commanders will ensure that such personnel are fully utilized in these positions.

d. Transactions with the supply support activity (SSA) should be conducted promptly and in accordance with maintenance and issue priorities assigned by the unit commander/leader.

e. Commanders/leaders need to understand and execute accurately all licensing, dispatching, and maintenance procedures.

f. Commanders/leaders must complete the necessary records and forms from information obtained from operators and crews, mechanics, and other maintenance personnel.

g. Commanders/leaders should prepare work requests for submission to support maintenance, in accordance with the priority time frames required by AR 750-1, paragraph 3-7, and using procedures in DA Pam 738-750 or DA Pam 738-751.

h. Report unit maintenance actions as required and scheduled in DA Pam 738-750 and DA Pam 738-751.

Section II

Battalion Maintenance

2-6. Battalion headquarters

The battalion maintenance platoon headquarters contains the platoon command and control elements. It consists of the platoon leader, who is also the battalion maintenance officer (BMO), the battalion maintenance technician (BMT), and the battalion maintenance sergeant (BMS).

2-7. Battalion maintenance officer

The BMO—

a. Controls the total maintenance effort of the battalion maintenance platoon.

b. On behalf of the battalion commander and at least annually, makes the assessment of the battalion maintenance mission, versus maintenance capabilities, as described in paragraph 2-1. Ensures that the battalion commander is fully informed of the results.

c. Prioritizes the battalion maintenance workload to support the commander’s mission.

d. Provides the commander with accurate equipment status for all battalion units; accuracy here depends on the accuracy and timeliness of unit reports. Fully understands materiel and unit equipment status reporting. Ensures that all reporting units within the battalion fully comply with reporting procedures described in DA Pam 738-750 and DA Pam 738-751.

e. Evaluates the overall battalion PMCS operation.

f. Enforces the Army Maintenance Standard within the battalion (see para 2-4).

g. Assists the commander in planning tactical maintenance support.

h. Coordinates frequently with support maintenance organizations to ensure that total logistics response time on work requests is kept to a minimum (see AR 750-1). Ensures that work request submission time and completed job pickup time are kept within standards.

i. Ensures that sufficient copies of TMs and lubrication orders are available to battalion units for performance of PMCS and organizational maintenance.

j. Assesses training and competence level of battalion operators, crews, and maintenance personnel. Conducts training or ensures that training and instruction are provided to meet skill requirements.

- k. Requests support from the LAO and equipment logistics assistance representatives, as required.

2-8. Battalion maintenance technician

The BMT—

- a. Fulfills the role of technical expert for ULLS in the battalion.
- b. Assists the BMO in the performance of duties.
- c. Organizes company/troop/battery maintenance team.
- d. Monitors the scheduling and performance of scheduled services.
- e. Monitors the battalion quality assurance program.
- f. Implements and monitors the unit maintenance, safety, modification work management, warranty, calibration, and oil analysis programs.
- g. Conducts technical training for maintenance personnel.
- h. Assists unit commanders in setting up PMCS training programs.
- i. Monitors the flow of battalion work requests to support maintenance and ensures that timelines are achieved.
- j. Monitors the flow of battalion requests to supply support activities and ensures that timelines battalion supply personnel submit supply requests and make pickups in a timely manner.
- k. Coordinates the use of unit/battalion recovery assets.
- l. Coordinates requirements for mobile support teams with supporting direct support units (DSUs).
- m. Conducts training

2-9. Battalion maintenance sergeant

The BMS—

- a. Assists the BMO and BMT in the performance of duties.
- b. Assigns work to the various sections.
- c. Supervises the scheduling and performance of scheduled services.
- d. Supervises TAMMS and (prescribed load list (PLL) procedures.
- e. Supervises platoon equipment inventories and control (especially tools).
- f. Supervises quality-control inspectors.
- g. Enforces safety standards within the motor pool.
- h. Maintains the maintenance publications library.
- i. Inspects garrison facilities used by battalion units.
- j. Submits facilities work requests to the installation facilities engineer, when required.

Chapter 3

Maintenance Structure and Policies

3-1. The Army Maintenance Standard

“The war fighter wants logistics where he needs it, when he needs it, with the right quality and quantity every time. He wants the process to get it there and sustain him, to consume less total obligation authority and to have a smaller logistics footprint in the battle space without sacrificing combat capability or readiness.”*Major General Terry E. Juskowiak, Commander, U.S. Army Combined Arms Support Command.*

The Army has one maintenance standard. The Army Maintenance Standard is a logistics objective for all commands and is the foundation for the Army maintenance policies and force structure now and in the future. The Army Maintenance Standard will guide maintenance operations as the Army transforms to meet 21st-century missions and requirements. The eight elements of the Army Maintenance Standard are—

- a. The equipment is FMC.
- b. All faults are identified following prescribed intervals using the "items to be checked" column of the applicable TM -10/-20 series PMCS table. Aviation faults are determined by using the aircraft preventive maintenance inspection system, per TM 1-1500-328-23.
- c. 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.
- d. 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.

e. Corrective actions that are not authorized at unit level by the maintenance allocation chart (MAC) must be on a valid DS maintenance request (DA Form 2407 (Maintenance Request) or DA Form 5990-E (Maintenance Request (EGA))).

f. Scheduled services are performed at the service interval required by the applicable technical publication. Because of 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.

g. All emergency and urgent MWOs are applied for all equipment. In addition, actions required by one-time SOUMs and emergency SOF messages are completed.

h. 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. The maintenance standard is based on the TM -10/-20 series for PMCS.

3-2. Leadership considerations for the Army's three co-existing maintenance force structures

a. The Army maintenance structure and the policies that apply to maintenance operations are described in AR 750-1. The procedures in this pamphlet will assist Army organizations, to accomplish maintenance missions, when operating in an Army structured with modification table of organization and equipment (MTOE) organizations that reflect "Army of Excellence" and "Force XXI" design and doctrine.

b. The Army will have, simultaneously, three force structures that will require sustainment during the first decades of the 21st century: The current force from the 20th century, the Stryker Brigade, and the future or objective force. Up to 85 percent of the combat, combat support, and combat service support equipment systems and platforms in the Army at the end of the 20th century will still be operational until at least 2015.

(1) *The current force (Army of Excellence and Force XXI).* The Army's force structure of the first decade of the 21st century and its equipment are a legacy of 20th-century planning and preparations for potential and actual threats, consistent with the National Military Strategy. The Army is currently focused on transforming the current force to meet 21st-century requirements by enhancing and modernizing equipment systems that have applicability to the objective force of the 21st century. The objective force will begin to emerge in the 21st century's second decade. One such enhancement, the recapitalization program, will, through a depot rebuild program, return selected equipment systems to a like-new condition and extend Army capabilities well into the future. An example of modernization is the insertion of digital technologies into key ground combat and aviation systems. Marginal changes to the maintenance force structure will be made to address enhancements and modernization.

(2) *The Stryker Brigade Combat Team.* In a transitional move to objective force capabilities, the Army will rapidly add Stryker Brigade combat teams (SBCTs) to the force structure. SBCTs and the supporting brigade support battalion (with a maintenance company) must be ready to respond to immediate operational requirements, thus providing the National Command Authority (NCA) with additional warfighting options. Because the technology of the objective force is not available today, the interim force, with its SBCTs and other forces, is the vector of 21st-century Army transformation. Interim force capabilities are designed to meet the warfighting requirements of the early decades of the 21st century. Army heavy forces from the 20th century lack the ability to deploy as responsively as required in some future operations. Legacy Army light forces, likewise designed for 20th-century threats, lack the tactical mobility, lethality, and survivability to be a viable option for the NCA in a number of situations expected to emerge in the 21st century. To address these combat requirements, the Army has designed and developed special BCTs. The emerging STRYKER BCT Team will address many of these problems. The STRYKER, an off-the-shelf combat vehicle ready and available to meet interim operational requirements, and its supporting equipment systems in the BCT will have a significant effect on the Army's maintenance force structure and mission support operations.

(3) *The objective force.* The Army is increasing its investment in science and technology to accelerate Army transformation to the future combat systems (FCS). FCS prototype demonstrations are planned for fiscal years 2004 and 2005. When the technology is mature and production lines are ready, the Army will field the FCS as part of the objective force in unit sets (at least brigade size). The force that the Army is working to achieve will operate as a suite of integrated systems.

c. The key to transformation is technology. Army maintenance organizations that support FCS combat and combat support units will reflect the modernization of the equipment, advances in reliability and maintainability, and such technologies as embedded diagnostics and prognostics, system health monitoring, interactive electronic technical manuals, and automatic identification technology (AIT). The presence of advanced technology, together with 21st-century deployability and support requirements, will require a maintenance support force structure that significantly differs from the structure that the Army found necessary in the 20th century. Technology, equipment design/redesign, and other factors will enable the Army to reduce, over time, its forward deployed logistics footprint, which includes the maintenance component. The long-range mission objective of the Army maintenance structure is to reduce the 20th century four levels of maintenance (organizational, DS, GS, and depot) to two levels (field and sustainment).

3-3. Current Army maintenance force structure

a. *Foundation of the 20th-century maintenance structure.* The Army maintenance structure is founded on a system of

maintenance allocation, in which the maintenance mission workload within the force is allocated and placed where maintenance units and organizations can best support the overall Army mission. This is portrayed using a MAC developed for each type of Army equipment. The MAC is designed by Army equipment developers working in coordination with senior Army officials who design forces to execute the national military strategy. The MAC designates the lowest level of maintenance that is authorized to perform a specific maintenance task. Higher levels of maintenance are, in turn, authorized to perform those designated tasks. The allocation of maintenance tasks is made on the basis of mission assignment, time, tools, test equipment, and skills normally available at the location where work is to be done. The MAC is published in the unit level (-20 series) maintenance TM for a piece of equipment.

b. Organizational (unit) maintenance.

(1) All good organizations establish policies and procedures that outline the how-to for their organization/unit. Standing operating procedures (SOP) provide detailed guidance on how duties and responsibilities are to be implemented. They provide the commander a means to tailor the execution of requirements to mission, enemy situations, terrain, troops, time available, and civilians. SOPs must comply with the procedures and standards of higher headquarters in order to provide continuity and add real value.

