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Pamphlet 750-3

Maintenance of Supplies and Equipment

Soldiers' Guide for Field Maintenance Operations

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SUMMARY of CHANGE

DA PAM 750-3

Soldiers' Guide for Field Maintenance Operations

This new pamphlet, dated 29 September 2006--

- o Reflects changes to Army policy throughout as a result of the conversion to the Army Modular Force Structure.
- o Provides links to the Field Maintenance Policy page and sample Field Maintenance Standing Operating Procedures (chap 2-5, app B).
- o Incorporates SAMS-E forms and vice legacy manual forms. (chaps 3-1, 3-2, 3-3, 3-4, 6-2, and 7-2).

Maintenance of Supplies and Equipment

Soldiers' Guide for Field Maintenance Operations

By Order of the Secretary of the Army:

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History. This publication is a new pamphlet.

Summary. This pamphlet describes procedures for field maintenance operations.

Applicability. This pamphlet applies to the Active Army, the Army National Guard/Army National Guard of the United

States, and the U.S. Army Reserve unless otherwise stated. During mobilization, the proponent may modify chapters and policies contained in this regulation.

Proponent and exception authority.

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

to the policy proponent. Refer to AR 25-30 for specific guidance.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Deputy Chief of Staff, G-4, ATTN: DALO-SMM, 500 Army Pentagon, Washington, DC 20310-0500.

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

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Glossary

Chapter 1 Introduction

1-1. Purpose

a. This pamphlet provides information needed for field maintenance operations. It does not replace other publications; rather, it takes the applicable maintenance regulations and provides a single “go-to” reference for field maintenance operations.

b. This pamphlet applies to all Army equipment except—

- (1) Installation equipment (see AR 420-70 and TM 5-600 series).
- (2) Industrial production equipment.
- (3) Nonstandard equipment that is locally purchased and has not been type-classified or assigned an national stock number (NSN). However, nontactical (commercial) wheeled vehicles are covered by this pamphlet.
- (4) Equipment bought with nonappropriated funds.
- (5) Medical equipment covered by AR 40-61.

c. The guidance found in this pamphlet can be applied to any field maintenance operation, regardless of the density of equipment or whether field maintenance support is organic, operational control (OPCON) from a forward support company (FSC), or received on an area support basis at echelons above brigade (EAB) level.

1-2. References

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

1-3. Explanation of abbreviations and special terms

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

Chapter 2 Field Maintenance Standing Operating Procedures

2-1. Army modular units

This publication updates policies due to the conversion from Army of Excellence (AOE) force structure designs to the Army Modular Force. The transition from AOE and, in some cases, Force XXI, into the Army Modular Force has changed the Army from a division-focused organization to a brigade-centric force. Prior to this conversion, divisions had unique brigades including airborne, air assault, heavy, mechanized, and light infantry, as well as the Force XXI and limited Force XXI designs. Army force managers designed each division headquarters and their respective capabilities by the few brigades they would command and control. The Army Modular Force, however, standardizes the design of division headquarters and gives them the capability to have battle command of any type of brigade in the Army inventory. This necessitates standardizing procedures to achieve interoperability. When OPCON of a unit is transferred to a new division, the receiving division G-4 must transmit any unique requirements to the incoming organization.

2-2. Need for standing operating procedures

All units performing maintenance are required to have a maintenance standing operating procedures (SOP) signed by the unit commander per 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 maintenance on weapons, vehicles, nuclear, biological, and chemical (NBC) gear, and other individual and unit equipment. The unit maintenance SOP should be written in enough detail to give someone who is recently assigned a firm grasp of how maintenance is to be accomplished in the unit. Personnel should have an opportunity to review it during in-processing.

2-3. Areas to address in standing operating procedures

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’s (or FSC’s) field maintenance platoon/section is organized.
- c.* The Army Maintenance Management System (TAMMS) (Note: This addresses minor deviations or procedures not covered in DA Pamphlet 750-8) as follows.
 - (1) Dispatch procedures for unit equipment.
 - (2) Standard Army Maintenance System-Enhanced/Unit Level Logistics System (SAMS-E/ULLS) Operations/Automation Enablers as follows.
 - (a)* Routine transaction/report requirements.

(b) Connectivity (very small aperture terminals (VSATS), Combat Service Support Automated Information Systems Interface (CAISI), and so forth).

(c) Logistics Information Warehouse (LIW)-LIDB (DA Form 2408-9 (Equipment Control Record), requisition status, asset visibility, usage verification, and publication listings).

(d) LIW (portion that was formerly Integrated Logistics Analysis Program (ILAP)), (Excessive Defense Articles (EDA)), requisition status, and so forth).

(e) Army electronic product support (AEPS) (Modification Work Order (MWO), Modification Management Information System (MMIS), Safety Of Use Message (SOUM), Product Quality Deficiency Report (PQDR) submissions online, Weapons Data management online, and so forth).

(f) Quality control procedures for maintenance/dispatching equipment.

d. Preventive maintenance checks and services (PMCS) are as follows:

(1) Procedures to be followed by personnel during scheduled Field PMCS periods.

(2) Procedures to be followed by all unit personnel associated with Field PMCS (scheduled services).

(a) Fault recording/correction procedures.

(b) Support provided to operators for PMCS by field maintenance activity.

(3) Army Oil Analysis Program (AOAP).

(4) Calibration of tools and Test, Measurement, and Diagnostic Equipment (TMDE).

e. Tool accountability and control procedures.

f. Safety requirements as follows:

(1) All applicable safety guidance associated with equipment maintenance.

(2) SOP/SOUM.

(3) Environmental/proper handling and disposal of hazardous chemicals (HAZMAT).

(4) Lifting and holding device servicing.

(5) Arc welding/cutting.

(6) Chemical Agent Resistant Coating (CARC).

g. Unit maintenance training as follows:

(1) The unit's program for operator/crew and mechanic sustainment training.

(2) Procedures required to obtain a Government equipment operator's license (DA Form 5984-E (Operator's Permit Record)/OF 346 (U.S. Government Motor Vehicles Operator's Identification Card)).

(3) The unit driver/mechanic awards program.

(4) Single-/multi-piece rims and wheels training.

h. Motor pool security.

i. Readiness reporting.

j. Publications.

k. Work order management as follows:

(1) Maintenance priorities/task management.

(2) Controlled exchange procedures/requirements.

(3) Manhour accounting.

(4) Maintenance evacuation requirements and procedures.

l. Equipment classifications are as follows:

(1) End item/component classifications.

(2) Estimated/Actual Cost of Damage (ECOD/ACOD) preparation procedures.

(3) Maintenance expenditure limit (MEL).

m. Battlefield damage assessment and repair/recovery (BDAR/R)

n. Repair parts (Class IX) management as follows:

(1) Product Quality Deficiency Report (QDR) preparation/reporting.

(2) Involvement in equipment dispatch, scheduled services, command inspections.

(3) Development of Shop Supply List (SSL)/Authorized Stockage List (ASL).

(4) Battery management program.

(5) Recoverables management.

(6) Scrap material management (non-HAZMAT).

(7) Tire/track/road/wheel management.

o. Warranty Management Program.

p. Army Record Information Management System (ARIMS) filing system.

q. Equipment winterization/extreme climate program.

2-4. Motor pool/shop safety

Every unit SOP will address safety. Motor pool operations and field maintenance are inexorably linked with safety. The U.S. Army Combat Readiness Center has a safety website at <https://crc.army.mil/CRC/detail.asp?iData=61&iCat=449&iChannel=13&nChannel=CRC> which contains sample safety SOPs at the Awards Program section of the website: <https://crc.army.mil/AwardsProgram/detail.asp?iData=13&iCat=600&iChannel=28&nChannel=AwardsProgram>

2-5. Sample maintenance standing operating procedure

A sample maintenance SOP can be found on Army Knowledge Online (AKO) at <https://www.us.army.mil/suite/page/253307> in the file labeled "SOP."

Chapter 3

Essential Functional Areas within Field Maintenance

3-1. Preventive maintenance checks and services

a. AR 750-1 states that "Operator/crew maintenance is the most critical operation of the Army maintenance system." Preventive maintenance checks and services (PMCS) is the foundation of field level maintenance. PMCS as a system includes all checks and services performed by the operator/crew and the field 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 XX-10/XX-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 field level scheduled services (-20 PMCS). Conversely, the most efficient field 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 field mechanics. This complete package can help avoid the adversarial relationship that can develop between operators and maintainers at the field level. As a minimum, a well-organized PMCS program should include—

(1) The commander's commitment to the enforcement of published guidance on the proper performance of PMCS by operator/crew and field 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 field 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 field level.

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

3-2. The Army Maintenance Management System

a. Functional Use of The Army Maintenance Management System (TAMMS). Every soldier who operates equipment uses TAMMS forms, whether the equipment is maintained in vehicle motor pools, supply rooms, and so forth. The following paragraphs describe the forms used to dispatch and maintain equipment, and the process to manage the maintenance workflow.

b. Operation of TAMMS. DA Pam 750-8 describes the forms and records required in the performance of field maintenance. A unit's TAMMS functions are performed by one or more school-trained Automated Logistical Specialists, Military Occupational Specialty (MOS) 92A. The 92A must be under the direct supervision of the noncommissioned officer in charge (NCOIC) of the maintenance administration section or the motor sergeant. TAMMS is either operated manually or using the automated Standard Army Maintenance System-1 Enhanced (SAMS-1E). The SAMS-1E is an automated system that improves the timeliness, accuracy, and reporting of maintenance data. This is the most important automated system to field 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.

c. Operational records. Operational records encompass 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 by field maintenance per DA Pam 750-8, chapter 1. The procedures used by a unit to dispatch equipment should be tightly controlled and clearly explained in the maintenance portion of the unit (SOP). The detailed steps within the dispatch process (fig 3-1) can vary from unit to unit, but the essential TAMMS clerk tasks are to—

(1) Check to see if the operator listed any new faults or deficiencies DA Form 5988-E (Equipment Inspection and Maintenance Worksheet) that requires any action.

(2) Check the operators DA Form 5984-E to ensure validity for equipment requested.

(3) Ensure that requested equipment is fully mission capable, no scheduled services are due, and no maintenance actions are overdue by checking AWC MF 452/DD 314 (Preventive Maintenance Schedule and Record).

(4) Check and verify that all operator entries are properly logged on DA Form 5987-E (Motor Equipment Dispatch)/DD Form 1970 (Motor Equipment Utilization Record).

(5) Make all required entries on DA Form 5982-E (Dispatch Control Log).

(6) Route any DA Form 5988-E submitted by an operator upon return to the motor pool to the appropriate maintenance supervisor. Report any new faults not previously recorded on the DA Form 5988-E. When a nonmission capable (NMC) fault requires repairs beyond the owning unit's capabilities, the SAMS-1E interface process (DA Form 2407 Maintenance Request) is used to request assistance from the next higher field maintenance support organization.

