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HEADQUARTERS, DEPARTMENT OF THE ARMY

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**FM 63-23**

**Aviation  
Support  
Battalion**

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FIELD MANUAL  
No. 63-23

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
Washington, DC, 6 June 1996

# Aviation Support Battalion

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## Preface

This manual provides information on the mission, structure, and operations of the Aviation Support Battalion (ASB). It outlines the functions and operations of the battalion staff and subordinate units. It also describes the interface between parallel units; Forward Support Battalions (FSBs) and supporting units; Main Support Battalion (MSB) and Division Support Command (DISCOM) and the ASB.

This manual is based on doctrine in FMs 1-100, 1-500, 100-5, and 100-10. At press time the ASB is authorized only in the Army's heavy divisions. Under the Aviation Restructuring Initiative (ARI) ASBs will also be added to the support structure of the light and airborne divisions. Although the TOE will differ between the light and heavy division ASBs, the doctrine and support concepts detailed in this field manual will remain basically the same.

A wide range of publications supports this field manual by providing details of specific combat service support (CSS) functional areas. The publications referred to throughout the manual are listed in the references.

The proponent of this FM is HQ, TRADOC. Submit comments and recommended changes on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, USACASCOM, ATTN: ATCL-AL, Ft Lee, VA 23801-6050.

Unless otherwise stated, whenever the masculine gender is used, both men and women are included.

## CHAPTER 1

**Sustaining the Aviation Brigade**

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**AVIATION BRIGADE**

The aviation brigade (AB) of a heavy division is a flexible organization designed to find, fix, and destroy enemy forces on the battlefield. It uses maneuver to concentrate and to sustain combat power at the critical time and place. The brigade can accomplish its mission as a pure-aviation organization or as a task-organized force. The speed and mobility of this brigade make it ideally suited for rapid-reaction deep, close, and rear operations. It can also move from one area to another to prevent enemy fixing of combat forces in a single area. In addition to attack helicopter and cavalry maneuver forces, the aviation brigade provides—

- Maneuver capabilities to dismounted infantry through air assault operations.

- Combat support by lateral repositioning of artillery, air defense, or engineer assets.

- Immediate personnel or logistics transport for critical specialties, supplies, or equipment.

Combat support (CS) and combat service support (CSS) units are task-organized to support the aviation brigade as required. The aviation brigade operates over the entire width and depth of the division area of operations. Chapter 2 addresses how the DISCOM commander task-organizes to support units within the division area. All aviation brigade units require CSS on a battlefield unlike any in the past. Fluid, nonlinear operations and enormous demands for resources characterize Army operations.

**SUPPORT PRINCIPLES**

Sustainment of the aviation brigade in Army operations is the challenge facing CSS planners and operators. The logistics system must man, arm, fix, fuel, and sustain the aviation brigade. The aviation brigade commander can then seize opportunities to achieve tactical advantage. This requires the aviation support battalion (ASB) commander and CSS planners at all levels to *integrate* CSS and operational planning. The logistics planning characteristics are: anticipation, integration, continuity, responsiveness, and

improvisation. These are not substitutes for the basic tenets of Army operations doctrine; they complement them.

CSS leaders and staffs *anticipate* future requirements and missions by understanding the commander's plan and by staying aware of current developments. The main purpose of anticipation is to help the aviation brigade commander form a supportable plan. The ASB commander and staff must develop the close

relationship with the brigade staff described in Chapter 3. The ASB commander may attend aviation brigade staff meetings. He monitors the aviation brigade command net to anticipate required CSS.

The ASB staff works closely with the aviation brigade staff to *integrate* logistics operations into aviation brigade operations. The aviation brigade commander and staff plan tactical and CSS operations concurrently. The ASB commander and staff develop and implement a logistics plan that ensures timely, flexible CSS for the aviation brigade.

Another characteristic is *continuity*. The aviation brigade requires continuous CSS to perform its mission. Any break in logistics operations can diminish its combat power. CSS elements continuously both sustain combat forces and replenish their own capabilities. The ASB must adapt to changing

missions and priorities, supporting force-projection operations.

The CSS system must also be *responsive*. It must meet needs that change with little notice, reacting rapidly to crisis. ASB personnel must maintain maximum flexibility. They must be ready to respond quickly, often with a task-organized structure to meet force-projection requirements.

Finally, sustainers must be prepared to *improvise*. The fluid nature of Army operations may quickly make routine support methods obsolete. This manual suggests support techniques for the ASB. However, leaders and staffs must not interpret a guideline or technique as an absolute requirement. If a technique is not effective in maintaining maximum combat power and momentum, ASB personnel must be willing to discard it. Sustainers must be innovative.

## FORWARD SUPPORT CONCEPT

The concept for support of the heavy aviation brigade is forward support. The CSS structure in the ASB provides support as far forward as practicable. Supplies, weapon systems, repair assets, and support beyond the capability of the ASB come from the corps, main support battalion (MSB), or forward support battalions (FSBs). The ASB should also

coordinate evacuation of damaged equipment from as far forward as practicable. As discussed in the next paragraph, CSS assets organic to the aviation brigade are scarce. Aviation brigade units should not have to pick up supplies outside their operating areas or recover damaged equipment to a maintenance collection point in the rear.

## AVIATION BRIGADE LOGISTICS

The ASB is part of the overall logistics system that sustains the aviation brigade. The ASB is essentially a DS-level support organization. The support system for the aviation brigade does not end with the ASB. The ASB provides the support link for the AB between DISCOM elements in the brigade support areas (BSAs), division support area (DSA), and corps support command (COSCOM).

Individual units of the aviation brigade are, in most cases, responsible for unit-level support. The support includes food service, supply distribution,

unit maintenance, health services support (HSS), movement of organic assets, and unit-level mortuary affairs (MA). The assets available to provide this support vary among aviation brigade units:

- The attack helicopter battalions have a full component of organic support assets in their headquarters and service companies. Each company has an aviation unit maintenance (AVUM) platoon, a Class III&V platoon, and a medical section. FM 1-112 discusses unit-level support for the assault helicopter battalion (AHB).

- The cavalry squadron also has a full range of unit support assets, normally echeloned into combat

and field trains. FM 17-95 describes the cavalry squadron.

- The general support aviation battalion/company (GSAB/GSAC) has limited support assets, usually in its AVUM platoon, which are organized

into unit trains. FM 1-113 discusses the GSAB/GSAC.

- The command aviation company organizes the limited unit-support assets of its service platoon into unit trains.

### DIVISION SUPPORT COMMAND (DISCOM)

The aviation support battalion is part of the heavy division support command. The DISCOM provides DS-level logistics and health services support to all organic and attached elements of the division. As shown in Figure 1-1, the DISCOM consists of the following elements:

- Headquarters and headquarters company/materiel management center (HHC/MMC). The HHC provides C2 for all units of the DISCOM, including the ASB. It also advises the division commander and staff on logistics throughout the division. The MMC provides materiel management for weapon systems, controls maintenance priorities, and coordinates supply functions to meet division needs. FM 63-2 provides a full discussion of the responsibilities, organization, and operations of the HHC/MMC.

- Main support battalion (MSB). This logistics and medical unit provides CSS in the division rear area. It provides direct support to division units and designated reinforcing support to the FSBs and the ASB. It is based in the DSA and provides support forward as required. Information on the MSB is in FM 63-21.

- Forward support battalions (FSB). The DISCOM has one FSB to provide direct support to each division maneuver brigade. The FSB also supports divisional, and in some cases, nondivisional units operating in the brigade area. In addition, the FSB provides reinforcing support to the ASB. FM 63-20 covers FSB operations.

- Aviation support battalion (ASB). The ASB serves as the primary source of logistics for the aviation brigade of the heavy division. Though it locates in the division rear, it has elements operating throughout the division area.