(2) Current organization/unit maintenance consists of all maintenance performed by operators, crews, and mechanics assigned to the unit and is the foundation of the Army's maintenance system. Historically, organization/unit and field maintenance has been characterized as repair and return to user. The following are some of the tasks associated with organization/unit maintenance:

- (a) PMCS.
- (b) Scheduled services.
- (c) Inspections.
- (d) Diagnosis and fault isolation to assembly/module level.
- (e) Lubrication and leaning.
- (f) Tightening and minor adjustments.
- (g) Welding and cutting.
- (h) Repair by replacement.
- (i) Recovery.
- (j) Safety.
- (k) Repair parts stockage/PLL.
- (l) AOAP.
- (m) Environmental/hazardous waste handling, storage and disposal.
- (n) Battlefield damage and repair (BDAR) concepts/training.

c. DS maintenance. Current DS maintenance is characterized as one-stop repair and return to user service to supported units. DS maintenance units have a lot of capability. Leaders in unit organizational maintenance operations should remain informed about how best to use this capability. Force XXI (current force) concepts for the DS level of the structure will also be transformed. As the Army transformation unfolds, maintainers will implement the following concepts:

- (1) Replace forward, repair rear.
- (2) Emphasize on-system repairs for end items. (In the objective force, the sustainment maintenance level will emphasize off-system repairs of components.

d. GS maintenance. The current force GS level of the structure performs MAC-assigned tasks in response to requests from field or DS organizations. There are some GS maintenance organizations in the current force Reserve Component. However, most GS maintenance providers in the current force active component are TDA installation maintenance management activities (IMMA). IMMA have varied commodity missions, but generally these include repair-and-return-to-user support of installation TDA customers and backup to MTOE customers. Some IMMAs provide repair-and-return-to-stock support to the U.S. Army Materiel Command (USAMC) Integrated Materiel Management Centers, under the Army NMP.

e. The National Maintenance Program. The NMP is an Army-level repair program, with Commander, USAMC, designated as the National Maintenance Manager. Under the NMP, an HQDA-approved national maintenance provider (or source of repair) repairs unserviceable items for the Army Working Capital Fund to an overhaul standard. This returns the item to a like-new condition. This standard ensures that items requisitioned and received under the single stock fund meet a consistent quality standard with a known reliability and a predictable useful life. Unserviceable items repaired at non-NMP approved facilities are repaired to the maintenance standard prescribed by the applicable technical manual and paid for directly by the user.

f. Depot maintenance. Depot maintenance is defined in AR 750-1 as material maintenance or repair requiring the overhaul, upgrading, or rebuilding of parts, assemblies, or subassemblies, and the testing and reclamation of equipment as necessary, regardless of source of funds for the maintenance or repair or regardless of the location at which the maintenance or repair is performed. Army depot maintenance operations are managed by Commander, USAMC, and major subordinate commands. The primary mission of the depots is to repair unserviceable items for return to stock

and for subsequent issue to Army field organizations. Army depots also support field organizations more directly through forward repair activities located near Army installations and concentrations of equipment. The following are points of interest about Army maintenance structure during the transformation process:

(1) HQDA estimates that 85 percent of the equipment of the current force may remain in active service through 2015. The pace of transformation will be determined by the National Military Strategy, which changes when the NCA so directs.

(2) Leaders at unit and organizational level must expect changes in force structure and support procedures on where and how the job will get accomplished under the current, Stryker, and objective forces. The Army began execution of the Army Transformation Campaign Army Plan in Army field commands in fiscal year 2002. At that time, Stryker force organizations were deployed.

(3) Highlights of Stryker force maintenance structure and operations include—

(a) Limited component replacement and repair/BDR performed in the battle space (replace forward, fix rear).

(b) Reduced number of mechanics in the battle space.

(c) Improved on-board diagnostics and prognostics.

(d) Scheduled services performed by contract organizations in garrison

(4) Highlights of objective force maintenance structure include—

(a) Embedded diagnostics and prognostics on platforms, with maintenance condition reported on a daily/multiday basis to maintenance management via electronic means.

(b) FCS (under development in 2003) with increased reliability and maintainability requiring significantly less recurring maintenance (as compared with today's current force).

(c) Limited modular component replacement by the crew in the battle space.

3-4. Field and sustainment levels of maintenance (objective force)

The Army's maintenance system structure will comprise two levels: field (tactical) and sustainment (national). The field level will consist of a combination of the 20th-century organizational and direct support levels of maintenance activities. The field level will execute a replace forward, repair rear maintenance concept. The sustainment level will be composed of elements of the 20th-century DS, GS, and depot levels and will execute repair-and-return-to-stock programs. The sustainment level includes the NMP, in which selected Army installation maintenance activities provide maintenance support to the Army supply system, in addition to their normal local customer support mission.

3-5. Support from external maintenance and supply organizations in the force structure

An effective organization/unit maintenance program depends heavily on its supporting maintenance and supply units/activities. Organization or unit maintenance is designed to support the mission with limited organic assets. Often these assets are just enough to sustain operations for a number of days. Unit leaders are encouraged to become familiar with the types of support obtainable from support organizations. The organizations typically publish SOPs for use by organizations requiring service, which are called EX-SOPs. EX-SOPs are often the best source of information on how to obtain maintenance support, supplies, technical expertise and other support needed to sustain required equipment operationally ready rates and to maintain equipment at the Army Maintenance Standard. A sample of typical support organizations and officials includes—

a. MTOE DS maintenance organizations.

b. MTOE SSA.

c. IMMA.

d. Installation supply.

e. Logistics assistance officers and representatives.

f. Support organizations, which provide assistance to units and organizations within their assigned support mission and scope. Commanders, leaders, and supervisors should understand the roles of all supporting elements and fully utilize them to achieve operationally ready rate objectives and the Army Maintenance Standard for assigned equipment by addressing the following questions:

(1) What is the correct action when equipment does not meet the Army Maintenance Standard and is beyond the unit's capability to repair? It is work-ordered to the supporting maintenance activity for repair, with a completed DA Form 5988-E/DA Form 2402 (Equipment Inspection and Maintenance Worksheet), DA Form 5990-E, or DA Form 2407.

(2) Does the PLL clerk, motor sergeant, or maintenance technician visit supporting maintenance and SSA routinely? A routine visit to the supporting maintenance and SSA will establish a much needed communication to assist readiness posture.

(3) What is contract maintenance support? When the Army organic maintenance system cannot provide required support, the Army will rely on the competitive private enterprise system, both domestic and foreign. Major Army commands (MACOMs) are responsible to ensure that essential quality requirements for maintenance service contracts are well defined and assessed during the contracted out support process. EX-SOPs should always be checked.

(4) What is an interservice support agreement? These support agreements can be a valuable tool and enhancement to any maintenance program. One major advantage can be the reduction or elimination of investment in stock-funded tools, special tools, and/or personnel. The unit/activity providing the agreement has made the investment, so it should be used.

(5) What is the recommended time standard for turn-in of NMC equipment to support maintenance? One day.

(6) What is the recommended time standard for pickup from support maintenance of repaired items after notification for pickup? Two days training.

g. The effectiveness of any unit and its soldiers is the direct result of training, both individual and collective. Maintenance is no exception; mechanics learn by doing. The conduct of logistics is more complicated than ever as a result of three simultaneous fielded forces, the Army Vision, and the logistics transformation to achieve that vision and the uncertainties of our future.

h. Effective training is key. Many materials are available to guide the unit's maintenance training program; some of the best are—

(1) Soldier's manuals.

(2) Leader's books.

(3) Field manuals.

(4) Mission training plans.

(5) Extension training materials.

(6) Training circulars.

(7) Technical manuals.

i. There is no single formula for unit maintenance training, but there are three broad objectives that all effective training programs strive to achieve:

(1) Increase the technical skills of soldiers and mechanics, including cross-training and on-the-job training. Ask, is maintenance MOS-related training being conducted using TMDE?

(2) Develop the supervisory skills of the unit's most technically competent soldiers. Ensure soldiers review the unit's mission training plans. Ask, does the mission training plan include TAMMS, ULLS, and PLL tasks, to name a few, to train and evaluate the unit?

(3) Make maximum use of slack time for technical training. Integrate operators and crews into other training efforts. Ask, do operators and crews perform accurate PMCS, properly documenting uncorrected faults, which reflect the true condition of their equipment?

j. MOS training is important. Commanders must properly utilize personnel who received specialized and intensive training. These are a special organizational resource. They are often assigned ASI to their MOS codes. DA Pam 611-21 describes MOS duties appropriate for each skill level, ASI requirements, and soldier career patterns. Commanders must assure that soldiers with ASI designations and training are assigned to MTOE positions and fully utilized there.

3-6. Retrograde of unserviceable reparable items

All Army commanders and maintenance managers ensure that critical items, intensively managed items, and automatic return items are returned to retrograde channels within the timeframes established (see AR 710-2 and AR 725-50). Commanders can use management information and reports from supply and maintenance management automated information systems (ULLS, SAMS, and SARSS) to assist.

3-7. Steam cleaning requirements

Steam cleaning of major assemblies and components is not to 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 is done in accordance with applicable environmental regulations. Steam cleaning, if required for overhaul/rebuild of the assembly, is accomplished by the organization performing the overhaul/rebuild. The only authorized exception to this procedure is in the case of major assemblies and components outside the continental United States (OCONUS) being returned to the continental United States (CONUS), where steam cleaning to meet agricultural inspection standards may be required (see AR 750-1, chap 3).

3-8. Contractors on the battlefield

Contractor maintenance personnel are not to be permanently stationed in areas forward of the division rear boundary (see AR 715-9). Contractor maintenance personnel may travel forward of the division rear boundary, as approved case by case by the responsible area commander, to provide temporary onsite maintenance support. Noncombatant maintenance personnel, to include contractors, government employees, and local nationals, may be authorized to be stationed behind the division rear boundary by the theater commander, after an appropriate risk assessment has been performed (see paras 4-19 and 6-4).

3-9. Tire retread policy

Command emphasis is required at all levels to obtain maximum safety and savings benefits from the proper use of retread tires. Surveillance procedures should exist within an organization to ensure that all repairable vehicle and aircraft tires are recovered prior to the end of their useful life. Repairable tires must be evacuated for retread, not discarded or otherwise disposed unless classified not economically repairable by support maintenance. Look for guidance in the external SOPs of your DSU/SSA. Organizations should not be using retreads when the following apply:

- a. Two-ply tires without breaker strips or belts must not be retreaded.
- b. Buses must not be operated with retread tires on the front wheels.
- c. M747 semitrailers must not be operated with retread tires.
- d. M911 heavy hauler and truck tractor vehicles must not be operated with retread tires on steering axles.
- e. Any vehicle with a central tire inflation system must not be operated with retread tires on any axle.
- f. Applicable State and Federal transportation codes must be met when a vehicle is operated off the installation.
- g. Re-grooving of tires is not permitted.

3-10. Additional guidance

For guidance and instructions on what the organization needs commanders/leaders and the unit to do to implement and comply with the Army's maintenance policies, the higher headquarter's SOPs, the DSU SOPs, and SSA EX-SOPs should be consulted.