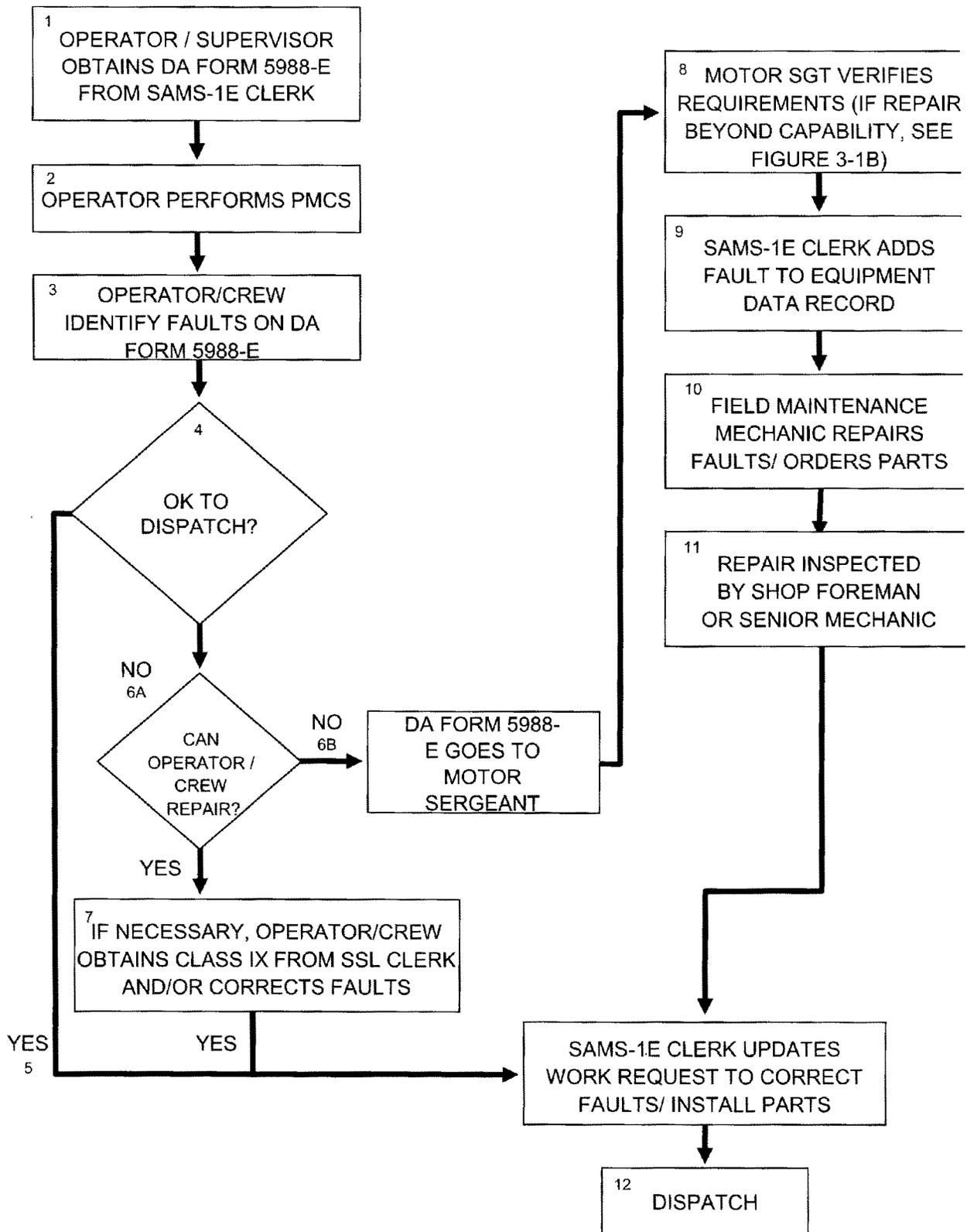


Figure 3-1. A typical field maintenance workflow

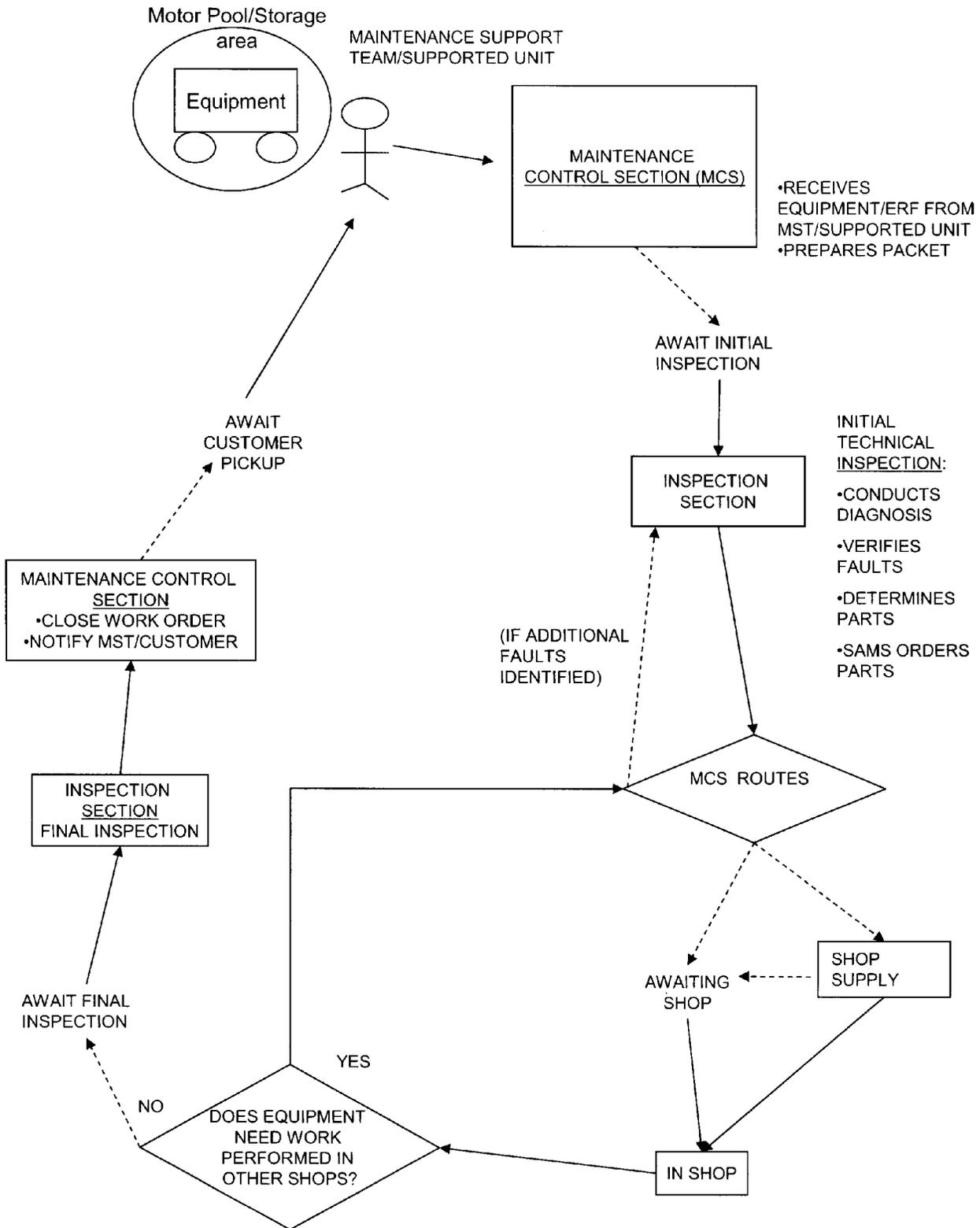


Figure 3-1. A typical field maintenance workflow from MST to base maintenance section-continued

d. Maintenance records. Maintenance records, with the exception of DA Form 5988-E, 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 field maintenance personnel to record and initiate required maintenance actions and reasons for delay. The entire field maintenance section uses maintenance records by tracking maintenance, performing services, and using forms to manage workloads. It is therefore, essential that field 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 SAMS-1E, but the purposes of the various forms are the same. The most critical tasks that TAMMS clerk must accomplish are to—

(1) *Maintain scheduled services.* Maintain the AWCMF452/DD Form 314 per DA Pam 750-8, chapter 3. The manual version of this form is the most difficult form in the motor pool to keep current and will be discontinued in favor of the SAMS-E/ULLS version. Supply rooms and other areas in units without SAMS-E, must complete this information and forward it to the field maintenance activity to ensure the development of accurate shop stock list (SSLs) and authorized stockage list (ASLs). Maintenance managers must be experts on the numerous entries that TAMMS clerks must make on this form. The constant updating of scheduled -20 level PMCS, lubrication, AOAP, and nonmission capable (NMC) information is extremely important. If TAMMS clerks allows the AWCMF542 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) *Manage NMC information on equipment.*

(a) Update and reconcile the DA Form 5988-E. The DA Form 5988-E reflects all uncorrected faults and the reason they have not been corrected. TAMMS clerks must constantly update the DA Form 5988-E as new faults are reported by operators and old faults are corrected by maintenance personnel. Equipment operators and mechanics use the DA Form 5988-E 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. This form requires frequent attention from unit level commanders and field maintenance managers.

(b) TAMMS clerks are the critical link in the flow and disposition of the DA Form 5988-E. Per DA Pam 750-8, chapter 3, the DA Form 5988-E 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's field maintenance SOP.

(3) *Service packets.* When field maintenance personnel performs a scheduled service on a piece of equipment, they should return with the equipment the following forms to the operator/crew as part of the service packet:

(a) Original DA Form 5988-E used for Field Level PMCS (with signatures and corrective action initials) (operators submit with equipment to be serviced).

(b) Original DA Form 5988-E used for quality control inspection to close out service (with signatures and corrective action initials).

(c) Updated DA Form 5988-E with all uncorrected faults and parts required entered in SAMS-1E upon completion of the scheduled service.

(d) Copy of closed dispatch form for road test upon completion of the scheduled service (for motor vehicles only).

e. 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 750-8, 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 field maintenance level, such as the DA Form 2408-4 (Weapon Record Data). Some of these forms are not kept in hard copy in units equipped with ULLS. The frequently used historical forms that TAMMS clerks must maintain are listed here:

(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 field-level maintenance managers should review these forms often, to check the condition of these forms and the 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 manual DA Forms 2408-4 to the address shown in DA Pam 750-8, 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 750-8, chapter 5. The electronic DA Form 2408-4 does not have to be mailed. Soldiers can create, edit, and view firing and nonfiring data for gun, artillery, and mortar tubes on the Army Electronic Product Support (AEPS) website at <http://aeps.army.mil>.

(2) *The DA Form 2408-20 (Oil Analysis Log)*. This form is maintained by TAMMS clerks 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 750-8, chapter 4. 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, field 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. If supporting AOAP laboratory is automated and printouts with all data from DA form 2408-20 are received, then the DA form 2408-20 is not required.

(3) *The DA Form 2408-5 (Equipment Modification Record)*.

(a) This form is used to show published and applied modified work orders (MWOs) on all equipment listed in appendix E of DA Pam 750-8. 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 electronic DA Form 2408-5 will be a permanent log book record. Soldiers have the ability to research MWO requirements/applications through the Modification Management Information System (MMIS) on the AEPS website at <http://aeps.army.mil>, which is where the electronic DA Form 2408-5 can be obtained.

(b) The commander of the field maintenance operation will designate an assigned individual or individuals as MWO coordinator and assistant coordinator to transfer the data from the 2408-5 to the MMIS website's designated report are at <https://www.mmis.army.mil/index01.asp>

(4) *The DA Form 2408-9 (Equipment Control Record)*. This form gives maintenance managers at all levels a record of equipment acceptance and other inventory and maintenance data. It also tracks ownership, location, usage, transfers, gains, losses, NSN changes, registration numbers, and overhauls/rebuilds/recapitalizations. AR 710-3, chapter 5, controls registration numbers on specified Army vehicular equipment in order to be used on public roads and highways. The registration numbers of equipment are recorded on DA Form 2408-9. Equipment requiring DA Forms 2408-9 are found in DA PAM 750-8, appendix E. Other equipment may need these forms when directed by HQDA or other commands. AR 710-3, chapter 5, also has equipment requiring registration by equipment category. When both DA Pam 750-8 and AR 710-3 cover equipment, keep only one set of forms. Separate forms are unnecessary.

