Chapter 2

AVIATION MAINTENANCE OPERATIONS

This chapter discusses how aviation maintenance operations are conducted in today's Army. It should be noted that some of these concepts will change as new systems are introduced into the aviation community. If the "two-level" maintenance system becomes a reality for the latest model helicopters, it will be covered in later revisions of this manual.

SECTION I – AVIATION MAINTENANCE

GENERAL

2-1. As discussed in FM 3-0(100-5), the U.S. seeks to achieve its strategic objectives in three diverse environments, using all elements of national power. The environments that aviation maintenance must be able to operate in are peacetime, conflict, and war. Peacetime operations and conflicts are classified as support operations and/or stability operations. Although the mission of aviation will change depending on the environment, the role of aviation maintenance will remain somewhat constant although the means of employment may change.

THREE-LEVEL MAINTENANCE SYSTEM

2-2. The current Army aviation maintenance system is a three-level system—AVUM, AVIM, and depot level maintenance.

AVIATION UNIT MAINTENANCE

2-3. AVUM platoons or companies handle aviation operational maintenance. Operational maintenance provides quick turnaround through repair by replacement, minor repairs, adjustments, cleaning, lubricating, and servicing. These platoons or companies are organic to aviation organizations at all levels.

AVIATION INTERMEDIATE MAINTENANCE

2-4. The AVIM unit provides intermediate maintenance and limited backup AVUM support to supported units. AVIM units are either divisional or nondivisional. An AVIM company/battalion from the DISCOM provides AVIM for division-level aviation assets. These divisional AVIMs are structured to support the division's specific aircraft. Nondivisional AVIMs provide support to corps and echelons above corps nondivisional aviation units and backup support for the divisional AVIM units.

DEPOT

2-5. Depot level maintenance provides the ability to overhaul, repair, modify, retrofit, and modernize aircraft systems. Although depot maintenance is normally performed at fixed facilities within CONUS, support teams may be deployed for on-site repairs as necessary.

SUSTAINMENT MAINTENANCE

2-6. Army aviation maintenance operations and assets are integral to EAC and corps. Aviation sustainment maintenance requirements are those maintenance and supply functions that feed and support operational maintenance requirements from a logistics base. These are usually associated with theater army or depot maintenance operations, whether in the theater or CONUS. Sustainment maintenance primarily supports and sustains the operational maintenance of the aviation force.

ORGANIZATION

2-7. The mission and focus of aviation maintenance units are oriented and functionally organized to provide AVUM and AVIM for the aviation force. Aviation maintenance units and organizations are staffed predominately by Aviation Branch personnel. They provide a one-of-a-kind maintenance and supply support to aviation forces and organizations. Maneuver force commanders can maximize combat potential if they understand that the aviation maintenance force is essential to the success of aviation operations. The aviation maintenance system is structured for operational and sustainment maintenance as outlined in FM 3-4.100(1-100).

TRANSPORTATION ASSETS

2-8. Aviation maintenance and supply (both technical and unit supply) must work together to return the maximum amount of equipment to the using unit. Transportation–whether air or ground–must also be closely coordinated with aviation maintenance and supply support. Supply locations must be considered when planning aviation maintenance support sites. The transportation system, air and ground, is tasked to deliver repair parts, evacuate unserviceable materiel, deploy aviation maintenance units, recover downed aircraft, and sometimes to help move ORF items. Aviation maintenance support units have limited organic transportation capabilities; they rely on transportation support from other units. These requirements must be considered when allocating transportation assets and assigning priorities.

SECTION II – AVIATION UNIT MAINTENANCE OPERATIONS

GENERAL

2-9. AVUM functions are generally characterized as high frequency, “on-aircraft” maintenance tasks that generate minimal aircraft downtime. These functions are frequently limited by the amount and complexity of required ground support equipment, skills required to execute the repair, and sophistication of repair facilities. The goal, to provide maintenance support as far forward on the battlefield as possible, must be

balanced by the need of the AVUM to maintain sufficient mobility to keep pace with the operating units it supports.

AVIATION UNIT MAINTENANCE FUNCTIONS

2-10. AVUM provides quick turnaround through repair by replacement, minor repairs, adjustments, cleaning, lubricating and servicing. It provides mobile responsive support through MST. The general concept is for crew chiefs assigned to specific aircraft to perform daily servicing, daily inspection, and high frequency, remove-and-replace-type aircraft repairs. Scheduled maintenance (other than daily inspections) and the more time-consuming operator-type repairs are normally performed by an AVUM maintenance element within the organization.

2-11. AVUM performs preventive maintenance repair and replacement associated with a high level of operational readiness. Maintenance inspections and services include daily, phase/periodic, progressive phase, and special inspections as authorized by the maintenance allocation chart or by higher headquarters. Phase/periodic maintenance is essential to maintain a high state of readiness in both combat and peacetime, and commanders may tailor it to accommodate combat operations or emergencies. These inspections identify equipment or system malfunctions by using BITE or easy-to-use diagnostic and fault-isolation devices.

2-12. Worn or damaged modules or components, which do not require complex adjustments or system alignment, are replaced using available skills, tools, and equipment. Recoverable unserviceable modules or components, as well as end items beyond the unit's repair or manpower capability are evacuated to the supporting AVIM activity. BDA and BDR are limited to combat operations as approved by the commander (see Appendix F).

