Department of the Army
Pamphlet 750–35

Maintenance of Supplies and Equipment

Guide for Motor Pool Operations

Headquarters
Department of the Army
Washington, DC
1 August 1994

Unclassified

SUMMARY of CHANGE

DA PAM 750–35
Guide for Motor Pool Operations

This revision--

- Add Battlefield Damage Assessment and Repair that also covers vehicle recovery (paras 2-7 and 2-8).

- Adds DA Form 2408-5 (para 2-1).

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Maintenance of Supplies and Equipment

Guide for Motor Pool Operations

By Order of the Secretary of the Army:

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Chief of Staff

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History. This UPDATE printing publishes a revision of this publication. Because the publication has been extensively revised, the changed portions have not been highlighted.

Summary. This pamphlet describes procedures for motor pool operations.

Applicability. This pamphlet applies to the Active Army, Army National Guard, and the U.S. Army Reserve.

Proponent and exception authority. Not Applicable

Interim changes. Interim changes to this pamphlet are not official unless they are authenticated by the Administrative Assistant to the Secretary of the Army. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested Improvements. The proponent agency of this pamphlet is the Office of the Deputy Chief of Staff for Logistics. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, U.S. Army Ordnance Center and School, ATTN: ATSL-CD-UM, Aberdeen Proving Ground, MD, 21005-5102. Preaddressed DA Form 2028s are provided in this pamphlet.

Distribution. Distribution of this publication is made in accordance with the requirements on DA Form 12-09-E, block number 2516, intended for command levels B for Active Army, and A for the Army National Guard and the U.S. Army Reserves.

Contents (Listed by paragraph and page number)

* This pamphlet supersedes DA Pam 750–35, 27 September 1991.

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Chapter 1
Introduction

1–1. Purpose

a. This pamphlet provides a central location for information most often needed for motor pool daily garrison operations. It is not intended to replace other publications, but will tie maintenance policy as it applies to unit maintenance operations together in a usable form. It is understood that there are different types of units and equipment found throughout the Active Army and Reserve Components, but the procedures for unit maintenance operations in the garrison environment are similar. Unit level maintenance tasks are defined in AR 750–1) as tasks performed by the operator, crew, and/or unit maintenance personnel. Unit maintenance is the foundation of the Army's maintenance system.

b. This pamphlet applies to all Army equipment except—

(1) Installed equipment (see AR 420–17).

(2) Industrial production equipment.

(3) Nonstandard equipment that is locally purchased and has not been type classified or assigned an NSN. However, nontactical (commercial) wheeled vehicles are covered by this pamphlet.

(4) Equipment bought with nonappropriated funds.

(5) Medical equipment covered by TB 38–750–2.

c. This pamphlet is arranged in chapters designed to show how those sub-functional areas of unit level maintenance operations not covered in detail within AR 750–1, chapter 2, section III should function. The guidance found in this pamphlet can be applied to any unit maintenance operation, regardless of the density of equipment.

1–2. References

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

1–3. Explanation of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the consolidated glossary.

Chapter 2
Essential Functional Areas Within Unit Maintenance

2–1. The Army Maintenance Management System (TAMMS)

a. Operation of the TAMMS. The Army Maintenance Management System (DA Pam 738–750) describes the forms and records required in the performance of unit level maintenance. A unit's TAMMS functions are performed by one or more school trained Equipment Records and Parts Specialists, Military Occupational Specialty (MOS) 76C. The 76C must be under the direct supervision of the NCOIC of the maintenance administration section or the unit motor sergeant. The TAMMS is either operated manually or using the automated Unit Level Logistics System (ULLS). The ULLS is an automated system that improves the timeliness, accuracy and reporting of maintenance data. This is the most important automated system to the unit maintenance managers. Regardless of the system being used, the purpose of a unit's TAMMS operation is to create, maintain, and properly dispose of operational, maintenance and equipment historical records.

b. Operational records. Those forms and records that provide the commander and maintenance manager a means to control the use of unit equipment. Operational forms and records are maintained in a motor pool per DA Pam 738–750, chapter 2. The procedures used by a unit to dispatch equipment should be tightly controlled and clearly explained in the maintenance portion of the unit standing operating procedures (SOP). The detailed steps within the dispatch loop (fig 2–1) can vary from unit to unit, but the essential TAMMS clerk tasks are to—

(1) Check the operators OF 346 (U.S. Government Operators Identification Card to ensure validity for equipment requested.

(2) Check DD Form 314 (Preventive Maintenance Schedule and Record) to ensure requested equipment is fully mission capable, and no maintenance actions are overdue, and DD Form 314 (Preventive Maintenance Schedule and Record) for scheduled services due.

(3) Check and verify that all operator entries are properly logged on DD Form 1970 (Motor Equipment Utilization Record).

(4) Make all required entries on DA Form 2401 (Organization Control Record for Equipment).

(5) Check to see if the operator listed any new faults or deficiencies DA Form 2404 (Daily Equipment Inspection and Maintenance Worksheet) that require any action.

(6) Submit any DA Form 2404 that was submitted by an operator to the appropriate maintenance supervisor upon return to the motor pool; report any faults not previously entered on the DA Form 2408–14 (Equipment Uncorrected Fault Record) or ULLS equivalent.

(7) Ensure that any DA Form 2404 submitted containing a deficiency is immediately forwarded to the appropriate maintenance supervisor for action. When an non-mission capable (NMC) fault requires repairs above the unit's capabilities, a DA Form 2407 (Maintenance Request) is used to request assistance from DSU. Refer to figure 2–2 for an exmple of organizational level repair workflow to DS/GS maintenance.

c. Maintenance records. Maintenance records, with the exception of DA Form 2404, differ from operational records in that they have little effect on the daily operation of equipment. They are primarily used for scheduling, performing and managing maintenance on equipment. When faults are identified, or servicing is required, maintenance forms and records are used by unit maintenance personnel to record and initiate required maintenance actions sand reasons for delay. The entire unit maintenance section provides input to, and uses maintenance records. It is therefore, essential that unit maintenance managers/supervisors evaluate and monitor the flow of information contained on maintenance forms and records regularly. Some maintenance records are produced automatically in units equipped with ULLS, but the purposes of the various forms are the same. The most critical tasks the TAMMS clerk must accomplished are to—

(1) Maintain the DD Form 314 Per DA Pam 738–750, chapter 2. The manual version of this form is the most difficult form in the motor pool to keep current. Maintenance managers must be experts on the numerous entries that the TAMMS clerk must make on this form. The constant updating of scheduled -20 level preventive maintenance checks and services (PMCS), lubrication, Army Oil Analysis Program (AOAP), and NMC information is extremely important. If the TAMMS clerk allows the DD Form 314 to become outdated, it becomes difficult for the maintenance supervisor to plan upcoming services, and adversely impacts on the accuracy of equipment readiness rates reported on the DA Form 2406 (Materiel Condition Status Report).

(2) Update and reconcile the DA Form 2408–14. The DA Form 2408–14 is a dynamic form listing all uncorrected faults (not deficiencies) and the reason they have not been corrected. The TAMMS clerk must constantly update the DA Form 2408–14 as new faults are reported by operators and old faults are corrected by maintenance personnel. Equipment operators and unit mechanics use the DA Form 2408-14 as a reference when performing -10 and -20 level PMCS to avoid reporting faults that have already been identified and actions that have been deferred. This form is a valuable tool that can be used to identify systemic problems in a unit's maintenance operation. For example, comparing this form against its equipment can reveal operators who are unable to properly perform PMCS, problems in the prompt requesting of repair parts and inadequate -20 level PMCS. Whether a unit uses the actual DA Form 2408–14 or a facsimile produced by ULLS, this form requires frequent attention from unit level commanders and maintenance managers.

(3) The TAMMS/PLL clerk is the critical link in the flow and disposition of the DA Form 2404. The DA Form 2404 is the source document for entries on the DA Form 2408–14 and DA Form 2406. Per DA Pam 738–750, chapter 3, the DA Form 2404 annotated with

faults is not destroyed until all faults are transferred to another form or corrected. Tight control of the flow of this form, once a fault has been entered on it, should be thoroughly covered in the unit SOP

d. Historical records. Historical records differ from operational and maintenance records in that most of them provide information to other Army agencies. These records show required information and specific events in the lifecycle of a piece of equipment in accordance with DA Pam 738–750, chapter 5. Most of these forms accompany specific components and major end-items throughout the life of the equipment. Other historical records are mailed to a collection agency rather than being disposed of at the unit level, such as the DA Form 2408–4. Some of these forms are not kept in hardcopy in units equipped with ULLS. The frequently used historical forms that the TAMMS clerk must maintain are as follows:

(1) The DA Form 2408–4. This form is used to record the firing and certain maintenance tasks on weapons with cannon or mortar tubes. Commanders and unit level maintenance managers should often check the condition of these forms and procedures used to enter information on them. Maintenance personnel use information from the DA Form 2408–4 to determine the serviceability of cannons and mortars. Incorrect information can cause continued use of unsafe weapons. Active Army units closeout and mail their DA Forms 2408–4 to the address shown in DA Pam 738–750, chapter 5. This is done when the form is full or twice each year on the dates listed. Reserve and National Guard units mail their DA Forms 2408–4 once a year. When a DA Form 2408–4 is used for Air Defense Weapons Systems, the form is disposed of per DA Pam 738–750, chapter 5.

(2) The DA Form 2408-20. This form is maintained by the TAMMS clerk to record every oil sampling action and result of an oil analysis returned by the Army Oil Analysis Program (AOAP) laboratory. A DA Form 2408–20 is maintained on each component enrolled in the AOAP as directed by DA Pam 738–750, chapter 5. It is essential that information is kept current on the DA Form 2408–20, since it must accompany the component when turned in for repair or rebuild. Additionally, unit maintenance managers use this form to identify recurring problems in sampling techniques, indicating a need for additional training. Units that receive the" Nonaeronautical Components Enrolled Report in AOAP " no longer maintain this form.

(3) The DA Form 2408-5 (Equipment Modification Record). This form is used to show published and applied modification work orders (MWOs) on all equipment listed in appendix E of DA Pam 738–750. DA Form 2408–5 will be initiated only upon notification of the first published Department of the Army MWO (DAMWO). The organization that applies the MWO will usually make the entries in this section. It is essential that all MWOs are kept current on the DA Form 2408–5 since it must accompany the equipment when it is turned in for repair or rebuild. The DA Form 2408–5 will be a permanent log book record.

2–2. Prescribed load list (PLL)

a. Units authorized personnel, tools, and equipment to perform unit level maintenance will normally have a PLL. A PLL consists of unit maintenance repair parts that are demand supported, non-demand supported, and specified initial stockage repair parts for newly introduced end items (AR 710–2, chap 2). Most, but not all of the repair parts stocked on a PLL are demand supported.

b. The unit's PLL functions are performed by one or more school trained 76C, under the direct supervision of the NCOIC of the maintenance administration section or unit motor sergeant.

c. Automated PLL systems have their own users publication for use by PLL clerks and maintenance managers. The ULLS End Users Manual and local SOP dictates how class IX repair parts are ordered. When under an automated supply system daily diskettes are forwarded to your supporting unit. Refer to figure 2–3 for ULLS diskette daily workflow. Units operating under the manual system will find detailed guidance in DA Pam 710–2–1, chapter 8. Regardless of the system used, the essential PLL clerk's tasks are to—

(1) Know which Class IX repair parts are authorized in the unit and in what quantities.

(2) Ensure that stock locations and quantities on-hand match the PLL records.

(3) Reorder replenishment repair parts as they are issued, unless no longer authorized.

(4) Ensure all repair parts are secured in a controlled area using appropriate security measures. Also ensure that repair parts are protected from damage.

(5) Ensure that partial parts recieved are controlled and stored in a secure area to prevent pilferage.

(6) Ensure that excess parts are turned in promptly in accordance with appropriate turn in procedures.

(7) Maintain a neat and accurate document register. Also ensure that the commander or designated representative initials the document register for high priority requests.

(8) Understand the TAMMS records and PLL functions interface (fig 2–2).

(9) Reconcile the document register with the current status received from the supporting supply activity (SSA).

(10) Reconcile commanders financial transaction listing with the document register.

(11) Understand how to properly use the Army Master Data File (AMDF) and ensure that a copy of the AMDF is available.

(12) Receive/pick up parts.