Chapter 4 Operations and Procedures

4-1. Maintenance and supply procedures at organization/unit level

Commanders, leaders, and supervisors must emphasize the importance of establishing and implementing effective maintenance and supply procedures at unit/organizational levels. In order to do this effectively, they must understand the relationship between policies in Army regulations and procedures in Army pamphlets and local standing SOPs. Policies such as those found in AR 750-1 and AR 710-2 are usually expressed in general language and often establish broad goals and objectives. Procedures implement policies and usually provide specific, step-by-step, and successful methods for achieving the objectives of the policies. In order for a unit or organization to have a successful and effective maintenance program, that unit must have successful and effective maintenance and supply procedures.

- a. DA Pam 710-2-1 provides detailed procedures, forms, and records for/organization/unit supply operations.
- b. The commander must also develop local SOPs that supplement the provisions of DA Pam 710-127. Local support organizations, their points of contact, operating hours and requirements, and other issues should be addressed in these SOPs.

4-2. Standard Army Management Information Systems

Many unit maintenance and supply management operations and procedures used to assist commanders in the management of organization/unit maintenance operations can be accomplished through the use of three Army standard software packages designed for use at the organization and unit levels. They are all members of the ULLS family of standard packages.

- a. ULLS-G was developed to support units that operate, maintain, and support Army ground-related equipment.
- b. ULLS-A was developed specifically to support the specialized equipment control, item safety and surveillance, and maintenance management procedures for aviation assets. Unique aviation readiness reporting requirements are also included.
- c. Unit Level Logistics System-S-4 (ULLS-S-4) was developed to support related property accounting and management functions at the unit and organizational level.

4-3. Using TAMMS AND ULLS TO manage maintenance operations

a. It is critical that all commanders, leaders, soldiers and their supervisors know how the Army maintenance system works. The Army Maintenance Management System is detailed in two procedural guides, DA Pam 738-750 and DA Pam 738-751. These pamphlets provide the necessary information and assistance in a step-by-step format.

b. The ULLS family of STAMIS software assists in implementing TAMMS by saving time, reducing manual paperwork, and reducing errors. ULLS is an automated enabler that supports accurate operations management and record keeping. Using ULLS, leaders may track a large number of maintenance actions that are in process and require monitoring. When tasks are completed, the records become part of the history of that unit or organization. Because Army maintenance is a technical operation, accurate records are essential to the success of command maintenance operations. There are three major types of TAMMS records applicable to unit maintenance:

(1) *Operational records.* These provide the information needed to control operators and equipment and help you plan, manage, and put your personnel and equipment to best use.

(a) *DA Form 348-E/DA Form 348 (Equipment Operator's Qualification Record).* DA Form 348-E or DA Form 348 will be maintained on each vehicle (or equipment) operator. It is a record of an operator's qualifications, experience, and performance. It is a permanent record, maintained by the unit to which the operator is assigned. DA Form 348E/DA Form 348 is also a record of training and must be transferred with the operator when reassigned.

(b) *DA Form 5984-E (Operator's Permit Record (EGA)/OF 346 (U.S. Government Motor Vehicle Operator's Identification Card).* OF 346 is the Army equipment operator's permit or driver's license. The operator must carry it when operating Army equipment. It is issued to vehicle or equipment operators to identify vehicles and types of equipment they are qualified to operate. Each operator must have a valid operator's license.

(c) *DA Form 5823 (Equipment Identification Card).* DA Form 5823 is not required when a unit uses ULLS.

(d) *DD Form 1970 (Motor Equipment Utilization Record).*

(e) *DA Form 2401 (Organizational Control Record for Equipment).*

(f) *The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing).* AR 600-55 provides the basic requirements. DA Pam 750-35 and Field Manual (FM) 21-305 contain more details.

Note. A good licensing program is the first step in preventive maintenance and can save the lives. All soldiers must go through a training program and licensing process before they become equipment operators. The first step in the process is to screen prospective operators. A review of each soldier's records and an interview are good practices for screening.

(2) *Organization/unit commander's equipment operations management checklist.*

(a) *Fundamentals for control of equipment and equipment operators.*

1. Are operators qualified and licensed properly? Copies of DA Form 5984-E/OF 346 should be reconciled with copies of DA Form 348-E/DA Form 348 when an operator is part of a motor pool.

2. Are copies of DA Form 5984-E/OF 346 reviewed prior to dispatching equipment, after an accident and annually?

3. Does the training program include OCONUS operations, adverse weather, and cross-country and night driving, as well as driving in a nuclear, biological, and chemical environment?

4. Does the unit's leadership support the training program?

5. Does the program include testing the operator's ability to perform PMCS and identify safety faults per the safety regulation covering the prevention of motor vehicle accidents (AR 385-55)?

6. Does the program require remedial training for substandard performance?

7. Does the program include instruction on power generation equipment operation?

8. Is BDAR addressed?

9. Copies of DA Form-E/OF 346 and DA Form 348-E/DA Form 348 must agree. This information can be verified by querying the ULLS system for the information.

10. Is a biennial performance test conducted when required?

(b) *Before dispatch or equipment operation.* A thorough vehicle dispatch process is necessary as part of a quality maintenance program, to ensure equipment is operationally ready before being dispatched and to establish an audit trail on operators and equipment. Every leader should follow and check the dispatch procedures. The dispatch process is evaluated by getting answers to the following questions:

1. Is the dispatcher appointed on orders per DA Pam 738-750?

2. Is an operator assigned to each vehicle and piece of equipment?

3. Is the equipment mission capable in accordance with the appropriate TM -10 series manuals?

4. Is a service or AOAP sample due on the equipment?

5. Does the dispatcher inspect the operator's OF 346? ULLS performs the above checks automatically.

6. Is the equipment suitable for the mission for whom it is dispatched?

(c) *Before operations checks by operators and supervisors—*

1. Operators and crews should perform a before-operations check using appropriate TMs and DA Form 2404. Is this being accomplished?

2. Does the operator use the TM -10 series?

3. Are faults being corrected and recorded?

4. Are BII on hand and being used (if required)?

5. Are local safety requirements being met, especially OCONUS?.

6. If there are no deficiencies noted, the dispatcher makes an entry on DA Form 2401 and gives the operator DD Form 1970, after making all appropriate entries. ULLS-G accomplishes these same procedures and will generate printouts in hardcopy formats.

(3) *Operations checks.*

(a) *PMCS applicable to the equipment must be followed. Special emphasis is given to the following if in a vehicle—*

1. Unusual road noises or unusual operating characteristics occur.

2. Unusual change (for example, loss of lubrication system pressure) in equipment gauges is noted.
 3. Unusual change (for example, loss of vehicle power) in vehicle performance occurs.
 4. Unusual odors (for example, the smell of brake pads or tires burning) is obvious.
- (b) On return from dispatch, the equipment is checked against the TM -10 series and after-operations checks is performed. In addition the following actions should be emphasized:
1. Faults are identified and corrected if possible.
 2. Actions from the organization/unit SOP are completed—for example, fuel tanks topped off and vehicle cleaned.
 3. Miles/hours, fuel/oil, and other DA Form 5987-E/DD Form 1970 entries are completed.
 4. DA Form 2404 or its automated equivalent, DA Form 5988-E (Equipment Inspection Maintenance Worksheet (EGA)), and equipment records folder are returned to the dispatcher.
 5. Any further actions needed are noted by the dispatcher, who also closes out the entry on DA Form 2401.
- c. Where ULLS-G or ULLS-A is used, the software records all uncorrected faults from DA Form 5988-E and automatically updates the Uncorrected Fault Record (A TAMMS record).
- (1) Maintenance records are established to control maintenance scheduling, inspection, and repair workloads. These explain how to report, ask for, and record repair work. They also help with the status of equipment for readiness, equipment use, and logistics reports. Complete listings of maintenance forms are found in DA Pam 738-750 and DA Pam 738-751. Some of the more frequently used maintenance forms include—
- (a) DA Form 5988-E/DA Form 2404.
 - (b) DA Form 2405 (Maintenance Request Register).
 - (c) DA Form 5990-E/DA Form 2407.
- (2) Historical records are permanent records that show the receipt, operation, maintenance, modification, transfer, and disposal of equipment. These records assist commanders in maintaining equipment at the Army Maintenance Standard and achieving mission assigned operationally ready rates. Some of the most frequently used historical records are—
- (a) DA Form 2408-4 (Weapon Record Data).
 - (b) DA Form 2408-5 (Equipment Modification Record).
 - (c) DA Form 2408-9 (Equipment Control Record).
 - (d) DA Form 2408-14 (Uncorrected Fault Record).
 - (e) DA Form 2408-20 (Oil Analysis Log).
 - (f) DA Form 2415 (Ammunition Condition Report).

4-4. Managing unit-level prescribed load of repair parts and maintenance-related supplies

In order to ensure that Army units can independently sustain successful mission operations for brief specified periods of time, Army policy requires that unit commanders establish and maintain limited quantities or loads of supplies. Unit stocks of Class I (rations), Class III (fuels and lubricants) and Class V (ammunition) are called basic loads. The unit stock of Class IX (repair parts), needed for unit maintenance operations, is called a prescribed load. AR 710-2 outlines Army policy for DA Pam 710-2-1, and DA Pam 710-2-2 provides information on the operation, management, and sustainment of a prescribed load of repair parts. The listing of repair parts stocked in the prescribed load is the PLL. A complete explanation is found in AR 710-2 and DA Pam 710-2-1, but the following is an overview of how the prescribed load is to be operated and managed.

a. *A prescribed load.* This consists of a 15-day supply of the most highly demanded repair parts needed to support unit maintenance operations plus critically required repair parts, identified by the Army, for which maintenance history in a unit is not sufficient to establish a daily use rate.

b. *Demand supported prescribed load items.* A repair part may be stocked in the prescribed load and added to the unit PLL if there have been sufficient demands for replacement parts. Three demands for a replacement repair part in 180 days (1 year for Reserve Components) qualifies an item to be stocked in the prescribed load. Prescribed load items must have an Army Master Data File assigned essentiality code of “C” and an assigned maintenance code of “0.” Each item on the PLL will undergo a demand history review every 180 days.

c. *Mandatory parts list (MPL).* MPL items are stocked in the prescribed load, despite the fact that they do not meet the demand support criteria in 4-4b. Some newly issued end items may arrive in a unit, at the direction of higher command, with a precalculated stock of repair parts, intended to support that end item during an initial use period. Stockage of the items is mandatory for a period of time described in AR 710-2. All applicable policies and procedures for managing MPL items are found in AR 710-2 and DA Pamphlet 710-2-1.