MAINTENANCE CONSIDERATIONS

2-13. Some major considerations for aircraft maintenance at the AVUM unit location are the following:

- Maintaining the highest degree of mobility. (This includes preparing load plans and practicing convoys and deployment procedures.)
- Completing all imminent scheduled maintenance before deployment or entry into surge operations. This avoids the potential of grounding aircraft or overflying scheduled maintenance events during critical battlefield situations. The intervals stated in the aircraft technical manuals are maximum intervals that will not be exceeded except during emergency or critical combat operations when authorized by the unit commander. (Refer to TM 1-1500-328-23.)
- Close coordination with AVIM support is continuous and essential.
- Evaluating each major repair for evacuation to AVIM based on workload and mobility. During periods when movement is likely, aircraft requiring major maintenance or repairs that cannot be completed in a timely fashion may be considered for evacuation to AVIM. (Aircraft evacuation must remain at the discretion of the AVUM commander based on mission requirements.)
- Setting priorities (unit commander/PC) for repairs based on the type of aircraft and aircraft requirements for the battlefield.
- Basing QC and technical inspection requirements on achieving the standards in the appropriate TM rather than "like new" repairs.

- Because aviation combat operations result in shortages of personnel, repair parts, and aircraft, intensive maintenance management is mandatory. (MSTs and BDAR teams must be predesignated and trained so that minimal time and resources are expended during critical periods.)
- Controlled exchange is a key element in maintaining maximum numbers of mission-capable aircraft for the battlefield commander, but it must be firmly controlled by SOP and be according to AR 750-1 and TM 1-1500-328-23. (see Chapter 6 for more information on controlled exchange)

MAINTENANCE SUPPORT TEAMS

2-14. Maintenance support teams from assets within the unit (both AVUM and AVIM) are used to repair aircraft on site or prepare the aircraft for evacuation. The AVUM commander/PC officer coordinates and schedules maintenance at the forward location of the AVUM unit. The members of the forward element must be able to diagnose aircraft damage or serviceability rapidly and accurately. MST operations follow these principles:

- Teams are used to the maximum extent possible.
- Teams may be used for aircraft, component, avionics, or armament repair.
- When the time and situation allow, the team repairs aircraft on-site rather than evacuating aircraft.
- Teams must be 100-percent mobile and transported by the fastest organic means available (normally aircraft).
- Teams sent forward from the AVUM support unit must be oriented and equipped for special tasks.

Aircraft Recovery and Evacuation

2-15. In combat, there will be a great increase in flying hours and a great demand for operational aircraft. These increased requirements will be complicated by higher attrition and battle damage rates, which create shortages of repair parts and replacement aircraft. To offset these shortages and maintain an effective combat aviation force, rapid and responsive recovery of Army aircraft systems and components is essential. Aircraft recovery operations are those that result in movement of an aircraft system or component from the battlefield to a maintenance facility. Recovery may require on-site repair of an aircraft for a onetime flight, or it may prepare and move an aircraft directly to the first appropriate maintenance activity, using another aircraft or surface vehicle. In extreme circumstances, only portions of inoperative aircraft may be recovered. An aircraft will be cannibalized at a field site only when the combat situation and aircraft condition are such that the aircraft would otherwise be lost to approaching enemy forces. (Refer to FM 3-04.513[1-513]).

Responsibility

2-16. Aircraft recovery is the responsibility of the owning aviation unit. The unit should use its AVUM assets within the limits of its organic capability. A successful recovery operation is a highly coordinated effort between the owning organization, its AVIM support, and the ground element where the operation is to take place. The operation should also be coordinated with any organization that may provide aircraft or vehicle assets to complete the recovery. The AVUM organization will have organic rigging equipment for recovery of assigned aircraft. The maintenance and recovery team must be trained in rigging a damaged aircraft and in conducting recovery operations. If the

recovery is beyond the AVUM team's capability, AVIM support is requested. Divisional and nondivisional AVIM units will have organic rigging equipment for supported aircraft.

Recovery Teams

2-17. Each AVUM organization should provide teams for maintenance and recovery. The team will usually include an aircraft maintenance officer (qualified maintenance test pilot), a forward repair and recovery team chief, a technical inspector and damage assessor, and a trained aircraft recovery crew. This recovery team will consist of personnel from the AVUM unit's location at the combat trains or FARP. Recovery aircraft will come from organic aircraft or be requested from higher echelons. These aircraft should be equipped with rigging equipment for each type aircraft in the unit and with quick-fix BDR kits (tools, hardware, POL products, required repair parts, and technical manuals). When the aviation brigade is the headquarters for covering force or economy-of-force missions and a BSA is constituted to support the effort, the supporting AVIM provides BDA teams. These will consist of MSTs and aircraft recovery and evacuation teams when repairs are not within the capability of the AVUM unit. Figures 2-1 and 2-2 provide examples of aircraft recoveries. Other ways may be employed. (See Appendix F and FM 3-04.513 [1-513] for sample aircraft recovery and evacuation SOP.)

Factors Affecting Recovery Operations

2-18. The maintenance and recovery team must consider the following factors to select the best course of action:

- Location of downed aircraft.
- Types of special equipment packages installed on the aircraft (see Appendix G).
- Amount of damage to aircraft.
- Tactical situation and proximity to enemy.
- Time available (planning time for AVUM preparation and rigging: 30 to 60 minutes, which may vary based on METT-TC).
- Weather.
- Assets available.