2–3. Publications

a. A unit's management of its publications account can enhance or degrade both operator and unit level maintenance operations. Operators must have current technical manuals (TMs) for proper equipment operation and performance of PMCS.

b. Unit level mechanics and supervisors must have current unit level maintenance TMs, lubrication orders (LOs), training circulars (TCs), and technical bulletins (TBs) to properly maintain and service assigned equipment.

c. Maintenance managers need Army regulations (ARs), DA pamphlets (DA PAMs), field manuals (FMs), and supply catalogs (SCs) to ensure their unit is operating per Army doctrine and Federal law.

d. A publications account is established for every unit that has an active DA Form 12–R (Request for Establishment of a Publication Account) on file at the Baltimore Publications Center. The DA Form 12–series form is used to order publications against the unit account. It also keeps the Baltimore Publications Center updated on the quantity and types of publications that they are required to keep current in the unit. One-time requests and resupply of publications are accomplished using DA Form 4569 (USAPC Requisition Code Sheet).

e. As a minimum, a unit maintenance operation should have the following: one operator's manual and LO for each piece of equipment, one set of TMs and LOs for each company maintenance team (CMT), and one complete set of TMs, LOs, FMs, TBs, SCs and ARs for the unit maintenance platoon/section headquarters. There should be enough manuals so that maintenance personnel do not need to leave their worksite to use a manual. DA Pam 25–30, (Consolidated Index of Army Publications and Blank Forms) provides the maintenance manager with all needed publications information.

f. Maintenance managers sometimes find their unit's TM library in such poor condition that a complete review is necessary. The easiest and fastest way to correct this problem is by obtaining an index of equipment publications from the United States Army Material Command (USAMC), Material Readiness Support Activity (MRSA) that is tailormade for the unit. Prepare and mail a listing of all unit equipment line item numbers (LIN) and national stock numbers (NSNs) to USAMC Material Readiness Support Activity, ATTN: AMXMD-MP, Lexington KY 40511–5101. MRSA will provide a listing of all applicable TMs with change information organized for easy use.

2–4. Tools and test, measurement, and diagnostic equipment (TMDE)

a. The sophisticated types of vehicles and weapons systems found in motor pools today cannot be maintained properly without the authorized tools and TMDE. Commanders, unit maintenance managers, and supervisors must ensure that all sets, kits, and outfits (SKO) and special tools are being used and maintained properly; properly accounted for; and promptly replaced when unserviceable or lost. Unit mechanics cannot be expected to properly troubleshoot, remove, or replace components unless the right tool is readily available and serviceable as called for in the equipment TM. Tool room procedures are explained in detail in DA Pam 710–2–1, chapter 6, paragraph 6–3. A copy of DA Form 5519–R (Tool Sign Out Log/ Register) can be found at the back of DA Pam 710–2–1. The procedures used to account for lost, damaged, or destroyed tools issued from tool rooms can be found in AR 735–5, chapter

b. TMDE is of little value if it's not used and calibrated. TMDE is any system or device capable of being used to evaluate the operational condition of equipment. It identifies or isolates actual or potential malfunctions. The accuracy of TMDE will have an effect on the quality of work.

(1) AR 750–25 covers the Armys TMDE Calibration and Repair Support Program.

(2) Know your calibration requirements and spot check equipment at random for compliance.

(3) TB 750–25 has the word on required records and forms for calibration.

(4) Some common maintenance items requiring calibration are; torque wrenches, multimeters, and simplified test equipment (STE).

(5) If you have an item you think needs calibration but it is not on the list, verify it in TB 43–180. Make sure your TMDE is being used and is not gathering dust. The three types of tools commonly found at unit level are as follows:

(a) Mechanic's tool kits that consist of common handtools authorized by the unit TOE. These tool kits are based upon the number of mechanics authorized.

(b) Shop equipment, common and supplements, which contain tools and TMDE tailored to either company or battalion level sections and are issued from a tool room/vehicle.

(c) Equipment special tools required to perform unit level maintenance on specific equipment and listed in the applicable unit level repair parts TM.

c. Maintenance managers must screen equipment -20 level parts manuals to obtain the NSNs for their tools. They must also ensure that hand receipts are prepared to maintain accountability for these tools.

2–5. Preventive maintenance checks and services (PMCS)

a. AR 750–1 states that " unit level maintenance is the foundation of the Army's maintenance system. " PMCS is the foundation of unit level maintenance. PMCS as a system includes all checks and services performed by the operator/crew and the unit maintenance section. It is performed in order to identify and correct faults, and perform required services on all assigned equipment. AR 750–1, chapter 3, further states that commanders are required to maintain equipment at TM -10/20 PMCS standards according to the appropriate technical manuals.

b. No amount of operator/crew level maintenance (-10 PMCS) can make up for improperly performed unit level scheduled services (-20 PMCS). Conversely, the most efficient unit level PMCS program will not counter the adverse impact of improperly performed operator/crew level PMCS. Unit commanders and maintenance managers must develop their PMCS program as a unified effort of both operator/crew and unit mechanics. This complete package can help avoid the adversaries relationship that can develop between operators and maintainers at the unit level. As a minimum, a well organized PMCS program should include—

(1) The commanders commitment to the enforcement of published guidance on the proper performance of PMCS by operator/ crew and unit maintenance personnel.

(2) A training program that results in leaders, supervisors, and operators being fully qualified and dedicated to performing or supervising PMCS tasks correctly.

(3) Sufficient time blocked in the unit's training schedule specifically for the performance of operator PMCS on a weekly basis.

(4) Sufficient time blocked in the unit's training schedule specifically for the performance of unit level PMCS (-20 level scheduled services) based on time estimates provided by the maintenance officer/NCOIC.

(5) As few as possible unscheduled distractions that take equipment operators, maintenance personnel, and supervisors away during scheduled PMCS periods.

(6) The establishment of strict quality control procedures for repairs and scheduled services.

(7) All special tools, lubricants, and publications on hand to accomplish any PMCS task required by the applicable TMs at the unit level.

(8) Proper PMCS performance by the equipment operator will ensure early detection of faults and maintenance requirements.

2–6. Tactical maintenance

For maintenance under field/training exercise conditions, refer to FM 43–5. This field manual superseded FM 29–2 and FC 29–2J.

2–7. Vehicle recovery

FM 20–22 is directed toward both the leader and the technician. This field manual provides tactics, technique, and procedures on the use and employment of recovery assets. It also provides practical methods of recovering disabled or immobilized vehicles and returning it to operational status, or evacuate it to a place where it can be repaired, disposed of, or further disabled to prevent enemy capture of equipment.

2–8. Battle Damage Assessment and Repair (BDAR)

FM 20–30 provides specific doctrine and techniques for performing battlefield damage assessment and repair on equipment that has been disabled by enemy action or mechanical malfunctions. BDAR is to return disabled equipment rapidly, especially combat vehicles, to the operational commander by expediently fixing, bypassing, or juryrigging components. BDAR restores the mininum essential combat capabilities necessary to support a specific combat mission or to enable the equipment to self recover. Depending on the repairs required, BDAR may be a temporary or permanent repair.