Note. Currently, ULLS-G, ULLS-A, and ULLS-S4 have minor format and report output differences among the three STAMIS applications; however, the Army policy and basic procedures are the same. Some organizations/units may use manual procedures to manage their prescribed loads. Commanders of the organizations must ensure that their personnel are fully competent in the use of DA Pam 710-2-1, as it applies to prescribed load operations and management.

d. *Checks to help better management of prescribed loads:*

- (1) Is the PLL listing accurate, up to date, and approved?

- (2) Are stock locations and quantities shown on the PLL correct?
- (3) Do balance on hand plus quantity due in equal authorized stock quantity?
- (4) Is stock on hand for each item in the prescribed load?
- (5) Do all prescribed load items that have a zero balance on hand have a valid, funded request, with the correct issue priority designator assigned for only that quantity that brought the item to zero balance (see AR 710-2)?
- (6) Are requests for supply followup submitted, in accordance with AR 710-2, on items when status is not received within 14 days (5 days for ULLS users) on issue priority designator 01-08 requisitions?
- (7) Are current copies of AR 710-2 and DA Pam 710-2-1 on hand?
- (8) Is a current copy of the FEDLOG (a logistics information system; see glossary) available?
- (9) Are stock locations accurately marked?
- (10) Are repair parts protected and stored properly and securely?
- (11) Has the commander taken appropriate actions to approve changes, additions, or deletions reflected on the PLL change listing?
- (12) Has the PLL been given a physical inventory each review period (90 days for Active Army, 180 days for the Army National Guard of the United States and the U.S. Army Reserve)?
- (13) Are excess parts (serviceable and unserviceable) cleaned, tagged, and turned in promptly and properly?
- (14) Are cancellations submitted immediately when parts are no longer required?
- (15) Is the document register neat and accurate?
- (16) Has the commander or his designated representative signed the document register for high-priority requests?

4-5. Using TAMMS and unit-prescribed load management for successful maintenance operations

Unit leaders should monitor and support TAMMS and PLL personnel. Both play a major role in ensuring that all areas of unit maintenance operations are properly managed. Daily inputs from equipment inspections and fault correction (DA Forms 2404) work referred to support maintenance (DA Form 2401) and equipment faults that could not be corrected that day, (DA Form 2408-14) are critical to unit success. The ULLS equivalent of these forms is DA Form 5988-E. How does the information from DA Form 2404 or DA Form 5988-E feed into other TAMMS/prescribed load forms and records and help the leader manage maintenance?

a. When an operator finds an equipment fault that does not place the equipment in an NMC status and does not require parts for repair (for example, a fender is dented), the TAMMS clerk checks DA Form 2404 against DA Form 2408-14. The fault information is annotated in ULLS for update of this record. If the fault is already posted on DA Form 2408-14, no additional record update action will be taken. The ULLS-generated equivalent of DA Form 2404, a DA Form 5988-E, includes both uncorrected equipment faults and parts ordered from previous inspections. This alerts the equipment operator and unit leader of the current condition of the equipment. For faults that do not cause an item of equipment to be rated NMC, the unit maintenance leader will usually plan for correction of this type of fault during the next scheduled organizational maintenance service for that equipment.

b. When an equipment operator turns in a manually prepared DA Form 2404 with a fault that does not place the equipment in an NMC status but does require parts for repair, the TAMMS clerk will check ULLS (DA Form 2408-14 information) to see if the fault was previously noted.

(1) If there is a previous entry, no further records update action is required. If there is no previous entry, the TAMMS clerk enters the new uncorrected fault on DA Form 2408-14 (or into ULLS) and gives DA Form 2404 or DA Form 5988-E to the maintenance supervisor/motor sergeant.

(2) The maintenance supervisor/motor sergeant assigns a mechanic to inspect the equipment and to determine if any parts or supplies are required to correct the fault.

(3) The mechanic inspects the equipment. If parts/supplies are required, DA Form 2404 or DA Form 5988-E is turned over to the PLL clerk for action.

(4) All unit maintenance operations team members keep the maintenance supervisor/motor sergeant informed of the actions.

(5) The prescribed load clerk checks the unit PLL. If the item is on hand, the clerk issues the part to the mechanic and requests replenishment from his SSA in accordance with the SSA external SOP.

(6) The mechanic installs the part, annotates DA Form 2404 or DA Form 5988-E to reflect the corrective action, and initials the "corrected by" column of DA Form 2404 or DA Form 5988-E.

(7) The maintenance supervisor/motor sergeant checks the mechanic's work and initials the symbol in the "status" column of DA Form 2404 or DA Form 5988-E. The uncorrected fault now becomes a corrected fault. The maintenance supervisor/motor sergeant returns the completed DA Form 2404 or DA Form 5988-E to the TAMMS clerk.

(8) The TAMMS clerk closes out the entry on DA Form 2408-14 (or in ULLS).

(9) If there is no stock in the prescribed load (it is either zero-balance or a nonstocked item on the PLL), the prescribed load clerk prepares a request for issue in accordance with AR 710-2 and DA Pam 710-2-1 and unit and SSA SOPs.

(10) The prescribed load clerk, following policy and procedures in (9) , assigns a document number to the request for issue and annotates DA Form 2064 (Document Register for Supply Actions).

(11) The prescribed load clerk provides the newly assigned document number for the request for issue to the TAMMS clerk.

(12) The TAMMS clerk annotates the document number from 4-5b(11) on DA Form 2408-14.

(13) When the requested item is received from the SSA, the prescribed load clerk annotates all associated supply records, retains the item in the prescribed load, and informs the maintenance supervisor/motor sergeant.

(14) The maintenance supervisor/motor sergeant assigns a mechanic to install the part and instructs the prescribed load clerk to issue the part.

(15) The mechanic installs the part in accordance with technical publications, annotates DA Form 2404 or DA Form 5990-E per DA Pam 738-750, and requests the maintenance supervisor/motor sergeant to inspect the work.

(16) The maintenance supervisor/motor sergeant inspects the work, annotates the TAMMS forms in (4-5b(15)), and returns them to the TAMMS clerk for records close out.

(17) The TAMMS clerk annotates DA Form 2408-14 or ULLS and closes out the fault in accordance with DA Pam 738-750. The unit leader should spot check the equipment's deferred maintenance parts needs by cross-referencing DA Form 2408-14 document numbers against those in the document register to ensure they are valid.

c. When an equipment operator turns in a DA Form 2404 or DA Form 5988-E showing an equipment fault for which a repair part is required, AND that places the equipment in an NMC-supply (NMC-S) status, the TAMMS clerk executes the same steps as in 4-5b, but only when organization/unit level NMC-S parts are required.

(1) The NMC-S part must be requested using an urgency of need designator appropriate to the equipment mission essentiality. If urgency of need designator A is used, the commander or designated representative must initial the document register.

(2) DA Pam 738-750 procedures do not permit the TAMMS clerk to enter an uncorrected NMC fault on DA Form 2408-14. When the document number comes from the prescribed load clerk, the TAMMS clerk prepares a DA Form 5409 (Inoperative Equipment Report) and a DA Form 5410 (Unit Level Deadlining Parts Report), per DA Pam 738-750. These reports will inform support maintenance/DSU of urgent support requirements. Where manually maintained paper records are kept, the TAMMS clerk also annotates DD Form 314 (Preventive Maintenance Schedule and Record).

(3) The TAMMS clerk takes information from the DD Form 314 to update the DA Form 2406 (Materiel Condition Status Report), which is used for manually reporting equipment status to the commander and up through DA level. It is also a source of information for input to the unit status report (see AR 700-138). Where ULLS is used, 4-5c(2) and (3) have mostly been automated. When an NMC fault requires repairs that are above a unit's capability, DA Form 2407 is used to obtain maintenance services.

(4) The TAMMS clerk prepares a DA Form 2407 or DA Form 5990-E for submission to the supporting DSU, in accordance with local SOPs.

(5) Organization/unit maintenance personnel correct all unit level faults and present the equipment to the DSU technical inspection section.

(6) The DSU processes the work request, accepts the item for repair services, assigns a work order number, and provides a receipt copy of DA Form 2407 or DA Form 5990-E.

(7) Unit personnel uses the receipt copy of the work request as a hand receipt for the equipment and to track the status of repairs of the equipment at the DSU.

(8) The TAMMS clerk transcribes the work order number to DA Form 2406 and the NMC days onto DD Form 314 (Preventive Maintenance Schedule and Record) (or into ULLS).

(9) The DSU completes the requested work and notifies unit personnel.

(10) Unit personnel pick up the repaired item and the completed DA Form 2407 or DA Form 5990-E. The TAMMS clerk indicates mission capable status on all TAMMS records in accordance with DA Pam 738-750.

4-6. Using SSA to support maintenance operations

SSA provides Class IX and other supply support to Army units assigned or in its area of responsibility as described below. Quantities stocked are based on demand history in accordance with applicable policy in AR 710-2.

a. *SSA repair parts support of prescribed loads.* The SSA receives and processes unit requests for issue, in accordance with AR 710-2, DA Pam 710-2-1, and local SOPs. Requests for issue (or turn-in) are screened against SSA stock records; if the stocks are on hand, parts are issued, in accordance with unit assigned issue priorities. If stock is not available, the SSA establishes a dues out and passes the unit requirement to the next supply level. The SSA periodically provides supply status reports on all open requests to all supported units in accordance with AR 710-2. Unit leaders should regularly visit the supporting SSA and review the status of some of open high-priority requests and regularity of unit personnel pickups of SSA issues to the unit. Turn-ins by the unit should also be discussed, to ensure that the unit is promptly relieved of excess material, in accordance with AR 750-1.

(1) Does the unit clear its bin out daily? Failure to do so is a constant problem. A walk-through by the bin is a necessity, as well as a determination on how long the parts have been there. More than a day is too long.

(2) Are requests for issue/turn-in promptly prepared and submitted properly (see AR 750-1)?

(3) Are monthly reconciliations conducted on time and completed properly?

(4) Is DD Form 1687 (Notice of Delegation of Authority—Receipt for Supplies) current, on hand, and used. If not, see DA Pam 710-2-1.

b. Support of reparable exchange (RX) items. The RX system is a local command service offered by the SSA that allows units to exchange locally designated unserviceable reparable parts, components, modules, and assemblies for a serviceable item on a one-for-one basis. The numbers and types of items offered on an RX list may vary at each location or installation. DA Form 2765-1 (Request for Issue or Turn-In) will be used to exchange selected reparables, in accordance with AR 710-2. If components are missing or the item is unserviceable because of something other than fair wear and tear, follow the procedures in AR 735-5.

c. Cannibalization points as a source of repair parts. Some installations offer cannibalization point service, in accordance with AR 710-2. Unit leaders should stay abreast of the flow of repair parts support from 4-6a and b and promptly use cannibalization points as a source of repair parts to enhance unit readiness, if 4-6a or b will not meet unit time requirements (see 4-7). The cannibalization point is a third (and least preferred) option for unit leaders to support readiness, because the parts obtained from this source may have a questionable service life and precious unit labor man-hours may be required to obtain the part.