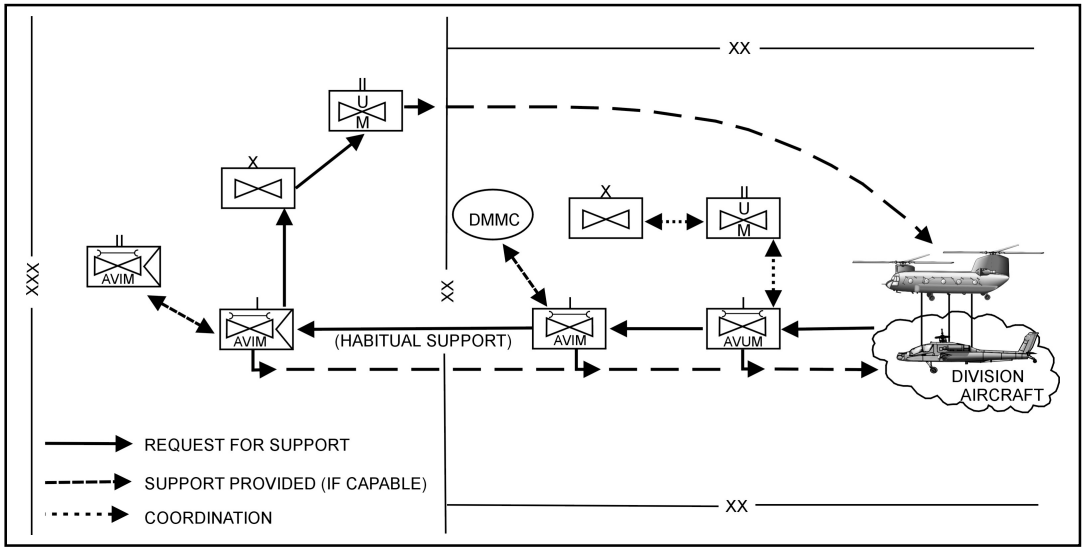

Figure 2-1. Example of Aerial Recovery of Division Aircraft

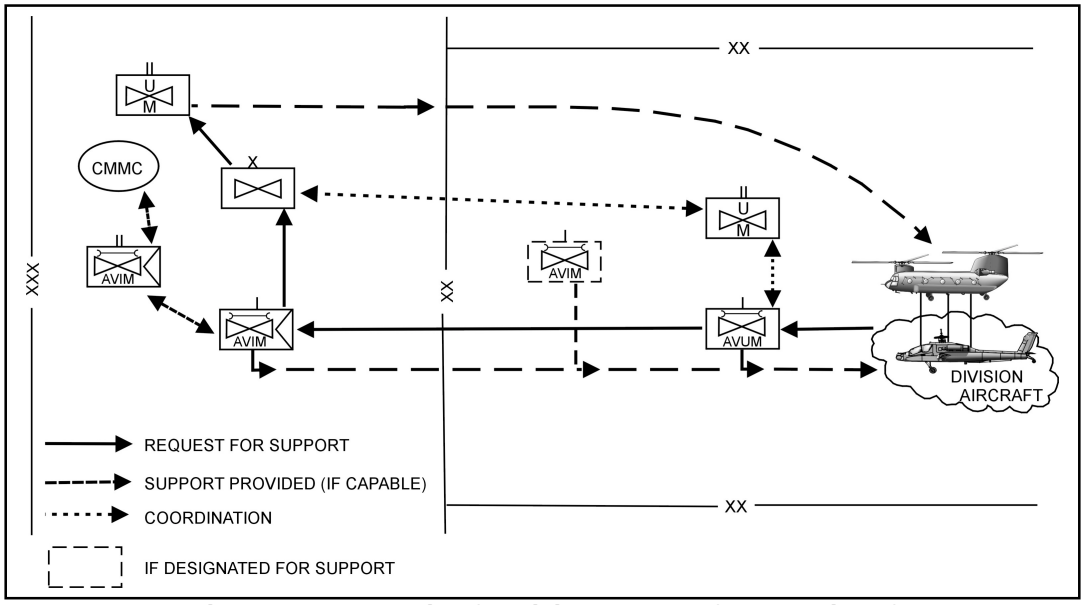

Figure 2-2. Example of Aerial Recovery of Corps Aircraft

Courses of Action

2-19. After evaluating the above factors, the team will determine a proper COA for the following:

- To make combat repairs, defer further maintenance, or return the aircraft to service.
- To make repairs for onetime flight and fly the aircraft to an appropriate maintenance area.
- To rig the aircraft for recovery (surface or aerial).
- To arrange for motor or aerial transport.
- To selectively cannibalize, destroy, or abandon the aircraft according to SOP.

(Also, see Appendix F or FM 3-4.513(1-513) for additional information on aircraft recovery.)

AVIATION UNIT MAINTENANCE REPAIR PARTS

2-20. The AVUM unit maintains both a PLL and bench stock for all supported aircraft systems and subsystems repair. See Figure 2-3 for Class IX air repair parts flow.