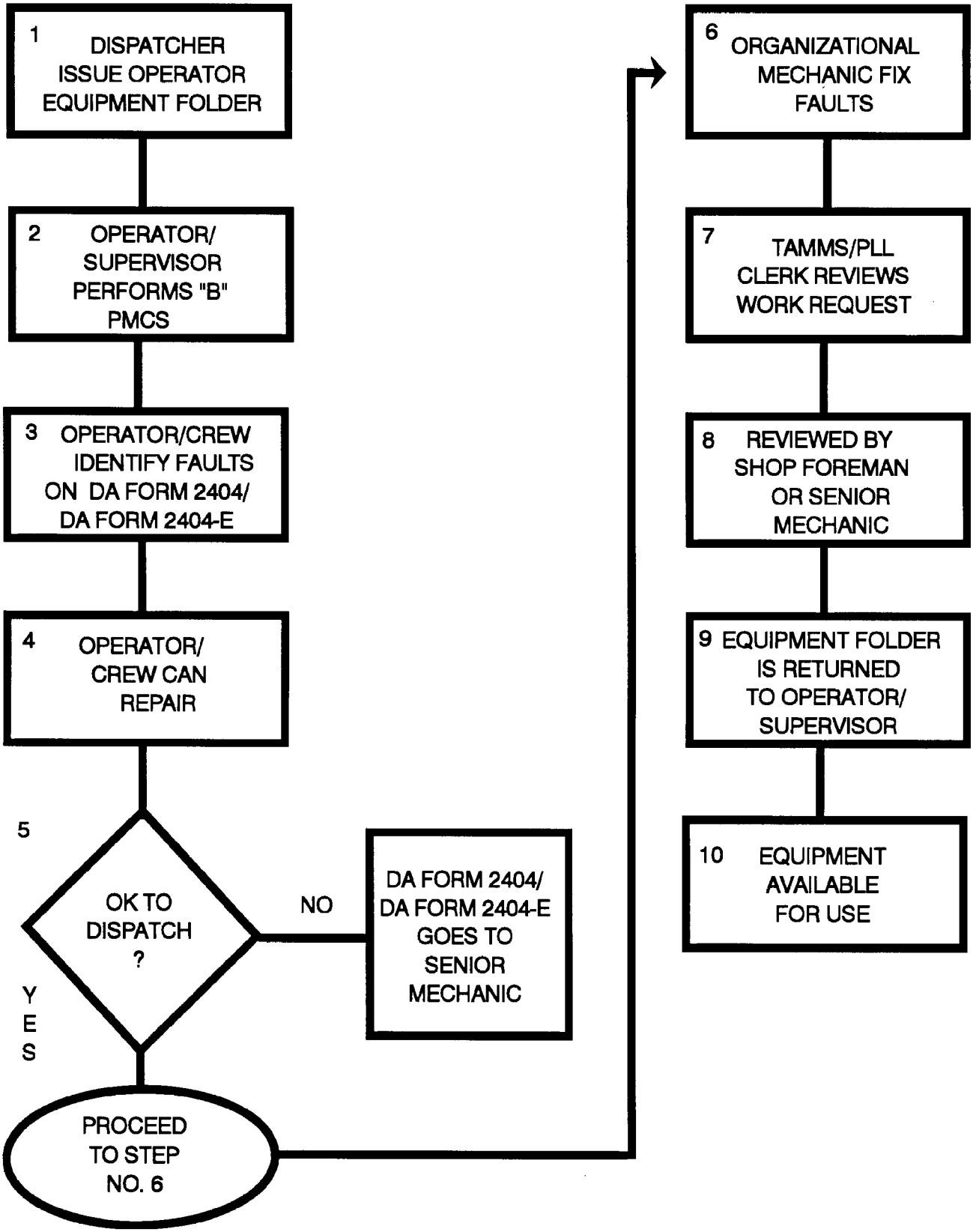

Figure 2-1. A typical company level maintenance workflow

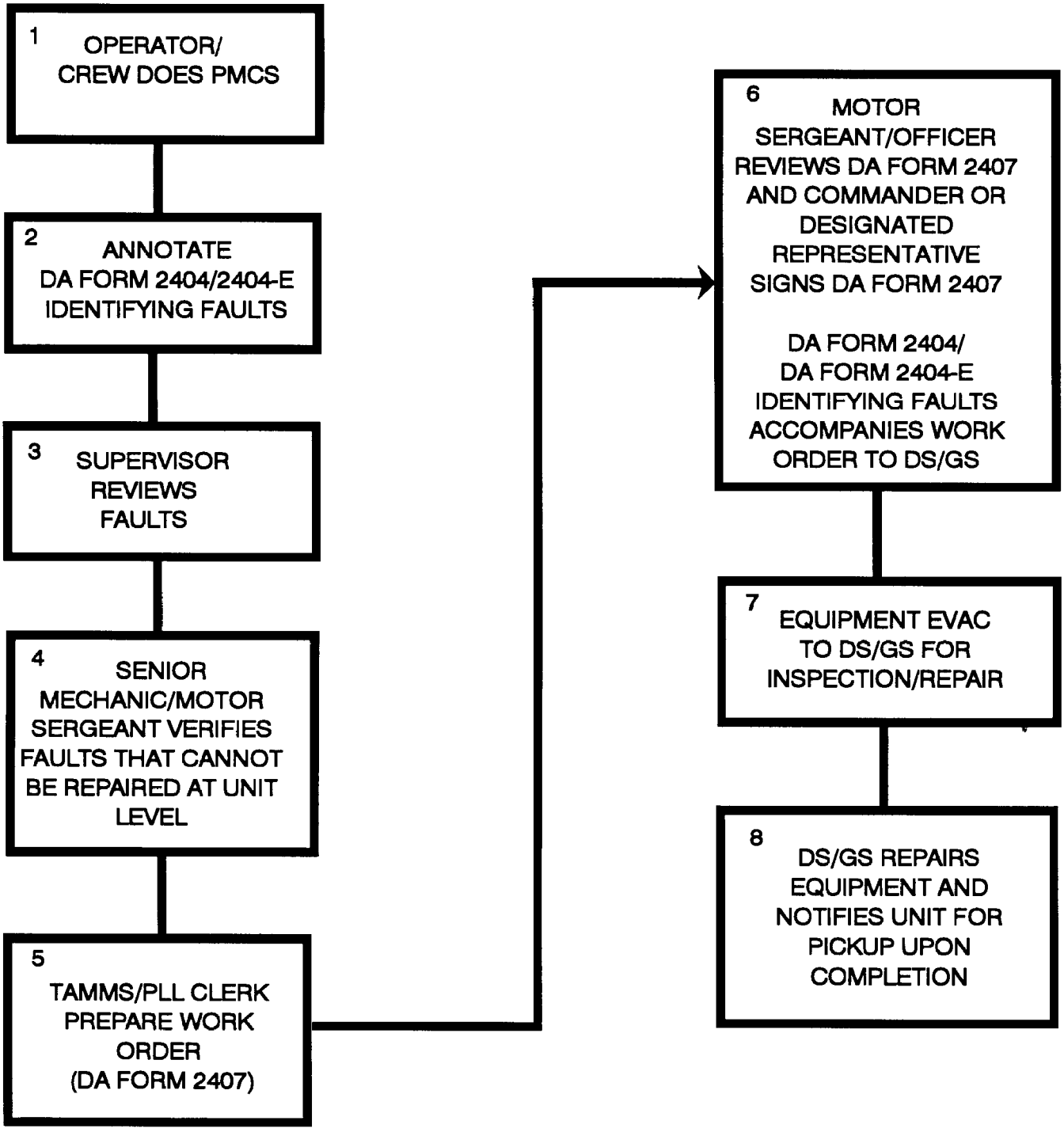

Figure 2-2. Organization level repair workflow to DS/GS

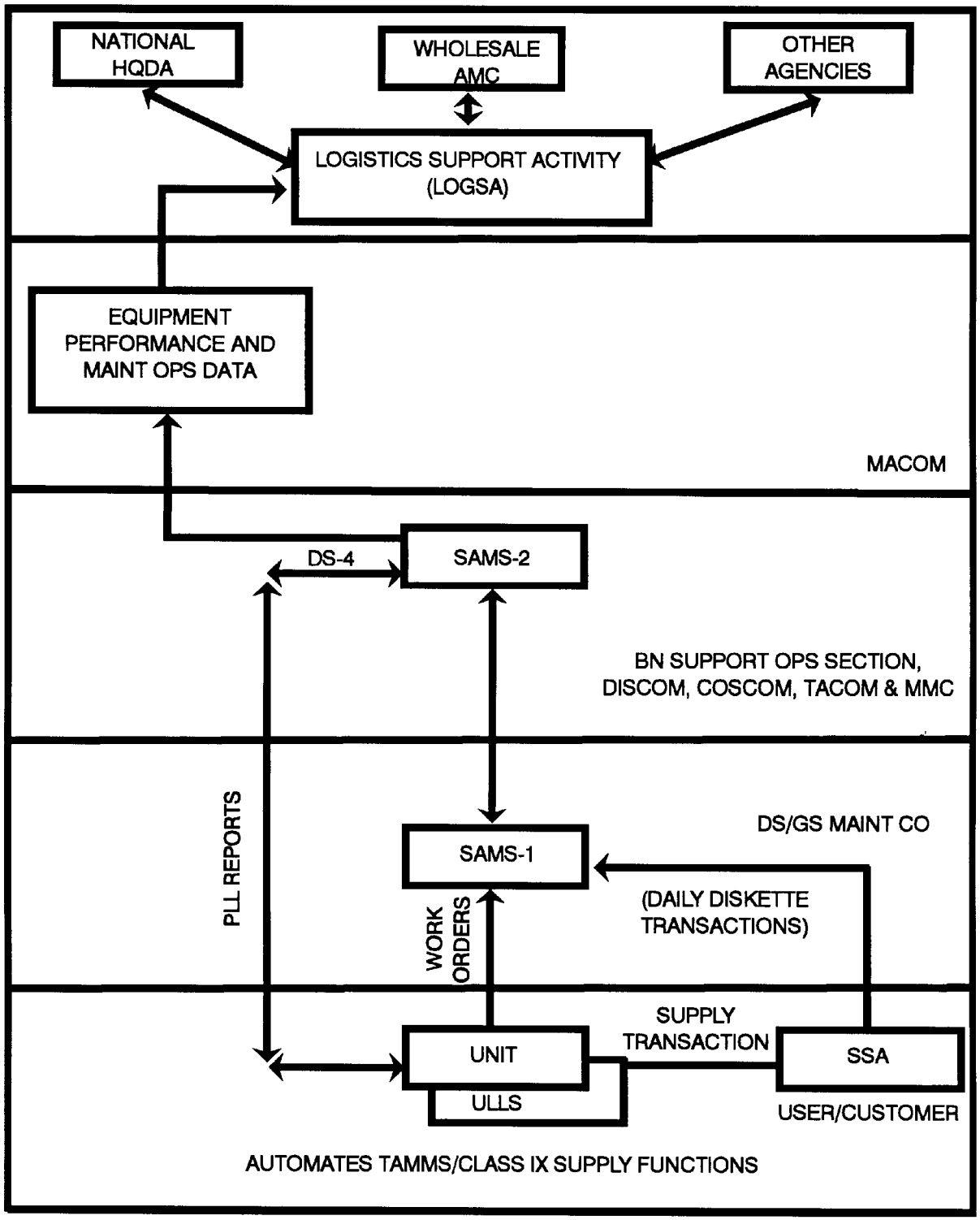

Figure 2-3. ULLS diskette daily workflow

Chapter 3
Unit Level Maintenance Management

3–1. Maintenance managers

Unit level maintenance managers are those officers and noncommissioned officers that plan, organize, direct, coordinate, and control unit level maintenance assets. The most influential maintenance manager in a unit is the commander. However, most management tasks are accomplished by the motor officer/motor sergeant or maintenance team chief at company/troop/battery level. At battalion/squadron level the maintenance officer/technician and motor sergeant are the key maintenance managers. Refer to figure 3–1 for unit maintenance heirarchy.

3–2. Maintenance standards

To achieve the maintenance standards required by AR 750–1, chapter 1, which is the TM -10/20 PMCS standard, maintenance managers should focus on the following:

a. The unit commander's maintenance requirements for accomplishing the unit's tactical mission.

b. Recommending equipment maintenance goals and objectives to the commander responsible for the maintenance of assigned equipment.

c. Assisting the unit commander in the planning of operator/crew and unit mechanic equipment sustainment training.

d. Managing resources such as, money, people, time, and materiel.

e. Reporting accurate readiness.

f. Recommending improvements to the Army Maintenance Management System.

g. Evaluating the constant performance of functional areas of unit maintenance.

h. Performing high quality TM -10/20 PMCS using the applicable equipment technical manuals.

i. Integrating safety into all tasks associated with unit maintenance.

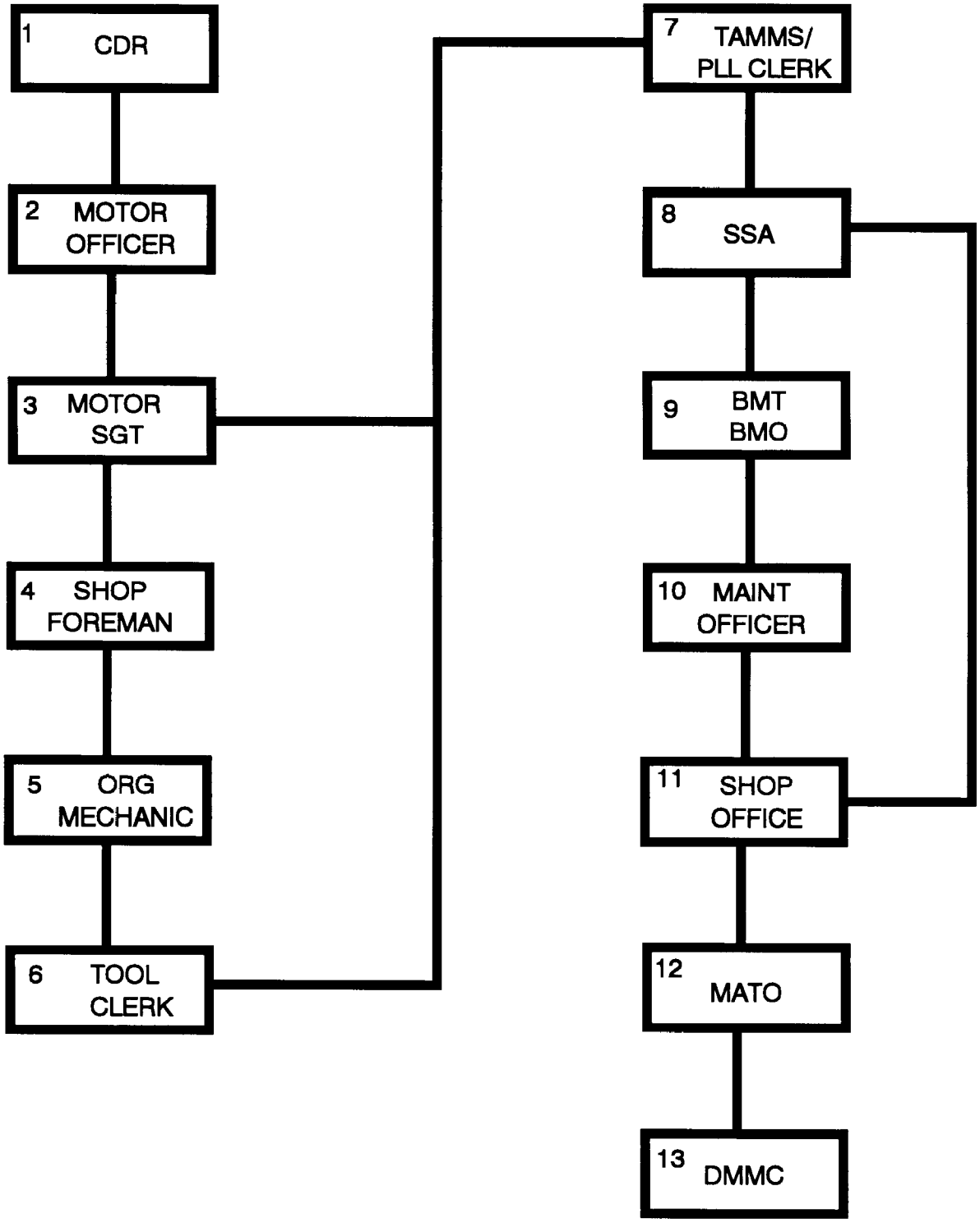

Figure 3-1. Unit maintenance hierarchy

Chapter 4
Unit Level Maintenance Training

4–1. General training programs
See FM 25–100 for proper methodology for establishing general training programs.

4–2. External challenges
External challenges and how they are managed can spell success or failure to a maintenance training program. Some external factors the commander cannot influence are—

a. Personnel turbulence.
b. Personnel shortages.
c. Key NCO inexperience.
d. Complexity of equipment.
e. First term mechanic inexperience.

4–3. Internal challenges
Internal challenges can be influenced by commanders. Their effects can be minimized to ease the effects of external challenges. Some internal factors are as follows:

a. Workload.
b. Garrison maintenance only.
c. Lack of operator maintenance.
d. A poor maintenance training plan or none at all.
e. Maintenance not system oriented.
f. First line leaders not involved in maintenance operations.
g. First line leaders with little or no maintenance training.
h. Little or no operator/crew maintenance training.
i. Personnel not having or using maintenance publications.
j. Improper use of assigned personnel.
k. Test, measurement, and diagnostic equipment (TMDE) not being used.
l. Poor quality control procedures.
m. Available training assistance not being used.
n. Technical experts not consulted on maintenance problems.

4–4. What the operator or supervisor/leader knows
No assumptions should be made about what the operator or supervisor/ leader knows.

a. All units must have their own testing and training programs.
b. The company or unit commander must know what all equipment operators and their leaders, know.
c. All personnel must know what they are checking and what to do when they find a problem.
d. The leader must know what the operator knows.
e. Should additional training be required, the leader should give it or advise the unit commander that training assistance is required.
f. Continual testing and training must be provided in order to provide confidence and improved competence of personnel.

