

Chapter 5

MAINTENANCE ACTIVITIES

Various maintenance functions take place in an aviation maintenance unit. Their performance has a direct influence on the unit's ability to maintain equipment in ready status. This chapter deals with the procedures and responsibilities of various maintenance activities.

SECTION I – MISCELLANEOUS ACTIVITIES

ARMY WARRANTY PROGRAM

5-1. The Army Warranty Program covers all items procured for Army use under warranty. The Army has traditionally purchased warranties on items like trucks, tractors, engines, transmissions, construction equipment, and so forth. The list has been expanded by law to include weapon systems, aircraft, and some components. Three categories of warranties are warranties, special warranties, and subordinate warranties. All new equipment and components should be checked for warranties. Warranty control and logistics assistance offices provide information and assistance concerning the program; these offices are listed in Table 3-1 of DA Pam 738-751. Tables 3-3 and 3-4 of DA Pam 738-751 provide a partial listing of specific items under warranty. Chapter 3, DA Pam 738-751, provides instructions for completing DA Form 2407 (Maintenance Request) and DA Form 2407-1 (Maintenance Request-Continuation Sheet) to file warranty claim actions. AR 700-139 governs the warranty program.

5-2. Aviation components covered by the Army warranty program require special handling during the warranty period to keep the warrant valid. Details concerning warranty provisions are published in supply letters. The WARCO or LAO will have a copy of the warranty supply letter on items within their area of support. It should be understood that warranties will increase the time required to perform maintenance.

ARMY OIL ANALYSIS PROGRAM

5-3. The AOAP is an Army-wide coordinated program to check oil condition and to detect impending equipment component failure by analyzing oil samples. The AOAP applies to all units that operate and maintain aeronautical equipment. The program's objectives, policies, and responsibilities are defined in AR 750-1 and TB 43-0106. Aircraft maintenance officers must be familiar with these references and with the AOAP forms discussed in DA Pam 738-751. Maintenance officers must ensure that the AOAP in each unit complies with all requirements. The AOAP monitor is a unit orders position. The QC section normally oversees day-to-day operations of the program.

GROUND SUPPORT EQUIPMENT

5-4. The objective of Army aviation maintenance can be reached only if the unit's GSE is properly maintained in a safe, reliable, fully mission-capable manner. The aircraft

operational readiness rate is affected by the GSE operational readiness rate. GSE includes all equipment and special tools required to maintain aircraft and associated equipment. Support equipment (whose complexity in some instances approaches the aircraft's) is needed to properly maintain and operate aircraft. No MOS exists in which a soldier is trained only on GSE. The aircraft repairer receives only nominal training on GSE and must learn to maintain the equipment through an on-the-job training program.

AUTHORIZATION

5-5. The primary documents allocating GSE are TOEs, MTOEs, and TDAs (TOEs are requirements documents and MTOEs are authorizations documents). The MTOE lists equipment authorized for each section by paragraph and LIN. A recapitulation table shows totals of equipment listed in the MTOE by type. Components of sets, kits, and outfits are not reflected in these totals but are shown in supply catalogs prepared for each shop set authorized by the MTOE. Some GSE is peculiar to only one type of aircraft or mission (special purpose). The authorization for this type of equipment is contained in the repair parts TM for that aircraft. For a complete authorization of GSE, one must consult the unit's MTOE and all applicable supply catalogs for sets, kits, and outfits authorized and repair parts manuals for aircraft supported. The assignment of GSE will be consistent with the mobility requirements dictated by the air mobility concept.

ACCOUNTABILITY

5-6. AR 710-2 states that, as a minimum, all property will be inventoried annually. Accountability will include procedures from the SPBS-R. Inventories should be conducted periodically. Mechanics or supervisors will inventory sensitive items and toolboxes at least monthly using the property book or hand receipts and appropriate supply catalogs. Mechanics' toolboxes should be inventoried after each maintenance task to help control FOD.

FORMS AND PUBLICATIONS

5-7. DA Pams 738-750 and 738-751 contain lists of support equipment and specify the DA forms on which data are to be recorded and maintained. Equipment requiring DA forms is listed by the following ECC:

- P = materials-handling equipment.
- Q = support equipment.
- AX = ancillary equipment.
- AZ = tools, test, and measuring equipment.

5-8. Technical publications must be on hand to ensure that GSE is properly operated and maintained. DA Pam 25-30 lists required publications, including LOs, MWOs, TBs, TMs, and supply catalogs.

REPAIR PARTS AND SUPPLY

5-9. Units must maintain a PLL for GSE as specified in the appropriate TMs. Each unit is responsible for preparing its PLL and providing a copy to the supporting activity.

5-10. The combination of a lack of parts manuals, unreported part purchases on the economy, makeshift repairs, controlled substitution, and parts ordered on an as-needed basis has created a false history for GSE repair parts. Since units PLLs for GSE are

virtually nonexistent, there sometimes appears to be a lack of demand for GSE repair parts. As a result, some manufacturers have halted production of outdated equipment and its repair parts. The many different makes and models of one type of equipment further frustrate the problem of identifying repair parts. Contacting manufacturers directly is sometimes helpful in obtaining support for older pieces of GSE.