Requisition

2-21. Aviation elements submit repair parts requests to their supporting AVIM. Normally, all aviation PLLs and records for the maneuver companies are kept with the rear AVUM section/company, who forwards requisitions to the supporting AVIM. When deployed in front of the division, units may be unable to echelon the train elements so the AVUM commander will coordinate with the brigade S4 to receive parts and AVIM support.

Distribution

2-22. The AVUM commander or the PC officer will have selective PLL items at the combat trains or FARP for quick-fix repairs. Use of these items must be reported to the PLL clerk so that the items can be replenished. Replenishment of items required forward that are in the unit's PLL, or items that are AIMI, will be reported to the brigade rear for ground transportation forward. ALOC must be established to provide repair parts for NMCS aircraft. This aerial resupply will "push" critical parts from corps and division DSU forward to AVUM elements. At least one aircraft must be in direct support of the brigade S4 for emergency resupply of NMCS aircraft.

Controlled Exchange

2-23. Shortages of repair parts, particularly AIMI, will require the AVUM unit commander or maintenance officer to use battle-damaged or unserviceable aircraft as a source for repair parts during combat operations. The intensity of combat, the need for operational aircraft, and the availability

of the repair parts requesting system will dictate the extent to which controlled exchange will be necessary. (Refer to TM 1-1500-328-23 and AR 750-1 for additional information.)

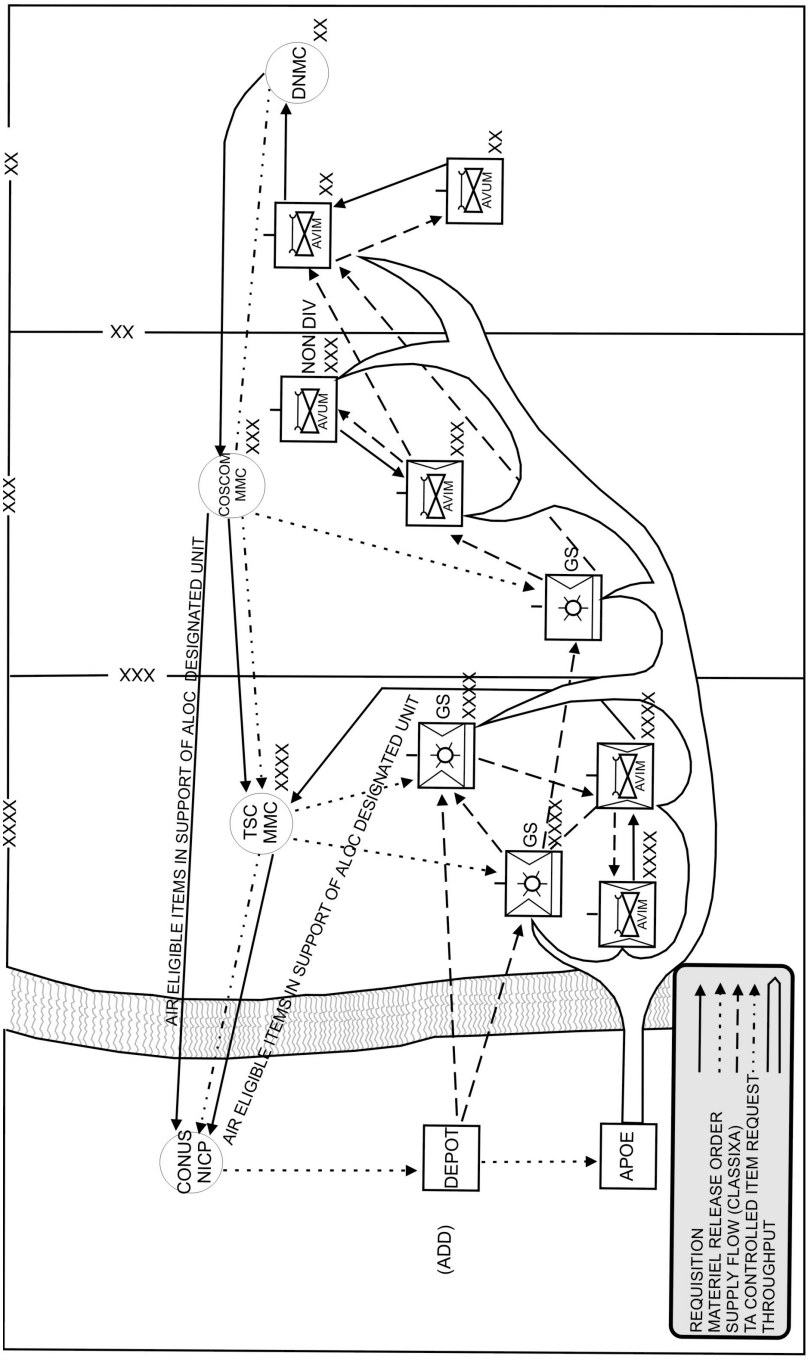

Figure 2-3. Requisition and Material Flow of Aircraft Repair Parts

AVIATION UNIT MAINTENANCE MOBILITY

2-24. The AVUM unit must be 100 percent transportable and be capable of transporting 100 percent of its TOE equipment in one lift, using organic vehicles. It is essential for AVUM operations to keep pace with the OPTEMPO of aviation in any combat operation. AVUM units must be able to move as frequently as every 24 hours.