3-3. Vehicle operators licensing

With the transition to modular force structure, units could receive maintenance from OPCON'd FSCs, organic maintenance assets, or on an area basis. Regardless of who maintains maintenance records for units, commanders are responsible for the licensing of their assigned Soldiers. Field maintenance activities are authorized to dispatch vehicles by written delegation from the commander accountable for the vehicles. Maintenance Support Team repairmen and inspectors performing diagnostic road tests will use the support work requests as the dispatch and annotate the forms with maintainer's number and account for road-test inspection time. Instructions for completing licensing of vehicle operators should be incorporated in the unit SOP. AR 600-55 provides the basic requirements for a good licensing program. Use FM 21-305, TC 21-306 (track vehicles), and FM 55-30 for more detailed information on licensing vehicle operators. You should also consult these publications for procedures on how to fill out applicable forms.

3-4. Shop supply list

a. Units authorized personnel, tools, and equipment to perform field-level maintenance will normally have a shop supply list (SSL). An SSL consists of field maintenance repair parts that are demand supported, nondemand supported, and specified initial stocked repair parts for newly introduced end items (AR 710-2, chap 2). Most, but not all, of the repair parts stocked on an SSL are demand supported.

b. The unit's SSL functions are performed by one or more school trained 92A, under the direct supervision of the NCOIC of the maintenance administration section or motor sergeant.

c. Automated SSL systems have their own user publications for use by SSL clerks and maintenance managers. The SAMS-E End Users Manual and local SOP dictate how class IX repair parts are ordered. When under an automated supply system, information is transmitted daily to your supporting unit. 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 daily SSL 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 SSL records.
- (3) Track the issue of repair parts and ensure demand history is captured to establish accurate Requisition Objectives (ROs) and Re-Order Points (ROPs).
- (4) Ensure parts are ordered when they reach the ROP.
- (5) Ensure all repair parts are secured in a controlled area using appropriate security measures. Also ensure that repair parts are protected from damage.
- (6) Ensure that partial parts received are controlled and stored in a secure area to prevent pilferage.

- (7) Ensure that excess parts are turned in promptly in accordance with appropriate turn in procedures.
- (8) Maintain a neat and accurate document register. Also ensure that the commander or designated representative initials the Commanders Exception Report for high priority requests.
- (9) Understand TAMMS records and SSL functions interface (fig 3-1).
- (10) Reconcile the document register with the current status received from the supporting supply activity (SSA).
- (11) Reconcile commander's financial transaction listing with the document register.
- (12) Understand how to properly use FEDLOG and ensure that a copy it is available.
- (13) Request/pickup/receive repair parts.

3-5. Publications

a. A unit's management of its publications account can enhance or degrade both operator and field-level maintenance operations. Operators must have current technical manuals (TMs) for proper equipment operation and performance of PMCS. Army publications are available online or have links at the Army Publishing Directorate website (<http://www.apd.army.mil>). SAMS-E and Interactive Electronic Technical Manuals (IETM) are capable of accessing this site and updating themselves. In the event that the APD Web site is unavailable, you may access Army electronic publications and forms files, and the STARPUBS On-Line Ordering System from either the Army Knowledge On-Line portal (<https://akocomm.us.army.mil/usapa>) or the Army Home page (<http://www.army.mil/usapa/index.html>). Please retain and bookmark the alternate URLs in the event you need to access APDs services in the future and cannot connect to this site.

b. Whether hard copy or electronic manuals, field level mechanics and supervisors must have current field 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 St. Louis Publications Center. The DA Form 12-series 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.

e. As a minimum, a field maintenance operation should have the following: one operator's manual and LO for each piece of equipment (with posted changes), one set of TMs and LOs for each combat repair team (CRT), field maintenance team (FMT) and one complete set of TMs, LOs, FMs, TBs, SCs, and ARs for the field 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, provides the maintenance manager with all needed publications information.

f. During change of commands, deployments, and at other periodic points in time it may be necessary for units to ensure that all required publications are included in their publications library. A listing of all required publications can be obtained from the United States Army Materiel Command Logistics Support Activity (LOGSA), AMXLS-AP, at Redstone Arsenal, Alabama 35898-5000. The most convenient way of receiving a publications tailored index listing is to e-mail your unit identifier code to eopdb@logsa.army.mil with a statement indicating the maintenance levels required. Most requests are for 10/20 level of operator/maintenance. Be sure to include your complete military address including your military post or city as well as your point of contact and phone number information. The LOGSA will also accept a digitized down-load from your Standard Property Book System - Redesign (SPBS-R), Property Book and Unit Supply - Enhanced (PBUSE), or a listing of your unit's line item numbers (LIN). The LIN submissions should be in Excel format. These submissions may be attached to your e-mail request. Provided with the listings, units may then order the required publications from the Army Publishing Directorate.

g. Units can generate a list of required publications through the Logistics Information Warehouse (LIW) in the WeblIDB section. After logging into LIW, choose the center menu choice and at the bottom of the page titled WeblIDB. When the screen changes, look on the left column of the screen titled WeblIDB reporting. One of the choices available is publications selections. Use your mouse to click on this choice. When the screen changes, look down the options to the left for the one titled Tailored Index Report by UIC. Use your mouse to click on this choice. When the screen changes, enter your UIC in the box where requested. Click on the work submit. After you do this, click on the blue "running man" icon located towards the upper right hand corner of the screen. In a few seconds a report titled Tailored Index Report will show up on the left side of the screen under the Report Status option. When you click on this Tailored Index Report, it should give you what you want. Key to this is that you must have LIW login privileges. Anyone E-5 and above or GS-6 and above with an AKO account can get immediate access to this feature. Those below that level require supervisor approval. Based on your equipment and PBUSE data, this process will give you a tailored list of TMs.

3-6. Logistics Information Warehouse

a. The Army's Logistics Information Warehouse (LIW) maintenance management umbrella and other tools and reports are available in LIW which can assist maintenance managers and supervisors with their day to day maintenance

management functions, that is access to Electronic Technical Manuals (ETMs), FEDLOG, PS Magazine, Parts Tracker, WeBLIDB, integrated logistics analysis program (ILAP), and a suite of reports that will help managers locate parts locally for NMC equipment. They can also view the status of equipment evacuated to other sources of repair (SOR) (including visibility of parts on order at the other maintenance activity). Also available are the managers' 026 report in ILAP completely integrated with current SARSS status (from CTASC), as well as other maintenance reference documents such as MMDF, and so forth

b. Register for LIW by going to <https://liw.logsa.army.mil/index.cfm?fuseaction=sar.sarInitial>, otherwise click on <https://liw.logsa.army.mil>. If you have problems accessing LIW, use the following contact information: LIW Support email: helpdesk@logsa.army.mil, commercial telephone: Toll free: 1-866-211-3367. CONUS DSN: 645-7716; OCONUS DSN 312-645-7716.

3-7. PS: The Preventive Maintenance Monthly

Commanders will ensure that Soldiers have access to "PS Magazine: The Preventive Maintenance Monthly", (referred to as PS henceforth) a monthly technical bulletin that provides operators, maintainers, and TAMMS clerks in field-level maintenance information and updates in clear, concise terms with effective graphics. The PS website is <https://www.logsa.army.mil/psmag/pshome.html>. With a pubs account, your unit can order PS on the Internet by going to <http://www.apd.army.mil>. Click on Order/Subscriptions/Reports. Then, from the drop-down menu, select Pubs/Forms and follow the instructions. PS is IDN 340312. Put the number of copies of PS you want to receive each month in the Quantity block. Soldiers can access PS online at the website <https://www.logsa.army.mil/psmag/psonline.cfm>. Users will need Adobe Acrobat version 5.0 or higher. Units should maintain one set of PS on hand for the last three years in accordance with FM 4-30.3, paragraph A-20, and table A-1 (AKO access required.)

3-8. Tools and test, measurement, and diagnostic equipment

a. The sophisticated types of vehicles and weapons systems found in motor pools today cannot be maintained properly without the authorized tools and also tools, and test, measurement, and diagnostic equipment (TMDE). Commanders, field 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. Field 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, 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 Arm 735-5, chapter 7.

b. Test, measurement, and diagnostic equipment (TMDE) is of little value if it's not used and/or 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 750-43 covers the Army's TMDE Calibration and Repair Support Program.

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

(3) TB 750-25 lists the required records and forms for calibration.

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

(5) Ensure operator/crews identify Built-in Test/Built-in Test Equipment (BIT/BITE) to field maintenance. BIT/BITE is an analysis tool to diagnose data results to isolate faults within the system or systems. BIT/BITE may require recalibration.

(6) If you have an item that you think needs calibration but it is not on the list, verify it in TB 43-180, which is part of EM 0022 for interactive electronic training manuals (IETM) readers. Make sure your TMDE is being used and is not gathering dust. The three types of tools commonly found at field level are as follows:

(a) Mechanic's tool kits that consist of common hand tools authorized by the unit table of organization and equipment (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 field or sustainment level sections and are issued from tool rooms/vehicles.

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

c. Maintenance managers must screen equipment TM XX-20/XX-30 level parts manuals to obtain the National Stock Numbers (NSNs) for their special tools. They must also ensure that hand receipts are prepared to maintain accountability for these tools.

3-9. Tactical maintenance

For maintenance under field/training exercise conditions, refer to FM 4-30.3.

3–10. Battle damage assessment and repair/recovery

a. FM 4–30.31, provides doctrinal guidance on the use of recovery and repair assets on the battlefield. Practical methods of recovering or repairing disabled or immobilized vehicles due to terrain, mechanical failures, or hostile actions are also addressed in this publication. It is directed toward both the leader and the technician. Tactically, it provides a layout of how battle damage assessment and repair/recovery (BDAR/R) assets are employed on the battlefield. Technically it provides principles of resistance and the mechanical applications to overcome them. Equipment, rigging techniques, and expedient repairs are summarized as a refresher for H8 additional skill identifier (ASI) (recovery-trained) Soldiers and as a general guidance for others.

b. Recovery and BDAR are subsets of maintenance. Both are the owning units' responsibility and have a fundamental purpose of returning combat assets to the battlefield ASAP. Low-risk BDAR/R procedures will be incorporated in peacetime maintenance training in both field and training base scenarios. Soldiers trained in BDAR/R prior to deployments will have a better advantage in crises. The following paragraphs outline Recovery and BDAR separately.

c. Recovery actions typically involve towing, lifting, and winching. Recovery has a dual function on the battlefield.

(1) Recovery—

(*a*) Frees equipment immobilized due to terrain, such as mud or soft sand, and return it to the fight.

(*b*) Rapidly removes disabled vehicles to a maintenance site for repair.

(2) There are three types of recovery:

(*a*) *Self-Recovery.* Actions taken by the operator/crew to enable their own equipment to return to operation or move to a maintenance location. These actions are initiated at the location where a vehicle becomes mired or disabled. The operator/crew uses BII and AAL items to perform self-vehicle recovery. In addition, all vehicles should carry a BDAR kit to aid in recovery and repair operations.