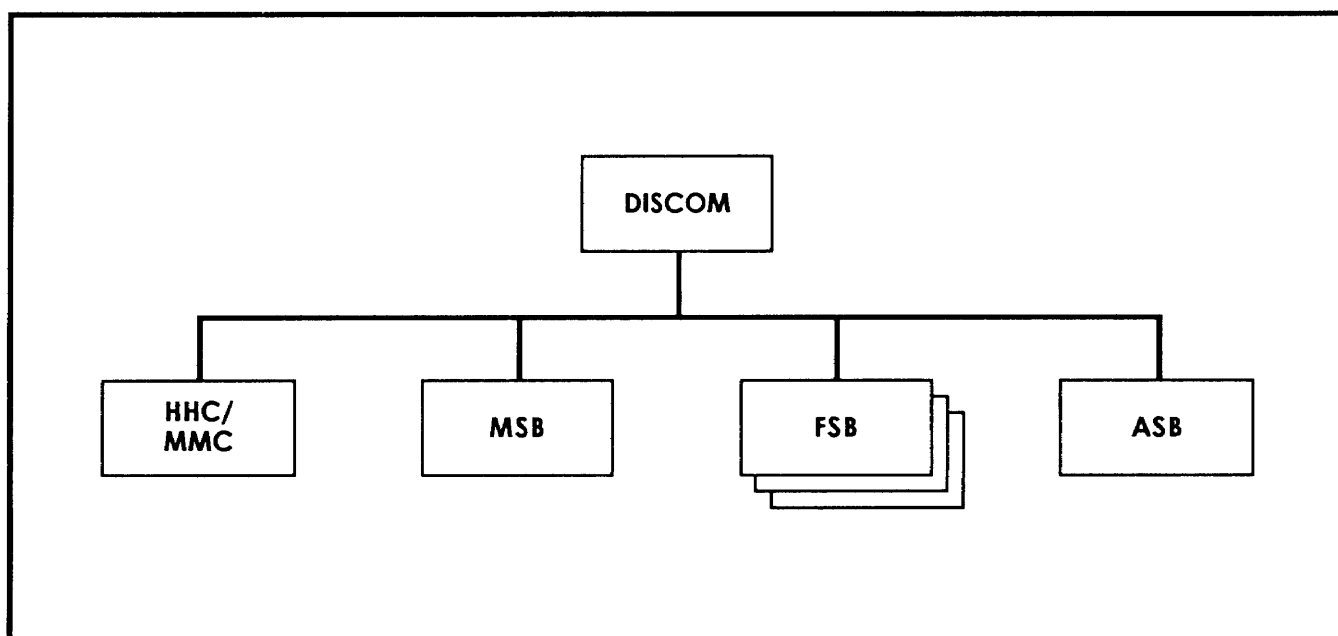


Figure 1-1. DISCOM organization

CHAPTER 2

ASB Organization and Functions

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ORGANIZATION AND MISSIONS

The aviation support battalion is part of the heavy division support command. The DISCOM provides DS-level logistics and medical support to all organic and attached elements of the division. As described in Chapter 1, it consists of the following elements:

- Headquarters and headquarters company/materiel management center.
- Main support battalion.
- Forward support battalions.
- Aviation support battalion.

ASB

The ASB contains a headquarters and supply company, a ground maintenance company, and an aviation maintenance company, see Figure 2-1, page 2-2.

The ASB plays a dual role in providing direct support to the aviation brigade. First, the ASB supports current operations. It monitors the implementation of the support plan. This requirement involves the continuous coordination discussed throughout this manual. The ASB actively monitors all support operations with the aviation brigade S4, identifies problems, and implements solutions to ensure support requirements are met. Second, the ASB plans to support future operations. It anticipates requirements and incorporates planning guidance.

In addition, the ASB commander is a base cluster commander in the division rear and operates under the

division command for this mission. Chapter 5 is a detailed discussion of the security and terrain management operations of the ASB.

The ASB supports the aviation brigade’s mission by implementing the DISCOM commander’s guidance. Specifically, it supports the aviation brigade by providing or coordinating all classes of supply and maintenance. It replenishes basic loads for all its supported units. The division commander’s priorities determine distribution of Class VII items. The ASB coordinates transportation requirements with the movement control officer. HSS and field services are coordinated among the aviation brigade, division medical operations center, and elements of the ASB. More detail appears in Chapters 6-8. FM 8-10-3 details the operation of the division medical operations center (DMOC).

TASK ORGANIZATION

The ASB is designed to provide maximum flexibility. The DISCOM commander and staff tailor resources to support tactical operations. They maintain constant contact with the division staff to anticipate future support requirements. It is critical to know who will require what types and amounts of support in what battlefield locations at what times. The division materiel management center (DMMC), DMOC, and support battalions keep the DISCOM headquarters aware of the current and projected status of logistics

and health services support resources. Using this information, the DISCOM task-organizes to best support the force.

The ASB commander may require additional support from an FSB or the MSB when support requirements are beyond the ASB'S capability. The DISCOM commander provides support on the basis of mission, enemy, terrain, troops, and time available (METT-T). The ASB'S responsibility in this process is to keep the DISCOM commander informed of the logistics situation in the aviation brigade area and of current and anticipated support problems.

Planners must know what CSS assets are available in the DISCOM'S support battalions in order to properly cross-level assets. The Class III/V platoon of the ASB headquarters and supply company augments the FSB or division rear ammunition transfer points (ATPs) when necessary.

Medical support is coordinated among the aviation brigade, the MSB and FSB medical companies, the DISCOM medical operations center, and the division

surgeon. The ASB has no direct role in providing HSS for the aviation brigade or its subordinate units.

In all cases, planners responsible for organizing logistics elements in the aviation brigade must consider the following:

- Mission of the unit.
- Number of people in the unit.
- Number and types of equipment.
- Priority of support to each unit.
- Level of combat effectiveness required for the unit.
- Length of time the unit will need support.

In addition to the logistics planning factors cited above, HSS planning includes, but is not limited to-

- Estimated patient work load.
- Lines of patient drift.
- Number and type of evacuation support assets.
- Level of hostilities.
- Endemic and epidemic diseases.
- Disease vectors and pest management.
- Environmental diseases and impact.
- Area support requirements.