GROUND SUPPORT EQUIPMENT STORAGE

5-11. Frequently, equipment excess to immediate needs is on hand in storage. GSE should be stored in buildings, under cover and off the floor. It should be kept as dry as possible and be accessible for inspection and servicing during the time it is in storage. Items not used for over 90 days must be processed for storage, then reprocessed when removed from storage. (See TM 1-1500-204-23-9.)

MAINTENANCE

5-12. Most GSE failures can be traced directly to poor maintenance practices. Establishing a sound unit maintenance SOP for GSE is the maintenance officer's responsibility. Ground power units, compressors, heaters, towing vehicles, fueling vehicles, test stands, and electronic test equipment are examples of GSE that must be maintained and ready to function whenever needed. GSE must be checked frequently for preventive maintenance and scheduled maintenance services. TM 1-1500-204-23-9 provides criteria and technical data for serviceability inspections, storage and shipment, and general maintenance procedures. Specific TMs contain operator and support maintenance procedures. Maintenance beyond the operator level will depend on which agency is the proponent for the item and on the availability of maintenance capability. However, most ordnance and engineer equipment can often be repaired in unit motor pools. To ensure GSE availability, managers will—

- Evaluate the operational status of GSE.
- Emphasize individual responsibility by insisting that all operators be trained and licensed.
- Ensure that all appropriate publications are current, on hand, and used.
- Ensure that pre- and post-operation checks and services are always done.
- Allot time for preventive maintenance checks and services and scheduled maintenance. (A good time to perform these checks is during your normal vehicle maintenance times)
- Conduct periodic inspections and inventories.
- Ensure GSE operation and maintenance standards are detailed in unit SOP.

REQUESTS FOR ADDITIONAL EQUIPMENT

5-13. Sometimes aviation units need GSE other than that authorized or required by TOE, MTOE, and TDA. Tropic, desert, or arctic environments often necessitate additional equipment to supplement that authorized in the MTOE. The unit needing the extra equipment should submit a request in letter form through command channels. The request should include the following:

- Identification of the specific requesting unit.
- Number of applicable TOE, MTOE, or TDA.
- Complete nomenclature, stock number, and quantity of needed items.

- Justification for each item, including a statement that the item can be maintained.
- If the item is nonstandard, the reason for not using a standard item.
- Statement as to whether the additional equipment should be included in the TOE, MTOE, or TDA.

5-14. The repair parts manual lists the GSE needed for the aircraft. If an item is listed, it can be requested, even if it is not included in the unit's TOE, MTOE, or TDA.

SECTION II – LOGISTICS AND/OR MAINTENANCE ASSISTANCE

LOGISTICS ASSISTANCE PROGRAM

5-15. The LAP, which is detailed in ARS 700-4, 700-138, and 750-1, helps commanders develop their units' capabilities to resolve materiel-readiness problems. Logistics assistance covers many kinds of assistance activities, including field training in maintenance and supply and in administrative and technical procedures. The program emphasizes the word "assistance." Whatever the reason for the need, technical assistance personnel may be called on for help.

RESPONSIBILITY

5-16. The LAP does not relieve commanders of logistics-readiness responsibilities or functions. Commanders are responsible for developing a self-sustaining capability. The LAP is not intended to be a permanent augmentation to the commander's staff; instead, it is limited to the amount of time necessary to solve specific problems and train assigned personnel.

5-17. Commanders may be confronted with real or potential logistics problems that are beyond their resource capability to identify or resolve or are clearly not their responsibility. In these cases, the program helps commanders analyze readiness, identify problems, and determine responsibility for resolving problems. When appropriate, it also assists with the resolution (normally on new equipment).

FUNCTIONS

5-18. Logistics assistance is the advice, assistance, and training provided by qualified logisticians. They may be military or civilian employees of the Army or employees of industrial or commercial companies serving the Army under contract. New and complex equipment must be introduced into the Army system as rapidly as possible, and military personnel are constantly rotating. As a result, maintenance activities often need assistance to keep current. The LAP provides solutions to problems of supply and equipment installation, operation, and maintenance. The program provides a pool of knowledge and skill from which all levels may draw aid. Logistics assistance personnel will coordinate actions with the commander and keep him fully informed of their findings and recommendations. Some functions of logistics assistance personnel are to—

- Perform the work to show units how it is done.
- Advise both technical and nontechnical personnel.
- Help users evacuate and replace unserviceable equipment that cannot be repaired.
- Visit AVUM and AVIM activities to help improve supply, repair parts, and maintenance support for using organizations.

- Help units locate deficiencies in supply and maintenance capabilities.
- Collect, evaluate, and exchange technical information.
- Instruct units in records management and in preparing unit supply records, PLLs, and authorized stockage lists.
- Instruct units in preparing equipment for field exercises and overseas deployment.
- Provide assistance on the care and preservation of stored material.