(*b*) *Like-vehicle recovery.* When self-recovery fails, Soldiers can utilize another piece of equipment, of the same weight class or larger to extract or tow the mired vehicle by using any of the following:

1. Towbars.

2. Chains.

3. Tow cables.

4. Allied Kinetic Energy Recovery Rope (AKERR).

(*c*) *Dedicated vehicle recovery.* Dedicated recovery vehicles are used when self-recovery or like-vehicle recovery is not possible because of the severity of the situation, safety considerations, or mission requirements. Actions require assistance from a vehicle specifically designed and dedicated to recovery operations.

d. The purpose of BDAR is to return disabled equipment rapidly to combat or to enable the equipment to self-recover. Training for BDAR should include some training in recovery techniques. Guidance for BDAR training is in AR 750–1, paragraph 8–8.

Chapter 4 Field Maintenance Personnel

4–1. Maintenance managers

Field maintenance managers are those officers and noncommissioned officers that plan, organize, direct, coordinate, and control field level maintenance assets and processes. Brigade combat team (BCT) maneuver units will receive field maintenance support from FSCs OPCON'd to their respective units, with the remainder of the brigade receiving maintenance on an area support basis from the Brigade Support Battalion (BSB) Field Maintenance Company (FMC). Army/Corps/Division commands and Modular Support Brigade elements will either be assigned FSCs or receive field maintenance support on an area basis from Support Maintenance Companies (SMC). Regardless of how a unit accomplishes field maintenance, the most influential maintenance manager in a unit is its commander. Most management tasks are accomplished by the maintenance control officer/motor sergeant or maintenance team chief in the FSC or organic maintenance element. At battalion/squadron level the maintenance officer/technician and motor sergeant are the key maintenance managers. Refer to figure 4–1 for sample field maintenance management structure.

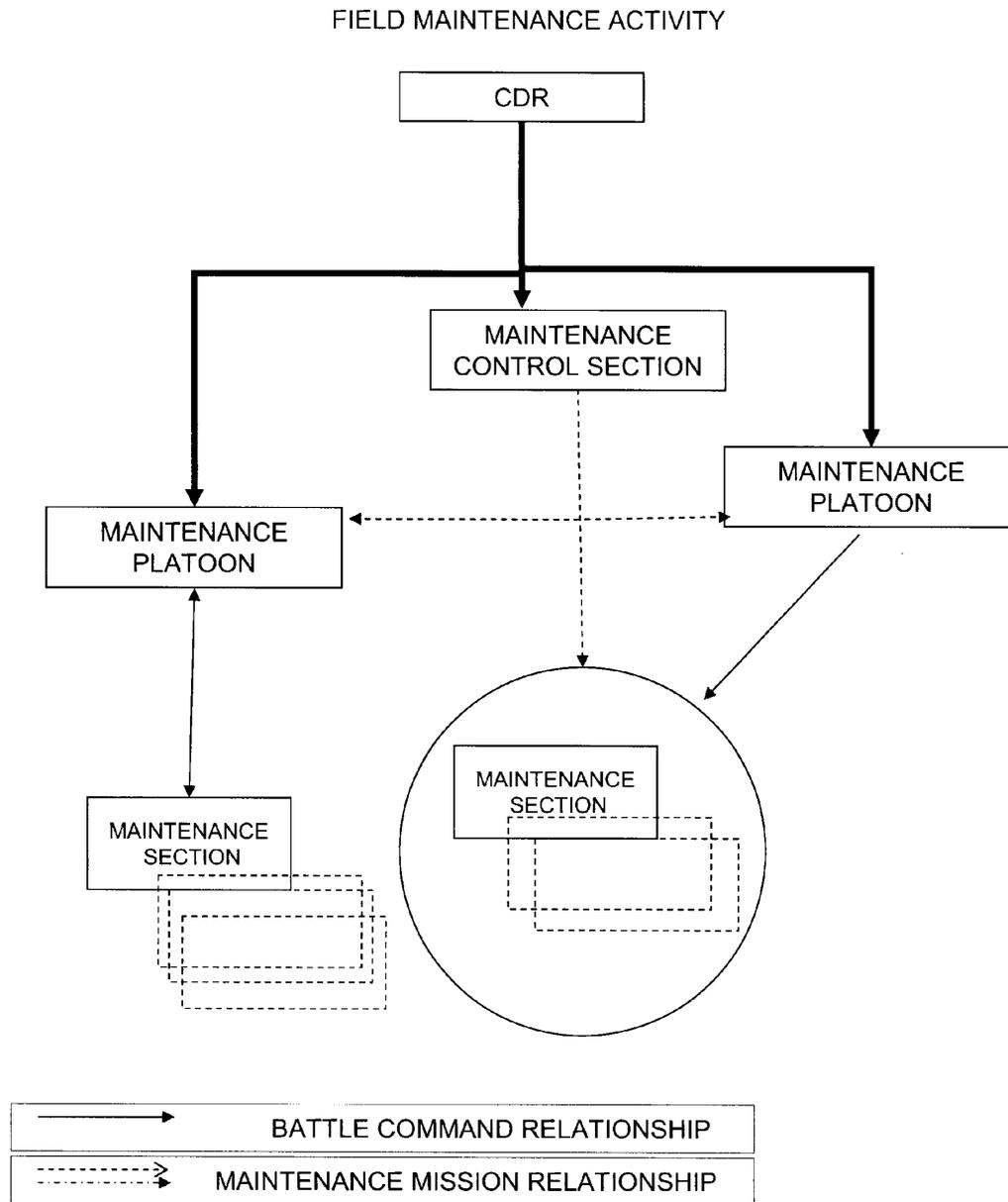


Figure 4-1. Field maintenance management structure

4-2. Maintenance standards

To achieve the TM XX-10/XX-20 preventive maintenance checks and services (PMCS) standards required by AR 750-1, chapter 1, 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 field 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 field maintenance.
- h. Performing high quality TM XX-10/XX-20 PMCS using the applicable equipment technical manuals.
- i. Integrating safety into all tasks associated with field maintenance.
- j. Reporting usage accurately.
- k. Coordinating with PBUSE to ensure serial/registration numbers are the same.

4-3. Guidance for Soldiers

a. Soldiers at brigade level and below occupy the most critical positions in the Army maintenance process. If they give maintenance operations the appropriate priority in relationship to overall unit mission requirements, the unit will succeed and achieve mission accomplishment.

b. Soldiers must implement the policies contained in AR 750-1, the procedures contained in DA Pam 750-8 (DA Pam 738-751 for aviation units) and the automated processes contained in Unit Level Logistics System-Ground (ULLS-G), Unit Level Logistics System-Aviation (ULLS-A), Standard Army Maintenance System-Enhanced (SAMS-E), and in succeeding generations of maintenance software. Each soldier has his/her assigned and implied responsibilities. Dedication, teamwork, and coordination are required to get the maintenance program implemented correctly.

4-4. Points for emphasis

- a. Some of the key questions that Soldiers must ask are—
 - (1) Am I technically competent enough to inspect my equipment?
 - (2) Have I been in the motor pool, hangar, or equipment storage area on a frequent basis?
 - (3) Have I established maintenance as a priority in my unit/organization?
 - (4) Have I allotted training time strictly for the care, preservation, and maintenance of equipment and maintenance training?
 - (5) Have I provided sufficient manpower to accomplish the mission?
 - (6) Do I foster an ownership relationship with regard to equipment?
 - (7) Do I ensure equipment reports and data are correct and forwarded by the proper means?
- b. Leadership indicators for junior leaders.
 - (1) Do I exercise maintenance discipline, and what am I doing to foster it?
 - (2) Am I a present and active participant during scheduled maintenance periods?
 - (3) Do they respond promptly and correctly to maintenance conditions that they and their subordinates identify?
- c. Indicators of good maintenance management in my unit.
 - (1) Am I familiar with the elements of the Army Maintenance Standard? (See AR 750-1, para 3-2, and table 4-1, below.)
 - (2) If I have a resource shortfall, have I reported the results of this assessment to my chain of command?
 - (3) Do all of the SOPs applicable to my unit work and have I tested them?
 - (4) Do I enforce the TM XX-10/XX-20 series PMCS standard for my equipment?
 - (5) Are all PMCS (daily/weekly/monthly/quarterly/semiannually/annually) actually performed for all assigned equipment?
 - (6) Are scheduled PMCS and equipment services placed on the unit-training schedule?
 - (7) Are PMCS being properly performed in accordance with applicable technical publications?
 - (8) Do I have the necessary tools, test equipment, supplies, and TMs for field maintenance operations?
 - (9) Are my subordinate leaders present and active participants during scheduled maintenance periods?
 - (10) Are members of the field maintenance section available during PMCS to provide technical assistance to operators/crews while still having time to perform PMCS on their own equipment?
 - (11) Do I review my maintenance operations transactions and reports daily?

**Table 4–1
Elements of the Army Maintenance Standard**

Element	Short title
Fully mission capable (FMC)	FMC status
Equipment faults identified	Faults identified
Unit repairs and services (up to MAC Chart “O”)	Services/repairs done
Parts/supplies needed to complete repairs/work on funded requisition	Parts on order
Uncorrected faults above field level (up to MAC Chart “O”) on valid work request with required parts and with projected manhours identified	Work orders submitted
Scheduled services performed at required intervals	Services completed on time
Applicable emergency modification work orders (MWOs) applied and completed; safety-of-use (SOU) and safety-of-flight (SOF) messages implemented	MWOs/SOUM/SOFM
Basic issue items (BII), component of end item, special tools, and aircraft flyaway items on hand/serviceable or on funded requisition	BII/associated support items of equipment (ASIOE)/flyaway

4–5. Operators and crews

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

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

4–6. Supervisors

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

- a. Preparing for and ensuring that their subordinates fully participate in unit-scheduled preventive maintenance periods.
- b. Attending, leading, and supervising preventive maintenance operations.
- c. Being technically competent.
- d. Checking and updating SOPs.
- e. Knowing their responsibilities for their areas of supervision and field maintenance operations procedures.
- f. Enforcing the Army Maintenance Standard for the equipment for which they are responsible and ensuring that the desired sense of “ownership” applies to subordinate supervisors, leaders, crews, and operators/users.
- g. Training operators and crews to operate equipment and perform PMCS properly.
- h. Enforcing safety.
- i. Recording and reporting maintenance data in accordance with DA Pam 750–8 and DA Pam 738–751.
- j. Informing their chain of command when sufficient time, personnel, funding, tools, TMs, or other maintenance means are not available to accomplish required equipment maintenance.

4-7. Maintenance Soldiers and other support personnel

Maintenance personnel are the first line of support to operators and crews. Without maintenance Soldiers, Army combat power cannot be sustained in order to meet mission requirements. They assist the unit in maximizing equipment readiness by properly performing TM XX-20 and TM XX-30 series level maintenance and repairs.

a. The commander must ensure that the maintenance SOPs provide clear guidance to the maintenance platoon/section on its responsibilities. The size and capability of the internal maintenance operations may vary from command to command; however, roles of unit leaders, unit equipment records clerks, and TAMMS clerks generally are common to all organizations.