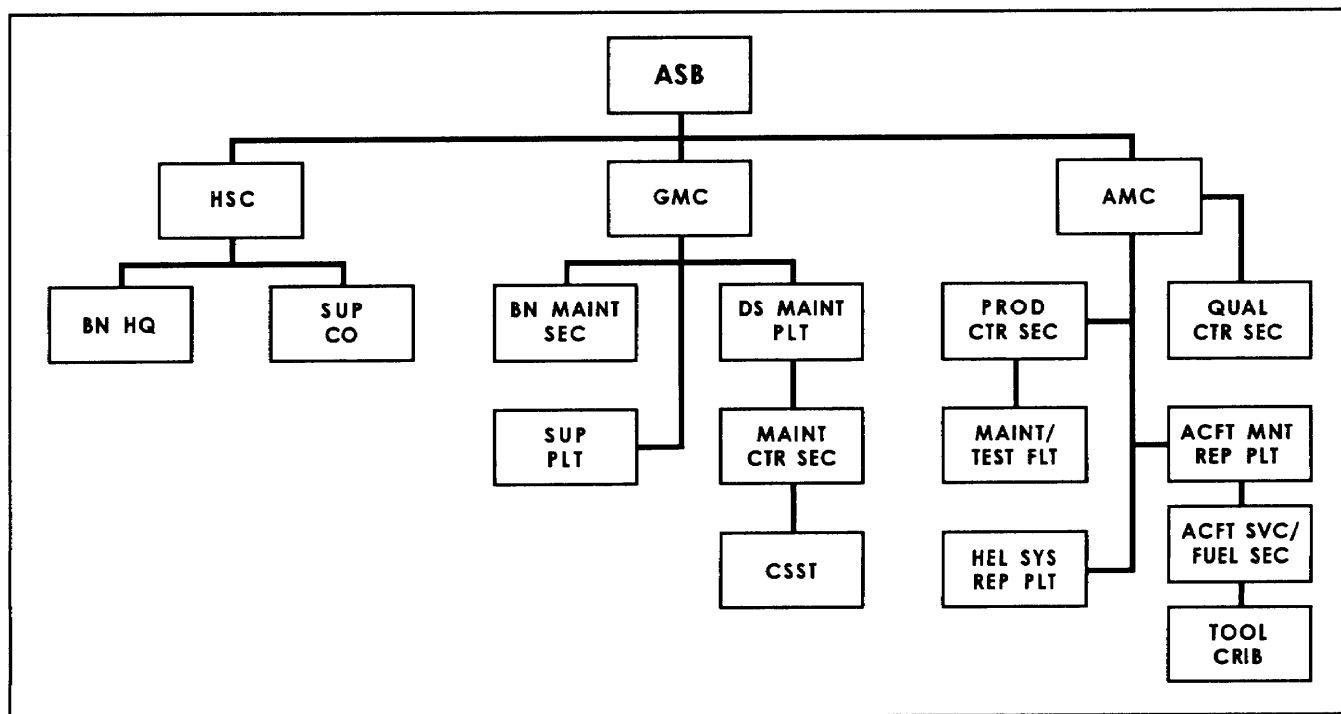


Figure 2-1. ASB organization



## BATTLEFIELD LOCATIONS

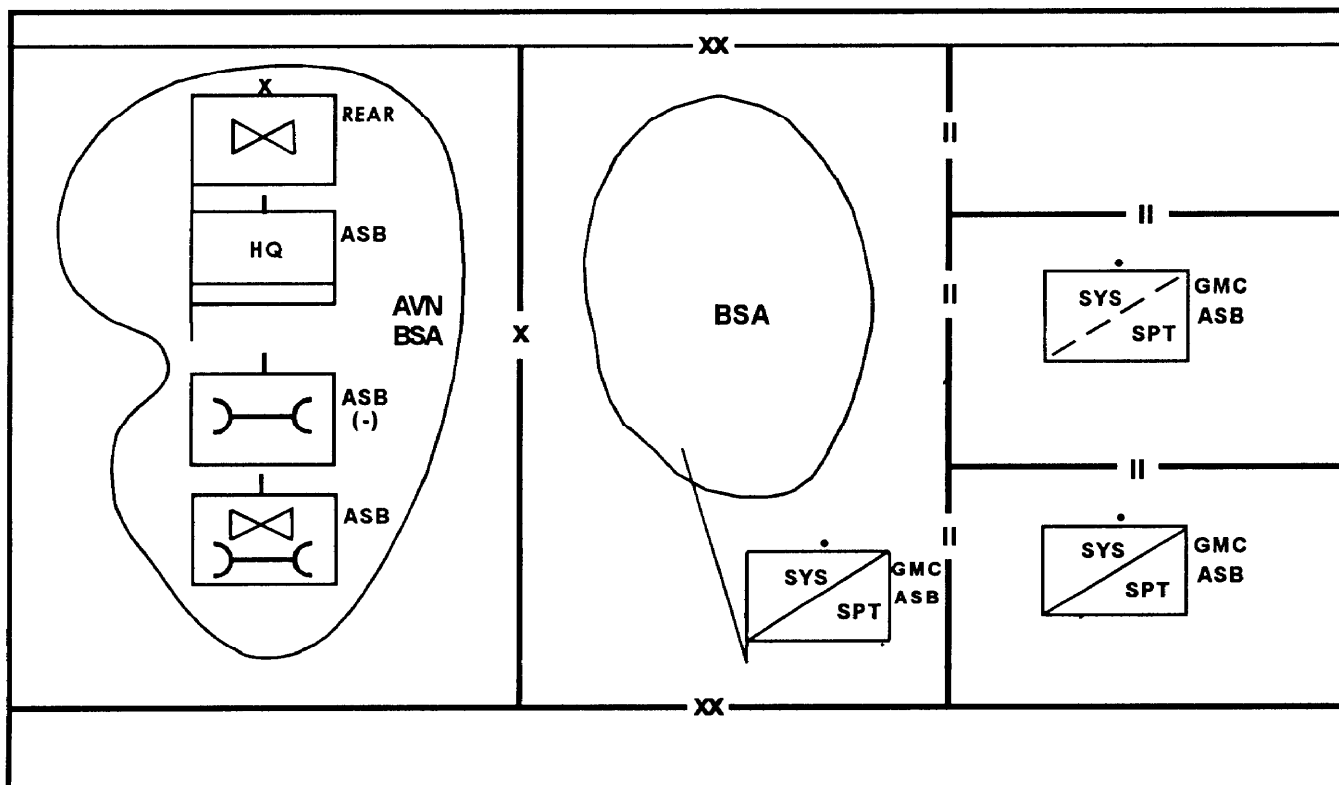
The base of operations for the ASB is the division rear area. The assistant division commander—support (ADC-S) approves the location of the ASB based on the tactical situation and the recommendation of the ASB commander and the aviation brigade S4. The ASB commander must ensure the area is small enough for C3 and security purposes, yet large enough to accommodate the dispersion required by the ASB. The size will vary with the terrain, but an area of 4-7 kilometers in diameter is a planning guideline.

In addition, the ASB commander, ASB S2/S3, and aviation brigade S4 must consider—

- Availability of roads.
- Capability of roads to handle heavy traffic and large vehicles in all weather.
- Availability of built-up areas.
- Overhead cover and concealment.
- Suitability for technical operations.
- Defendability.

- Communications profile.
- Accessibility to air support assets.
- Distance from enemy artillery. A typical distance from the forward line of troops (FLOT) to the division rear is about 60-70 kilometers during support of defensive operations. The distance may be less during offensive operations and will vary with METT-T.
- Proximity to an airfield.

Though the ASB is based in the division rear, elements are positioned on the battlefield to maximize forward support. Typical locations are shown in Figure 2-2. In addition to the elements in the division rear area, the cavalry system support team (CSST) and maintenance support teams (MSTs) work in the maneuver brigade areas. Other specific deployment possibilities for ASB elements are discussed in Chapters 6-8.



## SUSTAINMENT PLANNING

The ASB sustains the aviation brigade across the entire depth of the battlefield. For the aviation brigade, close, deep, and rear operations are usually conducted with the same assets.

### CLOSE OPERATIONS

#### Offense

The aviation brigade participates in all types of offensive operations. FM 1-III provides details on the operations and the roles of both air and ground units. An offensive operation may be launched at any time and with little notice. The ASB commander and staff anticipate requirements and maintain continuous contact with the brigade staff. This permits them to have as much advance notice to support the commander's course of action. They monitor tactical nets whenever possible. In planning for an attack, the ASB ensures support equipment is ready, supplies are in position, and transportation needs are coordinated.

As the attack develops, communication links between the aviation brigade and ASB must remain operational. The ASB must also ensure the preparations discussed below do not giveaway tactical plans. In addition, all elements of the ASB prepare to move forward by echelon. The ASB provides the high level of support required during offensive operations.

**Supply.** The most critical supplies are Classes III, V, and IX. To handle high fuel consumption, forward stocks in the maneuver BSAs may be built up and the headquarters and supply company's (HSC's) Class III supply point be prepared to move forward rapidly and set up forward refuel sites as described in Chapter 6.

Though ammunition expenditures may not be as high as with a heavy defense, responsive resupply is essential. A significant problem will be maintaining this support over extended supply lines. As the sustainer, the ASB cannot require the aviation brigade's forward area rearm/refuel point (FARP) vehicles to travel far or the Class III/V platoon to haul ammunition over great distances. The ASB must coordinate

with the FSBs to determine the location of ATP elements. The support operations officer, in coordination with the division air officer (DAO), must plan for the movement of ammunition to the FSB and corps ATPs in the division rear to meet aviation brigade needs.