4-7. Manual readiness reporting

Readiness reports are management tools, not just more paperwork. Commanders use information on materiel and unit readiness reports to analyze, predict, and make decisions on each unit's ability to perform its mission. The reports are completed both during peacetime and combat and are useful only if they are timely, accurate, and complete. Materiel readiness is the capability of equipment or systems to accomplish their missions. This is the reason for commanders and leaders to emphasize adherence to the Army Maintenance Standard (see AR 750-1 and chap 3 of this pamphlet). DA Form 2406, use of "screen shots" for reporting unit Status Reports in accordance with AR 220-1, DA Form 3266-1 (Army Missile Materiel Readiness Report), and DA Form 1352 (Army Aircraft Inventory, Status, and Flying Time) are the most useful tools available to assess readiness.

a. The reported items should be noted and the following questions asked:

(1) Has any of the equipment listed been NMC for an extended period?

(2) Is any item NMC over 7 days receiving intensive management (require daily updates if necessary)?

(3) Is your DSU doing everything possible to assist you?

(4) If repair parts were ordered, was the interval between the date the item was identified and the date of the parts request greater than 1 working day?

(5) Are maintenance managers checking followups and status cards?

(6) If the item was job-ordered to support maintenance, was the interval between the date the item was identified and the date it went to support maintenance greater than 3 working days?

(a) It should not be if your equipment is being maintained per the TM -10/-20 series, and the reason should be identified.

(b) Have any items been in support maintenance more than one working week? (If yes, a followup and explanation are required.)

(7) If there are delays in receiving parts that were ordered, has the local AMC LAO and/or the appropriate major subordinate command (MSC) logistics assistance representative been contacted for assistance?

b. DA Form 2406. DA Form 2406 provides a standard format for manually reporting the condition of equipment. AR 700-138 provides detailed instructions for the preparation of DA Form 2406. DA Form 2406 provides—

(1) Equipment status information for planning day-to-day operations on workload, density, and availability of equipment.

(2) A worksheet for computation of equipment status on DA Form 2715-R.

(3) The most useful part of the form for unit leaders the back of the 2406. Some commanders even require their maintenance section to fill out the back daily, to ensure NMC equipment gets visibility and managerial attention. Equipment deadlined for administrative or safety reasons is also noted in some commands.

(4) On the front side of the monthly DA Form 2406. A recap of equipment availability over the last month (quarter for Reserve Components). Data for the equipment portion of DA Form 2715-R should be taken from DA Form 2406 per unit status reporting procedures (AR 220-1) and reviewed carefully to ensure accuracy.

(a) Check firsthand to ensure the quality of your mechanic's work. Check random DA Forms 2404 against the DD Form 314 entries.

(b) Using a specific model of equipment, the authorized quantity should be compared with the MTOE, counting items that make up a system. If a part of a system is NMC, the whole system is NMC. Table B-1 of AR 700-138

should be checked against MTOE equipment line item number to determine if there is a system that must be accounted for.

(c) The on-hand quantity of a single model should be compared to the number of copies of DD Form 314, noting substitute line items. The report period should be checked to verify the possible days.

(d) The nonavailable days from DD Form 314 copies should be totaled; this number should be subtracted from the possible days to verify available days.

(e) It must be ensured that the nonavailable days are divided correctly into supply and maintenance for both unit and support maintenance.

(f) These numbers are then compared to the daily DA Form 2406 (DA Forms 5409/5410, if not using ULLS-G), and file copies of DA Form 2407. ULLS provides the same reports. Commanders should compare.

(g) Valid explanations are required for any differences. If the DSU is automated with the Standard Army Maintenance System (SAMS), automated reports may be requested from them to doublecheck DA Form 2406. Ask for—

1. Equipment deadlined over the number of days by unit (Reparable Items by Unit Report, Production Control Number (PCN) AHO 003).

2. Equipment deadlined over the number of days by battalion (Reparable Items by Battalion Report, PCN AHO 026).

3. Customer Work Order Reconciliation Report, PCN AHN 004.

(h) The equipment deadlined reports can be requested to cover a company-sized unit or battalion for as many days as needed. The report period for a DA Form 2406 should provide data to match the DA Form 2406 backside. The customer reconciliation report lists all work orders the maintenance company has open for the unit. It contains NMC-S and NMC-maintenance time. Again, if there are discrepancies, it must be determined why.

c. *All completed unit status reports classified at least "confidential."* If clearance is in place, reviewers need to obtain AR 220-1 and review the unit's computations. If the computations do not compare favorably, errors need to be identified by reviewing—

(1) Unit maintenance performance during the most recent readiness exercise or the Army Training Evaluation Program.

(2) Availability of maintenance leadership.

(3) Maintenance training requirements/shortfalls. If help is needed, note this on the unit's status report. Commanders decide the overall readiness status based on their observations, statistical data, and personal judgment; vigilance must be encouraged. Numbers alone can inflate rating over what is known to be true.

4-8. Automated readiness reporting using the Army Materiel Status System

a. *The Army Materiel Status System (AMSS).* AMSS is a component of the currently fielded ULLS-G. It automates the manual process of readiness reporting using DA Form 2406 discussed earlier. It collects, calculates, and reports materiel readiness data for ground and missile equipment in Army units. The intent of automating the equipment readiness reporting process was to reduce the level of effort needed to prepare readiness reports and ensure data accuracy. Using AMSS, units can compile and send readiness reports in minutes instead of the hours previously required. Further, AMSS provides commanders with a variety of automated reports to monitor readiness. AR 700-138—

(1) Prescribes policies and procedures for collecting and reporting the materiel status of Army equipment. Annex B of the regulation (as well as the Maintenance Master Data File, MMDF) identifies equipment that is readiness reportable and provides configurations for systems and associated subsystems.

(2) Requires units to submit readiness data to the AMC LOGSA by the first day of the month following the end of the report period. Report periods extend from the 16th of the previous month to the 15th of the current month.

b. *General reporting instructions.* To report readiness, unit personnel enter reportable equipment into the ULLS-G Equipment Data File. Personnel also use the subsystem configuration process to match (configure) a major item with its associated subsystems to report readiness for a complete system (for example, subsystems of an M1A1 tank system would consist of the tank, a radio, and machineguns).

(1) Once entered, AMSS automatically tracks maintenance and supply actions for equipment. Unit personnel manually enter and update maintenance faults associated with specific items using the ULLS-G. They also obtain status diskettes from their DSUs containing information on maintenance and supply actions at the DS level. Unit personnel need to reconcile work orders and requisitions from SAMS and SARSS, respectively, to the logistics system.

(2) ULLS-G uses the MMDF, a catalog file maintained and distributed by LOGSA—to identify reportable equipment for generation of readiness reports. The MMDF identifies reportable items, system configurations, and authorized substitutes as well as pertinent maintenance and supply information. Units upload the MMDF from diskettes into ULLS-G. ULLS-G has edit checks that restrict readiness reporting to only those items listed in the MMDF as reportable. DSUs or combat service support automation management offices typically distribute the MMDF to units.

(3) Company-level units provide readiness data via diskette to their battalion headquarters company. Personnel at the battalion headquarters company consolidate company-level data into a battalion readiness report using their logistics system computer. Battalion personnel send the consolidated battalion readiness data through the supporting DSU (via

diskette or electronically) to their materiel management center. Materiel management center personnel electronically transmit these data to LOGSA using SAMS. LOGSA maintains the Readiness Integrated Database the Army's database for equipment readiness reporting.

4-9. Maintenance module, logistics integrated database (formerly work order logistics file)

The maintenance module, logistics integrated database, is a national-level database of historical maintenance records received from DS, GS, and aviation intermediate maintenance units worldwide as of 2003. Unit historical records may be included in the future. In accordance with AR 750-1, all Active Army, Reserve, and National Guard maintenance organizations and contractors will report to LOGSA all information on all work orders (DA Form 2407/SAMS equivalent) closed during any month, by the 10th day of the following month. High-volume OCONUS organizations may submit partial reports weekly at their discretion. Unit leaders may gain access to maintenance module, logistics integrated database information to assist them in sustaining and improving the support received from their DSU or for other logistics planning purposes.

Chapter 5

Preventive Maintenance Checks and Services and Equipment Maintenance

Performance observation by operators and crews is the basis for PMCS. The equipment technical manuals require PMCS to be conducted before, during, and after operations. Through observation, the operator documents performance against established standards and reports problems that degrade equipment before they become catastrophic.

5-1. The PMCS process

The TM -10/-20 series designate the observation standards for all equipment. The elements of the process are established in DA Pam 738-750. An abbreviated version is described below.

- a. Operators and crews use the equipment TM for before, during, and after operation PMCS. Operational checks and services are performed before the equipment leaves the motor pool or other dispatch point.
- b. Any reparable faults are fixed. Other faults not already on DA Form 5988-E or DA Form 2408-14 (Uncorrected Fault Record) go on DA Form 5988-E or DA Form 2404.
- c. Operational checks are performed while the equipment is being operated.
- d. Operational checks and services are performed when the equipment completes the mission or returns to the motor pool or dispatch point. The operator and/or mechanic repairs any new faults, if possible. The commander's representative decides if any remaining faults go on the uncorrected fault section of DA Form 5988-E or DA Form 2408-14 or to keep the equipment from being dispatched.
- e. ULLS-G service process or DD Form 314 is updated as required.

5-2. Maintenance of Army equipment

Army equipment commodities are unique and have their own maintenance and sustainment requirements. No one checklist can identify the specific maintenance requirements of all commodities or equipment systems. Each equipment system has its own TM (ETM/IETM). Army policy on complying with the special requirements of each commodity is contained in AR 750-1. LOGSA maintains the Army TM library for operators, crews, and their leaders; the library can be accessed at www.logsa.army.mil. A sample of the LOGSA library of CDs is found in table 5-1. CDs for major end items—such as the Patriot—will go to publications accounts with current subscriptions for the paper publications. Subscription changes must be submitted to the Standard Army Publication System online. Instructions for subscription change are found in DA Pam 25-33.