4–5. Commanders' maintenance training
a. Each commander must analyze their maintenance training.
b. A maintenance training plan should then be developed from the analysis.
c. Personnel skill shortfalls should be identified and the available training courses scheduled.
d. Leaders must be trained to supervise and conduct the necessary maintenance training.
e. Since maintenance begins with the equipment operators, commanders who invest time in operator training will receive dividends in equipment availability.
f. First line leaders require training in inspection techniques for their equipment as well as its operation.
g. Both formal and on the job training assistance are available from the following external sources:

(1) Maintenance Assistance and Instruction Team (MAIT).
(2) Direct support (DS) maintenance unit.
(3) AMC logistics assistance office (LAO).
(4) Exportable training packages.

4–6. Vehicle operators licensing
Instructions for completing licensing of vehicle operators should be incorporated in the unit standard operating procedures (SOP). AR 600–55 provides the basic requirements for a good licensing program. Use FM 21–305, FM 21–306, and FM 55–30 for more detailed information on licensing vehicle operators. Also consult these publications for procedures on how to fill out applicable forms.

Chapter 5
Unit Maintenance Standing Operating Procedures (SOP)

5–1. Need for SOP
All units performing maintenance are required to have a maintenance SOP according to AR 750–1, chapter 2. The maintenance SOP may be an annex to the unit's SOP, an annex to the unit's logistics SOP, or a stand alone document. Regardless of where it's found, its purpose is to formally describe the way a unit performs unit maintenance on assigned equipment. This also includes that equipment stored outside the motor pool. The unit maintenance portion of the SOP should be written in enough detail to give recently assigned personnel a firm grasp of how maintenance is to be accomplished in the unit.

5–2. Areas to address in SOP
As a minimum, the following areas of the SOP should be addressed in detail:

a. Maintenance related duties and responsibilities for key unit personnel.
b. How the unit maintenance platoon/section is organized.
c. Procedures to be followed by personnel during scheduled operator level PMCS periods.
d. Procedures to be followed by all unit personnel associated with unit level PMCS (scheduled services).
e. The procedures used to dispatch equipment in the unit.
f. The procedures required to obtain a government equipment operator's license (SF 46/OF 346).
g. Tool accountability and control procedures.
h. The unit driver/mechanic awards program.
i. All applicable safety guidance associated with equipment maintenance.
j. Quality control procedures for maintenance/dispatching equipment.
k. The unit's program for operator/crew and mechanic sustainment training.
l. The proper handling and disposal of hazardous chemicals.
m. Motor pool security.
n. Calibration of tools and TMDE.
o. AOAP.
p. Readiness reporting.
q. Environmental.
r. Safety SOP.
s. Publications.

Chapter 6
Safety and Security

6–1. Safety
Safe motorpool operations contribute to an effective maintenance program. Everyone must be involved in the success of the unit safety program. Safety becomes second nature when commanders, supervisors, leaders, and equipment operators enforce common sense safety rules. These rules include the following:

a. No smoking in shop areas.

b. Proper storage of flammables/nonflammables
c. Clean and well lit ventilated work areas.
d. Use of ground guides when backing.
e. Enforce speed limits.
f. Properly ground electrical equipment.
g. Train in use of fire extinguishers.
h. Use protective devices for eyes and ears.
i. Secure loose parts, tools, and loads before vehicle operations.
j. Inspect tools and equipment before attempting repairs.
k. Remove the battery ground cable while working in the engine compartment.
l. Use only approved cleaning solvents, never use gasoline.
m. Use protective clothing.
n. Use chock blocks and jack stands.
o. Properly use tools.
p. Properly recover and storage used POL.
q. Practice POL spill control and other environmental disposable items.
r. No horseplay allowed.
s. Properly use compressed air and hydraulic equipment.
t. Use safety cages when inflating tires.
u. No contact lenses are worn while using welding equipment.
v. Always use extreme caution when working with asbestos and other hazardous materials ensure hazardous areas are marked.

6–2. Security

Motor pool shop areas are vulnerable to pilferage and must be protected. Traffic through the area cannot be avoided. To avoid loss, tools, repair parts, and POL should be secured with appropriate locks, and checked frequently. When proper precautions are not taken, these easily pilferable items will disappear. Nothing reduces morale and esprit de corps of a unit faster than theft. Commanders must demand strict security in their unit motor pool. (See AR 190–13.)

Appendix A
References

Section I
Required Publications

AR 420–17
Real Property and Resource Management. (Cited in para 1–1 *b* .)

AR 750–1
Army Materiel Maintenance Policy and Retail Maintenance Operations. (Cited in para 1–1a, 1–4, 2–5 *a* , and 3–1.)

DA Pam 25–30
Consolidated index of Army Publications and Blank Forms. (Cited in para 2–3 *e* .)

DA Pam 710–2–1
Using Unit Supply System (Manual Procedures). (Cited in para 2–4 *a* .)

DA Pam 738–750
The Army Maintenance Management System (TAMMS). (Cited in para 2–1 *d* .)

FM 43–5
Unit Maintenance Operations. (Cited in para 2–6.)

TB 38–750–2
Medical Equipment. (Cited in para 1–1 *b* .)

Section II
Related Publications

AR 190–13
The Army Physical Security Program

AR 220–1
Unit Status Reporting

AR 600–55
Motor Vehicle Driver and Equipment Operator Selection, Training, Testing, and Licensing

AR 672–5–2
Decorations, Awards, and Honors

AR 700–68
Storage and Handling of Compressed Gases and Cylinders

AR 710–2
Supply Policy Below the Wholesale Level

AR 725–50
Requisitioning, Receipt, and Issue System

AR 735–5
Policies and Procedures for Property Accountability

AR 750–25
The Army's TMDE Calibration and Repair Support Program

FM 20–22
Vehicle Recovery

FM 20–30
Battlefield Damage Assessment and Repair

FM 25–100
Training the Force

FM 21–305
Wheeled Vehicle Driver

FM 21–306
Track Combat Vehicle Driver

FM 55–30
Army Motor Transport Units and Operations

TM 43–180
Calibration and Repair Requirements for the Maintenance of Army Material

TB 750–25
Maintenance of Supplies and Equipment; Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support Program

Section III
Prescribed Forms
No entries in this section.

Section IV
Referenced Forms

DA Form 12–R
Subscription of Sighting and Fire Control Equipment Publications

DA Form 2028
Recommended Changes to Publications and Blank Forms

DA Form 2401
Organizational Control Record for Equipment

DA Form 2404
Equipment Inspection and Equipment Worksheet

DA Form 2406
Materiel Condition Status Report

DA Form 2407
Maintenance Request

DA Form 2408–4
Weapons Record Data

DA Form 2408–5
Equipment Modification Record

DA Form 2408–14
Uncorrected Fault Record

DA Form 5519–R
Tool Sign Out Log/Register

DD Form 314
Preventive Maintenance Schedule and Record

Optional Form 346
U.S. Government Motor Vehicle Operator's Identification Card

Glossary

This is the consolidated glossary for the Maintenance Management 14 Handbook.

Section I
Abbreviations

AAFS
Army aviation flight activity

AAO
Army acquisition objective

AAOF
Army aviation operating facility

AASF
Army aviation support facility

ACSI
Assistant Chief of Staff for Intelligence

ACWT
average customer wait time

AD
Army depot

ADPE
automatic data processing equipment

AG
adjutant general

AIT
advanced individual training

AMC
Army Materiel Command

AMDF
Army Master Data File

AMSA
area maintenance support activity

AMSA(G)
area maintenance support activity (ground)

AMSA(G/W)
area maintenance support activity (ground/ watercraft)

AMSA(W)
area maintenance support activity (watercraft)

AOAP
Army Oil Analysis Program

ARNG
Army National Guard

ASARC
Army Systems Acquisition Review Council

ASF
aviation support activity

ASIOE
associated support item of equipment

AT
annual training

ATCOM
Aviation Troop Support Command

ATE
automatic test equipment

AVCRAD
aviation classification and repair activity

AVIM
aviation intermediate maintenance

AVIONICS
aviation electronics

AVUM
aviation unit maintenance

BDAR
battlefield damage assessment repair

BII
basic issue item

BITE
built in test equipment

BMO
battalion maintenance officer

CA
commercial activities

CARC
chemical agent resistant coating

CC
combat capable

CE
communications-electronics

CEC
combat emergency capable

CECOM
U.S. Army Communications-Electronics Command

CG
commanding general

CLSU
communications security logistics support unit

CMC
consolidated maintenance center

COA
comptroller of the Army

COE
chief of engineers

COMSEC
communications security

CONUS
continental united states

CONUSA
continental Unites States Armies, numbered

CPP
camouflage painting pattern

CPX
command post exercise

CSMS
combined support maintenance shop

DA
Department of the Army

DAMWO
DA modification work order

DATEA
DA TMDE Executive agent

DCA
Defense Communications Agency

DCSLOG
Deputy Chief of Staff for Logistics

DCSOPS
Deputy Chief of Staff for Operations and Plans

DCSPER
Deputy Chief of Staff for Personnel

DCSRDA
Deputy Chief of Staff for Research, Development, and Acquisition

DEF MAINT
deferred maintenance

DISCOM
division support command

DLA
Defense Logistics Agency

DMWR
depot maintenance work requirements

DOD
Department of Defense

DOL
Director of Logistics

DRMO
Defense Reutilization and Marketing Office

DS
direct support

ED
exempt from duty

EDT
executive director for TMDE

EIR
equipment improvement recommendation

EMM
equipment maintenance mission

ERPSL
essential repair parts stockage list

ESA
equipment support activity

EUSA
Eight U.S. Army

EW
electronic warfare

FAD
force activity designator

FMC
full mission capable

FORSCOM
U.S. Forces Command

FPG
field procedures guide

FTX
field training exercises

FWT
fair wear and tear

GESA
general equipment support activity

GOCO
Government-owned, contractor operated

GS
general support

GSE
ground support equipment

HQ
headquarters

HQDA
Headquarters, DA

HSC
U.S. Army Health Services Command

ILO
in lieu of

ILS
integrated logistics support

ILSP
integrated logistics support plan

IMMA
installation materiel maintenance activity

IMMMA
internal mission materiel maintenance activity

IMMO
installation materiel maintenance officer

INSCOM
U.S. Army Intelligence and Security Command

IPR
in process review

ISSA
interservice/intraservice support agreement

JOAP
Joint Oil Analysis Program

LCC
life cycle cost

LIN
line item number

LOGSA
logistics support activity

LRU
line replaceable unit

LSA
logistics support analysis

MAC
maintenance allocation chart

MACOM
major Army command

MAIT
maintenance assistance and instruction team

MAMS
mobilization activity management system

MANPRINT
manpower personnel integration

MATES
mobilization and training equipment sites

MDW
Military District of Washington

MEDSTEP
Medical Standby Equipment Program

MFCC
minimum functional combat capable

MILSTRIP
military standard requisitioning and issue procedures

MIS
management information systems

MMC
materiel management center

MOS
military occupational specialty

MRM
maintenance reporting and management

MSC
major subordinate command

MST
maintenance support team

MTDA
modification table of distribution and allowance

MTMC
Military Traffic Management Command

MTOE
modification table of organizational and equipment

MWO
modification work order

NBC
nuclear, biological, and chemical

NBCDE
NBC defense equipment

NGB
National Guard Bureau

NICP
national inventory control point

NMS
New Manning System

NSA
National Security Agency

NSN
national stock number

NSR
non-self recoverable

NTV
non-tactical vehicle

OCAR
Office of the Chief, Army Reserve

OCONUS
outside continental United States

OMA
operation and maintenance, Army

OMAR
operation and maintenance, Army Reserve

OMS
organizational maintenance shop

OMSS
organizational maintenance subshop

ORF
operational readiness float

OTS
off-the-shelf

OTSG
Office of the Surgeon General

PCB
printed circuit board

PD, AOAP
Program Director AOAP

PLL
prescribed load list

PM
preventive maintenance

PMCS
preventive maintenance checks and services

PMIS
preventive maintenance inspection and service

POL
petroleum oils and lubricants

POMCUS
prepositioning of materiel configured to unit sets

POV
privately owned vehicles

PP&C
production, planning, and control

QDR
quality deficiency report

QSS
quick supply store

RAM
reliability, availability, and maintainability

RCF
repair cycle float

RCM
reliability centered maintenance

RDA
research, development, and acquisition

RFP
request for proposal

RFQ
request for quotation

RMC
regional maintenance center

ROC
required operational capability

RPSTL
repair parts and special tools list

SAMS
Standard Army Maintenance System

SDC
sample data collection

SIMU
suspended from issue, movement or use

SIP
standard initial provisioning

SIGNET
signals intelligence

SIU
suspended from issue or use

SMMA
satelite maintenance materiel activity

SOP
standing operating procedure

SR
self recoverable

SRU
shop replaceable unit

STARC
state area command

TAMMS
the Army Maintenance Management System

TAMMS–A
the Army Maintenance Management System-Aviation

TDA
tables of distribution and allowances

TM
technical manual

TMDE
test, measurement, and diagnostic equipment

TMSA
theater maintenance support activity

TOE
table of organization

TPS
test program sets

TRADOC
U.S. Army Troop Support Command

TSG
The Surgeon General

UIC
unit identification code

UMT
unit maintenance team

UND
urgency of need designator

USACC
U.S. Army Communications Command

USACE
U.S. Army Corps of Engineers

USACSLA
U.S. Army Communications Security Logistics Activity

USALEA
U.S. Army Logistics Evaluation Agency

USAR
U.S. Army Reserve

USAREUR
U.S. Army Europe

USARJ
U.S. Army Japan

USARSO
U.S. Army Southern Command

UTES
unit training and equipment site

WESTCOM
U.S. Army Western Command

Section II
Terms

Administrative deadline
Procedure for taking equipment out of service if the Commander or unit maintenance officer determines it is necessary. Administratively dead-lined equipment is fully mission capable per the applicable PMCS tables, and is reported FMC per AR 700–138 and DA PAM 738–750, but is not used or dispatched. The following conditions are examples of typical situations (not an all-inclusive list) when administrative deadline of equipment would apply:

a. Operation would result in a violation of published Federal, Department of the Army, local Commander or Host nation safety regulation if the equipment were dispatched or used.

b. Pending completion of an official investigation.

c. Pending transfer, turn-in, or disposition instructions.

d. Pending inspection for a safety deficiency detailed under a Safety-of-Use message.