Other supply considerations include—

- Weapon systems replacement requirements.
- Potential use of captured supplies, especially vehicles and fuel. Captured medical supplies are protected under the provisions of the Geneva Convention. Refer to FM 8-10 for additional information.
- Increased use of meals ready-to-eat (MRE).
- Use of controlled exchange and cannibalization as a source of repair parts.
- Availability of host nation support, particularly procurement of Class III packaged items, building supplies, barrier material, and, in some cases, sundry items.

**Transportation.** Transportation assets will be heavily taxed in the offense. Long lines of communications and large requirements for selected supplies and personnel replacements will stress the system. The ASB has extremely limited transportation resources. The resources it has must be used to keep the ASB mobile to advance with the attack. The support operations section must communicate transportation requirements to the movement control officer (MCO) in the DISCOM to sustain the momentum of the attack. Also, the ASB coordinates with the aviation brigade S3 and DISCOM MCO to use roadnets efficiently. The opening and securing of routes must be included in the tactical plan.

**Maintenance.** Maintaining momentum also requires keeping in, or returning to, the current battle as many weapon systems as possible. Therefore, emphasis is on battle damage assessment and rapid return of equipment to the aviation brigade. As described in Chapter 7, the ASB ground maintenance company sends the CSST and MSTs forward to support this concept. The teams are organized to ensure that the right people go forward with the necessary transportation, communications, test, measurement, and diagnostic equipment (TMDE), and repair parts. They

include mechanics who can make rapid, informed decisions on what to repair on site, what to evacuate, what to cannibalize, and what to abandon after making it useless to the enemy. The DISCOM may establish time lines for on-site equipment repair. The equipment is then evacuated or reported and left for follow-up maintenance elements to repair. Each team works closely with the supported units to make maximum use of lulls in the battle to get as much equipment as possible ready for when action resumes. In fast-paced actions, the MCO arranges use of air transportation to bring repair parts forward and evacuate damaged equipment.

**Health Services.** Attacks usually result in high casualty rates. High casualty rates and long evacuation lines stress the health services resources of DISCOM units. FM 8-10-4 details medical sections/medical platoon (battalion/squadron aid station) operations. FM 63-20 details health services support for the aviation brigade from the FSB. FM 63-21 provides the same information for the MSB.

**Field Services.** Due to the mobility required for offensive operations, some field services provided by corps (such as laundry and clothing exchange and bath) may be temporarily suspended. On the offensive, MA operations intensify. The ASB must ensure that adequate MA supplies are available. Airdrop is the other field service that assumes greater importance in the offense. Airdrop support comes from corps. However, if the ASB is the supported unit, the ASB staff must plan request procedures, drop zone selection and control, recovery of supplies, and evacuation of airdrop equipment.

## **Defense**

The role of the ASB in the defense is to support defensive battles while maintaining capability to shift to the offense with little notice. This requires the ASB command post (CP) to stay current with the battle. Emphasis must be placed on locating ASB support points out of reach of possible penetrations in protected and concealed locations without sacrificing

support. Elements must also be out of the way of potential retrogrades. ASB units should disperse as much as possible without impairing command and control or security. Built-up areas are also used as much as possible. Air defense artillery (ADA) coverage must be planned and emphasis placed on passive measures. The ASB must also dig in as much as equipment and time allow. This includes positions for personnel and equipment.

**Supply.** Supply operations are most intensive during the preparation stage. The ASB plans for the propositioning of critical supplies for the cavalry squadron (particularly, fuel and ammunition) far forward and in successive defensive positions.

Throughout the defense, Class V expenditures are likely to be high. The aviation brigade may have a covering force mission, responding to contingencies throughout the security area. Therefore, the ASB must keep aviation brigade units, particularly the AHBs, continually aware of the position of the ATPs to maximize responsiveness. Requirements may also be high for chemical filters, mission-oriented protective posture (MOPP) gear, and decontaminants.

In many defenses, consumption of Class III for ground vehicles is low relative to rates during an offense. The need for aviation fuel remains high. The use of the ATKHBs and the assault helicopter company (AHC) in covering force operations requires high consumption of Class III. The positioning and resupply of FARPs directly relates to turnaround time and responsiveness for sustained operations.

**Transportation.** As implied in the discussion of supply, transportation is most critical while preparing for a defense. Propositioning supplies and shifting personnel and equipment before the operation taxes the system. The ASB's major role in this area is to coordinate transportation requirements with the DISCOM MCO for support operations.

**Maintenance.** The emphasis for the maintenance companies in the defense is to maximize the number

of weapon systems available at the start of the operation. Once defensive operations begin, the principles are the same as for the offense. In some defenses where lines are not extended, forward support may be maximized by consolidating maintenance company assets in the base shop. The ASB would then send out small, highly mobile MSTs to perform quick, on-site repairs or component exchanges.

**Health Services.** FM 8-10-4 discusses procedures for medical sections/medical platoon (battalion/squadron aid station) operations. FMs 63-20 and 63-21 detail HSS for the aviation brigade.

**Field Services.** If the ASB is supported by shower, laundry and clothing repair facilities in the BSA, the ASB staff ensures they do not interfere with tactical operations.

### Retrograde

Support for a retrograde operation is particularly complex. Communication with the aviation brigade and tracking of the tactical situation are especially important. Aviation units at a given time may be defending, delaying, attacking, or withdrawing. Thus, it is essential that ASB elements are echeloned to continue to provide support to the delaying force at an old defensive site while establishing support to withdrawing elements moving rearward. Any ASB personnel and equipment not essential to supporting forward elements should be moved as soon as possible.

**Supply.** Planners ensure that supplies are delivered to projected sites along the withdrawal route where requirements exist. Only critical supplies (Classes III, V, and IX) in minimal quantities are moved forward to support the delaying force. All forward assets not required by the delaying force should be moved back. Guidance on civilian property should be supplied by DISCOM headquarters.

**Transportation.** Retrograde operations stress transportation resources. The MCO, provost marshal, and ASB support operations section must work closely to

efficiently use MSB transportation assets and ensure that roadnets stay open. The ASB must evacuate nonessential personnel and items early to avoid congested roads later. In addition, it must ensure that only essential items are moved forward. Finally, the ASB support operations section makes sure any transportation assets moving resources forward assist in the evacuation effort.

**Maintenance** Maintenance planning emphasizes support forward while moving most of the maintenance company rearward. Time for repairs is limited. Forward elements should concentrate on exchange versus repair and make maximum use of cannibalization. Efficient recovery and evacuation are essential. Heavy-equipment transporter (HET) support is coordinated with the DISCOM MCO. Evacuation assets are scarce, so forward repair is critical. Since command and control is difficult, MST leaders must take the lead to keep the maintenance control officer aware of the team's location, resource status, and Class IX requirements.

**Health Services.** Medical evacuation in retrograde operations is situation-dependent. The evacuation process is complicated by—

- Requirements for security and secrecy in movement.
- Influence of refugee movement.
- Movement at night or during periods of limited visibility.
- Other military traffic on main supply routes or other routes used for medical evacuation.

Medical treatment locations and patient collecting points should be preplanned and disseminated on operations overlays. FM 8-10-6 details medical evacuation and FM 8-10-4 discusses battalion aid station operations.

**Field Services.** Any shower, laundry, and clothing repair (SLCR) units in the area are also moved to the rear as soon as possible. Nonessential services may be temporarily suspended. Facilities of suspended activities may be integrated in deception plans.

## DEEP OPERATIONS

As part of deep operations conducted by the division, the aviation brigade can delay, disrupt, and destroy uncommitted enemy forces far in the enemy's rear. The aviation brigade usually operates as part of a combined arms force, controlling attack and assault helicopter companies. It focuses on—

- Interdiction of reserves.
- Gathering intelligence.
- Securing deep objectives.
- Reconnaissance and screening operations.

