



## CHAPTER 1

# INTRODUCTION

### GENERAL

The battlefield of the future will be highly volatile in nature. Employing weapons systems of increased complexity and mobility, in which they will be operating in a fully integrated environment (see Appendix A). Thus, the maintenance doctrine and concepts associated with the three categories of maintenance were found to be inadequate and inconsistent in providing responsive support to the AirLand battle. Therefore, the Army has returned to the four levels of maintenance in order to provide responsive support to the AirLand battlefield.

The Army's maintenance support requires change to accommodate new battlefield environments, new equipment, and new methods of employment. The Department of the Army (DA) has decided to change to a maintenance structure that will satisfy these requirements. The change to J- and L-series TOEs will occur as units and systems are selected for conversion. During this transition period, some units will continue to operate under the old structure.

### LEVELS OF MAINTENANCE

The current maintenance structure consists of unit, direct support (DS), general support (GS), and depot maintenance.

**Unit level maintenance** is performed by the operator, crew, and the company maintenance team (CMT) and/or unit/battalion maintenance personnel. Equipment operators, crew, and the CMT use preventive maintenance checks and services (PMCS) to detect equipment deficiencies. Maximum use is

made of built-in test equipment (BITE) and test measurement and diagnostic equipment (TMDE) to perform maintenance. These tasks are performed at the deployed location of the equipment, the unit motor pool, or the unit maintenance collection point (UMCP).

**Direct support units** (DSUs)/Activities are found in divisional and nondivisional organizations. DSUs repair and return equipment to the user and provide repair parts supply. DS tasks may be performed at DS and/or in the supported unit level maintenance area.

**GS maintenance** provides equipment repair and returns repaired equipment to the theater supply system. GS maintenance units are located in echelons above corps (EAC) and are characterized by commodity-oriented platoons or commercial activities repairing components and end items. GS maintenance includes shop/bay or production line operations conducted in fixed or semifixed facilities. GS units are manned with 10 percent more soldiers than their primary mission requires in order to perform backup DS maintenance for divisional and corps units. This will be especially critical during reconstitution operations.

**Depot maintenance** supports both the combat forces and the Department of Defense (DOD) supply system by overhaul and rebuild operations. Depot maintenance is performed by selected industrial-type activities operated by the Army, other military services, contracted commercial firms, or specialized repair activities.

For discussion of current maintenance policies, see AR 750-1.

## GENERAL SUPPORT MAINTENANCE RESPONSIBILITIES

This manual is compatible with the principles, concepts, and objectives of maintenance as described in AR 750-1. As a matter of general policy, maintenance will be allocated where it can be accomplished most efficiently while maintaining or improving readiness on a cost effective basis,

GS level will concentrate on the repair of items specified by the Theater Army Materiel Management Center. Due to the nature of the work done at the GS level, there will be more component repair than at lower echelons.

**GS maintenance activities are responsible for** providing overflow or backup maintenance support

to maintenance units and installation/Army or local area theater supply operations by--

- Repair of unserviceable modules in support of repairable exchange (RX) service to lower level maintenance activities.
- Repair/modification of end items/reparable components for return to installation/command/local area supply stocks.
- Providing on an exception basis DS maintenance support. The theater, or area commander can designate area maintenance support, technical assistance, on-site maintenance, and contact team support.

Operations normally allocated to the GS level of maintenance are--

- Diagnosis and isolation of equipment/reparable component malfunctions to the internal component level; adjustment, calibration, alignment and repair of equipment/reparable exchange items as necessary. Restoration of the equipment/reparable components to original manufacturer's tolerances or standards is not required.
- Repair of defective components which are beyond the authorized capability of lower maintenance echelons as depicted by the maintenance allocation chart (MAC).
- Repair of major modules by grinding, adjusting, or aligning such items as valves, seats, tappets, etc.
- Repair of modules by replacement of internal and external components when special environment facilities are not required. This includes the repair/replacement of printed circuit boards (PCBs)/cards constructed of components and selected solid-state integrated circuits.
- Performance of heavy body, hull, turret, and frame repair within the limits of the MAC.
- Evacuation of disposable, unserviceable materiel through appropriate channels and repairable, unserviceable end items/modules whose repair is beyond authorized capability to designated depot maintenance facilities.

Maintenance tasks include repair of components, items, printed circuit boards (PCBs), and repair of selected items in the theater general support maintenance (GSM) program. Missions may include specialized repair activities to repair complex PCBs, cards, and other selected items when authorized by HQDA. The maintenance mission is normally performed using shop stock repair parts or programmed repair parts tailored to specified mission requirements. The maintenance activity may also screen unserviceable line replaceable units (LRUs) and Shop Replacement Unit (SRUs), including complex PCBs, before evacuating the unserviceable to depot or contractor for repair.

GSM activities should maintain a liaison with supported activities. This coordination will assure activities are familiar with and have the skill to complete their materiel maintenance responsibilities. Upon request of a supported activity, maintenance support teams are formed and dispatched by the GSM unit. These teams perform required materiel support maintenance tasks on site. MSTs may also assist in training personnel of the supported activity as part of the maintenance operations technical assistance effort.

**Tables of organization and equipment (TOE)** GSM units within the continental United States (CONUS) will be assigned operational support missions as part of the CONUS training base. GS TOE units will provide this support under the operational or technical control of the installation maintenance activity. However, such units will not be absorbed into the operations of installation TDA materiel maintenance activities. GSM activities will function as separate units. In assigning missions to TOE maintenance units, installation commanders will consider, as a primary factor, the wartime mission training requirements to ensure operational ability of units.

Some GSM personnel may work in installation facilities to maintain their skills and update MOS training as required. The productive capability of the installation materiel maintenance activity must be sustained at a level that can readily be expanded to support mobilization work loads required when GSM units are--

- Deployed.
- Transferred.
- Inactivated.
- Reorganized.
- Engaged in extended field exercises.

Centralized installation maintenance production planning and control (PP&C) activities will be established under the control of the installation maintenance officer (IMO). This will assure the effective use of available maintenance resources. Divisions, separate regiments, brigades, corps as well as echelons above corps, that are tenants to the installation will manage their own PP&C systems. However, they will furnish work load data to the central installation PP&C Office so the installation commander will be able to give required assistance.

Test, measurement, and diagnostic equipment (TMDE) maintenance support will be provided as outlined in AR 750-25, TB 750-25, and TB 43-180. When resource constraints can be expected, maintenance operations will be combined into the minimum number of facilities at each installation. This will assure acceptable materiel readiness levels, satisfaction of operational commitments, and contingency deployment.