SECTION III – AVIATION INTERMEDIATE MAINTENANCE OPERATIONS

2-25. AVIM organizations are found at the division, corps, and EAC levels. Figure 2-4 depicts the AVIM force design.

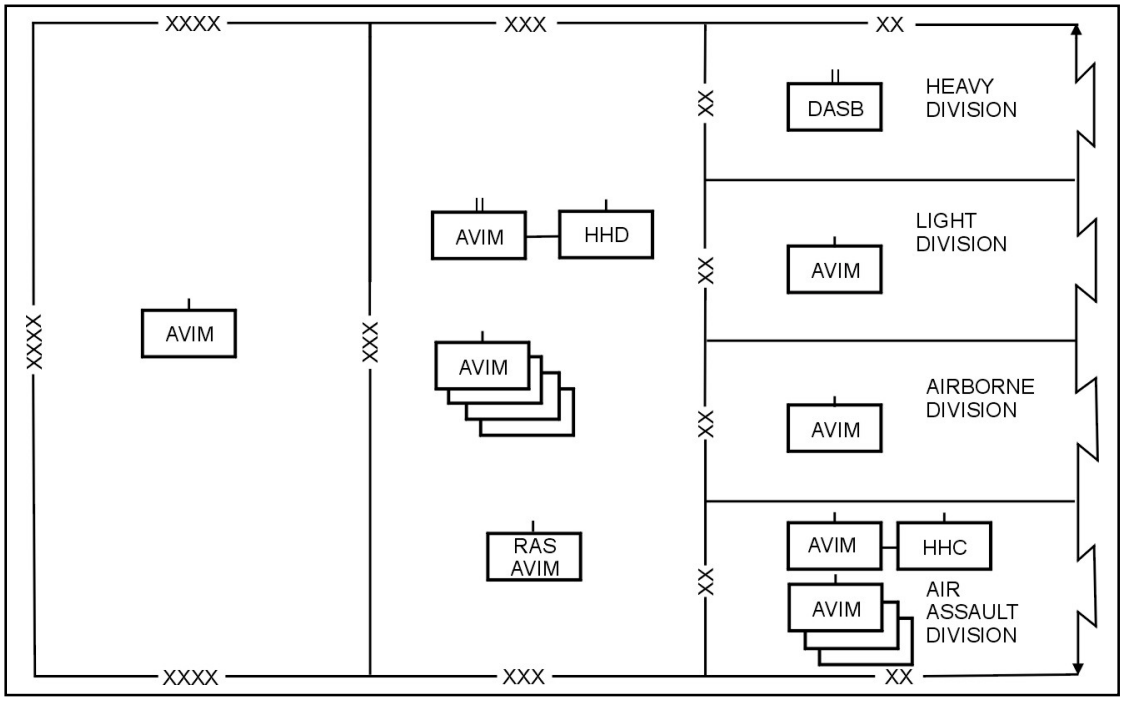

Figure 2-4. AVIM Force Design

DIVISIONAL AVIATION INTERMEDIATE MAINTENANCE COMPANY

2-26. A divisional AVIM company is either a subordinate company of a DASB or a separate company organic to the DISCOM. (The Air Assault Division has an AVIM Battalion with three AVIM companies.) The DASB consists of a headquarters and supply company, a ground maintenance company, and the AVIM company. Currently, the only authorizations for DASBs are in heavy divisions. FM 4-93.23(63-23) contains more information on the DASB. The role of the maintenance company is the same whether assigned as a separate company or as part of the DASB.

2-27. The mission of the divisional AVIM is to provide the following:

- AVIM and backup AVUM support to divisional assigned aircraft.

- Aviation repair parts supply support to division aviation units, including aircraft armament, avionics, and aircraft survivability equipment.
- Reparable exchange support for selected parts to divisional AVUM units.

DIVISIONAL AVIATION INTERMEDIATE MAINTENANCE FUNCTIONS

EMPLOYMENT

2-28. The AVIM company/battalion is normally located near the DISCOM area either at or adjacent to an instrumented landing facility, depending on METT-TC. The divisional AVIM company is designed to provide responsive one-stop aircraft intermediate maintenance and supply support from its base location while also providing maintenance support forward to aircraft operating units. Support forward is normally provided by forward support helicopter repair/recovery teams. These teams are staffed with aircraft repairers; they provide personnel on a mission basis. When required, additional aircraft component repairers are drawn from company resources and attached as needed to complete a specific mission.

RESPONSIBILITIES

2-29. The AVIM support maintains an authorized operational readiness float of selected items such as radios and aircraft armament systems. Command, technical, supervisory, and mission coordination relationships involving this service support unit are somewhat unique. The AVIM company commander answers to the DISCOM commander (in the DASB AVIM company, the commander answers via the DASB commander) who in turn is responsible to the division commander for all AVIM in the division. The aircraft maintenance management operations function is performed at company level by the PC element. This section performs many analytical actions including planning, reporting, compiling, and interpreting data as a basis for management decisions. It provides the planning level interface with the DMMC. Routine daily supply and maintenance actions are coordinated directly between the AMCO and DMMC. The maintenance operations officer also serves as the aircraft recovery officer to obtain the tactical, maintenance, and lift assets required for the recovery.