Sustainment of deep maneuver must be carefully planned. Deep maneuver is a high-speed, short-duration, audacious operation with austere CSS. Early in the planning phase, the ASB commander informs the aviation brigade commander of available logistics

assets and replenishment prospects. The ASB ensures the aviation brigade is fully loaded and functional before the operation.

## REAR OPERATIONS

In future conflicts, combat operations in the division rear area are inescapable. Rear operations are conducted to secure the force, neutralize or defeat enemy operations in the rear area, and ensure freedom of action in close and deep operations. The goal is to provide security to make sure operations in the rear are not impaired. If the division rear is not secure, brigade elements conducting close and deep operations cannot be sustained. This topic is covered in depth in Chapter 5.

## RANGE OF MILITARY OPERATIONS

The Army operates under changing conditions of warfare, using all elements of national power to achieve its strategic objectives. The activities of the Army during peacetime (peacekeeping, humanitarian aid) are classified as operations other than war (OOTW). During peacetime, the US

attempts to influence world events through routine actions between nations. In conflict, the US engages in hostilities to secure its strategic objectives. War, the last environment, is the use of force in combat operations against an armed enemy, see Figure 2-3

WAR	FIGHT AND WIN	WAR	COMBAT	NONCOMBAT
CONFLICT	DETER WAR AND RESOLVE CONFLICT	OTHER THAN WAR		
PEACETIME	PROMOTE PEACE	OTHER THAN WAR		

Figure 2-3. Range of military operations

Because the Army may operate in all three environments at once, all commanders must integrate and coordinate their efforts to mutually support and attain the identified objectives. Figure 2-3, page 2-7 portrays the possible combination of all three environments. The conduct of OOTW is an increasingly likely scenario in the post-Cold War world.

CSS operations in OOTW may differ significantly from usual support functions in war. This is due to factors of environment and operational tempo. The makeup of any CSS organization is highly mission- or scenario-dependent, with levels of support varying within and between each category.

Aviation assets are considered early for deployment in support of OOTW. An aviation logistics support package must be considered a prerequisite for advance support elements. The package must

contain the proper mix of maintenance, supply, technical inspectors, and supervisors to support the aviation asset package. Parent units use their organic AVUM resources to provide the bulk of the support package. Aviation intermediate maintenance (AVIM) units deploy during the buildup phase of an operation. OOTW aviation operations may be characterized by increased maintenance due to adverse weather and terrain conditions. The value of aviation resources to OOTW is increased because the force may be dispersed over a wide area with poor road networks. Air lines of communication (ALOC) may become the primary means of moving personnel and parts and of conducting resupply throughout the area of conflict.

FM 100-5 establishes doctrine and provides guidance and further detail on the range of military operations.

## CHAPTER 3

# Command and Control

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## PRINCIPLES

The ASB uses command and control (C2) to accomplish its mission. Command is the leading of soldiers to accomplish the mission. Control is the management of available resources to maximize unit effectiveness. Command and control involves management of personnel, equipment, facilities, and information. It also involves planning, issuing clear orders, and supervising the execution of orders.

The complexity of missions and the dynamics of today's battlefield require flexibility, creativity, and initiative in all leaders. At all levels of command it is incumbent on the commander to provide the resources and authority necessary to accomplish the mission. Commanders must communicate well and be decisive. They must also understand doctrine and their organizations. They must know when and in what circumstances they have the authority to act.

- Commanders and leaders in the ASB must—
- Understand their responsibilities.
  - Be familiar with the responsibilities and capabilities of higher, lower, and supporting units.
  - Maintain contact with higher, lower, adjacent, supported, and supporting units.
  - Use effective oral and written communications.
  - Understand the information systems related to CSS.
  - Use radio and data transmission nets effectively.
  - Be able to execute a well-rehearsed plan for command succession.
  - Stay personally involved in and apprised of the CSS and tactical situations.
  - Keep the aviation brigade commander informed.
  - Know the laws of land warfare as they apply to civilians, civil affairs, and civil-military operations.
  - Take care of their soldiers.

## ORGANIZATIONAL RELATIONSHIPS

To perform its C2 functions, the ASB must establish and maintain relationships with higher, lateral, supported, and subordinate units.

### ASB AND DISCOM HEADQUARTERS

While the ASB supports the divisional aviation brigade, it remains under the command of the DISCOM commander. Requests for support beyond the ASB's

capability flow to the DISCOM staff and MMC. This ensures that logistics and health services needs are staffed with the DISCOM S2/S3, DISCOM medical operations center, and the DMMC. The ASB keeps the DISCOM aware of the operational status of the AB and all anticipated support requirements. The DISCOM commander has authority to cross-level assets among the MSB, the FSBs, and the ASB. Figure 3-1 shows the ASB/DISCOM relationship.

### ASB AND DMMC

The DMMC provides supply and maintenance management for the ASB. The DMMC manages all classes of supply except Classes VI, VIII, and X, and classified maps. It develops and manages the authorized stockage lists. It maintains division property book and Army equipment status reporting data. The DMMC also specifies where the ASB will physically locate the items and amounts of Class I, III, IV, and

IX materiel. It provides instructions for turn-in of excess items and for evacuation of items that cannot be quickly repaired by the ASB ground or aviation maintenance companies. The technical relationship between the ASB companies and the DMMC is shown in Figure 3-2.

The MSB provides designated DS supply support, DS ground maintenance, motor transport support, some field service functions, and health service support for ASB. The supply and ground maintenance companies of the ASB maintain technical relationships with their related companies in the MSB. These technical relationships simplify technical training and operations. When the ASB needs reinforcing support from the MSB or an FSB, the ASB support operations officer coordinates with the DISCOM support operations officer. For health service support, the aviation brigade S1 works directly with the MSB medical company. Figure 3-1 shows the relationship between the ASB and FSB or MSB.