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

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

d. Transactions with the Supply Support Activity (SSA) must be conducted promptly and in accordance with maintenance and issue priorities assigned by the unit commander/leader. Maintenance Soldiers will fully understand and practice the disciplined evacuation of unserviceable and excess serviceable assets as this is critical to the success of the 21st century Army maintenance system.

e. Soldiers must comply with all licensing, dispatching, and maintenance procedures required by DA Pam 750-8; DA Pam 738-751; AR 600-55, and local SOPs. These are fundamental to unit safety, management, and equipment reliability.

f. Soldiers must complete the necessary records and forms as required by DA Pam 750-8; DA Pam 738-751, and local SOPs. Operators and crews, mechanics, and other maintenance personnel are the first and most important link to the capture of data necessary for Army maintenance management.

g. Soldiers will prepare (and leaders check) work requests for submission to support maintenance, when required. In transformed, modularized organizations, this capability may be internal to the organization at battalion or brigade level. Internal organization SOPs will govern the flow of these procedures. Work requests, will be processed in accordance with the priority time frames required by AR 750-2, paragraph 3-7, and using procedures in DA Pam 750-8 or DA Pam 738-751.

h. In cases where support is required from local organizations/commands that are external to your command (for example, installation, Corps-level organizations) Soldiers will use the external operating SOPs of these organizations to request that support.

4-8. Forward support company maintenance platoon headquarters

The forward support company (FSC) maintenance platoon headquarters contains the platoon command and control elements and the maintenance control section. It consists of the platoon leader, a maintenance control officer (MCO or shop officer), who is the platoon leader in units not authorized an MCO, the maintenance technician (MT), and the platoon sergeant and the maintenance control supervisor (MCS). Based on the concept of support developed by TRADOC during the design of modular units, not all units will have FSCs. For units with organic field maintenance, refer to your unit's MTOE for specific authorizations. For units without organic maintenance or FSCs, refer to your units TOE to determine if your unit receives support on an area basis and to your operations orders/logistics standing operating procedures (OPORD/LOGSOP)/higher headquarters for which unit provides field maintenance support.

4-9. Maintenance control officer

The maintenance control officer (MCO) will—

- a.* Control the total maintenance effort of the maintenance platoon when there is no assigned platoon leader.
- b.* Prioritize the maintenance workload to support the commander's mission based on priorities received from the support operations section's readiness division.
- c.* Ensure that maintenance records are recorded in SAMS-E and reported to LOGSA at least monthly as required by AR 750-1.
- d.* Evaluate the overall battalion PMCS operation.
- e.* Enforce the Army Maintenance Standard within the battalion (see para 4-2).
- f.* Assist the commander in planning tactical maintenance support.
- g.* Coordinate frequently with support maintenance organizations to ensure that total logistics response time on work requests is kept to a minimum (see AR 750-1).
- h.* Ensure that work request submission time and completed job pickup time are kept within standards.

- i.* Ensure that sufficient copies of TMs and lubrication orders are available to battalion units for performance of PMCS and organizational maintenance.
- j.* Assess training and competence level of battalion operators, crews, and maintenance personnel. Conducts training or ensures that training and instruction are provided to meet skill requirements.
- k.* Request support from the Logistics Assistance Office (LAO) and Logistics Assistance Representatives (LARs) and equipment logistics assistance representatives, as required.

4-10. Maintenance platoon leader

The platoon leader will—

- a.* Be responsible for the total maintenance effort of the maintenance platoon.
- b.* Be accountable for personnel, equipment and training of the platoon.
- c.* Coordinate with the maintenance control officer (MCO) to focus training on battle, using mission requirements both present and projected.
- d.* Develop platoon tactical plans in coordination with external maintenance mission requirements. Examples include:
 - (1) Platoon defense, including sector sketches.
 - (2) Details to accomplish platoon and company mission, taking into account maintenance workload and Soldiers most engaged in maintenance workload.
 - (3) Formulating tactical road march/convoy plans for the platoon.
- e.* Oversee the PMCS program for platoon equipment.
- f.* Serve as shop officer in units not authorized an MCO due to the number of mechanics assigned.
- g.* Perform other duties as assigned by commander.
- h.* In units with organic maintenance, not authorized a shop officer, make the assessment of the battalion (or unit, as applicable) maintenance mission, versus maintenance capabilities, as described in paragraph 4-1 on behalf of the battalion commander and at least annually. Ensure that the battalion commander is fully informed of the results. (This does not apply to units with FSCs; the support operations section will provide that assessment.)

4-11. Maintenance technician

The maintenance technician (MT) will—

- a.* Fulfill the role of technical expert for maintenance/maintenance processes in the battalion.
- b.* Assist the shop officer/platoon leader in the performance of duties.
- c.* Organize the company/troop/battery maintenance team.
- d.* Monitor the scheduling and performance of scheduled services.
- e.* Monitor the battalion quality assurance program.
- f.* Implement and monitor the maintenance, safety, modification work management, warranty, calibration, oil analysis, and technical and verification inspection programs within the organization.
- g.* Conduct technical training for maintenance personnel.
- h.* Assist unit commanders in setting up PMCS training programs.
- i.* Monitor the flow and status of FSC maintenance work orders (internal and evac) to ensure the maintenance activity adheres to prescribed maintenance timelines.
- j.* Monitor the flow and status of FSC repair parts requisitions to ensure parts are picked up in a timely manner.
- k.* Coordinate and control FSC recovery assets and operations.
- l.* If assigned to an organization without internal capabilities to perform “F”-level maintenance on the maintenance allocation chart (MAC), coordinate requirements for mobile support teams with supporting field maintenance. If assigned to an organization with internal direct support modules/capability, coordinate directly with the senior battalion maintenance officer as required to dispatch mobile support teams as required.
- m.* Conduct training.

4-12. Maintenance control supervisor

The maintenance control supervisor (MCS) will—

- a.* Assist the MCO and MT in the performance of duties.
- b.* Assign work to the various sections.
- c.* Supervise the scheduling and performance of scheduled services.
- d.* Supervise TAMMS and shop supply list (SSL) procedures.
- e.* Supervise platoon equipment inventories and control (especially tools).
- f.* Supervise quality control inspectors.
- g.* Enforce safety standards within the motor pool.
- h.* Maintain the maintenance publications library.

- i.* Inspect garrison facilities used by battalion units.
- j.* Submit work requests to the installation facilities engineer, when required.
- k.* Account for all manhours in accordance with DA Pam 750–8, appendix B.
- l.* Supervise recovery operations (if applicable).
- m.* Establish customer accounts with supporting maintenance and supply units in accordance with supporting unit SOPs, ARs, and DA Pams using DA Form 1687 (Notice of Delegation of Authority-Receipt for Supplies) and a copy of the Commander’s Assumption of Command orders.
- n.* Enforce standards.

4–13. BSB field maintenance company operations

MCOs and leaders performing maintenance tasks coded “F” on the MACs will—

- a.* Receive requests for support from the MT and/or the battalion motor sergeant (BMS).
- b.* Provide support within timeframes required by the maintenance priority designator (MPD) on work requests, that is, required turnaround times in accordance with AR 750–1, chapter 3.
- c.* Maintain shop stock/bench stock in accordance with AR 710–2.
- d.* Return unserviceable recoverable supply items to the supply system in accordance with AR 750–1, chapter 3.
- e.* Work as a team with other maintenance leaders and managers within the organization to achieve the Army Maintenance Standard for assigned and attached equipment and achieve the operationally ready rate profile required of the organization.
- f.* Accept evacuation work orders from the FSCs for back-up support/ low density type maintenance.
- g.* Evacuate all work orders external to the BCT/brigade.

4–14. Support operations, readiness division, officer in charge

The readiness division officer in charge (OIC), support operations section, will—

- a.* Provide the commander with accurate equipment status for all brigade units; accuracy here depends on the accuracy and timeliness of unit reports. Manage materiel and unit equipment status reporting. In conjunction with brigade S–3 and S–4, ensure that all reporting units within the brigade fully comply with reporting procedures described in AR 700–138, DA Pam 750–8, and DA Pam 738–751.
- b.* Prioritize the battalion maintenance effort to support the commander’s mission.
- c.* On behalf of the battalion commander and at least annually, make the assessment of the support battalion maintenance mission, versus maintenance capabilities. Use unit MTOEs, PBUSE documentation of equipment on hand by users and field maintenance, and electronic military personnel office (eMILPO) information as to personnel on station. Ensure that the battalion commander is fully informed of the results.
- d.* Supervise the operation of SAMS–2E and submit all STAMIS transactions in accordance with Theater Sustainment Command (TSC) guidance—either to a Distribution Management Center SAMS–2E site, or directly to LOGSA. Also ensure that current maintenance master datafiles (MMDF) are distributed to all subordinate SAMS–1E operators.

Chapter 5 Unit Considerations

Section I Training

5–1. General training programs

See AR 350–1 and FM 7.0 for proper methodology for establishing general training programs.

5–2. 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 as follows:

- a.* Personnel turbulence.
- b.* Skill shortages.
- c.* Leader experience.
- d.* Complexity of equipment.
- e.* Soldier experience.
- f.* Other maintenance distractions.

5-3. Internal challenges

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

- a.* Workload.
- b.* Lack of operator maintenance.
- c.* A poor maintenance training plan or none at all.
- d.* First line leaders not involved in maintenance operations.
- e.* First line leaders with little or no maintenance training.
- f.* Little or no operator/crew maintenance training.
- g.* Personnel not having or using maintenance publications.
- h.* Improper use of assigned personnel.
- i.* TMDE not being used.
- j.* Poor quality control procedures.
- k.* Available training assistance not being used.
- l.* Technical experts not consulted to resolve issues.

5-4. What the operator or supervisor/leader knows

- a.* The company (or unit) commander must verify what all equipment operators and their leaders know about the status of equipment, and about the capabilities of operators to perform maintenance.
- b.* All units must have their own testing and training programs.
- c.* All personnel require equipment and inspection-process training to be effective.
- d.* The leader must know what the operator knows about performing PMCS and the capability of the operator's equipment.
- e.* When additional training is required, the leader should give it or advise the unit commander that training assistance is needed.
- f.* Continual testing and training must be provided in order to instill confidence and improve competence of assigned personnel.

5-5. Commanders' maintenance training

Consider the following methods in improving maintenance training:

- a.* Analyze his unit's maintenance training.
- b.* Develop a maintenance training plan from the analysis.
- c.* Identify personnel skill shortfalls and the available training courses.
- d.* Train leaders to supervise and conduct the necessary maintenance training.
- e.* Train first line leaders in inspection techniques for their equipment as well as its operation.
- f.* Leverage formal and on the job training assistance from external sources:
 - (1) Maintenance assistance and instruction teams (MAITs).
 - (2) Sustainment maintenance units.
 - (3) AMC LAOs.
 - (4) Exportable training packages.
 - (5) Command maintenance evaluation teams (COMETs).
- g.* Maintenance begins with the equipment operators, so commanders who invest time in operator training will receive dividends in equipment availability.

5-6. Vehicle operators licensing

- a.* Commanders retain responsibility for the licensing of their assigned Soldiers.
 - (1) Designate in writing an individual to certify drivers testing.
 - (2) The MST providing dispatcher support will have a copy of the memorandum.
 - (3) Leaders are responsible for ensuring their subordinates can operate assigned equipment.
- b.* Include instructions for completing licensing of vehicle operators in the unit SOP. Per chapter 3 of this pamphlet, AR 600-55 provides the basic requirements for a good licensing program. Use FM 21-305, TC 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. The SOP will also address the requirements for drivers and operators badges outlined in chapter 6 of this pamphlet.