Maintenance

2-30. Repair of equipment for return to the user will dictate the maintenance practices and policies of the company. Maintenance accomplished by the company is governed by the MACs and is balanced against time and resources available to complete specific maintenance requirements. Authorized maintenance includes repair and replacement of modules/ components and end items, which can be made efficiently with available skills, tools, and equipment. The company also inspects, troubleshoots, tests, diagnoses, repairs, adjusts, calibrates, and aligns aircraft systems modules and components. It has the capability to determine serviceability of specified components that are removed before expiration of the TBO or of finite life. A limited module/component repair service will support division aircraft maintenance RX but generally is restricted to functions that are not overly time-consuming. Airframe repair and fabrication of parts will be performed with available tools and personnel. The AVIM level performs all aircraft weight and balance inspections and other special inspections that exceed AVUM capability. The company assists the divisional operating units in preparing damaged and unserviceable aircraft for evacuation. If the evacuation is to be by external airlift, outside support must

be obtained, as the division aviation companies do not have the necessary airlift capabilities for evacuating some airframes.

Battle Mission

2-31. During the early stages of a conflict, heavy requirements are placed on all aviation assets. Aircraft readiness, and the ability to support that readiness, must be assured. This requires extensive use of AVIM maintenance support teams providing forward support at the AVUM site where the major thrust is remove-and-replace maintenance. An adequate available stock of components and the capability to repair them at AVIM is essential. As the battle continues, extensive aircraft maintenance, whether done by AVIM contact teams or AVUM, will be performed in the division rear area. An aggressive controlled exchange policy, the rapid recovery of damaged aircraft, and a flexible system of cross-leveling spares will be required. Implicit in the remove-and-replace maintenance approach is the deferment of phased maintenance tasks not related to safety-of-flight and an almost total shift to on-condition maintenance during actual combat operations or emergencies.

Stability and/or Support Operations

2-32. During stability operations and/or support operations the AVIM may not be in the same AO as the maneuver aviation unit. This, however, does not significantly alter the mission/operation of the AVIM. The amount of support required for these operations will vary from mission to mission. MSTs may have to be deployed to support the task force, but the same procedures that apply during war operations will apply.

AIRCRAFT RECOVERY AND EVACUATION

2-33. The divisional AVIM may be tasked to assist the AVUM unit with recovery operations. See discussion of AVUM functions in this chapter, Appendix F, and FM 3-04.513(1-513).

AVIATION INTERMEDIATE MAINTENANCE REPAIR PARTS

2-34. Repair parts supply procedures for the AVIM units are in ARs 710-2 and 725-50 and DA Pamphlets 710-2-1 and 710-2-2. The types of loads managed at the AVIM level are Class IX, operational, QSS, and ASL. Operational load items are repair parts stocked at the AVIM unit for use in maintenance operations (commonly referred to as shop stock). These supplies are issued; they are not part of the ASL. They are similar in purpose to Class IX operational loads in units having AVIM capability. Shop stocks may have two elements: a bench stock and a demand-supported stock. Bench stocks consist of low-cost consumable items, such as wire, common hardware, and O-rings. Locator cards are required, but a record of demands is not. Demand-supported stocks will have a record of demands and will be maintained according to AR 710-2 and DA Pam 710-2-2.

2-35. The AVIM company establishes, controls, and operates a Class IX SSA or DSU to receive, store, issue, inventory, and replenish stock based on computed requisition order quantity and requisition order point established by the appropriate supply class manager in the DMMC. Internally, the company establishes procedures for receiving materiel requests and issuing and replenishing stock based on the requirements generated by the RX program. It provides “umbrella” stockages reflecting AVUM PLL accounts and maintains specific items in operational readiness float accounts.

DIVISIONAL AVIATION INTERMEDIATE MAINTENANCE MOBILITY

2-36. The doctrinal mobility for the divisional AVIM is the capability of transporting 50 percent of its TOE equipment in one lift, using its organic vehicles. The number of organic vehicles, the requirement to transport large quantities of Class IX, ASL, TMDE, and special tools limits mobility. Much of this is stored in vans, crates, containers, shelters, or improved open storage areas. In addition, the unit has numerous airmobile shelters and containers and dozens of items of heavy, bulky ground support and materials-handling equipment which must, for the most part, be moved by division or area transportation units. The divisional AVIM company/battalion (not DASB) is normally located in the DSA with the DISCOM due to the administrative support it receives. The DASB AVIM company is normally located with the battalion HSC and the DS ground maintenance company in the DSA so it can receive the administrative support it needs from the battalion. However, in both cases the AVIM unit may be required to move with the same frequency as the DISCOM-every 3 to 7 days.

CORPS AVIATION INTERMEDIATE MAINTENANCE OPERATIONS

2-37. The mission of the corps AVIM company is to provide the following support:

- AVIM and backup AVUM support to corps assigned aircraft.
- Aviation repair parts supply support to corps aviation units, including aircraft armament, aircraft survivability equipment, and avionics.
- RX parts support for divisional AVIM units.
- AVUM/AVIM overflow maintenance support to divisional AVIM units.