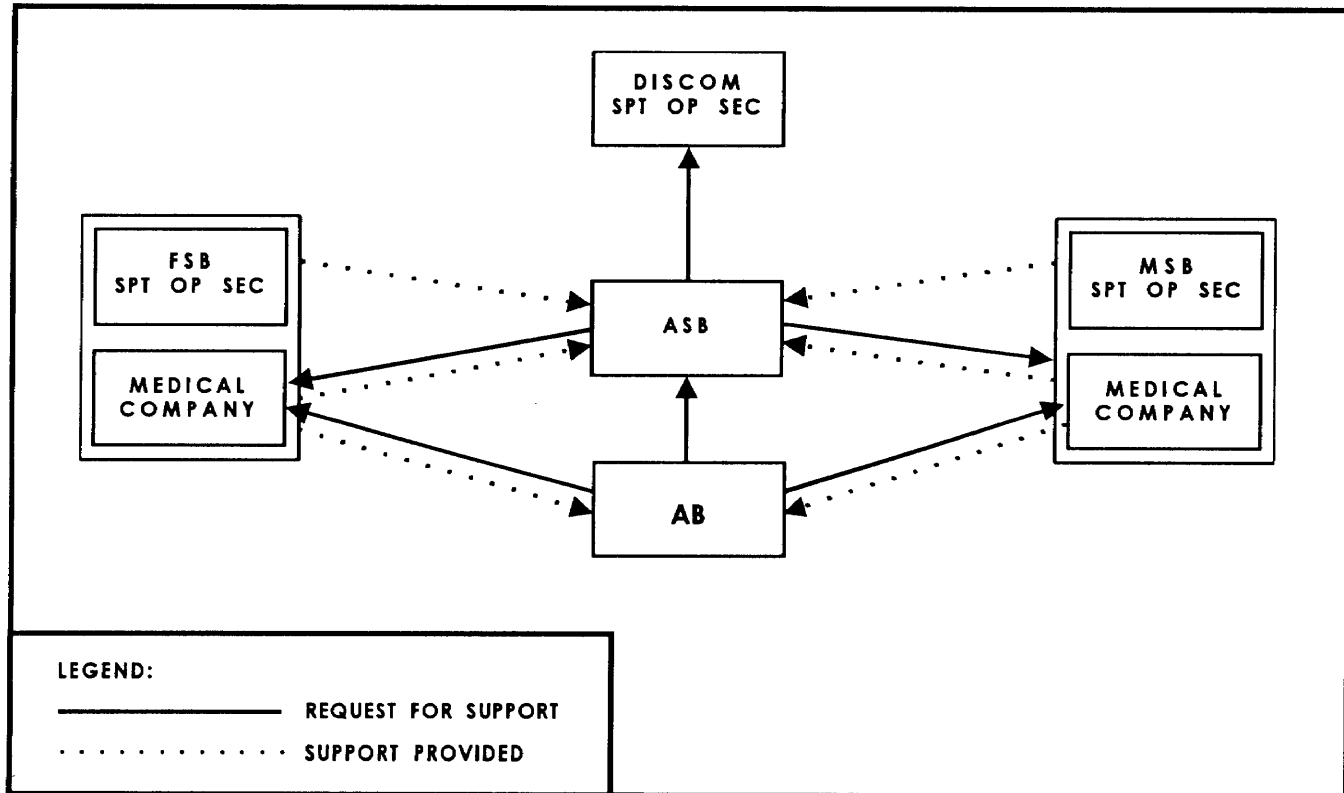


Figure 3-1. ASB relationship with AB, DISCOM, MSB, and FSB



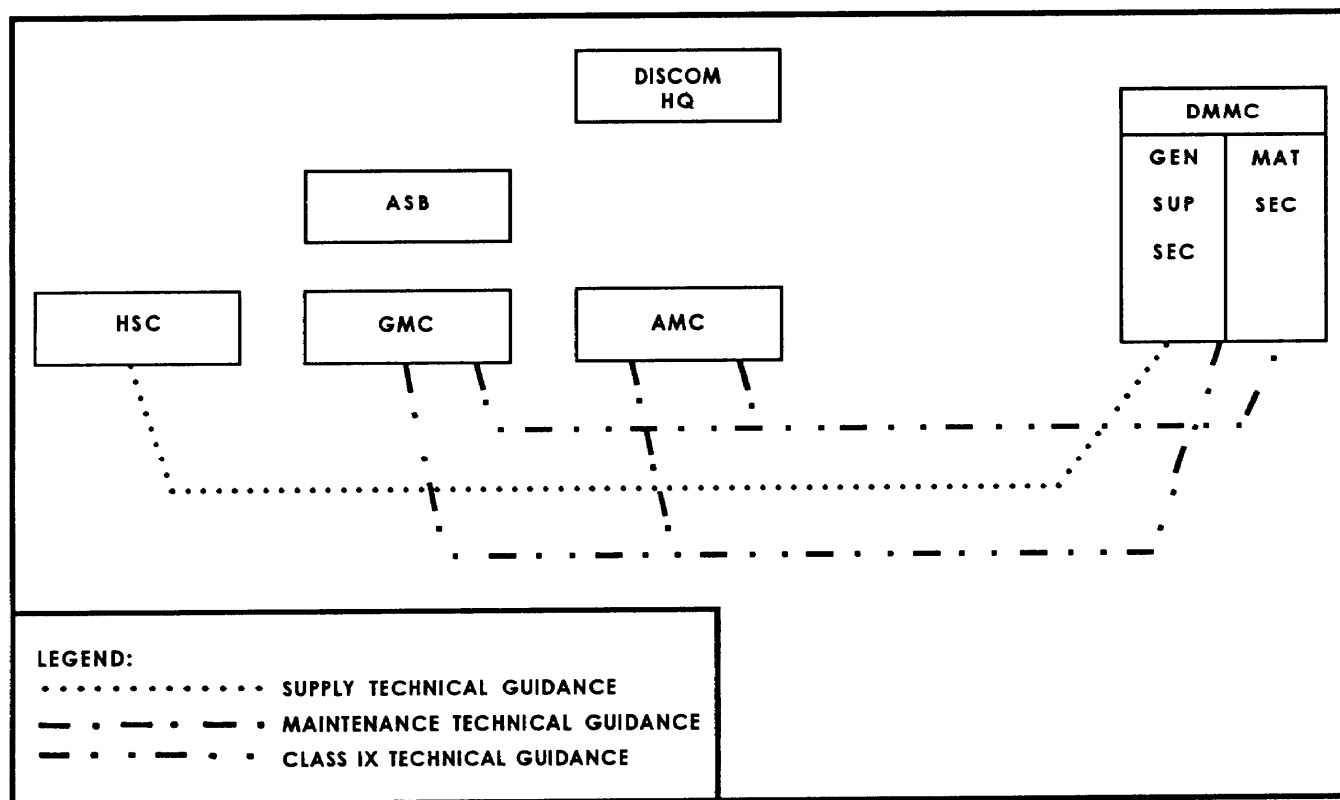


Figure 3-2. ASB-DMMC technical relationship

### ASB AND SUPPORTED UNITS

The ASB provides direct support to the aviation brigade. This requires a close working relationship with the brigade commander and staff, the subordinate battalions, and other attached units. The aviation brigade commander is responsible for planning all aspects of the brigade's operations, including logistics. The brigade S4 provides the commander with logistics information and acts as the brigade logistics planner. The S4 coordinates the status of supplies and equipment with the subordinate aviation battalion XO and S4s and with representatives of other supported elements. The AB S4 writes and briefs the brigade concept of support (OPORD paragraph 4) in close coordination with the ASB commander and support operations officer. He maintains continuous contact with the ASB commander and support operations officer to track the ASB's status and capabilities. To facilitate this coordination, the aviation brigade rear CP normally locates close to the ASB

CP, and the brigade S4 has representatives at the ASB CP at all times.

The ASB deals directly with the aviation battalion S4s and AB company logistics representatives to work out the day-to-day details of logistics operations. These include specific requirements and time schedules. Figure 3-3, page 3-4 shows the relationship between the ASB, the aviation brigade, and its subordinate battalions. For routine operations, the ASB companies also develop relationships with supported unit CSS operators. The DISCOM support operations branch also coordinates with the MSB and FSB support operations sections for any required cross leveling of DISCOM assets. The CSST from the ASB accompanies the cavalry squadron. If additional CSS is required while in a BSA, the ASB coordinates to get the additional assets. General principles of task organizing described in Chapter 2 also apply.