5-7. Receipt of equipment

TAMMS tracks the use of Army equipment. Dispatchers must maintain accurate information for purposes of tracking usage, award of drivers/mechanics badges, and responsibility in the event of property damage. If a primary operator

must let someone else operate a piece of equipment he is signed for, he will ensure that additional operators fill out subsequent entries on DA Form 5987-E. Not doing so could leave the primary operator liable for damages incurred when he was neither in physical possession nor control of the vehicle. If the dispatched operator is unable to ensure a new operator signs for the equipment, the supervisor will ensure the new operator information is added to DA Form 5987-E. Before someone other than the dispatched operator is allowed to replace the operator, supervisors will check the new operator's DA Form 5984-E/OF 346 to ensure he or she is qualified.

Section II

Motor Pool Security

5-8. General information

See AR 190-16 and AR 190-51 for detailed requirements. Security of equipment is a command responsibility. All Army personnel have the duty to ensure the proper security of equipment under their responsibility. You do not have to be hand receipted for an item to be held liable for its loss or damage.

5-9. Garrison considerations

While in garrison, most vehicles, generators, weapons, NBC equipment, and so forth are secured. Access to the unit motor pool should be limited to unit members, more specifically to members of the maintenance teams, operators/crews with logbooks performing PMCS or using the equipment, and their supervisors. Vehicles and generators are generally stored in the unit motor pool. Vehicles are normally secured with a chain wrapped through the steering wheel and padlocked. The log book normally has the padlock key. Leader presence is essential to demonstrate the priority given to equipment maintenance in the motor pools and back lots where vehicles and generators are routinely stored.

Chapter 6

Recognition of Operators and Mechanics

6-1. Driver's and mechanic's badges

a. Unit commanders are responsible for establishing and maintaining the program for awarding drivers and mechanics badges. AR 600-8-22 (para 8-28) provides the guidance for the award of badges for mechanics, drivers, and operators. Although it is one badge (driver's and mechanic's badge) Soldiers and civilians will receive different component bars depending on whether their duties were to drive, operate, or fix Army equipment. Personnel can receive multiple component bars, as appropriate.

b. Appurtenances available are as follows:

- (1) Driver-W (for wheeled vehicles).
- (2) Driver-T (for tracked vehicles).
- (3) Driver-M (for motorcycles).
- (4) Driver-A (for amphibious vehicles).
- (5) Operator-S (for special equipment).
- (6) Mechanic-M (for mechanics).

c. Approval authority pertains to commanders of brigades, regiments, separate battalions, or any commander in the rank of lieutenant colonel or higher.

d. Unit commanders should forward requests through personnel channels to the appropriate commander as outlined above.

6-2. Unit Driver Badge Program

a. SAMS-E tracks the hours of usage as well as the dates that licenses are issued. Dispatchers should prepare this information quarterly for the maintenance platoon leader or as directed by the approval authority to ensure Soldiers information is accurate for promotion boards/DA photos.

b. The requirements for the vehicle drivers badge include the following:

- (1) Qualify for and possess a current OF 346 or DA Form 5984-E, issued as prescribed by AR 600-55.
- (2) Be assigned duties and responsibilities as a driver or assistant driver of Government vehicles for a minimum of 12 consecutive months or during at least 8,000 miles with no Government motor vehicle accident or traffic violation recorded on his DA Form 348/348-1-R (Equipment Operator's Qualification Record (Except Aircraft)).
- (3) Perform satisfactorily for a minimum period of 1 year as an active qualified driver instructor or motor vehicle driver examiner.
- (4) Follow verification procedures contained in paragraph 6-5.

6-3. Special operator's badge

The special operator's badge is an appurtenance (Operator-S) of the driver/mechanic badge, which is designed primarily for operators of material handling equipment and other mechanical equipment.

a. Requirements are as follows:

(1) Soldier or civilian whose primary duty involves operation of Army materials handling or other mechanical equipment.

(2) Completed 12 consecutive months or 500 hours of operation, whichever comes later.

(3) Without accident or written reprimand as the result of his or her operation.

(4) Operating performance must have been adequate in all respects.

b. Verification documentation, see paragraph 6-5.

6-4. Mechanic's badge

The mechanic's badge is an award for mechanics, unit or higher, who meet the requirements as specified in AR 600-8-22.

a. Requirements.

(1) Pass aptitude tests and complete the standard mechanic's course with a "skilled" rating or have demonstrated possession of sufficient previous experience as an automotive or engineer equipment mechanic to justify such a rating.

(2) Be assigned to primary duty as an automotive or engineer mechanic, unit level or higher, or is an active automotive or engineer mechanic instructor.

b. Submission.

(1) Verification methods are addressed in paragraph 6-5 for Soldiers who received their training at an Army MOS-producing school.

(2) Soldiers who receive their MOS through a civilian-acquired skills program or similar work experience, must have their experience validated per those rules.

6-5. Verification procedures

a. The maintenance platoon leader who oversees the SAMS-E activity should coordinate with other affected platoon leaders (or their master drivers if assigned) and forward to the company commander with recommendations for the approval authority in a standard memo format. The supporting documentation will include:

(1) Verification of assignments/miles operated.

(a) Either electronic Military Personnel Office (eMILPO) verification of Soldier assignments meeting minimum time requirements (including written verification from other platoon leaders for Soldiers not assigned to the maintenance platoon).

(b) Or SAMS-E verification of miles driven for drivers' badges (if the assigned driver meets the 8,000 miles requirement prior to 1 year of duty); or hours operated for special operators appurtenances.

(2) Verification of OF 346 issue date.

(3) Unit commander certification that personnel have had no Army motor vehicle accident or traffic violation recorded on his or her DA Form 348.

b. For the mechanic's badge, the maintenance platoon leader who oversees the SAMS-E activity should coordinate with other affected platoon leaders (for example, supply platoon for any material handling equipment (MHE) maintainers assigned to modular supply sections), and forward to the company commander with recommendations for the approval authority in a standard memo format. The supporting documentation should include:

(1) MTOE/TDA position assigned.

(2) eMILPO verification that the Soldier is assigned primary duty as an automotive or engineer mechanic, unit level or higher, or is an active automotive or engineer mechanic instructor and is duty military occupation specialty qualification (DMOSQ) (for both cases).

6-6. Unit maintenance awards

Commanders have the discretion to award their subordinate elements and/or Soldiers for maintenance excellence. AR 600-8-22 sets the parameters for military awards. As part of a unit maintenance program, unit maintenance awards encourage Soldiers to strive for better readiness, and build esprit de corps. Commanders cannot set higher standards for the mechanics and drivers badges as established in this regulation.

6-7. Army Award for Maintenance Excellence

a. The Chief of Staff, Army encourages all units to participate in the Army Award for Maintenance Excellence (AAME) (pronounced like the name "Amy"). The AAME is an annual awards program prescribed in AR 750-1. Guidance is at <http://www.hqda.army.mil/logweb/aame.html>.

b. The top winners from the AAME will be nominated for the Secretary of Defense Maintenance Award. This program affords the Army's best units to be recognized at the Department of Defense.

Chapter 7 Maintenance Control Functions

7-1. Overview

Field maintenance tasks are on-system, return-to-user tasks. It is the responsibility of the field maintenance activity to classify equipment and to determine whether it is repairable at the field level. The field maintenance section must perform technical inspections, estimated/actual costs of damages, manage the work flow in the maintenance shop, establish command priorities within the shop, establish production goals as necessary, evacuate end items, and coordinate for disposal.

7-2. Technical inspections

a. Before a work order is accepted for a shop to perform field level maintenance, a technical inspection must be performed. Technical inspectors are responsible to the commander to ensure that Army maintenance standards are maintained. They may be assigned to the maintenance control section or to the platoon headquarters, but they represent the commander. Where technical inspectors are not assigned, the section chief bears the responsibility to the commander for quality assurance. A technical inspection (TI) will be performed prior to repair, evacuation, or turn-in of unserviceable end items or components. TIs are to be made by technically qualified individuals assigned to a field- or sustainment-level maintenance activity. Inspections will be performed according to equipment maintenance and serviceability standards applicable to the maintenance level performing the repair. The results of TIs are used to—

- (1) Determine completeness and serviceability and verify accomplishment of unit maintenance.
- (2) Determine the economic reparability of the item.
- (3) Determine the extent of maintenance effort and repair parts required to restore the item to the prescribed serviceable condition.
- (4) Determine if unserviceable items were rendered unserviceable due to other than fair wear and tear.
- (5) Determine estimated cost of damage (ECOD).
- (6) Determine if all applicable MWOs have been applied.

b. Technical inspectors will—

- (1) Accept work orders as representatives of the supporting unit commander.
- (2) Perform quality assurance through all phases of field maintenance operations for a work order.
- (3) Conduct normal types of inspections, including the following. (Remember that inspectors serve as the commander's quality control/assurance mechanism):

(a) *Initial inspections.* Includes estimated costs of damages in conjunction with TAMMS clerks and the determination of acceptance of item for repair by the activity. Technical inspectors report their findings to the maintenance control officer/commander as necessary.

(b) *In-process inspections.* Includes quality control. Technical inspectors report their findings of efficiencies/deficiencies to the commander.

(c) *Final inspections.* Determine if end item can be returned to the user. Notifies the commander of serious deficiencies.

(d) *Verification inspections.* Ensure the accuracy of final TIs when that inspection shows the item remains unserviceable. As a management control, this cannot be performed by the same inspector(s) who performed the final inspection.

c. Where maintenance activities are divided between a company-level field maintenance team and a FSC field maintenance platoon, the company level technical inspections are performed under the auspices of the team motor sergeant or senior mechanic for quality assurance at that level.

d. When the technical inspector is an MTOE-designated position, the person selected must be both technically competent and senior enough in rank to represent the field maintenance unit's commander to other senior NCOs within the company, senior NCOs and officers from supported units (whether it be battalions, brigades or higher), as well as the support battalion's support operations staff.

e. TI sheets, DA Form 461-5, (Vehicle Classification Inspection) DA Form 3590 (Request for Disposition or Waiver), or DA Form 2402 (Maintenance Tag), whichever is applicable, will accompany all requests for disposition to the national inventory control point (NICP). An inspector, maintenance technician, or maintenance/motor officer as specified by the unit commander will verify each request. The TI sheet will accompany the turn-in documentation to the managing NICP so that accurate disposition instructions can be provided about the major end item.

f. When a technical inspector detects damage to an end item/Class IX component through other than fair wear and tear, this damage will be documented on DA Form 5988-E/DA Form 2408-13-3 (Aircraft Technical Inspection

Worksheet). The inspector's rationale for this determination will also be included on the form. A copy of DA Form 5988-E will be forwarded to the battalion or equivalent-level commander of the unit that ordered the work on or turned in the damaged end item/Class IX component. The commander will determine if further action will be taken under the provisions of AR 735-5. Damaged property will be released for repair or turn-in as soon as the inspector has physically examined the damaged property; turn-in or repair of a damaged end item or component will not be started until AR 735-5 requirements are satisfied (see AR 735-5, para 13-31c).

g. DA Form 5988-E/DA Form 2408-13-3 will be used to record results of technical inspections. Follow guidance for processing and retaining work orders for -30-level repairs per DA Pam 750-8, appendix B.