After operation
PMCS checks and services performed per the TM –10-series PMCS tables at the conclusion of the mission to identify and correct faults that will preclude the next mission and to maintain the equipment to –10/–20 PMCS maintenance standard. Faults that render the

equipment NMC and are within the authorized level of repair of the operator/crew to correct must be corrected immediately. Faults above the operator/crew authorized level of repair are immediately reported to unit maintenance for correction prior to start of the next mission. Unit maintenance performs unscheduled correction required by reports from operator/crew and performs required services per TM –20-series to maintain the equipment to the –10/–20 PMCS maintenance standard.

Ammunition
All Army adopted class V items.

Ammunition peculiar equipment
Equipment used in depot to perform maintenance, surveillance, demilitarization, or preservation/packaging work on ammunition.

Area maintenance support activity
Provides, on an area basis, technical assistance and unit maintenance support beyond the supported units' capabilities to accomplish during scheduled training assemblies. AMSA will be designated as follows:

a. AMSA(G). Maintenance support for USAR ground equipment, other than aircraft, medical, and watercraft.

b. AMSA(W). Support for USAR watercraft. Consolidated Glossary Maintenance Management Update 13

c. AMSA(G/W). Support for USAR ground and watercraft.

Army aviation flight activity
An ARNG TDA activity that provides AVUM-level functions in support of ARNG aviation assets.

Army aviation operating facility
An ARNG TDA activity that provides AVUM-level functions.

Army aviation support facility
An ARNG TDA maintenance activity that provides AVUM- and AVCRAD-authorized AVIM-level functions to support ARNG aviation assets.

Army Oil Analysis Program
Part of a DOD-wide effort to detect impending equipment component failures and determine lubricant condition through evaluation of used oil samples.

Army Oil Analysis Program feedback
Maintenance and disassembly inspection data regarding an engine or other major assembly furnished by the operating and maintenance activities to the Army Oil Analysis Program laboratories.

Associated support items of equipment
An end item required to support the operation, maintenance, and/or transportation of a BOIP item. ASIOE is listed on the BOIP of the item it supports. ASIOE has its own LIN and is separately documented into TOE/Vertical—The Army Authorization and Documents System (VTAADS).

Assembly
A combination of components/modules and parts used as a portion of, and intended for, further installation in an equipment end item (for example, engine, transmission, rotor head, electronic chassis/rack/cabinet.

Automatic test equipment
Equipment that performs a predetermined program to test functional or static parameters to isolate unit malfunctions. It is also used in quality assurance tests to evaluate the degree of performance degradation. The decisionmaking, control, or evaluation functions are conducted with minimum reliance on human intervention.

Available days
The days equipment is on hand in an organization and fully able to do its mission; the time equipment is FMC.

Aviation classification and repair activity depot
An ARNG TDA maintenance activity that provides AVIM and authorized depot level functions.

Aviation support facility
TDA activity of a MUSARC that exercises centralized control and assures proper use and operation of USAR aviation assets, providing aviation training and logistics support beyond the capability of the supported units during training assemblies.

Battlefield damage assessment and repair
A wartime procedure to rapidly return disabled equipment to operational condition by expediently repairing, bypassing, or jury-rigging components to restore the minimum essential systems required for the support of a specific combat mission or to enable the equipment to self-recover.

Before operation checks
Checks performed by the operator/crew per –10 TM PMCS tables to identify faults that will prevent performance of the mission and must be corrected prior to start of the mission. All faults are corrected or, if above operator/crew authorized level of repair, are reported to unit maintenance before the mission. Before operation checks should not take over 20 minutes for completion by the operator/crew.

Black box
A line replaceable unit.

Build in test
A test approach using built in test equipment or other integral hardware designed into equipment or components under test, to self test and fault diagnose all and/or part of the equipment or component under test.

Built in test equipment
Any identifiable, removable device that is part of equipment or components under test that is used for the express purpose of testing.

Calibration
Comparison of an instrument (measurement standard or item of test, measurement, and diagnostic equipment) or unverified accuracy with an instrument of known or greater accuracy to detect and correct any discrepancy in the accuracy of the unverified instrument.

Closed loop
A formal system for collecting data, managing a database, analyzing and using the data, initiating appropriate action, evaluating results, providing feedback to participants and proponents, and evaluating the SDC system for improving efficiencies and economics of operations.

Combined support maintenance shop
An ARNG TDA activity that provides DS, GS levels of maintenance on federal surface equipment issued to the ARNG.

Commercial Activities
Army-operated and Army-managed organizations that provide products or services that may be obtained by contract with private commercial sources. CA may be identified with an organization or a type of work, but must be separate facilities that can perform either in-house or by contract. Further, the CA must provide products and services regularly needed. CA will not provide products and services that will be used only once, for a short time, or for support of a special project.

COMSEC logistics support unit
DS/GS maintenance activity for the maintenance of communication security equipment.

Component/Module
A combination of parts mounted together during manufacturing, that may be tested, replaced as a unit, or repaired (for example, starter, generator fuel pump, and printed circuit board). The term" module " is normally associated with electronic equipment.

Configuration
The functional/physical characteristics of hardware/software set forth in technical documentation and achieved in a product.

Configuration status accounting
Recording and reporting of information needed to manage the configuration of a system or item effectively. Including the approved technical documentation as set forth in specifications, drawings, and associated lists, and documents referenced therein; the status of proposed changes to a configuration; and the implementation status of approved changes.

Contract maintenance
Any materiel maintenance operation performed under contract by commercial organizations (including the original manufacturers of the materiel).

Controlled exchange
Removal of serviceable parts, components, and assemblies from unserviceable, but economically repairable equipment and their immediate reuse in restoring a like item of equipment to a combat mission capable condition.

Critical characteristics
Features (tolerance, finish, material composition, manufacturing, assembly, or inspection process) of a product, material, or process that, if nonconforming or missing, could cause the failure or malfunction of the item.

Critical safety item
Any part, assembly, subassembly, installation procedure, or production process that would have hazard probability level A, B, C, or D chance of resulting in an unsafe condition if not in accordance with design data or quality requirements.

DA sample data collection agent
LOGSA serves as the Army's executive agent and is responsible for management of the Army SDC Program.

DA sample data collection program summary
Annual preparation by the DA/AMC executive agent. Contents of the report consist of data furnished by SDC proponents and data users.

Deferred maintenance
Authorized delay of maintenance/repair of uncorrected faults. The commander or commander's designated representative must authorize the delay in correcting a fault. Equipment with deferred maiantenance does not meet the Army maintenance standard as addressed in AR 750–1, paragraph 3–1(a).

a. Required maintenance/repair can be deferred only when the fault will not affect the operation of the equipment, or the safety of the operator and/or passengers.

b. Repair on status symbol X deficiencies will not be deferred.

c. Corrections with the required parts available will not normally be deferred. When there are minor corrections for faults which are labor intensive, the repair may be deferred until the next scheduled service.

Deficiency
A fault or problem that causes equipment to malfunction. Faults that make the equipment not mission capable (NMC) are deficiencies.

a. A fault is a deficiency when the fault causes one or more of the following occur:

(1) Makes an item, subsystem, or system inoperable.

(2) Is listed in the " equipment is not fully mission capable if " column of the operator's PMCS table.

(3) Makes the equipment unsafe or endangers crew.

(4) Will seriously damage the equipment.

(5) Makes the equipment so inaccurate, it cannot do its mission as needed.

(6) Causes an operating problem that cuts down on COMSEC equipment's ability to protect defense information.

b. A status symbol X is assigned to a deficiency. All the above situations would carry an X symbol.

Definition of TM–10/–20 Maintenance Standard
The condition of the equipment when—

a. The equipment is FMC.

b. All faults are identified using the" items to check " column of the applicable TM –10-series and TM –20-series PMCS table and—

(1) Corrective actions that are authorized to be accomplished at unit level, and for which required parts are available, are completed.

(2) Required parts are requisitioned for faults that require them to complete the corrective actions.

(3) Corrective actions that are authorized to be accomplished at a maintenance level above the unit are on a valid direct support maintenance request.

c. Equipment services are performed within the scheduled service interval.

d. All current urgent and limited urgent modification work orders are applied.

e. All authorized basic issue items and components of end item are present and serviceable or on valid requisition.

Department of Defense Activity Address Code
A six-digit code that gives a delivery address for supplies and equipment.

Depot maintenance work requirements
A maintenance serviceability standard for depot maintenance operations. It prescribes the scope of work to be performed on an item by organic depot maintenance facilities or contractors, types and kinds of materiel to be used and quality of workmanship. Also, repair method; procedures and techniques; modification requirements; fits and tolerances; equipment performance parameters to be achieved; quality assurance discipline, and other essential factors to ensure that an acceptable and cost effective product is obtained.

Designated representative
Someone authorized to sign for and/or represent the commander. The commander may use a DA form 2496, orders, or DA From 1687, to appoint a designated representative.

a. The commander holds full responsibility for the safety of personnel and the status of equipment. Designated representatives must be picked carefully. They should be knowledgeable, experienced, and readily available to the people needing their signature and help.

b. Downgrading a status symbol X to a circled X for limited operations and making a status symbol change may be dangerous. For these two situations, the commander is limited to one designated representative, the maintenance/motor officer.

Discard and replace
Procedure to follow if selected items are designated as nonreparable and become inoperable.

Dud
Explosive ammunition that was not armed as intended or failed to explode after being armed or fired.

During operations checks (PMCS)
Checks performed by the operator/crew per the TM–10 PMCS tables which monitor operation of equipment and identify faults in equipment performance during the mission. Faults that render the equipment not mission capable require immediate correction or authorization for limited operation using circle x status condition. All other faults are corrected (if above operator/crew authorized level of repair to correct) or reported during or after the mission.

Electromagnetic environmental effect (E3)
Any failure (or serious effect) apparently caused by, or related to, radio waves, electromagnetism, voltage or current pulses (static discharge, lightning, electromagnetic pulse, or transient electricity), from whatever source. Examples: A malfunction of any electronic/electrical equipment or system that occurs after exposure to electromagnetic energy. The effect may be transitory or permanent. Sources of energy may be radio transmissions, radar, high power electrical generation or transmission equipment, motors, generators, electromagnets, static electricity, lightning, magnetic storm, or hostile radio-electronic combat. Effects observed may take the form of a distorted display, intermittent/inappropriate indication of warning, noise, interference, break lock or sync, un-commanded control actions, system failure, burn-out, or detonation.

End item code
Data element that identifies a part to a specific end item. It is a three-position alphanumeric code that uses the full English alphabet and the number 2 through, 9 and is structured so that each position of the code has a specific meaning as follows:

a. The first position identifies the national control point manager and is a broad categorization generally descriptive of the item but not identifying specific items.

b. The second position provides for a further subdivision of the broad category established in the first combination and identifies a broad generic family of end items.

c. The third position is used in combination with the first two positions to identify a

specific end item NSN unique to a single end item. Example is as follows:

(1) A — TACOM Combat Vehicle.