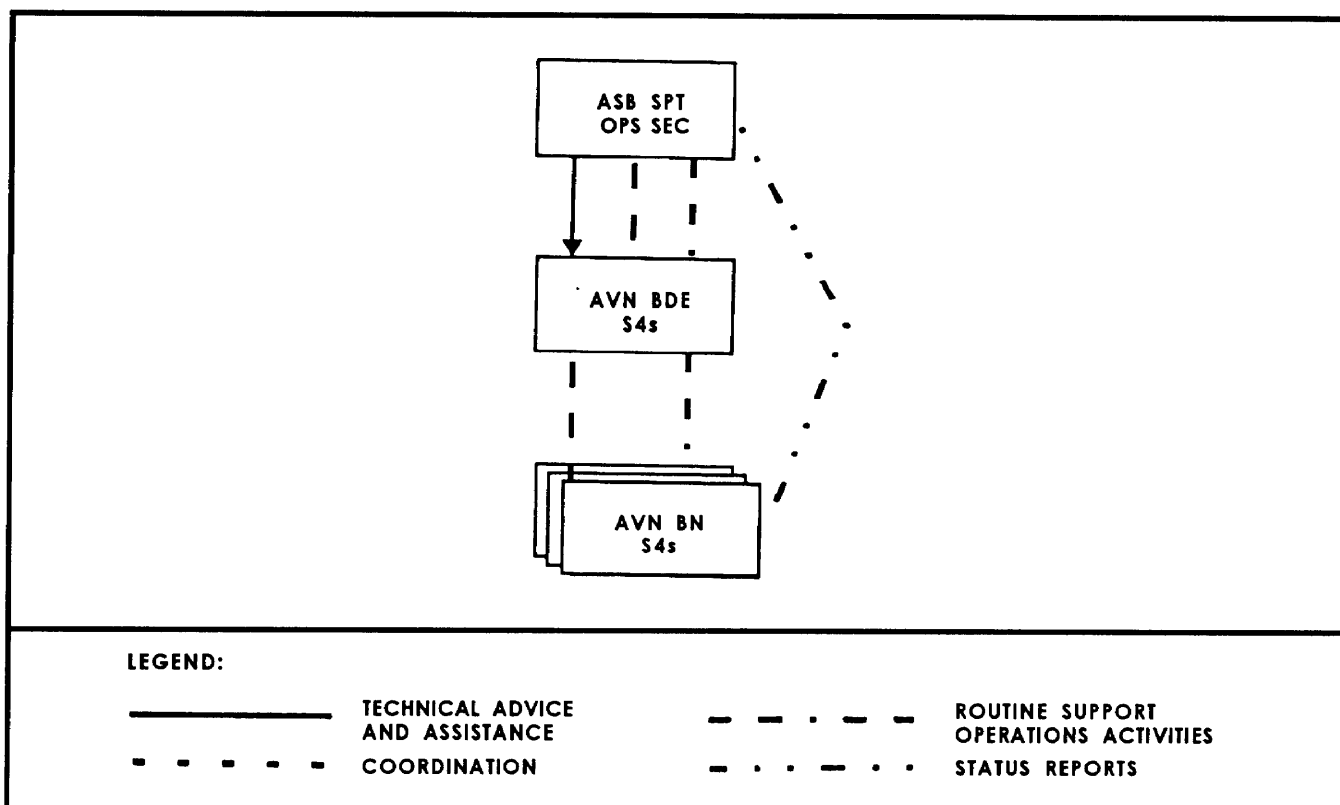


Figure 3-3. ASB relationships with supported units

## ASB AND ASB COMPANIES

The ASB commander must maintain close contact with his subordinate commanders. He depends on them to provide timely information on the status of their companies. All subordinate leaders must understand the ASB commander's intent and they must exercise initiative. Frequent face-to-face discussion enhances this understanding. Though company commanders are usually in the vicinity of

the ASB CP to facilitate coordination, they must not tie themselves to one spot. They command their companies from locations where they can best assess and influence the support operation. These commanders use verbal orders, radio, visual signals, or wire among themselves, the ASB staff, their platoon leaders, and supported elements.

## PROCESS

The ASB commander and staff use the command and control process outlined in FM 101-5 to make decisions and supervise the execution of orders. They are continually estimating and planning. The focus becomes more precise when the ASB receives a mission. Typically, it has already received a warning order when the commander, XO, S3, or support

operations officer attends a DISCOM or AB staff meeting. Usually the ASB commander receives planning guidance and a restated mission from the DISCOM and the AB commander. He also has the AB OPLAN/OPORD. Throughout the entire operation, he and his staff work closely with the AB S3 and S4 sections.

When the mission is received, the ASB conducts a mission analysis. The commander and staff use all the planning considerations discussed in Chapter 2. These include the supported force, ASB capabilities, and the AB commander's priorities of support. The command section identifies tasks required to accomplish the mission, restates the mission, and issues a warning order along with the commander's planning guidance to all ASB elements.

The ASB commander provides subordinate commanders and staff with planning guidance as often as required. The frequency varies with the mission, available time, tactical situation, available information, and historical data. The amount and content of the guidance also depend upon the mission. Planning guidance is used to prepare estimates and OPLANS. Therefore, the commander must be sure the nature of the guidance does not bias staff estimates. The purpose of the estimate is to provide a common start point for staff planning. Planning guidance may include—

- A restated mission.
- Specific courses of action to develop or eliminate from consideration.
- Assumptions and constraints.
- Critical required information.
- Specific considerations (such as NBC, deception, or electronic warfare [EW]).

The ASB staff provides functional area estimates as discussed in Chapter 6 and in FM 101-5. On the

basis of these estimates, the ASB commander prepares his final concept of operations. The XO then supervises preparation of the OPLAN/OPORD. The S2/S3 consolidates the input and publishes and distributes the approved OPLAN/OPORD.

The ASB command section must keep two points in mind related to the operational planning process summarized above. First, planning is continuous. It does not begin on receipt of a mission. The commander and staff are always gathering data and anticipating future requirements. When the ASB receives a mission, it takes steps to finalize all the operational details of the CSS and area security plans. Second, the command section must adjust to time constraints. Sometimes, time is the most critical factor in the planning process. In such cases, planning guidance may have to be less specific and formal. When appropriate, FRAGOs on previous orders are preferable to new orders. They save time.

After issuing the orders, the ASB commander and staff supervise their execution. The primary purpose of the staff is to assist subordinate units in executing the ASB commander's orders. Plans and orders are refined as the situation changes. Information comes back to the command section through reports and personal observations of subordinate commanders and staff. They evaluate mission progress and revise orders as required.

## FACILITIES

Command and control facilities include command posts with supporting automation and communications systems. These facilities make it possible to process and transmit the information and orders necessary for effective C2. Communication is covered in Chapter 4.

### C2 AUTOMATION

Automated systems throughout the DISCOM allow commanders to manage information and

optimize the use of limited resources. These systems include the automation equipment (hardware), programs (software), and personnel needed to manage information using computers.

Past automated systems provided ineffective C2 support to logistics operations. Staff estimates and plans developed manually were based on data collected through voice, message, or courier-based communications.

Information overload and parallel systems incompatibility hamper C2. There are some one-to-one interfaces between fictional systems, but there is no integration of data bases to support planning and decision making. A new command and control system that integrates logistics information is correcting this deficiency.

### **Command, Control, and Subordinate System Structure (CCS2)**

The Army Tactical Command and Control System (ATCCS) will provide the means of interfacing the five battlefield control functions of maneuver, air defense, CSS, intelligence/EW, and fire support.

A full interactive, automated system is expected in 1995 when the objective CCS2 is realized.

**NOTE:** *Initial fielding began in the second quarter of FY 90.*

The CSS Control System of ATCCS will be an automated system that provides logistics, health service, and personnel command and control information. It will rapidly collect, analyze, project, and distribute this information to the maneuver commander. This allows commanders to make timely and sound tactical decisions. This information will also help CS and CSS commanders perform their command and control functions. The Combat Service Support Control System (CSSCS) retrieves data from CSS subordinate units and systems—Standard Army Management Information Systems. The CSSCS will be employed at maneuver brigade, division, corps, and echelons above corps (EAC).

**NOTE:** *At EAC the CSSCS will also provide C2 financial information.*

At the ASB, there will be two CSSCS devices. The CSSCS node of the ATCCS will be located in the ASB support operations section. This device will provide information to the DISCOM commander, the aviation brigade commander, and the other ATCCS nodes at brigade level. It will enable the DISCOM commander

and staff to disseminate OPLANs, orders, and inquiries to the ASB. The interface with the other CCS2 nodes (fire support, air defense, intelligence and electronic warfare [IEW], and maneuver) will permit integration of all battlefield control functions.

Another CSSCS device will be located in the aviation brigade rear CP to support the aviation brigade S1 and S4 sections. This device will enable the S1 and S4 to manage personnel and internal logistics functions. It will also provide aviation brigade personnel and logistics data to the brigade commander. Figure 3-4 depicts CSSCS in support of the aviation brigade.

Many CSS automated systems will provide information to the CSSCS. Transactions are transmitted either electronically or by magnetic media. The systems used by the ASB are discussed below.

### **Functional Systems**

**Unit-Level Logistics System** —Ground. ULLS-G automates maintenance management and Class IX repair parts supply at the unit level. It interfaces with SAMS-1, SAMS-2, and SARSS-O.