7-3. Estimated/actual costs of damage

a. When an owning unit suspects that damage to the end item/Class IX component has been caused by negligence or willful misconduct, a work order for the component will be sent to the supporting maintenance activity for determination of the estimated cost of damage (ECOD). After completion of the ECOD, the end item/Class IX component will be turned in or a work order for repair will be created as soon as possible, consistent with evidentiary requirements of AR 735-5.

b. When the TI supports an investigation of pecuniary liability and actual costs cannot be determined, inspectors will prepare an ECOD. Basic policy guidance for an ECOD in support of a report of survey is in AR 735-5.

7-4. Combat losses

Per changes to AR 735-5; AR 710-1, AR 710-2, and DA PAM 750-8, the following procedures will be used for equipment lost due to combat:

a. Effective immediately and in order to capture combat losses, units will submit an electronic DA Form 2408-9, Equipment Control Record, via LIW with an equipment loss code of "I" in block 17D for all equipment listed in DA PAM 750-8, appendix E, classified as uneconomically repairable as a result of contact with the enemy. Equipment must meet the standards for condition codes "H," "P," or "S."

b. DA Pam 750-8, chapter 5, provides procedures for filling out DA Form 2408-9. The online form can be accessed through LIW, WebLOG RoadMap, Maintenance Management Section, TAMMS Equipment DB, and Equipment Control Record (2408-9).

c. Property book officers will require that a copy of the DA Form 2408-9 accompany turn-in paperwork prior to assigning a document number to ensure compliance with paragraph 2.

d. Monthly, the Coalition Force Land Component Command will reconcile those items reported as uneconomically repairable with LOGSA's Asset Management Section, Equipment Control Record, and Automated Reconciliation, to ensure battle losses are accurately recorded.

7-5. Maintenance expenditure limits

a. The TB 43-0002 series will maintain a maintenance expenditure limit (MEL), which is the total acceptable one-time cost to repair an end item or reparable component to a fully serviceable condition as prescribed in the appropriate TM. Current MELs and MEL procedures are listed in the TB 43-0002 and the individual TBs in the TB 75 series.

b. Requests for waiver will be submitted through channels to MACOM, as MACOM commanders have one-time approval authority on requests for waiver of published MEL when the required maintenance can be accomplished at field- and sustainment-level maintenance or by local contract. Include all supporting documentation.

7-6. Establishing maintenance priorities

a. AR 750-1 contains an in depth explanation of maintenance priorities for garrison/premobilization/predeployment operations regarding urgency of need designators (UNDs) and force activity designators (FADs).

b. Army maintenance tasks and operations will be conducted in established maintenance mission priority sequence.

c. Commanders will establish maintenance priorities based on mission, enemy, terrain, troops, time, and civilians (METT-TC).

d. Normally, this will be derived from higher headquarters OPORDs and logistics plans (LOGPLANS).

e. Maintenance priorities can change during each phase/subphase of a tactical operation/mission.

f. There is no set length of time that a phase can last. Using Operation Desert Shield/Desert Storm as an example, some phases, normally preoperations, can comprise days, weeks, or longer, while phases and subphases of the battle may be hours or even a few days.

g. Maintenance Soldiers need to understand that their priority of work can change as a result. The shop office is responsible for managing this workload for the shop. While this probably will not be an issue where field maintenance is performed by either organic support or FSCs that are OPCON to the supported unit, units that receive their field maintenance on an area support basis might be affected.

h. Changes to equipment document should be made on all appropriate forms and automated reporting systems.

7-7. Modification work order

- a.* No modification work order (MWO) is authorized for application unless it has an approved MWO number that is the product of the MWO process in of AR 750-1, paragraph 4-2.
- b.* MWO kits and applications are at no cost to the user per statutory requirements as laid out in Title 31, United States Code, and interpreted in FMR 7000-14R.
- c.* When a modification is developed for an item, that modification must be identified against an end item's standard study number (SSN), LIN, NSN, Army part number, and end item serial number.
- d.* The MWO coordinator, designated by the commander per chapter 3, will ensure the transfer the data from DA Form 2408-5 to the MMIS website at <https://www.mmis.army.mil/index01.asp>.

7-8. Commercial off-the-shelf items

- a.* It is often more economical for the Government to purchase and field commercial-off-the-shelf (COTS) items to units rather than develop its own service-unique equipment. The Army benefits from technologies that change rapidly, have a greater economy of scale than an Army-unique system would have, and have the potential for interoperability with systems external to the Department of the Army. Another advantage is that COTS systems can come with warranties and service contracts, which is of concern to the field maintenance shop office.
- b.* A greater portion of the acquisition process is using COTS, as a result. There are also some specialty units that rely heavily on COTS. COTS equipment presents unique challenges maintaining in field because it could void warranty, units may not have technical capability to maintain, and because it increases workload on the maintenance section because it is usually not part of the MTOE design. If maintenance of COTS equipment is to be through outsourced or contractor support, then this will be identified so units can develop budgets and plans for proper maintenance.
- c.* AR 750-2, paragraph 6-39, contains guidance for COTS as it applies to computers.
- d.* All AIS standard Army management information system (STAMIS) will be maintained as follows:
 - (1) The unit AIS maintenance personnel, in coordination with the Combat Service Support Automation Management Office (CSSAMO), will support the user/operator in diagnosis and restoration of STAMIS computer systems to an operational status. Failed line replacement units (LRUs) will then be turned into the supporting SSA.
 - (2) To the greatest extent possible, the CSSAMO, in coordination with the maintainer, will provide a mobile support team to restore and repair STAMIS systems onsite.
 - (3) The CSSAMO, may, in coordination with the supporting maintenance activity and on a case-by-case basis, perform hardware repair of STAMIS systems to facilitate systems availability.
 - (4) Software-related problems will be resolved in coordination with the supporting CSSAMO, personnel automation section, or other appropriate automation office.
 - (5) The CSSAMO or supporting maintenance activity will provide a replacement STAMIS tactical computer exchange (TCX) asset to unit personnel from on-hand TCX assets and work order the faulty TCX to the supporting maintenance activity.
 - (6) If an LRU is under warranty, it will be screened by the maintenance activity or CSSAMO for evidence of failure. If an LRU under warranty is found to be unserviceable after testing, the warrantor should be contacted and the item returned to the warranty provider. LRUs not under warranty will be forwarded to the maintenance activity for repair or disposition. Repaired assets will be returned to the CSSAMO TCX. LRUs found NRTS by the maintenance activity will be turned into the SSA for disposal.
 - (7) Maintenance (hardware and software) including float transactions, will be managed and documented using maintenance STAMIS.
- e.* The decision to repair/upgrade of COTS computers, personal digital assistants and associated devices will be based upon a cost-benefit analysis (CBA) of replacing versus repairing/upgrading the system. With the rapid advancement in technology, the repair/upgrade of COTS may not be the best economic choice.
 - (1) The following factors should be considered during the decision process:
 - (a)* Cost of replacement from GSA Schedule.
 - (b)* Warranty/no warranty.
 - (c)* Age of the equipment (consider substantially improved technology).
 - (d)* Mission impact while the system is being repaired/upgraded.
 - (e)* Extent of repair/upgrade.
 - (f)* Cost of repair/upgrade versus the MEL constraints.
 - (g)* Availability of parts.
 - (h)* Manpower availability versus manpower required in accomplishing the repair/upgrade.
 - (i)* Estimated service life after repair/upgrade.
 - (j)* Most timely method of getting system back into the hands of the end user.
 - (2) The maintenance of military equipment and standard/common and/or unique Army systems will have priority over the repair of locally procured COTS computer systems.

(3) The cumulative cost to repair or upgrade a COTS computer must not exceed 65 percent of the replacement cost of the individual LRU (the central processing unit, monitor, and printer). Accounting of expenditures for each LRU (by serial number) is the responsibility of the repair activity. Units must be able to produce records when required, such as:

(a) Copy of buy versus repair CBA. If audited, the unit must be able to produce these reports upon direction from higher headquarters.

(b) Cost of expenditures and work requests in support of the COTS computer repair/upgrade effort must be maintained. If audited, the repair shop must be able to produce these reports upon direction from higher headquarters.

(4) A COTS computer will not be upgraded if the upgrade requires replacement of more than 50 percent of the internal major shop replaceable units or assemblies (motherboard, hard drive, disk drive, compact disk, central processor, and memory chips).

(5) Upgrade of a COTS computer must retain the original system configuration integrity of fit and form. The upgrade may improve the function but must not change fit or form (for example, a COTS computer will not be upgraded if the upgrade requires replacement of the external LRU case (the black box) or modification of the internal chassis).

(6) Residual modules will not be used to assemble additional STAMIS/COTS computers. After repair or upgrade of a STAMIS/COTS computer, removed SRUs will not be retained. Cascading is authorized; residual assemblies may be used for an upgrade to another COTS computer. However, this additional upgrade must be accomplished within 72 hours. After the 72-hour time period, all residual parts must be sanitized and turned in to the local SSA. During deployments, mission requirements, will dictate the scope of this requirement but all modules must be accounted for.

(7) The procurement of limited additional equipment/software (special tools and/or diagnostic software to support COTS systems) is authorized. Owning organizations will fund this requirement. TMDE will not be acquired to support a COTS computer repair effort.

f. The United States Army Communications-Electronics Command (USACECOM) Logistics Readiness Center is the Army lead organization for STAMIS logistics sustainability.

g. Any computers procured by a MACOM to support a tactical STAMIS may be repaired using these procedures, provided the MACOM has coordinated and funded that support.

h. The TCX is composed of COTS computer systems and their associated peripheral equipment used to operate or support tactical STAMIS applications. TCX will be located at the CSSAMO and must be 100 percent deployable (see AR 750-1, para 8-7).

i. The Electronic Sustainment Support Center (ESSC) at the Tobyhanna Army Depot Forward Repair Activity (FRA) is an integrated maintenance activity that provides the field with a dedicated support structure for STAMIS hardware. The FRA also supports tier III office automation equipment at selected installations and when deployed as part of the Army Materiel Command (AMC) logistics support element (LSE).

7-9. Information technology warranties

The overall policies and procedures for the Army Warranty Program for information technology (IT) are contained in AR 700-139 and AR 70-1. Highlights for the maintenance community are—

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

b. In warranty applications, unit readiness and mission effectiveness take priority. If the maintenance activity is not or has not been able to get an effective response through the warranty process, the activity should repair first and attempt to settle later through the acquisition support activity. This can only be authorized by the commander of the maintenance activity. Local warranty procedures will include notification procedures when the maintenance activity has to do exercise this option.

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

7-10. Non-IT warranties

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

a. Unit readiness and mission effectiveness take priority over warranty actions. The maintenance activity commander will notify the acquiring command or activity when equipment must be fixed first and then attempt to settle the warranty later.

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

c. Warranty actions that require a modification must be applied by a valid MWO. The MWO is applied and reported

in the MMIS in accordance with AR 750–10. The person applying the MWO is responsible for reporting application of the MWO to the MMIS in accordance with AR 750–10.

- d.* It is the responsibility of the unit owning equipment to inform the maintenance office that a warranty is available.
- e.* The maintenance control section will keep a copy of supported units' equipment known warranties. This does not alleviate the supported commander from knowing if his equipment is under warranty.

Appendix A References

Section I Required Publications

AR 350-1

Army Training and Leader Development. (Cited in para 5-1.)

AR 420-70

Buildings and Structures. (Cited in para 1-1b.)

AR 700-139

Army Warranty Program. (Cited in paras 7-9, 7-10.)

AR 710-1

Centralized Inventory Management of the Army Supply System. (Cited in para 7-4.)