Table 5-1.
LOGSA CD library

EM NUMBER	SHORT TITLE	PIN	IDN
0030	High Mobility Multi-Purpose Wheeled Vehicle (HMMWV)	075640	381028
0033	Smoke Generators & Smoke Grenade Launchers	075668	401104
0035	Armored Combat Equip (ACE), M9	075680	372450
0036	Tank Recovery Vehicle, M578, M88A1	075681	372471
0037	Trucks, 2 1/2 Ton	075682	381031
0038	Heavy Expanded Mobility Tactical Truck (HEMTT)	075685	381032
0039	Trucks, 5 Ton	075684	381030
0040	Carrier, Personnel, M113 Family	075683	372454
0041	Howitzers, Medium, SP, M109 Series	075690	372453
0042	Heavy Equip Transport (HET), M911	075691	381033
0043	Inf/Cav Fighting Vehicle, M2/M3 Family	075692	372455
0044	Armored Vehicle Launched Bridge (AVLB)	075693	372457

Table 5-1.
LOGSA CD library—Continued

0045	Chemical Equip—Masks, Alarms & Related Equip	075694	280821
0046	Cleaning Equip	075698	256470
0047	Avenger/Stinger Missile Sys	075699	323440
0048	Truck, Tractor, 14–20 Ton, M915 Through M920	075700	381060
0049	Trailers, Cargo, Semi, Utility, Tank & Related Equip	075701	391024
0050	(Superseded by EM 0068)		
0051	Helicopter, Blackhawk, UH–60A Through UH–60L	075703	323663
0052	Palletized Loading Sys (PLS)	075704	381029
0053	Helicopter Armament Subsystems	075705	313660
0055	Forklifts & Materiel Handling Equip	075722	256435
0057	Helicopter, Huey, UH–1H	075724	313661
0058	Helicopter, Warrior, OH–58D	075727	313666
0059	Telephone Sets, Switching & Related Equip	075728	360184
0060	Helicopter, Kiowa, OH–58A & OH–58C	075729	313665
0061	Helicopter, Apache, AH–64A	075730	313664
0062	MLRS	075731	323438
0063	Combat Engineer Vehicle (CEV), M728	075732	372452
0064	TOW Systems	075735	323439
0065	Mortar, Small Arms, Mounts & Related Equip	075736	401103
0066	(Rescinded)		
0067	Hellfire Missile Sys	075738	323480
0068	Test Equipment	075739	344614

Notes:

¹ EM =electronic manual

² PIN = personal identification number

³ IDN = initial distribution number

5-3. Maintenance of information technology used to support tactical STAMIS applications and office automation

a. Tactical STAMIS.

- (1) ULLS–G.
- (2) ULLS–A.
- (3) Unit Level Logistic System—S–4.
- (4) SAMS.
- (5) SAMS—installation/table of distribution and allowances.
- (6) Standard Installation/Division Personnel System–3.
- (7) Standard Property Book System—Redesign—installation/table of distribution and allowances.
- (8) Standard Army Ammunition System–4.

b. *Equipment.* The unit's Automation Information System maintenance personnel, in coordination with the combat service support automation management office, supports the user/operator in diagnosis and restoration of STAMIS computer systems to an operational status. The combat service support automation management office, in coordination with the DS maintainer, provides a mobile support team to restore and repair STAMIS systems on site.

c. *Software.* Software related problems are resolved in coordination with the supporting combat service support automation management office, personnel automation section, or other appropriate automation office. EX–SOPs for local procedures should be consulted.

Chapter 6 Maintenance Programs

Army Maintenance Programs are broad, mutually supporting, and continuing plans of action designed to achieve HQDA approved objectives. The Army has developed a number of maintenance programs to address issues and correct problems. Some of the Army's the programs that are important to unit-level maintenance operations are addressed in this chapter.

6-1. Logistics Assistance Program

a. The Commanding General, USAMC, manages the worldwide LAP. Each USAMC MSC provides technical and logistical assistance to unit and direct support levels of maintenance for the commodities of equipment for which they are responsible. This logistics and technical assistance is provided through a number of Logistics Assistance Offices (LAOs) and logistics support elements (LSEs) that are strategically located at all major Army geographic areas.

b. LAOs are typically found on Army installations in established areas and can perform such assistance services such as—

- (1) Track down the exact status of a critical requisition.
- (2) Find a critical part, module, or subassembly.
- (3) Help resolve systemic supply and maintenance problems.
- (4) Coordinate special training on new equipment.
- (5) Provide onsite technical and logistics training when needed.
- (6) Spot check total package fielding for the MSC.
- (7) Assist maintenance personnel in identifying and fixing complex equipment problems.
- (8) Serve as the link with the Army retail supplier (all MSCs) to obtain and expedite needed parts.

c. LSEs are the forward command and control teams representing USAMC that have been designated to supervise and/or coordinate all in-theater support provided by USAMC activities. LSEs can perform many of the functions of LAOs and support multinational and joint operations.

6-2. Army Oil Analysis Program

a. The purpose of the AOAP is to assist unit leaders by providing an oil analysis and report service on operational equipment. AOAP analyses can detect potential equipment component failures and unit leaders can prevent catastrophic failure of equipment if they take prompt management action. This is done by applying an on-condition oil change policy. Specifically, AOAP analyses identify lubricant conditions through evaluation of equipment oil samples. A well-run AOAP can save oil, repair parts, labor, and organization funds. It is recommended that units use the AOAP and support it by using proper sampling procedures and prompt submission of samples. The AOAP cycle comprises the following steps:

(1) A DA Form 2408-20 (or ULLS) is completed for each component. Detailed policies, procedures, and guidance and equipment identified for AOAP can be found in DA Pam 738-750.

(2) Sampling dates are scheduled on DD Form 314.

(3) Sampling supplies are obtained.

(4) An oil sample is obtained and annotated on DA Form 2408-20.

(5) The label on the oil sample bottle is completed; the bottle is then placed in the plastic bag and inserted into the shipping sack or box along with DD Form 2026 (Oil Analysis Report).

(6) DD Form 2026 is accurately completed and the sample is taken to the lab as soon as possible.

b. When the lab analyzes the sample, one of two things occur:

(1) The lab returns DD Form 2026 stating if results are normal. DD Form 2026 is then filed and DA Form 2408-20 is annotated.

(2) Using DA Form 3254-R (Oil Analysis Recommendation and Feedback), the lab advises of any suspected problems and indicates what actions are needed. If DS maintenance is required, prepared DA Form 2407, DA Form 2408-20, and DA Form 3254-R are sent to the support activity, along with the equipment. Support maintenance will annotate the forms, indicating the actions taken. (ULLS will automatically print out the automated versions of these forms in duplicate, when needed.)

6-3. Recognition of soldiers and units

Soldiers do best that which commanders and supervisors check and recognize; both are elements of command emphasis. An examination of any effective maintenance program will find a good commander/supervisor who recognizes the need to include maintenance operations as a high-priority command focus item. The need to recognize top performance, by both soldiers and units, is imperative to goal attainment.

a. *Individual/soldier recognition.* Effective commanders identify numerous methods to recognize individual soldier achievement and success. One method is through AR 672-5, which specifies that commanders (lieutenant colonel or higher) can award driver and mechanic badges, with appropriate bar(s), to persons who demonstrate a high degree of ability in equipment operation or mechanical maintenance.

b. *Unit recognition.* The Department of the Army has established a unit recognition program—The Chief of Staff, Army Award for Maintenance Excellence Program (AAME)—that can serve as the catalyst or cornerstone for MACOM unit maintenance recognition programs.

(1) The objectives of the AAME program are to—

(a) Improve and sustain unit maintenance readiness.

(b) Assess the status of total unit maintenance operations.

(c) Improve efficiency and reduce waste.

(d) Recognize outstanding unit-level accomplishments and initiatives.

(e) Ensure the best units compete, and promote competition at MACOM, HQDA, and DOD levels. This program is to be administered within the guidelines established in chapter 7 and appendix C of AR 750-1.

(2) The four component competition areas are—

- (a) Active Army TOE/MTOE unit.
- (b) Army National Guard TOE/MTOE unit.
- (c) U.S. Army Reserve TOE/MTOE unit.
- (d) TDA unit (any component).

(3) Representatives from winning units receive their awards and recognition at a ceremony conducted annually by Chief of Staff Army in Washington, D.C., usually during the months of June or July. A winning unit and runnerup are selected for each of the three categories (light, medium, heavy) for each of the four components listed above. Each of the 12 winning units can select up to three soldiers to represent their unit at the awards ceremony.

c. The Secretary of Defense Maintenance Award Program. This program annually recognizes the top six maintenance units across all services. An HQDA board selects Army nominees from among units that competed and were selected as AAME winners. The top AAME winners are the Army's nominees for the DOD Maintenance Award. An Army unit must compete in the AAME to be nominated to the DOD Maintenance Award Program. One of the six units, from all services, is then selected as the best overall throughout DOD and is awarded the Secretary of Defense Phoenix trophy.

6-4. Maintenance advisory messages

Maintenance-related accidents are responsible for 20 percent of all military on-duty injuries. Accidents reduce a unit's effectiveness, impact adversely on morale and discipline, and degrade operational capabilities. The main objective of all unit safety programs is prevention and awareness.

a. Frequent inspections of the motor pool and equipment areas. These inspections, including "management by walking around," are a must for units to have an effective maintenance safety program. A dirty and/or disorderly shop should be a supervisor's first indicator of unsafe maintenance operations. The following questions can assist in getting started on the right track:

- (1) Does the commander/supervisor have a written, formal accident-prevention plan that is compatible with the mission and the function of the organization, and are personnel aware of and actively implementing it?
- (2) Does the unit have a current, complete, and clearly defined safety SOP based on AR 385-10, AR 385-40, AR 385-55, and DA Pam 385-1?
- (3) Are safety meetings conducted regularly?
- (4) Is the unit commander/activity supervisor directly involved in the unit accident prevention and awareness program?
- (5) Is there a safety officer designated on orders? Are duties specified? Are duties accomplished or just given lip service?

b. Ground Safety Notification System. This is the Army's system used to disseminate high, medium, and low safety messages to the field. These are characterized by two conditions:

- (1) Materiel defect or hazardous condition that can cause death or injury to Army personnel.
- (2) Materiel defect or hazardous condition that can cause damage to Army equipment.

c. Message types and action required.

- (1) SOUM is for a high level of risk; ground precautionary message is for medium and low levels of risk. MACOMs are to acknowledge receipt immediately and disseminate within 24 hours. Army equipment users are to report compliance per MACOM instructions and directives.
- (2) The purpose of a MAM is to provide new or different nonsafety related maintenance or operational instructions and information.

6-5. Maintenance assistance and instruction team

The primary purpose of MAIT is to upgrade Army materiel and units to a high state of readiness by providing effective and responsive assistance and instruction to units and activities. MAIT is operated as a decentralized program.

a. Teams are established at installations or comparable levels in CONUS and at MACOMs, corps, division, separate brigade, or comparable levels in overseas areas. MAITs have the capability to assist and instruct units in improving operations and management in the following areas:

- (1) Operator requirements.
- (2) Preventive maintenance and equipment repair.
- (3) Equipment condition and serviceability.
- (4) Materiel condition status reporting.
- (5) Administrative storage.
- (6) Maintenance records and reports management.
- (7) Calibration management.
- (8) Proper use of tools and test equipment, troubleshooting, and fault diagnosis.
- (9) Maintenance personnel management and training.
- (10) Proper use of publications and distribution procedures.