(2) AA — TACOM Combat Vehicles, Main Battle Tank M1.

(3) AAB — TACOM Combat Vehicles, Main Battle Tank M1, 2350–01–087–1095, M1A1 120mm Gun.

Equipment category code
A two position alphabetical code. The first letter identifies the primary category of equipment: A= Aircraft, B= Air Defense Systems, F= Tanks, G= Combat Vehicles, and H= Tactical Vehicles, etc. The second letter identifies a specific type of equipment within the primary category, AF= Aircraft; Fixed wing, AR= Aircraft; Rotary wing, GA= Self-propelled Howitzers, HB= Truck, 1/4 ton, etc. The two position ECC is used in ADP systems to produce the complete description of an item of equipment by make, model, noun nomenclature, line number, and national stock number if desired or required. It is also entered in specified blocks or positions on manually produced data source documents.

Equipment concentration site
Area for support of USAR and other authorized units during IDT, AT, and mobilization; includes a maintenance branch.

Equipment end item
A final combination of assemblies, components, modules, and parts that is designed to perform an operational function and is ready for intended use. These end items are normally type-classified and assigned line item identification numbers (SB 700–20) but may require other end items to perform a mission (for example, tank, truck, radio, generators, and machine guns).

Equipment improvement recommendation
Written reports on an SF Form 368 to report equipment faults in design operations and manufacturing of new equipment received that is below standard quality in workmanship under AR 702–7 and AR 702–7–1.

Equipment performance data
Historical information relating to the maintainability, reliability, and supportability characteristics of systems, subsystems, and components of weapons and equipment end items accumulated during their operational application or tests simulating actual operations.

Equipment readiness codes
A one-digit code explaining an item's importance to a unit's combat, combat support or service support mission. The codes are assigned to items on modification tables of organization and equipment. Since equipment can serve different purposes, the same item may have a different code in different units. AR 220–1 governs ERCs. ERCs go on the DA Form 2407 and DA Form 2406.

a. ERC A applies to primary weapons and equipment. These are items essential to and used directly in the assigned mission.

b. ERC B applies to auxiliary equipment. These are items which supplement ERC A items or replace ERC A items if they become inoperative.

c. ERC C applies to administrative support equipment. ERC C items support the assigned mission or operators.

d. ERC P items that are ERC A that are also pacing items.

Evaluation criteria
Factors, including quantitative metal wear expressions, against which the results of oil analysis are compared to determine the condition of a component or lubricant and the necessity for maintenance.

Fault
A term used to indicate that a piece of equipment has a deficiency or shortcoming.

Fault isolation
Test performed to isolate faults within a UUT.

Forward support maintenance
Maintenance oriented toward quick turnaround to the user in order to maximize combat time by minimizing repair and evacuation time; thrust to repair end items as far forward as possible within tactical time criteria, or to recover and evacuate to the point where repair can be accomplished. Viability of concept is based on inherent flexibility driven by weapon systems, tactical, and threat considerations.

Fully mission capable
Systems and equipment that are safe and have all mission-essential subsystems installed and operating as designated by applicable Army regulation. A full mission capable vehicle or system has no faults that are listed in the " not fully mission capable ready if " columns of the –10/–20 TM PMCS tables that apply to the vehicle/system or its sub-system required by AR 700–138. The terms ready/available and full mission capable refer to the same status: equipment is on hand and able to perform its combat missions.

General support forces
Training, Logistics and other support activities of the CONUS base; field activities; administrative headquarters and forces provided for peacetime-peculiar activities. Units/activities included in general support forces do not report status/readiness under AR 220–1. They are identified in Department of the Army Force Accounting System by a three-position Force Planning/code beginning with a " C ".

Go/no-go (system)
Condition or state of operability of a system that can have only two parameters:

a. Go — Functioning, properly.

b. No-go — Not functioning properly. Such conditions are displayed using meters, and/or visual or audible alarms, sensors, or similar mechanisms.

Ground Support Equipment
All equipment required to maintain aircraft and its associated equipment.

Guided missile large rocket
Self contained, targetable explosive elements. They consist of a warhead section mated to a main missile section or rocket motor to form a guided missile or rocket. Parts of assemblies include solid or liquid propellants, thermal batteries, explosive bolts, fuses and ignitors. Guidance/controls units and fins steer a flying guided missile to the target. Rockets are not controlled in flight. A large rocket needs transportation, ground handling equipment, and support equipment to place it in position for firing.

Headquarters DA intensively managed systems
Systems selected for intensive management are systems identified by HQDA for increased costs and manpower analysis. Normally, these systems are high cost items which represent approximately 80 percent of force modernization program funds. These systems may fall into one of the following categories:

a. All materiel systems that have congressional or DOD level interest. Systems in this category would include current or proposed Selected Acquisition Report systems and JRMB systems.

b. All materiel systems that have Army Staff or Army secretariat level interest. Systems in this category would include ASARC systems.

Initial operating capability
First attainment by the MTOE unit of the capability to operate and support effectively in their operational environment, a new improved, or displaced Army materiel system.

Installation Materiel Maintenance Activity
TDA maintenance organization set up to provide DS/GS maintenance support and AVIM support for troop and/or installation operating equipment. An IMMA operates at one or more fixed locations. It is under the operational control of the IMMO or manager.

Installation operating equipment
" Capital (plant) equipment " and " equipment in place " serviced by IMMAs. (See AR 750–5.)

Integrated logistics support
A composite of all the support considerations necessary to ensure the effective and economical support of a system for its life cycle. ILS is an integral part of all aspects of system acquisition and fielding. The principal elements of ILS related to the overall system life cycle are contained in AR 700–127.

Integrated materiel manager
The materiel manager responsible for the execution of assigned materiel management functions for selected items or selected Federal Supply Classification Classes.

Internal Mission Materiel Maintenance Activity
A TDA activity that performs DS/GS maintenance or AVIM of equipment unique to a tenant activity. The IMMA will be under the operational control of the IMMO, except for those activities operated and controlled by USAISC.

Inter-service maintenance support
Maintenance operations performed on a recurring or nonrecurring basis by the organic maintenance capability of one military service or element thereof in support of another military service or element thereof.

Limited AVIM-level maintenance
AVIM-level support performed by the ASF within available skills and resources authorized for unit maintenance, without adversely affecting the overall performance of unit support.

Line item number
A six-position alphanumeric number that identifies the generic nomenclature of specific types of equipment. Standard LINs consist of one alpha character followed by five numeric characters. Standard are assigned by the Army Materiel Command and are listed in SB 700–20.

Line replaceable unit
A combination of components/modules installed in an item of equipment or system which is replaceable in the operational environment (that is, under field or combat conditions). A line replaceable unit may be a printed circuit board, black box, component, major component, alternator, carburetor, avionics, tank engine, or road wheel assembly installed weapons, and so fourth. This repair by replacement is normally accomplished as far forward as possible by unit (organizational) maintenance personnel.

Logistics attrition
A process of modifying equipment by replacing it or its components with an improved end item or component as failures occur.

Logistician
A command or agency, other than the materiel developer, combat developer, trainer, or user representatives responsible for ILS program surveillance and evaluation in the materiel acquisition process. For most equipment, the U.S. Army Logistics Evaluation Agency performs this function (AR 10–25).

Logistics support planning team
A team formed by the materiel developer to manage or coordinate logistics matters pertaining to a materiel acquisition program. Membership is tailored to the program and can include representatives from other commands and agencies (for example, the combat developer, trainer, logistician, and testers). The team's activities include the control of logistics support analysis input and output, review of section VI of the Outline Development Plan/Development Plan and participation in other program actions.

Maintainability
A characteristics of design and installation which inherently provides for the time to be retained in or restored to a specified condition within a given period of time, when maintenance is performed by prescribed procedures and resources (MIL–STD–721 B).

Maintainability engineering
The application of scientific knowledge and engineering skills to the development of Army equipment to provide an inherent ability to be maintained (for example, maintenance characteristics).

Maintenance capability
Availability of those resource—facilities, tools, TMDE; drawings, technical publications, trained maintenance personnel, engineering and management support, and repair parts required to perform maintenance operations.

Maintenance engineering
That sub-function of materiel maintenance directed toward:

a. Influencing the design and development of materiel to ensure that adequate consideration is given to and provision made for its effective economical maintenance.

b. Designing and providing technical guidance for the acquisition, deployment, installation, and operation of the maintenance support structure for new or improved items entering the operational inventory.

c. Continuing analysis and evaluation of equipment performance data and maintenance data relating to operational equipment to determine need and prescribe changes in equipment configuration, maintenance support structure, or maintenance resource requirements.

d. Providing engineering consulting service and technical assistance to Army field commanders in the installation, operation, and maintenance of equipment and in the resolution of problems concerning maintainability and maintenance support requirements of materiel in the operational inventory.

e. Managing the resources engaged in these activities.

Maintenance operations
The management and physical performance of those actions and tasks involved in servicing, repairing, testing, overhauling, modifying, calibrating, modernizing, and inspecting, materiel in the operational inventory and the provision of technical assistance to equipment users in support units of the Army Logistics System.

Maintenance performance data
Information relating to the user and results obtained from the application of maintenance resources (for example, work force, equipment and funds) to perform maintenance operations on Army materiel.

Maintenance significant item/materiel
An end item, assemblage, component, or system, or system proposed or intended for issue to the Army in the field, which will require corrective maintenance services on a recurring basis.

Maintenance standard
A measure which specifies the minimum condition to which materiel must be restored by repair, overhaul. or some other maintenance function to ensure its satisfactory performance for a specified period of service. For TM –10/–20 standard, refer to AR 750–1, paragraph 3–1 *a* .

Maintenance support team
A team formed from the resources of a maintenance activity, organization, or unit, and specifically tailored to provide maintenance support to a designated unit or operation for specified tasks.

Maintenance technician
Full-time technician normally having dual status as a member of USAR unit; military technician assigned to USAR TDA maintenance activity.

Major component
A combination of subassemblies , assemblies, components, modules, and parts connected in such a manner as to be a self-contained unit which, although part of an end item, is capable of operating independently of the end item. Major assemblies are separately identified by type, model, and series and assigned item ID numbers (SB 700–20). Examples are receivers or receiver-transmitters in radio sets and machine guns or other weapons in secondary, armament subsystems of combat vehicles.

Mandatory sample data collection project
A DA intensively managed system/equipment designated for SDC as directed by ASARC/ JRMB in coordination with CG, AMC.

Materiel maintenance
The function of sustaining materiel in an operational status, restoring it to a serviceable condition, or updating and upgrading its functional usefulness through modification or other alteration. It includes the subfunctions of maintenance engineering and maintenance operations.

Medical equipment
Those equipment items in the Federal Supply

Catalogs, DOD Section, Medical Materiel, and comparable nonstandard equipment.

Medical Standby equipment program
Medical assets used in support of critical health care equipment includes end items, components or assemblies used to provide supported activities with serviceable items to replace unserviceable economically reparable items.

Misfire
The failure of the primary/propelling charge of a round to function properly or completely.

Mission-essential materiel
That materiel authorized and assigned to approved combat and combat support forces which should be immediately be employed to destroy the enemy or his capacity to continue war; provide battlefield protection of personnel; communicate under war conditions; detect, locate, or maintain surveillance over the enemy; and permit contiguous combat transportation and support of forces and materiel. Equipment assigned to training missions of the same type and configuration as that assigned to combat and combat support forces, and designated to be immediately employed for the purposes enumerated above is also mission-essential materiel.

Mission performance training
An operation that provides practical maintenance mission and MOS training of USAR personnel and units in support of active and other reserve components, and other DOD activities.

Mobilization and training equipment sites
An ARNG TDA maintenance facility which, when collocated with a CSMS, provides full time unit support to ARNG equipment assigned to the site. When not collocated, MATES provide unit and DS, GS support to equipment and units assigned. MATES provides support in the conduct of maintenance training, and their operations are regulated by NGR 750–2.

Mobile contact team
USAR DS, GS maintenance personnel and AMSA/ECS MTs who visit units to provide technical assistance, make inspections, and perform maintenance when this procedure is more economical than transporting equipment or personnel to the activity.

Module
An assembly containing a complete self-contained circuit or sub-circuit. It may consist of a single PCB, in which case it is synonymous with a PCB, or may be comprised of two or more PCBs mechanically attached to one another and removable from the next high assembly as a single unit.