AR 750-1

Army Materiel Maintenance Policy. (Cited in paras 2-2, 3-1, 3-2, 3-10d, 4-2, 4-3, 4-4, 4-7g, 4-9, 4-13, 6-7, 7-6a, 7-8c, 7-8h.)

AR 750-10

Army Modification Program. (Cited in paras 3-2e(4), 7-7, 7-10.)

DA Pam 25-30

Consolidated Index of Army Publications and Blank Forms. (Cited in para 3-5e.)

DA Pam 710-2-1

Using Unit Supply System (Manual Procedures). (Cited in paras 3-4c, 3-8.)

DA Pam 738-751

Functional User's Manual for the Army Maintenance Management System (TAMMS-A). (Cited in paras 4-7, 4-14, 7-6.)

DA Pam 750-8

The Army Maintenance Management System (TAMMS) Users Manual. (Cited in paras 2-3c, 3-2d, 4-3, 4-6, 4-7, 4-12, 4-14, 7-4.)

FM 4-30.3

Maintenance Operations and Procedures. (Cited in para 3-9.)

FM 7.0

Training the Force. (Cited in para 5-1.)

TC 21-306

Tracked Combat Vehicle Driver Training. (Cited in para 5-6.)

Section II Related Publications

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

AR 40-61

Medical Logistics Policies

AR 70-1

Army Acquisition Policy

AR 190-13

The Army Physical Security Program

AR 190-16

Physical Security

AR 190-51

Security of Unclassified Army Property (Sensitive and Nonsensitive)

AR 220-1

Unit Status Reporting

AR 385-55

Prevention of Motor Vehicle Accidents

600-55

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

AR 600-8-22

Military Awards

AR 700-68

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

AR 700-138

Army Logistics Readiness and Sustainability

AR 710-2

Supply Policy Below the National Level

AR 710-3

Asset and Transaction Reporting System

AR 725-50

Requisition, Receipt, and Issue System

AR 735-5

Policies and Procedures for Property Accountability

AR 750-43

Army Test, Measurement, and Diagnostic Equipment

FM 4-30.31

Battlefield Damage Assessment and Repair

FM 21-305

Manual for the Wheeled Vehicle Driver

FM 55-30

Army Motor Transport Units and Operations (Including C-1)

FMR 7000-14R

DOD Financial Management Regulation (Available at: <http://www.dod.mil/comptroller/fmr/01/index.html>.)

PS Magazine

PS Magazine: The Preventive Maintenance Monthly (Available at: <https://www.logsa.army.mil/psmag/pshome.html>.)

TB 43-0002

Series of Technical Bulletins regarding Maintenance Expenditure Limits (MELs) (Available at: <https://www.logsa.army.mil/etms>.)

TB 43-0142

Safety Inspection and Testing of Lifting Devices (Available at: <https://www.logsa.army.mil/etms.>)

TB 43-180

Calibration and Repair Requirements for the Maintenance of Army Materiel (Available at: <https://www.logsa.army.mil/etms.>)

TB 750-25

Maintenance of Supplies and Equipment; Army Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Repair Support Program (Available at: <https://www.logsa.army.mil/etms.>)

TM 5-600

Bridge Inspection, Maintenance, and Repair (Available at: <https://www.logsa.army.mil/etms.>)

Section III**Prescribed Forms**

This section contains no entries.

Section IV**Referenced Forms**

Except where otherwise indicated below, the following forms are available as follows: DA Forms are available on the Army Electronic Library (AEL) CD-ROM (EM 0001) and the APD Web site (www.apd.army.mil); DD Forms are available from the OSD Web site (<http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm>); Optional Forms (OFs) are available from the GSA Web site (www.gsa.gov).

DA Form 12-R

Request for Establishment of a Publication Account

DA Form 348

Equipment Operator's Qualification Record (Except Aircraft)

DA Form 348-1

Equipment Operator's Qualification Record (Except Aircraft)

DA Form 461-5

Vehicle Classification Inspection

DA Form 1687

Notice of Delegation of Authority - Receipt for Supplies

DA Form 2028

Recommended Changes to Publications and Blank Forms

DA Form 2402

Maintenance Tag (Available through normal forms supply channels.)

DA Form 2406

Materiel Condition Status Report

DA Form 2407

Maintenance Request (Available through normal forms supply channels.)

DA Form 2408-4

Weapons Record Data

DA Form 2408-5

Equipment Modification Record

DA Form 2408-9

Equipment Control Record

DA Form 2408–13–3

Aircraft Technical Inspection Worksheet

DA Form 2408–20

Oil Analysis Log

DA Form 3590

Request for Disposition or Waiver

DA Form 5519–R

Tool Sign Out Log/Register

DA Form 5982–E

Dispatch Control Log

DA Form 5984–E

Operator's Permit Record (Note: DA Form 5984–E is Army-unique, while OF 346 was a cross-Service form)

DA Form 5987–E

Motor Equipment Dispatch

DA Form 5988–E

Equipment Inspection and Maintenance Worksheet

DD Form 314

Preventive Maintenance Schedule and Record

DD Form 1970

Motor Equipment Utilization Record

OF 346

U.S. Government Motor Vehicles Operator's Identification Card (Note: DA Form 5984–E is Army-unique, while OF 346 was a cross-Service form) (Available through normal forms supply channels.)

AWCMF452

Service Schedules Due Form (ULLS form, which is on HQDA Log STAMIS)

Appendix B**Sample Maintenance SOP****B–1. Sample field maintenance standing operating procedure**

a. The Field Maintenance Policy site on Army Knowledge Online (AKO) has a sample maintenance SOP at <https://www.us.army.mil/suite/page/253307> which you can use in developing or revising your unit's own SOP. You will need AKO access. If not signed into AKO when you clicked on the link, you will see a banner at the top of the page that says, "You requested the page, Field Maintenance Policy Home. Please click here to access." It is in the Knowledge Center on the right side of the web page in a file marked "SOP."

b. Although forms and publications references predate Army modularity, it is a good example that units can use to develop their own custom SOPs. Where it conflicts with current Army regulations and pamphlets, they take precedence over this example.

B–2. Developing your own field maintenance standing operating procedure

You will develop your own SOPs based upon, but not limited to, the following sources:

- a.* Army regulatory guidance.
- b.* Higher headquarters guidance.
- c.* METT–TC.
- d.* Installation requirements.
- e.* Customer requirements.
- f.* Legal requirements (local, state, federal).

- g.* Status of forces agreements (SOFA) and other host nation requirements.
- h.* Leader experiences.

Glossary

Section I Abbreviations

AAME

Army Award for Maintenance Excellence

ACOD

actual cost of damage

AEPS

Army electronic product support

AIS

automated information system

AKERR

allied kinetic energy recovery rope

AKO

Army Knowledge On-line

AMC

Army Materiel Command

AMDF

Army master data file

AOAP

Army Oil Analysis Program

AOE

Army of Excellence

AR

Army regulation

ASI

additional skill identifier

ASIOE

associated support items of equipment

ASL

authorized stockage list

BCT

brigade combat team

BDAR/R

battle damage assessment, repair, and recovery

BII

basic issue items

BIT/BITE

built-in test/built-in test equipment

BMS

battalion maintenance sergeant

BMS

battalion motor sergeant

BMT

battalion maintenance technician

BSB

brigade support battalion

CAISI

Combat Service Support Automated Information Systems Interface

CARC

chemical agent resistant coating

CBA

cost-benefit analysis

COMET

command maintenance evaluation team

COTS

commercial off the shelf

CRT

combat repair team

CSSAMO

combat service support automation office

CTASC

Corps Theater ADP Service Center

DA PAM

Department of the Army pamphlet

DAMWO

Department of the Army modified work order

DMOSQ

duty military occupation specialty qualification

DSU

direct support units

EAB

echelons above brigade

EAD

echelons above division

ECOD

estimated cost of damage

eMILPO

electronic military personnel office

ERF

equipment record folder

ESSC
Electronic Sustainment Support Center

ETM
electronic technical manual

FAD
force activity designators

FM
field manual

FMC
fully mission capable

FMC
field maintenance company

FMT
field maintenance team

FRA
Forward Repair Activity

FSC
forward support company

GSA
General Services Administration

HAZMAT
hazardous material

IETM
interactive electronic training manuals

ILAP
Integrated Logistics Analysis Program

LAO
logistics assistance office

LAR
logistics assistance representative

LIDB
logistics integrated database

LIN
line item number

LIW
Logistics information warehouse

LO
lubricating oils

LOGPLANS
logistics plans

LOGSA

logistics support activity

LOGSOP

logistics standing operating procedures

LRU

line replaceable unit

LRU

line replacement unit

LSE

logistics support element

MAC

maintenance allocation chart

MACOM

major Army command

MAIT

maintenance assistance and instruction team

MATDEV

material developer

MCO

maintenance control officer

MCS

maintenance control supervisor

MEL

maintenance expenditure limit

METT-TC

mission, enemy, terrain, troops, time, civilians

MHE

materiel handling equipment

MMDF

maintenance master data file

MMIS

Modification Management Information System

MOS

military occupational specialty

MPD

Maintenance priority designation

MRSA

material readiness support activity

MT

Maintenance technician

MTOE

modification table of organization and equipment

MWO

modified work order

NBC

nuclear, biological, and chemical

NCOIC

noncommissioned officer in charge

NICP

national inventory control point

NMC

nonmission capable

NSN

national stock number

OIC

officer in charge

OPCON

operational control

OPORD

operations orders

ORF

operational readiness float

PBUSE

Property Book and Unit Supply-Enhanced

PMCS

preventive maintenance checks and services

PQDR

product quality deficiency report

QDR

quality deficiency report

RO

Requisition Objective

ROP

Re-Order Point

SAMS-1E

Standard Army Maintenance System-1Enhanced

SAMS-E

Standard Army Maintenance System -Enhanced

SARSS

Standard Army retail supply system

SC

supply catalogs

SIDPERS

Standard Installation/Division Personnel System

SKO

sets, kits and outfits

SMC

Support Maintenance Company

SOF

safety-of-flight

SOP

standing operating procedures

SOR

sources of repair

SOU

safety of use

SOUM

safety-of-use message

SPBS-R

Standard Property Book System-Redesign

SSA

supply support activity

SSL

shop supply list

SSL

shop stock list

SSN

standard study number

STAMIS

Standard Army Management Information System

STE

simplified test equipment

SUA

Support Unit of Action (Note: A sustainment brigade is one of four types of Brigade-level SUA—Fires, Maneuver Enhancement, Combat Aviation, and Sustainment Brigades. To refer to the Sustainment Brigade as “The” SUA is incorrect.)

TAMMS

The Army Maintenance Management System

TB

technical bulletin

TC
training circulars

TCX
tactical computer exchange

TDA
table of distribution and allowances

TI
technical inspections

TM
technical manual

TMDE
test, measurement, and diagnostic equipment

TOE
table of organization and equipment

TRADOC
Training and Doctrine Command

TSC
theater sustainment command

ULLS
unit level logistics system

ULLS-A
unit level logistics system-aviation

ULLS-G
unit level logistics system-ground

UND
urgency of need designators

USACECOM
United States Army Communications-Electronics Command

USAMC
U.S. Army Materiel Command

USAPC
U.S. Army Petroleum Center

VSAT
very small aperture terminal

WebLIDB
web logistics integrated data base

Section II

Terms

This section contains no entries.

Section III

Special Abbreviations and Terms

This section contains no entries.

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