- (11) Shop layout.
- (12) Planning, production, and quality control procedures.
- (13) Safety.
- (14) Shop operations, including SOPs.
- (15) Facilities.
- (16) PLL procedures and PLL accountability.
- (17) Equipment recovery and evacuation.
- (18) Proper implementation of the Army Warranty Program.
- (19) Army modernization training.
- (20) AOAP.
- (21) Department of Defense Phoenix Award.
- (22) AAME.
- (23) Quality deficiency reports.
- (24) Scheduled services.
- (25) Chemical agent resistant coating/camouflage painting pattern.
- (26) Hazardous materials handling.
- (27) Tire maintenance.

b. Upon conclusion of the visit, the MAIT chief conducts an informal review of the visit. The critique should cover the total scope of the visit and include problem areas, remedial action initiated or recommended, areas requiring followup and discussion with the unit commander of areas requiring external assistance. MAITs provide semiannual overview briefings or published status reviews to brigade, division, corps, installation, and senior level Reserve Component commanders. Briefings highlight significant problems encountered that apply commandwide.

6-6. Technical publications

The primary source for publications or the replenishment of publication requirements is the U.S. Army Publishing Agency (www.usapa.army.mil). Units and activities can use, review, print and/or download the electronic version of both publications and forms at this site or be linked to another library.

a. *Technical manuals.* TMs are available in multiple formats and from numerous sources. TMs are evolving into an electronic format ETM and IETM.

(1) *Paper TMs.* Paper TMs are intended for all operator manuals, wiring diagrams or schematics, firing tables, safety of use/flight technical bulletins, and precombat/flight checklists. Commanders may elect to maintain limited paper copies for contingency plan purposes. Paper copies are stocked and distributed by USAPA only by request. perator manuals (the TM -10, -12, -13, series, for example) will continue to be printed on paper, even when part of an electronic manual.

(2) *ETM/IETM.* ETMs/IETMs are intended for use at unit, DS, GS, and depot levels to support operator, crew, and user requirements. During the next few years, the Army will be converting many of its current ETMs to IETMs. Many TMs, technical bulletins, safety bulletins, and more are available on CD for use on the maintenance support device and on eth LOGSA ETM websote (www.logsa.army.mil).

b. *Two types of CDs.* One will have major end items or weapons systems, including publications on their components. A second type will have publications covering common-use equipment or on general subject matter. CDs for major end items—such as the Patriot—will go to accounts with current subscriptions for the paper. Those accounts will get one manual, no matter how many end items they have. CDs for grouped equipment—generator sets, tools and shop sets—will go to each Army, Army Reserve and National Guard account. To obtain changes and revisions to the one introductory CD, follow the instructions in paragraph 5-2.

c. *Manufacturers manuals.* Commanders and supervisors should make maximum use of manufacturers manuals for commercial materiel procured or leased off-the-shelf for use at all levels of maintenance. MACOM policy should be checked for the procedures to be used.

6-7. Single stock fund

The Single Stock Fund is an HQDA business process reengineering initiative to improve the logistics and financial processes in the Army. It represents one of the most sweeping changes to logistics and business processes in the past 25 years. It merges wholesale and retail supply elements into a single, nationally managed fund. This consolidation will streamline current operations that have caused numerous inefficiencies, including multiple points of sale and credit, multiple ledgers/billing accounts, and duplicative automated systems managing the same inventory. It will result in establishment of a single point of sale and a single point for credit. The immediate effects are national level visibility of stocks with national level management of the overall process, which provides the Army with the ability to redirect materiel quickly and effectively when and where needed.

6-8. Recapitalization Program

Approximately 75 percent of the Army's major combat equipment platforms have exceeded their half-life. The Army Recapitalization Program, through rebuild to like-new condition, equipment upgrade, or technology insertion, will expand and extend the service life of several equipment systems. These systems will reflect improved reliability, maintainability, safety, effectiveness, and improved readiness on the battlefield. These improved systems will also help to reduce the logistics footprint needed to support the objective force by reducing the requirements for maintenance support and repair parts stockage at the wholesale and retail levels.

6-9. Automatic identification technology

Army maintenance managers face increasing demands to support a wide range of aging weapons systems while simultaneously being challenged with resource-constrained budgets. A developing technology, AIT, has the potential to bring a wide range of resource and mission benefits to the maintenance community. AIT enables the automatic capture of source data in an almost error-free process enhancing the ability to identify, track, document, and control materiel, maintenance processes, deploying forces, equipment, personnel, and cargo. It encompasses a variety of read-and-write data capture and storage technologies. These technologies include optical devices like linear and two-dimensional bar code labels, digital storage devices like contact buttons, embedded chips, microelectromechanical sensors, and radio frequency identification tags. Digital information obtained through AIT provides automated information to support Army logistics operations.

6-10. Warranty programs

a. Information technology (IT). The overall policies and procedures for the Army Warranty Program for IT are contained in AR 700-139. Highlights for the maintenance community are—

(1) MACOMs acquire warranties only when they are in the Army's best interest. Acquiring commands or activities are to establish local warranty implementation procedures.

(2) In warranty applications, unit readiness and mission effectiveness take priority. If the maintenance activity is not able to get an effective response through the warranty process, the activity should repair first and settle later through the acquisition support activity.

(3) IT warranties, to the greatest extent possible, is structured to allow DS maintenance to perform maintenance on automation systems hardware without violating the warranty. Warranty provisions allow DS maintainers to replace power supplies, interface cards, input/output/video cards, internal hard drives/CD-ROMs/modems, and internal hard/floppy drives.

b. Materiel other than IT. Materiel under warranty will be identified and maintained as follows and per the detailed policies and guidance contained in AR 700-139:

(1) Unit readiness and mission effectiveness take priority over warranty actions. The supporting warranty coordinator should be notified immediately when equipment must be fixed first and the warranty settled later.

(2) AOAP procedures supplement the instructions directing oil changes for equipment under warranty. Manufacturer's standard warranties are accepted when items are locally procured. Special warranties are included in local purchases only when they are cost effective and executable by the user.

(3) Warranty actions that require a modification must be applied by a valid MWO. The MWO is applied and reported in the Modification Management Information System in accordance with AR 750-10.

6-11. Tools and tool improvement program suggestions

Unit maintenance cannot be accomplished correctly without proper tools. This includes not only MTOE authorized tools but special tools authorized by parts and equipment TMs as well. Units with effective maintenance programs do the following routinely:

a. MTOEs and TMs must be checked to verify what is authorized. Shortages should be ordered and the status of all authorized tools not on hand with supply personnel should be checked.

b. Tools should be accounted for, controlled, and maintained in accordance with DA Pam 710-2-1 suggested procedures. Accountability is assigned with hand receipts. Hand receipts and supply catalogs are used when conducting inventories. Basic policies and procedures for property accountability are contained in AR 735-5.

(1) Are authorized tools on hand or on order?

(2) Are component lists taken from the most current SCs?

c. When taking command of a unit or responsibility for a section, it is recommended that leaders conduct a 100 percent physical inventory of tools. After the 100 percent is completed, 10 percent monthly inventories should be continued by selecting several tool sets at random. These should be inventoried using the proper component list or SC; the same should be done with special tools. Accountability is the responsibility of a supervisor as well as of the hand-receipt holder. Special attention is given to sets, kits, and outfits. Toolboxes should be inventoried at the same time, because some contain end items such as multimeters, which are accountable separately.

d. Program suggestions are a means for the users of tools to report deficiencies in tools and to recommend tools for addition, deletion, and modification, to improve their usefulness. Suggestions should be addressed to: U.S. Army

Combined Arms Support Command, 3901 "A" Avenue, Suite 220, Fort Lee, VA 23801-1809 (see DA Pam 738-750 for further information and guidance).

6-12. Test, measurement, and diagnostic equipment

TMDE is any system or device capable of being used to evaluate the operational condition of equipment or subsystems, potential malfunctions, or to determine if a part or item is installed within specifications. It identifies and/or isolates any actual or potential malfunction.

a. The regulation covering TMDE is AR 750-43. It explains the Army TMDE Calibration and Repair Support Program and requires units to appoint, on orders, a TMDE calibration coordinator.

b. TB 43-180 is the authority to verify calibration items. Units should receive their monthly calibration listing from the TMDE support unit.

c. TB 750-25 is the authority on required TMDE records and forms. It is recommended that the uses of the following be reviewed:

- (1) DA Label 80 (U.S. Army Calibrated Instrument).
- (2) DA Label 163 (U.S. Army Limited or Special Calibration).
- (3) DA Form 2417 (U.S. Army Calibration Systems Rejected Instrument).

6-13. Facilities

Shop organization is key to the efficient functioning of a unit's maintenance operation, both in the field and in garrison. Inadequate facilities or inefficient layout wastes time and leads to problems, including deterioration of equipment readiness and low morale, rather than solutions for commanders.

a. Tactical. FM 4-30.3 covers tactical maintenance operations at the unit level. Organizing field operations can make the difference for the mission. If possible, an area should be reconnoitered prior to moving in, to anticipate bottlenecks and facilitate a free flow of operations that integrates maintenance.

- (1) Is the maintenance area centrally located near a good road and accessible by supported equipment?
- (2) Has an internal and external road network been established to support equipment?
- (3) Does the area have adequate drainage?
- (4) Is the area large enough to allow dispersal of equipment? Is it defensible? Does the area provide adequate cover and concealment?
- (5) Has a security plan been established and are sound tactics being practiced?

b. Garrison. Garrison operations should follow the same principles. Maintenance personnel must also train as they will fight. A few key questions follow:

- (1) Are shop sections and parking areas organized to make maximum use of available space?
- (2) Is the lube area used? Are sufficient lube materials (grease guns, oil cans, and so forth) available and protected to prevent contamination?
- (3) Is there an adequate vehicle washing facility? Is it well drained?
- (4) Are there separate paint and petroleum, oils and lubricants storage areas?
- (5) Are parking areas set aside for vehicles awaiting parts, maintenance, and inspection? Are they secure?
- (6) Are showers, lockers, and latrines convenient?
- (7) Are environmental controls established in accordance with policies?
- (8) Are the shop bays and administrative and equipment storage areas neat, functional, and organized?
- (9) Are current publications available and accessible?
- (10) Does the facility support a "clean as you work" approach to maintenance?

Appendix A References

Section I Required Publications

AR 220-1

Unit Status Reporting. (Cited in para 4-7.)