National maintenance point
An activity established by a commodity manager to facilitate the maintenance function.

Non-available days
The days the equipment was not able to do its mission, the time the equipment is not mission capable. This term is used on the DA Form 2406 to rate equipment's ability to do its combat or combat support job. This term is used for the DD Form 2406.

Non-type classified training device
A device not managed by a specific commodity command. Publication and logistics support of such devices remains the responsibility of the project manager for training devices and the overseas MACOM TASC.

Not mission capable
A materiel condition indicating that equipment cannot perform any one of its combat missions. NMC is divided into not mission capable maintenance (NMCM) or not mission capable supply (NMCS).

a. Equipment is NMC when any of the following situations occur:

(1) The equipment has a deficiency listed in the" not mission capable if " column of any –10/–20 PMCS tables applicable to the equipment. When a PMCS has not been published for the equipment, use the equipment serviceability criteria (ESC) or a similar item's PMCS as a guide. When no PMCS, ESC or similar materiel exists to determine mission capability of equipment, the unit commander/maintenance officer will judge the equipment's mission capability based on its design and intended capability. Some vehicles/systems are equipped with sub-system which have their own PMCS tables that must be considered when determining if the system is NMC. Note: Some PMCS tables have not been revised to the new MIL–M– 63036 publication. Therefore some " not mission capable if " columns may read differently but mean the same. For example column heading may read: " Not ready available if "

(2) The equipment has an urgent MWO or a limited urgent MWO, that has not been applied within the time stated in the MWO publication.

(3) Equipment cannot perform its combat missions because of a supply shortage.

b. Equipment at unit maintenance or support maintenance for only normal scheduled preventive maintenance services or inspection is FMC. Equipment with faults that do not affect its operational ability–like painting or minor body work is also FMC. Equipment become NMC if a fault listed in the " not mission capable if " column of the PMCS is detected during performance of the service. Support maintenance will tell the owing unit if the equipment should be carried NMC.

c. Count equipment that is NMC at the end of the workday as NMC for the whole day. Count equipment that is FMC by the end of the workday as FMC for the whole day even if it was NMC part of that day. A workday is defined as the normal duty shift set by the Consolidated Glossary Maintenance Management Update 13 the local command. A normal duty shift will not exceed a 12-hour period.

d. Publications other than this regulation and the PMCS may describe faults as deficiencies; however, unless those faults are also in the operator's PMCS in the " not mission capable if " column, do not count them as NMC for DA Form 2406.

Not mission capable maintenance
Equipment that cannot perform its combat mission because of maintenance work underway or needed.

a. NMCM time starts when the equipment has an NMC fault and is under the control of unit maintenance or any other maintenance activity. Do not count time spent on regularly scheduled maintenance services and inspections or minor repairs like painting and body work. Equipment is FMC when a unit is told it is ready for pickup even though it is still physically at support. Equipment is normally FMC on the day it is inspected and signed off in block 26 of the DA Form 2407 or DA Form 5504, block 37a.

b. Count NMCM time until all work on the deficiencies is done and/or the lack of a needed part stops the work. When the lack of a part is the only reason the equipment cannot be made FMC, NMCS time starts.

c. Unit NMCM covers all time used at the unit level for NMC maintenance. Unit NMCM includes time needed to deliver equipment and wait for acceptance of equipment by the support maintenance activity.

d. Support NMCM covers all time used at support for maintenance, inspection, and waiting shop delays on NMC faults. Normal scheduled services and inspections for minor repair work for other than a NM/c fault do not count as NMCM time for reporting on DA Form 2406.

Not mission capable supply
Equipment that cannot perform its combat mission because of maintenance work stoppage due to a supply shortage.

a. NMCS time starts when no more maintenance work can be done on a NMC fault because a needed part is not on hand.

b. NMCS cover time spent waiting for repair parts, chassis, assemblies and sub-assemblies, major components, and components. NMCS time also includes time waiting for delivery of direct exchange items when an exchange item is not available.

c. Both NMCS and NMCM time can occur on an item or system on the same day. Count the entire day for the one with most hours that day. Subsystem NMCS and NMCM or unit and support NMC days can overlap. When that happens, charge the whole day to the one that has existed the longest time.

d. Unit NMCS covers the time equipment

is in unit control and " awaiting parts " for an NMC fault.

e. Support NMCS covers the time equipment is under support's control and is " awaiting parts " for an NMC fault.

Off-site maintenance
That maintenance authorized to be performed by designated maintenance facilities not located where the equipment is operated.

Oil
A liquid lubricant or transfer fluid used in engines, transmissions, and hydraulic systems.

Oil analysis
A test or series of tests (spectrometric and physical property) that provide an indication of equipment component and oil condition by applying methods of quantitative measurement of wear metals and detection of contaminants in an oil sample.

On-condition oil change
An oil change directed by the AOAP laboratory as a result of findings relative to the condition of the oil and its lubricating capability.

On-site maintenance
Maintenance authorized to be performed where the equipment is operated.

Operational readiness float
A quantity of selected end items or major components of equipment authorized for stockage at CONUS installations and overseas support maintenance activities to extend their capability to respond to the materiel readiness requirements of supported activities. This is accomplished by providing supported activities with serviceable replacements from ORF assets when like items of equipment of supported activities cannot be repaired or modified in time to meet operational requirements.

Organizational maintenance shop
An ARNG activity that provides backup unit maintenance for federal surface equipment issued to supported units.

Organizational maintenance sub-shop
An ARNG unit level maintenance sub-facility established to supplement limited available work space authorized a parent OMS or geographic separation of supported units.

Overhaul
To restore an item to a complete serviceable condition as prescribed by maintenance serviceable standards. Normally accomplished at depot.

Pacing Items
These are major weapons or equipment systems of such importance that they are subject to continuous monitoring and management at all levels of command. Pacing items are identified in AR 220–1. Pacing items are noted on DA Form 2407.

Parent installation
An organization that furnishes all or a part of the common support requirements to another installation or separate organization. For this regulation, only installations with SMMAs are recognized as parent installations.

Part
An item which cannot normally be disassembled or repaired, or is of such a design that disassembly or repair is impractical (bracket, gear, resistor, toggle switch).

Periodic Operator/crew PMCS
Checks and services performed by the operator/crew per the" item to check " column of the –10 series PMCS tables at intervals other than before, during, and after operations of equipment. Faults requiring correction beyond operator/crew level authorization (per MAC) will be reported to Unit level maintenance for correction. Normally this checks will have intervals of weekly or monthly. Note: Some PMCS tables may not use the " item to check column " and may use other headings such as " items to be checked ". All have the same intent.

Physical property tests
Analytical tests of used oil samples to detect oil property changes resulting from changing equipment conditions or maintenance practices.

Possible days
The number of calendar days an item was on hand on the property book during the DA Form 2406 report. For an item you received during the reporting period, count the first day it was on hand as a whole possible day. Do not count the last day an item is on hand the day you lose it from your property book as a possible day.

Pre Combat Checks
Essential Functional and safety checks performed by the operator/ crew per the system's Pre-Combat Check List (PCL) to ensure the system can perform its war-fighting mission. Faults which will prevent the performance of the mission must be corrected prior to the start of the mission. All other faults are corrected or (if above operator/ crew authorization to correct) reported during or after the mission. Note: Pre-Combat Check List are for combat vehicles only. PCLs do not substitute for before operations PMCS and are only used when approved by the commander. Pre-combat checks should not take more than 20 minutes to perform.

Preventive maintenance
All actions performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection, and prevention of incipient failures.

Preventive maintenance checks and service
Preventive maintenance checks and services is the care, servicing, inspection, detection, and correction of minor faults before these faults cause serious damage, failure, or injury. The procedures and the category of maintenance to perform PMCS are found in the –10 and –20 Equipment Technical Manuals and Lubrication Orders.

Product improvement proposal
Proposed configuration change involving substantial engineering and testing effort on major end items and depot reparable components; or changes on other than developmental times to increase system/combat effectiveness or extend the useful military life.

Program Director Army Program Army Oil Analysis Program
A department of the Army designated activity serving as the executive agent for management of the (Army Oil Analysis Program).

Proponent Agency
The command or activity responsible for the initiation and execution of an SDC project.

Quality deficiency report
The authorized means of users of Army equipment to report, either by message or SF Form 368, equipment faults in design, operations, and manufacture.

Readiness
The capability of a unit/formation, ship, weapon system, or equipment to perform the mission or functions for which it is organized or designed.

Rebuild
To restore an item, to a standard as nearly as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through the maintenance technique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements using original manufacturing tolerance and specifications and subsequent reassembly of the item.

Regional Maintenance Center
A C-E DS/GS maintenance activity, with fixed shops and contact teams, that is managed by USAISC. The RMC will support USAISC C-Consolidated Glossary Maintenance Management Update 13 E equipment operated at installations and within a specified support area.

Release action
An order rescinding a suspension or restriction. It puts materiel back in use or releases it from restriction(s). See TB 9–1300–385 for more information.

Reliability centered maintenance
A means for developing an integrated maintenance program, from designer and producer down to the ultimate user, which will result in safe, reliable, maintainable, and supportable equipment/commodities in the Army, capable of performing in support of required mission at least cost. RCM is a program that uses logic developed to insure that the inherent design reliability and safety of an item in achieved while performing the least amount of maintenance, considering cost of the total life cycle of the material.

Repair
The restoration or replacement of parts and/or units to maintain efficient operating conditions.

Repair cycle float
An additional quantity of selected end item or major components of equipment approved for stockage in the wholesale supply system to replace like items of equipment withdrawn from using activities for scheduled depot maintenance or, in the case of the aircraft, the depot maintenance of crash-damaged equipment. This float is used primarily to extend the economic service life of selected items of Army materiel by providing for their depot maintenance on a timely basis without detracting from the materiel readiness of using activities.

Reparable
Class IX secondary items that carry a maintenance repair code (MRC) of " D ", " F ", " H ", or " L " .

Restriction
An order placing special working limits on materiel. The limits are set for safety or because of degraded performance.

Retail inter-service support
Support accomplished at the post, installation, and base level, and between operating commands with resources that are available to the installation commander. Serviceability standard is a measure which specifies the operating limits for an item before requiring service. This involves preventive services and checks (wear limits, deterioration) that affect the operational performance of materiel within its design limits.

Sample data collection concept paper
An SDC document prepared by an SDC agency to inform interested commands and agencies of a proposed SDC effort and provide a mechanism to incorporate the requirements of all interested agencies into the SDC plan and SDC field procedures guide (FPG).

Sample data collection field procedures guide
An SDC document prepared by an SDC proponent agency to identify responsibilities and provide forms preparation instructions to participating units and proponent agency representatives. Unit responsibilities are dependent upon type of data collection method used.

Sample Data Collection Plan
An SDC planning document prepared by the SDC proponent agency to identify required resources, sampling methodology, objectives and anticipated benefits.

Sample Data Collection Program
An integrated closed-loop field data system designed to collect, process, analyze, report, follow-up, and manage engineering, maintenance and supply data in support of selected equipment. This equipment can be currently in production/fielded, training requirements, and other logistics programs.

Sample data collection project
A data collection effort initiated by a proponent agency consisting of one model, system series, or umbrella encompassing equipments of the same type, e.g.,generators, etc. The levels of SDC are:

a. Level 1. semi-controlled. Per the approved FPG, unit personnel record the data on DA standard, modified standard or approved unique forms. The use of unique forms will be restricted to an absolute minimum. On-site proponent agency members or representatives collect the data forms, validate the entries, obtain additional information when required, and perform quality checks.

b. Level 2. Controlled. In accordance with the approved FPG, proponent agency members or representatives record data as events occur on SDC forms, collect standard Army forms completed by unit personnel, conduct on-site observations and inquiries and perform quality checks.

c. Level 3. Intensified. In accordance with the approved FPG, proponent members or representative conduct an independent data collection effort using special forms. This data collection method is very detailed and is used for intensively managed equipment in an intensive usage scenario; e.g., lead the fleet, and fleet leader exercises.

Satellite Material Maintenance Activity
A maintenance activity geographically removed from its parent installation. An SMMA is authorized EMMs to provide economical and timely support maintenance to units and activities whose parent installation cannot meet their needs.

Scheduled PMCs services
Checks and services performed by unit maintenance personnel with assistance from the operation/crew per the –10/–20 series TM PMCS tables and lube orders. Some equipment also requires scheduled PMCS tasks to be performed by Direct Support personnel per the equipment –30 series TM. All equipment faults are corrected or if above the unit maintenance level authorization (per MAC) to correct, job ordered to direct support maintenance. Deferred maintenance is completed during the scheduled service. Upon conclusion of the service equipment should meet the –10/–20 maintenance standard. Note: This is not the only time equipment meets standard. See paragraph for definition of –10/–20 maintenance standard.