EMPLOYMENT

2-38. Four corps AVIM companies are normally assigned to an AVIM AMB, which is organic to the corps support command. The RAS AVIM company is organic to the ACR (located in the support squadron and is not in the corps AVIM maintenance battalion). The employment of the companies is the same as for the division AVIM company except the following:

- They are located in the vicinity of the COSCOM area, either in or adjacent to an instrumented landing facility, depending on METT-TC.
- The module/component repair service will support aircraft maintenance RX but is generally restricted to functions that are not overly time-consuming.
- The company performs aircraft weight and balance inspections and other special inspections that exceed AVUM or divisional AVIM capability.
- The corps AVIM company commander answers to the corps AMB who in turn is responsible to the COSCOM commander for all AVIM in the corps (except AVIM company assigned to ACR support squadron).
- The PC element conducts the same functions as in a divisional AVIM but also interfaces with the SPO section of the AMB for aircraft maintenance planning, reporting, compiling, and interpreting data as a basis for AVIM management decisions. Routine daily supply and maintenance actions are coordinated through the AMB SPO to the CMMC aviation Class IX manager or aviation maintenance manager.

AIRCRAFT RECOVERY

2-39. The corps AVIM may be tasked to assist the AVUM unit or divisional AVIM with recovery operations. See discussion of AVUM functions in this chapter, Appendix F, and FM 3-04.513(1-513).

CORPS AVIATION INTERMEDIATE MAINTENANCE AIRCRAFT REPAIR PARTS

2-40. See discussion of aircraft repair parts under paragraph 2-34 above.

MOBILITY

2-41. The doctrinal mobility for the corps AVIM is the capability of transporting 50 percent of its TOE equipment in one lift, using its organic vehicles. The commander must determine which external transportation assets must be requested to move the remainder of the unit. The corps AMCO has the same reason for limited mobility as the divisional AMCO: limited number of vehicles and large quantities of Class IX, ASL, TMDE, and special tools. The corps AMCO is normally located in the COSCOM support area and will probably move once every 8 to 10 days.

CORPS AVIATION MAINTENANCE BATTALION HEADQUARTERS AND HEADQUARTERS DETACHMENT OPERATIONS

2-42. The HHD is organic to the aviation battalion (AVIM) of the corps and is attached to a CSG for direct support in the areas of supply, ground maintenance, field services, and transportation. The mission of the HHD is to provide AVIM C^2 to the corps aviation brigade by exercising logistics C^2 over its subordinate AVIM companies.

EMPLOYMENT

2-43. The HHD is deployed in the corps support area, normally near the aviation brigade HHC with one or more of its subordinate AVIM companies. It provides C^2 staff supervision of all corps AVIM operations in the corps AOs. The SPO and S3 plan all AVIM support operations and placement of each AVIM company to ensure sustained AVIM operations that will support the corps aviation brigade commander's tactical plan. Tactical considerations for employment of a corps AVIM company is dependent on the following:

- METT-TC.
- Location of the aviation brigade AVUMs that will satellite off each corps AVIM.
- Terrain.
- Airfield locations.
- LOCs (MSRs, ASRs, and communication nets).
- Aircraft type in supported units.

SUPPORT OPERATIONS

2-44. The SPO section provides logistics (maintenance and supply) AVIM C^2 for the corps. The SPO staff includes the OIC, NCOIC, and sections for attack aircraft, utility aircraft, scout aircraft, aircraft subsystems, armament, avionics/electrical, and supply. The SPO interfaces with the CMMC, aviation brigade maintenance officer, aviation brigade S4, corps support group SPO, corps support battalion SPOs, corps AVIM companies, and the theater AVIM unit.

MOBILITY

2-45. The doctrinal mobility for the corps HHD, AMB (AVIM) is the capability of transporting 50 percent of its TOE equipment in one lift, using its organic vehicles. This unit is normally located in the COSCOM support area. It has a requirement to move once every 8 to 10 days.

ECHELONS ABOVE CORPS AVIATION INTERMEDIATE MAINTENANCE OPERATIONS—THEATER SUPPORT COMMAND

2-46. An AVIM company may be assigned to an ASG of the TSC as required. The company is a flexible organization tailored to meet the specific needs of the supported force. The EAC AMCO is employed in the COMMZ. More specifically, it would be located in the vicinity of an instrumented landing facility depending on METT-TC. The remainder of the employment is basically the same as described for the divisional and corps AMCOs.

MISSION

2-47. The purpose of the EAC AMCO is to provide the following:

- AVIM and backup AVUM support to EAC assigned aircraft.
- Aviation repair parts supply support to EAC aviation units including aircraft armament and avionics.
- Selected repair parts RX support for corps AVIM units.
- AVIM overflow maintenance support to corps assigned or under the operational control of the theater to which assigned.
- Establishes and operates an aircraft RX repair parts supply program.

AIRCRAFT RECOVERY

2-48. The EAC AVIM may be tasked to assist the AVUM unit, corps AVIM or divisional AVIM with recovery operations. See discussion of AVUM functions in this chapter, Appendix F, and FM 3-4.513(1-513).

AIRCRAFT REPAIR PARTS

2-49. See discussion of aircraft repair parts under paragraph 2-34 above.

MOBILITY

2-50. The doctrinal mobility for the EAC AMCO is the capability of transporting 50 percent of its TOE equipment in one lift, using its organic vehicles. The commander must determine which external transportation assets must be requested to move the remainder of the unit. The EAC AMCO is normally located in the area support group. It is expected to move at least once every 30 days.