AR 700-138

Army Logistics Readiness and Sustainability. (Cited in paras 4-5, 4-7, 4-8.)

AR 700-139

Army Warranty Program Concepts and Policies. (Cited in para 6-10.)

AR 710-2

Supply Policy Below the Wholesale Level. (Cited in paras 3-1, 3-5, 4-1, 4-4, 4-5, 4-6.)

AR 725-50

Requisitioning, Receipt, and Issue System. (Cited in para 3-5.)

AR 750-1

Army Materiel Maintenance Policy. (Cited in 1-1, 1-4, 1-5, 1-8, 1-9, 2-1, 2-2, 2-5, 2-7, 3-1, 3-2, 3-3, 3-6, 3-7, 4-1, 4-6, 4-7, 4-9, 5-2, 6-3, 6-10.)

AR 750-10

Modification Work Order (MWO) Program. (Cited in para 6-10.)

AR 750-43

Army Test, Measurement, and Diagnostic Equipment Program. (Cited in para 6-12.)

DA Pam 710-2-1

Using Unit Supply System (Manual Procedures). (Cited in paras 4-1, 4-4, 4-5, 4-6, 6-11.)

DA Pam 710-2-2

Supply Support Activity Supply System: Manual Procedures. (Cited in 4-4.)

DA Pam 738-750

Functional Users Manual for the Army Maintenance Management System (TAMMS). (Cited in paras 1-9, 2-1, 2-5, 2-6, 2-7, 3-1, 4-3, 4-5, 5-1, 6-2, 6-11.)

DA Pam 738-751

Functional Users Manual for the Army Maintenance Management System—Aviation (TAMMS-A). (Cited in paras 1-1, 1-9, 2-1, 2-5, 2-7, 3-1, 4-3.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read a related publication to understand this publication.

AR 25-12

Communications Security Equipment Maintenance and Maintenance Training

AR 40-61

Medical Logistics Policies and Procedures.

AR 200-1

Environmental Protection and Enhancement.

AR 385-10

Army Safety Program

AR 385-40

Accident Reporting and Records

AR 385-55

Prevention of Motor Vehicle Accidents

AR 600-55

The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

AR 700-4

Logistics Assistance Program

AR 700-68

Storage and Handling of Liquified and Gaseous Compressed Gases and Their Full and Empty Cylinders

AR 710-3

Asset Transaction Reporting System

AR 715-9

Contractors Accompanying the Force

AR 725-50

Requisition, Receipt, and Issue System

AR 735-5

Policies and Procedures for Property Accountability

AR 750-6

Ground Safety Notification System

AR 750-59

Army Corrosion Prevention and Control Program

DA Pam 25-30

Consolidated index of Army Publications and Blank Forms

DA Pam 25-33

User's Guide for Army Publications and Forms

DA Pam 611-21

Military Occupational Specialties (MOS)

DA Pam 750-13

Operating Guide for TDA Support Maintenance Activities

DA Pam 750-35

Guide for Motor Pool Operations

FM 4-30.3 (9-43-1)

Maintenance Operation and Procedures. (Available at <http://155.217.58.58/atdls.htm>.)

FM 21-305

Wheeled Vehicle Driver. (Available at <http://155.217.58.58/atdls.htm>.)

TC 21-306

Track Combat Vehicle Driver Training. (Available at <http://155.217.58.58/atdls.htm>.)

SB 700–20

Army Adopted/Other Items Selected for Authorizations/List of Reportable Items. (Available at <http://weblog.logsa.army.mil/index.shtml>, then under Warehouse.)

TB 43–180

Calibration and Repair Requirements for the Maintenance of Army Materiel. (Available through normal supply channels.)

TB 43–0106

Aeronautical Equipment, Army Oil Analysis Program (AOAP). (Available through normal supply channels.)

TB 43–0144

Painting of Watercraft. (Available through normal supply channels.)

TB 43–0244

Unit Level Procedures for Handling Service Supplies Hazardous Materials and Waste. (Available through normal supply channels.)

TB 600–1

Procedures for Selection, Training, Testing and Qualifying Operators of Equipment/Systems, Excluding Selected Watercraft and Aircraft, Managed/Supported by U.S. Army Troop Support and Aviation Materiel Readiness Command (Reprinted w/Basic Incl C1–5). (Available through normal supply channels.)

TB 55–1900–201–45/1

Guide to Army Watercraft Survey Inspections, Repair Procedures and Repair Specifications Preparation. (Available through normal supply channels.)

TB 55–1900–205–24

Watercraft Information and Reporting System (WIRS) Data Collection for Configuration Control. (Available through normal supply channels.)

TB 750–25

Maintenance of Supplies and Equipment: Army Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Repair Support Program. (Available through normal supply channels.)

TM 43–180

Calibration and Repair Requirements for the Maintenance of Army Material. (Contained in BM 0022 TM 43–TMDE Technical Data Catalog; available at www.logsa.army.mil/etms/show_etm.cfm.)

TM 1–1500–328–23

Aeronautical Equipment Maintenance Management Policies and Procedures. (Available at www.logsa.army.mil/etms/show_etm/cfm.)

TM 55–2620–200–24

Inspection, Maintenance Instructions, Storage, and Disposition of Aircraft Tires and Inner Tubes. (Available at www.logsa.army.mil/etms/show_etm/cfm.)

Section III**Prescribed Forms**

This section contains no entries.

Section IV**Referenced Forms**

The following forms are available on the Army Electronic Library CD–Rom and the USAPA Web site (www.usapa.army.mil) unless otherwise stated. DD forms are available from the Office of the Secretary of Defense Web site (www.dior.whs.mil).

DA Form 348

Equipment Operator's Qualification Record

DA Form 1352
Army Aircraft Inventory, Status, and Flying Time

DA Form 1687
Notice of Delegation of Authority—Receipt for Supplies

DD Form 1970
Motor Equipment Utilization Record

DA Form 2064
Document Register for Supply Actions

DA Form 2401
Organizational Control Record for Equipment

DA Form 2404
Equipment Inspection and Maintenance Worksheet

DA Form 2405
Maintenance Request Register

DA Form 2406
Materiel Condition Status Report

DA Form 2407
Maintenance Request

DA Form 2408-4
Weapon Record Data

DA Form 2408-5
Equipment Modification Record

DA Form 2408-9
Equipment Control Record

DA Form 2408-14
Uncorrected Fault Record

DA Form 2408-20
Oil Analysis Log

DA Form 2415
Ammunition Condition Report

DA Form 2417
U.S. Army Calibration Systems Rejected Instrument

DA Form 2765-1
Request for Issue or Turn-In

DA Form 3254-R
Oil Analysis Recommendation and Feedback (LRA)

DA Form 3266-1
Army Missile Materiel Readiness Report

DA Form 5409
Inoperative Equipment Report

DA Form 5410

Unit Level Deadlining Parts Report

DA Form 5823

Equipment Identification Card

DA Form 5984-E

Operator's Permit Record (EGA)

DA Form 5988-E

Equipment Inspection Maintenance Worksheet (EGA)

DA Form 5990-E

Maintenance Request (EGA)

DA Label 80

U.S. Army Calibrated Instrument)

DA Label 163

U.S. Army Limited or Special Calibration

DD Form 2026

Oil Analysis Report

DD Form 314

Preventive Maintenance Schedule and Record

OF 346

U.S. Government Motor Vehicle Operator's Identification Card. (Available from General Services Administration, 800-525-8027, NSN 7540-00-634-3999.)

Glossary

Section I Abbreviations

AR

Army regulation

ASI

additional skill identifier

BII

basic issue items

CONUS

continental United States

DA

Department of the Army

DOD

Department of Defense

FM

field manual

HQ

headquarters

LAO

Logistics Assistance Office

MAC

maintenance allocation chart

MACOM

major command

MAIT

maintenance assistance and instruction team

MOS

military occupational specialty

MP

maintenance parts list

MSC

major subordinate command

MTOE

modification table of organization and equipment

MWO

modification work order

NCA

national command authority

OCONUS

outside continental United States

PAM

pamphlet

PLL

prescribed load list

SAMS

Standard Army Maintenance System

SOP

standing operating procedure

SSA

supply support authority

TDA

tables of distribution and allowances

TM

technical manual

TMDE

test, measurement, and diagnostic equipment

TOE

table of organization and equipment

Section II**Terms****dues-in, dues-out**

Dues-in is used to describe an obligated requirement that is scheduled to fill a supply support requirement, a dues-out (see AR 710-1, AR 710-2, and AR 725-50).

FEDLOG

A logistics information system published by the Defense Logistics Information Service that allows retrieval of information from the Federal Logistics Information System (FLIS) and service specific databases (see www.dlis.dla.mil/FedLog).

flyaway items

Items taken on flights to assist in repair of aircraft.

issue priority designator (IPD)

Designates who or what will receive materiel first. The oldest requirement with the highest IPD gets the materiel first (see AR 710-1 and AR 725-50).

Section III**Special Abbreviations and Terms**

This publication uses the following special abbreviations, brevity codes, and acronyms not contained in AR 310-50. These include use for policies, procedures, and responsibilities in maintenance, leadership, and supply.

AAME

Army Award for Maintenance Excellence

AIT

automated identification technology

AMSS

Army Materiel Status System

AOAP

Army Oil Analysis Program

ASIOE

associated support items of equipment

BDAR

battle damage and repair

BMO

battalion maintenance officer

CD

compact disk

DS

direct support

DSU

direct support unit

ETM

electronic technical manual

EX-SOPS

external SOPS

FCS

future combat system

FMC

fully mission capability

GS

general support

IDN

initial distribution number

IETM

interactive electronic technical manuals

IMMA

installation maintenance management activities

IT

information technology

LAP

Logistics Assistance Programs

LOGSA

Logistics Support Agency

LSE

logistic support element

MAM

maintenance advisory messages

MMDF

maintenance master data file

MTOE

modification table of organization and equipment

NMC

nonmission capable

NMC-S

nonmission capable—supply

NMP

national maintenance point

RX

reparable exchange

SARSS

Standard Army Retail Supply System

SBCT

Stryker Brigade combat team

SOUM

safety of use messages

STAMIS

Standard Army Management Information System

TAMMS

The Army Main Management System

ULLS-A

unit level logistics system—aviation

ULLS-G

unit level logistics system—ground

USAMC

United States Army Materiel Command

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PIN 023580-000

USAPD

ELECTRONIC PUBLISHING SYSTEM
OneCol FORMATTER WIN32 Version 207

PIN: 023580-000

DATE: 10- 1-03

TIME: 09:27:57

PAGES SET: 37

DATA FILE: C:\wincomp\p750-1.fil

DOCUMENT: DA PAM 750-1

SECURITY: UNCLASSIFIED

DOC STATUS: REVISION