Serious defect (applies to ammunition)
Defect resulting from bad design, manufacturing, handling, or storage which may cause malfunctions when ammunition is handled or fired.

Service life surveillance
Post production inspection, test, and analysis activity that verifies the actual condition of items after periods of use or storage.

Shop replacement unit
A component/module installed in an end item of equipment, system, or LRU that is replaceable only in a repair facility (shop environment) designated in the applicable maintenance allocation chart.

Shortcoming
A fault that requires maintenance or supply action on a piece of equipment but does not render equipment NMC.

Special mission alteration
A materiel change, normally of a temporary nature, required for the accomplishment of a special mission.

Special purpose alteration
Materiel changes authorized in appropriate technical manuals to enable the operation and use of equipment for specific climatic or geographic conditions.

Specialized repair activity
A General Support maintenance unit or activity, authorized special tools and test equipment, that performs depot levels of repair on DA-designated items of materiel coded " D " or" L " in maintenance allocation charts.

Spectrometric analysis
A method to determine the concentration of various chemical elements in an oil sample by means of spectroscopy, primarily to detect the presence of abnormal amounts of wear metal that may indicate the potential failure of a component.

Sponsoring agency
The command activity assigned national level logistic support responsibility for an item of equipment and modification thereto. Sponsoring agency responsibilities may be delegated to subordinate commands/project management offices reporting directly to the responsible MACOM.

Sub-shops
Sub-elements of AMSAs, CSMs, ECSs, or OMSs established when the density of equipment is sufficient to make such an operation cost effective.

Substitute item
An item authorized issue instead of, or in place of, an authorized standard item of like nature and quality. DA PAM 700–25 identifies items and procedures for making substitutions.

Subsystem
A separately authorized item issued or intended to work with other items to form an operational unit/system.

a. Subsystems, in general, give the system:

(1) Mobility–A truck that pulls a towed howitzer, for example, is a subsystem of that howitzer system.

(2) Weapons–A separately authorized machine gun mounted on a tank is a " shooting " subsystem. The gun tube on a tank or Howitzer is a component of the tank or Howitzer. the gun tube is not separately authorized, so it is not a subsystem.

(3) Communications–A separately authorized radio mounted on a truck is a communications subsystem. A few radios are major items of a system. These items will have an asterisk in table B–1 of AR 700–138.

(4) An External Power Source–External power sources are separately authorized generators or power units that power another item. When the item that power has an asterisk by it in table B–1 of AR 700–138,the power source is a subsystem. The item with the asterisk goes on the DA Form 2406. The generator or power unit issued to support a radio teletypewriter set is a power subsystem. Even though engines provide power, they are components. Engines are not separately authorized subsystem.

(5) Other aspects. An air conditioner, for example, may be a critical subsystem on some communication systems in some climates.

b. Subsystems do not have to be listed in table B–1 of AR 700–138. Any item that works with an item that has an asterisk is a subsystem. The item with the asterisk is the major item in the system. You list only the major item on the DA Form 2406. However, the status and availability of all the subsystem affect the system. For example, an AN/VRC–46 radio is not listed, but when the radio is mounted on a truck that is listed in table B–1 with an asterisk by it, the radio is a subsystem of the truck. If the radio is NMC, the truck system is NMC.

Support equipment
All ancillary and associated equipment (mobile or fixed) required to separate and support a materiel system. This includes ASIOE such as trucks, air conditioners, generators, ground handling and maintenance equipment, tools metrology, calibration and communications equipment, test equipment, and automatic test equipment with diagnostic software for both on and off equipment maintenance. Includes the planning and acquisition of support necessary for the operation and sustainment of the support and test equipment itself. Also includes additional support equipment required due to the aggregation of the new systems into high organizational level densities, such as additional line haul fuel trucks or ammunition carriers.

Support system
Collectively, those tangible logistic support resources required to maintain a materiel system in an operationally ready condition. It is developed with the materiel system and merged with the ongoing logistic systems upon production and development. The following elements of integrated logistics support constitute the support system: Support and test equipment, supply support, transportation and handling, technical data, facilities, and trained personnel. The other elements of ILS are the means by which the support system is developed and implemented.

Suspended munitions
Munitions removed from issue, movement, test, and use with or without limitations. These are removed because of a suspected or known unsafe or defective condition. Reference TB 9–1300–385 for definitions and instructions on suspensions, restrictions, and release of ammunition.

a. Permanent suspension–A permanent order that prevents issue, movement, test, and use of designated munitions, with or without limitations. This order rescinds all prior orders and gives further instructions.

b. Temporary suspension–A temporary order preventing issue, movement or use of munitions item, with or without limitations because of a suspected unsafe or defective correctable condition.

System
A combination of equipment end items, assemblies, major components, components, modules, and parts assembled as a single functional unit to perform a task or mission. A system is not restricted solely to weapon and/or reportable systems.

System peculiar TMDE
TMDE dedicated to peculiar test and repair or a single materiel system or item of equipment.

System test support package
An assemblage of support elements provided prior to and used during development and operational tests to validate the organizational, direct support and general support maintenance requirements and capability. The maintenance test support package includes all required draft equipment publications (operator through general support maintenance equipment manuals); parts accessories; special and common tools; test, support, calibration, and maintenance shop facilities; and personnel skill requirements.

Test, measurement, and diagnostic equipment
Any system or device capable of being used to evaluate the operational condition of a system or equipment to identify and/or isolate any actual or potential malfunction. TMDE includes diagnostic and prognostic equipment, quality assurance items, and calibration test/measurement equipment. It includes TMDE which is identifiable as a separate end item or contained within an end item/system configuration. TMDE also includes manual, semi-automatic and automatic test equipment (with issued software).

Test program sets
The package which enables a line or shop replaceable unit, printed circuit board, or similar items to be diagnosed using automatic test equipment. The package includes appropriate interconnect devices, automated load module tape, equipment publications, and other necessary articles which allow the ATE operator to perform a diagnostics/screening quality assurance function.

Time Compliance
A specified period of time within which a modification must be applied and reported.

Type-classified training device
A device which has been turned over to a particular commodity command for management, fielding, and logistics support.

Unit identification code
A 6-character code assigned to a specific unit.

a. When this pamphlet asks for a UIC, all units organizations, and activities will use their own UIC.

b. Contractors, manufacturers, and commercial activities do not have UICs. They will use the 5-digit federal supply code for manufacturer's (FSCM) prescribed by SB 708–41/42 and SB 708–43. Put the letter "K" in front of the FSCM. For example, General Motors FSCM 24617 will be turned into a contractor UIC, K24617.

Unit maintenance shop
Facility located in conjunction with a USAR center. Unit training and equipment site A maintenance facility located in conjunction with a USAR center.

Unsafe condition
An occurrence of hazard severity category I or II or MIL–STD–882. This includes the conditions that cause loss or serious damage to the end item or major components, loss of control, death, serious injury, or illness.

USAR maintenance activity (Alaska)
Located at Ft. Richardson, Alaska. Performs maintenance support equivalent to an AMSA(G).

User representative
The combat developer designated to represent the user in development and testing of new or improved systems.

Watercraft
Coastal, harbor, and inland waterway craft; landing craft; amphibians; lighters; lighter aircraft vessels; barges; oceangoing vessels (self-propelled or towed, tugged, or pushed).

Weapon System
Combination of end items, subsystems, major components, and materiels used in combat, either offensively or defensively, to destroy, injure, defeat, or threaten the enemy.

Wholesale inter-service support
Centrally controlled resources such as resources not available to the installation commander.

Work day
Normal duty shift as defined by local commander. designated representative, the maintenance/motor office.

Section III
Special Abbreviations and Terms
This section contains no entries.

Index

This index is organized alphabetically by topic. Topics are identified by paragraph numbers.

RESERVED

MAIT REQUEST AND ASSIGNMENT REGISTER

For use of this form, see AR 750-1, the proponent agency is DCSLOG

LOCATION

PERIOD

PAGE _____ of _____ PAGES

DATE	UNIT	PHONE NO.	ASSISTANCE REQUESTED	MAIT SPECIALIST (s)	DATE		TOTAL MAN HOURS	REMARKS
					STARTED	FINISHED		

DA FORM 5480-R, NOV 85

REPORT OF DRYDOCKING, PAINTING AND CONDITION OF VESSEL BOTTOM

(FROM KEEL TO TOP OF BOOT TOP LINE)

For use of this form, see DA PAM 738-750; the proponent agency is DCSLOG

REPORTS CONTROL SYMBOL
CSGLD-1943

DATE

TO:
COMMANDER
U.S. ARMY TROOP SUPPORT COMMAND
ATTN: AMSTR-MCFM
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MISSOURI 63120-1798

FROM:

NAME OF VESSEL/HULL NUMBER/DESIGN NUMBER	COMMAND.
	STATION.
	LOCATION.

SECTION I - DRYDOCKING AND PAINTING DATA

LOCATION OF PRESENT DD OR HAUL OUT	CONTRACTORS NAME		
LOCATION LAST DD OR HAUL OUT	DATE OF LAST DD	DATE OF PRESENT DD	DATE REFLOATED
TIME ELAPSED SINCE LAST PRINTING *(Mo & Days)*	COST OF CLEANING & PAINTING OF UNDERWATER AREA		COST OF PRESENT DD
STATE FULLY CONDITION OF THE UNDERWATER HULLPLATES			

SECTION II - CONDITION OF UNDERWATER FITTINGS (S)

OUTBOARD SHAFTING AND SLEEVES			SIZE OF SHAFT	DATE TAIL SHAFT LAST DRAWN
RUDDERS(S)				
RUDDERS PINTLE BEARINGS AND GUDGEONS				RENEWED AT THIS DOCKING ___ YES ___ NO
PROPELLERS				SIZE & PITCH
PROPELLER STRUTS				
OUTBOARD STERN BEARINGS(S) AT DOCKING			PRIOR TO FLOATING	
HOW MUCH WEAR *(Thousandths of an inch)*			DATE LAST CUTLASS RUBBER RENEWED	
SEA STRAINERS				RENEWED AT THIS DOCKING ___ YES ___ NO
SEA CHESTS AND VALVES				
HULL ZINCS	SIZE	NUMBER	TYPE	RENEWED AT THIS DOCKING ___ YES ___ NO
ZINC BARS AT SEA CHESTS/KEEL COOLERS	SIZE	NUMBER	TYPE	RENEWED AT THIS DOCKING ___ YES ___ NO
BILGE KEELS				
STERN FRAME/SKEG/KORT NOZZLE				
ICCP SYSTEM CONDITION		ANODE	REFERENCE ELECTRODE	PROP SHAFT GROUNDING ASSY

Where Two or More Shafts are Fitted, Report Separately the Condition of Propellers, Shafting, Stern and Strut Bearings, Zinc Rings, Struts, etc., indicator Starboard (S), Port (P) or Center (C) as Applicable.

DA FORM 5587-R, NOV 86

SECTION III - BOTTOM FOULING

PLANT	ANIMAL	CONDITION AND TYPE OF FOULING
___ Heavy	___ Heavy	
___ Moderate	___ Moderate	
___ Slight	___ Slight	

SECTION IV- PAINT RECORD

WEATHER CONDITION *(Temp/Humidity)*

SANDBLAST TO WHITE METAL ___ YES ___ NO

A. If Fully Repainted	NO OF COATS	TYPE USED MIL SPEC	FORMULA	GAL USED	COST
1. Pretreatment *(If Required)*					
2. Anticorrosive/Primer					
3. Antifouling					
4. Boot Topping					

B. If Spot Paint Only	% OF BOTTOM COVERED				
1. Anticorrosive					
2. Antifouling					
3. Condition of Bottom Paint					
4. % - Wire Brushed or Scraped					

B. Time Factors	COATS						
	1-2	2-3	3-4	4-5	5-6	6-7	7-8
1. Time Between Each Coat *(Hrs)*							
2. Length of Time to Complete Painting							
3. Time Between Last Coat and Refloating							
a. If Not refloated Right Away (1) Give Method of Wetting *(Hose, etc.)* (2) Time From Wetting to Refloating							

REMARKS

TYPED NAME AND GRADE OF SURVEYOR

TYPED NAME AND GRADE OF APPROVING OFFICIAL

SIGNATURE OF SURVEYOR

SIGNATURE OF APPROVING OFFICIAL

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