PERSONNEL AND SERVICES

5-19. LAP personnel are primarily Army military and civilian. They are highly trained, experienced, physically qualified, and well versed in the missions, equipment, and procedures of the providing and supported commands. These personnel are mobile and available for worldwide assignments. They will be assigned or attached to the appropriate geographical logistics assistance office (AR 700-4) when deployed to the field command areas. Logistics assistance personnel are employed by, or under contract to, one of the major subordinate commands under the AMC.

Contract Plant Services

5-20. Trained and qualified engineers or technicians employed by the manufacturer provide these services in the plants and facilities of the manufacturer. Through contract plant services, Army personnel are taught to install, operate, and maintain the manufacturer's equipment.

Contract Field Services

5-21. Qualified contractor personnel provide these services on site. Normally, they provide DA personnel with information on the installation, operation, and maintenance of new DA weapons, equipment, and systems.

Field Service Representative Services

5-22. Field service representatives are employees of manufacturers of military equipment or components. They provide liaison or advisory service between their company and military users of its products. Known in the field as a "tech reps," they transmit information from the manufacturer needed to update the Army's equipment capabilities. Also, they solve technical problems. Field service representatives are important as technical communication channels between manufacturers and military users.

UNITED STATES ARMY AVIATION AND MISSILE COMMAND

5-23. The AMCOM is one of the major subordinate commands of the AMC. It is responsible for commodity management of aeronautical equipment, including—

- Design, research, and development.
- Maintenance engineering.
- Supply and stock control.
- Logistics assistance for all Army aviation and aerial delivery equipment.

NEW EQUIPMENT TRAINING TEAMS

5-24. The Logistics Assistance and NET Division is one of the subordinate divisions of the Directorate for Readiness. Its mission is staff supervision and operational control of worldwide LAPs for Army aircraft and related support equipment. The division also provides representatives to make command staff visits and to manage all aspects of the new equipment training and support services. An Army aircraft mobile training team is made up of either specialists or contract technical services personnel trained in the support of a particular aircraft. These teams are controlled by AMCOM and designed to assist the commander in improving the proficiency of maintenance personnel at AVUM and AVIM levels. When the team completes a job, it prepares and forwards a detailed report to AMCOM.

MAINTENANCE ASSISTANCE AND INSTRUCTION TEAM

5-25. The MAIT is a program developed under DCSLOG designed to complement the LAP. It provides technical assistance to help unit commanders identify and solve continuing problems that contribute to less than acceptable materiel readiness. The MAIT does not negate the commander's right to conduct formal or informal evaluations; it simply provides the unit commander with a list of problem areas and recommended actions. The MAIT will not score the unit or provide a rating. Emphasis is on assistance and instruction. MAITs have replaced the former CENI teams. Specific guidance on the MAIT program is in AR 750-1, which complements ARs 350-35, 700-4, and 700-138.

5-26. MAIT assistance may be asked for by anyone at any time, but normally AVIM assistance should be sought first.

AVIATION RESOURCE MANAGEMENT SURVEY

5-27. The ARMS Program is a FORSCOM program designed to provide aviation personnel with expert technical assistance and on-site evaluations as mandated by AR 95-1. Key proponent areas of the ARMS include, but are not limited to, the following:

- Maintenance.
- Supply.
- Safety.
- Petroleum, Oil, and Lubricants.
- Aviation Life Support Equipment.
- Operations.
- Aviation Medicine.
- Standardization.
- Training Management.

5-28. Additional information, assistance, and ARMS Commander's Guides may be obtained at www.forscom.army.mil/avn/.

AVIATION INTERMEDIATE MAINTENANCE LOGISTICS ASSISTANCE

5-29. One capability of AVIM units is informal technical and training assistance using mobile maintenance/supply contact teams. Supporting maintenance activities must maintain a proactive liaison to assist using activities. These teams:

- Assist in resolving problems identified by liaison visits.

- Instruct and advise on maintenance and repair parts procedures.
- Perform on-site maintenance when requested.
- Assist the MAIT when requested.

REQUESTS FOR LOGISTICS ASSISTANCE

5-30. DA has provided commanders with the organic capability to accomplish their logistics mission. Commanders at each level will use that capability to achieve and sustain their authorized level of organization. However, DA will furnish commanders with assistance to identify and resolve logistics problems that are beyond their responsibilities or authority. Before requesting logistics assistance, commanders must use their own capabilities and whatever AVIM support is available to them.

5-31. A unit commander obtains logistics assistance for supply or maintenance by submitting a request through proper channels to the servicing MAIT or LAO. The Chief, MAIT or LAO, determines whether the need can be met from resources within his geographical area of responsibility. If resources are not available, the request is forwarded through channels to the commanding general of the commodity command responsible for that particular field of logistics assistance.

5-32. A request may be submitted by the most expeditious means, in any form (normally on a memorandum), at any time. It must identify the nature of the problem in enough detail to enable the source to provide a quick, effective response. AR 700-4 lists information that should be addressed in a request.