SECTION IV – AVIATION DEPOT, THEATER AVIATION MAINTENANCE PROGRAM, AND AVIATION DEPOT MAINTENANCE ROUND-OUT UNIT OPERATIONS

CORPUS CHRISTI ARMY DEPOT

MISSION

2-51. The mission of CCAD is the following:

- Overhaul, repair, modify, retrofit, and modernize aircraft systems and other systems as assigned.
- Maintain a mobilization and training base to provide capability for mission support during any contingency.
- Provide maintenance support services for aeronautical equipment worldwide.
- Provide project development and design service for special projects as assigned.
- Exercise command control over assigned activities.
- Provide worldwide telephone hot line and on-site technical assistance in the inspection, maintenance, and repair of customer aircraft and engines.

EMPLOYMENT

2-52. Depot maintenance is employed primarily in CONUS. However, it projects itself worldwide through maintenance support teams using organic assets and through contract programs.

MOBILITY

2-53. The depot is a fixed-base facility but can project itself as described above.

THEATER AVIATION MAINTENANCE PROGRAM

2-54. Under the AMC, two major subordinate commands, AMCOM and the IOC, developed the TAMP to accomplish the following missions:

- Assist units in deployment and redeployment.
- Provide technical assistance.
- Support increased operational tempo.
- Sustain Army aviation across the entire spectrum of operations.

2-55. The TAMP, as an organization, has many assets which include, but are not limited to: the ADMRU Program, contract field service representatives, logistics assistance representatives, special repair activities, contractor logistics support, engine repair facility, and a TA national inventory control point. When the LSE deploys OCONUS, the ADMRU element, on order, operates the TAMP. The ADMRU includes the ARNG Mobilization AVCRAD Control Element and the four AVCRADs. Tailored elements of the ADMRU are pulled to support LSE requirements in the theater's AO.

AVIATION DEPOT MAINTENANCE ROUND-OUT UNIT PROGRAM

MISSION

2-56. The mobilization mission of the ADMRU program and specifically the four AVCRAD is to:

- Support to CONUS deploying forces.
- Support to deployed forces (Theater Support).

- Provide OCONUS aviation maintenance support for contingency and stability and/or support operations.
- Expand aviation maintenance capabilities of CONUS depots.
- Classify and inspect aviation stocks and components.

ORGANIZATION

2-57. The ADMRU program consists of five TDA, fixed-base organizations that mobilize in place. The MACE is the C^2 headquarters for the four AVCRADs. The MACE is located at the Edgewood Area of Aberdeen Proving Grounds, MD. The four AVCRADs are at Groton, CT; Gulfport, MS; Springfield, MO; and Fresno, CA.

2-58. During premobilization, the National Guard Bureau Aviation Division, through their respective Adjutant Generals, operationally controls the four AVCRADs. They provide aviation maintenance support to the Army National Guard Fleet, the 50 states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands, on a day-to-day basis. Each AVCRAD supports 13 to 15 states or territories consisting of 500 to 600 aircraft each. Support provided includes the following:

- Back-up AVUM support.
- Back-up AVIM support.
- Limited depot-level maintenance support.

2-59. Upon mobilization, the MACE and the four AVCRADs transfer to AMCOM, a major subordinate command of the AMC. The AVCRADs mobilize in place, initially providing back-up AVIM and limited depot support to deploying FORSCOM aviation units within CONUS.

- As required, the MACE provides liaison to AMCOM, AMC and a supported theater of operations. The MACE can become a fully functioning entity of the HQ AMCOM Staff.
- As required, the AVCRADs provide support to a MTW or a contingency operation for back-up AVIM and limited depot level aviation maintenance.
- As required, the AVCRAD can shift to fully expand the AMCOM aviation capability to provide depot-level maintenance on critical aviation material for AMCOM and AMC in CONUS.
- As required and when necessary, the AVCRADs can be tasked to support the readiness division of a LSE. The LSE would then be deployed to a theater of operation to provide AMC logistics support to include an aviation maintenance slice, supported by the ADMRU. When the LSE deploys OCONUS, the ADMRU element operates the TAMP. As aviation material is retrograded from the battlefield, the LSE classifies and repairs critical aviation components before they enter the CONUS depot pipeline.

MOBILITY

2-60. The AVCRAD are fixed-base, limited depot facilities. The AVCRADs initially mobilize in place. The AVCRADs are capable of deploying to a theater of operations, given enough time for movement to the deployment location. Once mobilized and deployed, an AVCRAD provides its support primarily from a fixed base. The AVCRADs are able to project forward limited, task-organized support using maintenance contact

teams and classification support teams. Transportation within the theater must be provided from non-organic assets.

CAPABILITIES

2-61. The AVCRADs are capable of providing the following support to an MTW, contingency operation or from a CONUS fixed base facility:

- Limited depot level maintenance.
- Back-up AVIM maintenance.
- Back-up AVUM maintenance.
- Capability to manage the theater SFDLR supply channels.
- BDAR.
- ECOD assessments.
- Tailored maintenance contact teams to deploy forward.
- Engine repairs.
- Airframe repairs.
- Welding.
- Main rotor blade repair and balance.
- Composite material repairs.
- Electrical systems repairs.
- Avionics and armament repairs.
- Hydraulic components repairs and manufacture of lines.