**Unit-Level Logistics System** —Aviation. ULLS-A automates TAMMS-A and provides flexibility to aviation maintenance operations. It operates in the flight companies and produces flight packs, tracks aircraft readiness, maintains historical records, and orders repair parts. ULLS-A interfaces with SAMS-1, SAMS-2, and SARSS-O.

**Unit-Level Logistics System** —S4. ULLS-S4 automates unit Class II, III, IV, VII, and IX supply management. It operates in the unit supply rooms and at the battalion-level S4. ULLS-S4 interfaces with SARSS-O and CBSX.

**Standard Army Maintenance System** —1. SAMS-1 automates DS/GS maintenance operations and repair parts supply at the ASB. The ground maintenance company SAMS-1 interfaces with SAMS-2, SARSS-O, and ULLS.

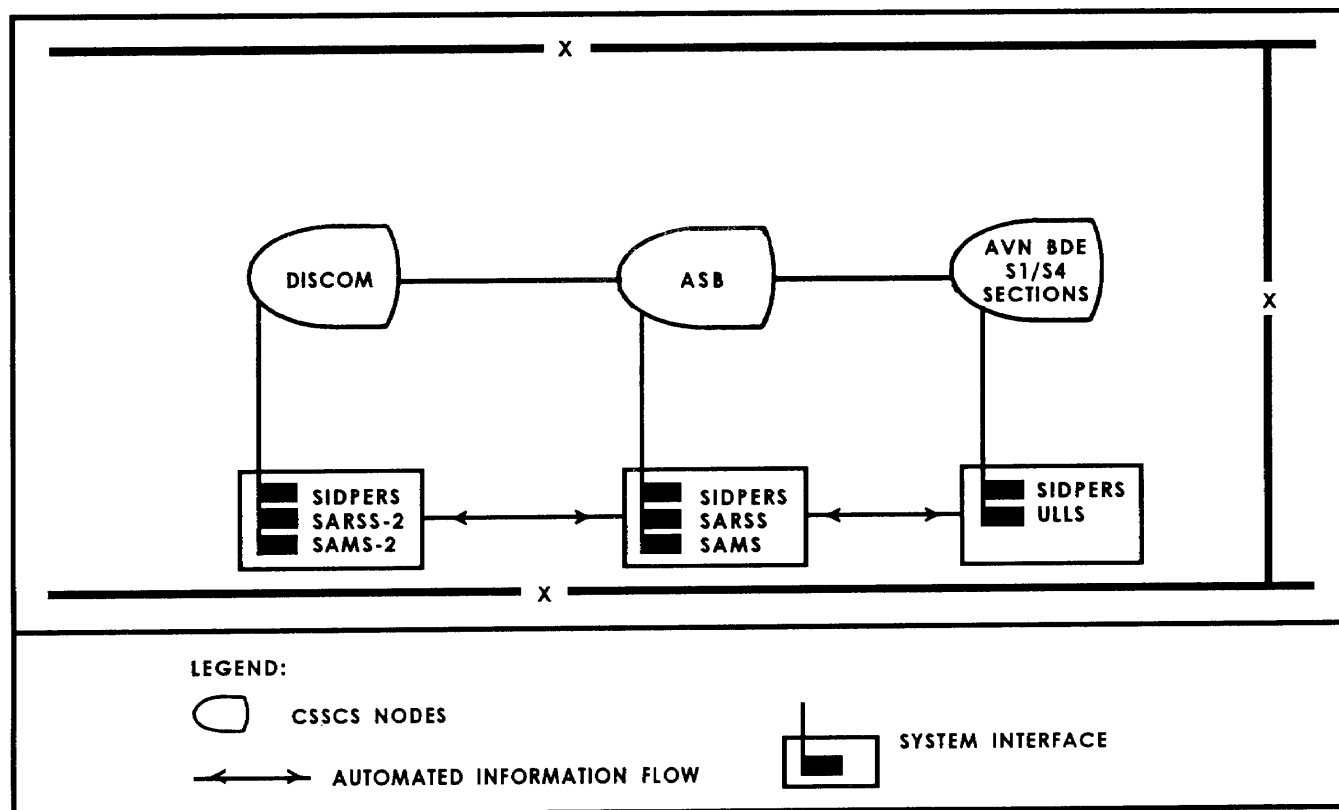


Figure 3-4. CSSCS in support of the aviation

**Standard Army Maintenance System —2.** SAMS-2 receives SAMS-1, ULLS-G, and ULLS-A data and provides immediate production and supply requirements to managers. It operates at the ASB, MSB, and DMMC. It gives commanders real-time equipment status.

**Standard Army Retail Supply System —Objective.** SARSS-O automates brigade-level and above supply support activities (SSAs). SARSS-O automates Class II, III (packaged), IV, VII, and IX supply actions. SARSS-O interfaces with ULLS, SAMS, and SARSS-2A at the DMMC. SARSS-O is the cornerstone of total asset visibility.

**Standard Army Retail Supply System —2A.** SARSS-2A receives asset balance reports from SARSS-O and routes unfilled requisitions to the appropriate source of supply. It also performs lateral transfers and substitute item identification and

release, and it maintains total asset visibility. In contingency operations, SARSS-O can operate in the autonomous mode without SARSS-2A support.

**Standard Installation/Division Personnel System.** SIDPERS automates strength accounting, assignment, organizational recordkeeping, personnel recordkeeping, and military personnel operations for the S1 section.

**Tactical Army Medical Management Information System—Division.** TAMMIS-D consists of two subsystems: Medical Patient Accounting and Reporting—Division (MEDPAR-D) and Medical Logistics—Division (MEDLOG-D). MEDPAR-D automates patient administration and hospital management functions. MEDLOG-D automates the medical supply and maintenance system. A major drawback to these systems is that they do not interface laterally with SIDPERS or SARRS.

**Standard Army Ammunition System.** SAAS automates ammunition management and distribution ArmyWide. SAAS does not interface with other automated logistics systems below division level.

**Army Food Management Information System.** AFMIS automates the management of Class I and some Class VI items. AFMIS does not interface with other automated logistics systems below division level.

FM 10-1 contains a more in-depth description of current automated logistics systems.

### COMMAND POST

The primary C2 facility in the ASB is the command post. The AB rear CP locates near the ASB CP. Together, they support the aviation brigade. They actively track the battle to anticipate support requirements.

**CPs operate continuously.** Table 3-1 is an example of an ASB CP organized into two shifts. This is an example of minimum staffing only. During intense activity, all available personnel may be required for short periods. Maximum staffing cannot continue indefinitely. ASB commanders and staffs must consider the fatigue and sleep loss that occurs during combat. Fatigue caused by lack of sleep is a major source of battlefield stress. Leaders are particularly susceptible. Principles to lessen fatigue include the following:

- Develop and enforce specific sleep plans.
- Allow for at least 3 to 4 hours of sleep every 24 hours. Even at this rate, performance, especially decision-making skills, degrades in several days.
- Give priority of sleep to those whose decision making is critical to the mission.

For sleep plans to work, staffs must be cross-trained. One technique is to simplify critical tasks using aids such as specific SOPS or checklists. Adequate manning is also critical for continuous operations.

**Table 3-1. ASB CP organized in two shifts**

PEAK ACTIVITY	REDUCED ACTIVITY
Spt Op Officer	S2/S3 Officer
S1 Officer	S1 NCO
S2 Officer	Intelligence NCO
S4 Officer	S4 NCO
Senior Staff NCOs	Spt Op Sergeant
CE Officer	CENCO
Chemical Officer	NBC NCO

### Site Selection

The ASB commander and S2/S3 coordinate with the aviation brigade S4 to select the ASB's location in the division rear. The aviation brigade S3 then approves the location. (More details are covered in Chapter 5.) Positioning of elements within the area is the responsibility of the ASB commander. The ASB S2/S3 makes the actual assignments.

Key considerations for locating the CP are—

- Proximity to adequate road networks.
- Access to clear AM, FM, and MSE communications networks. See FM 24-1 for details.
- Use of terrain to conceal the CP and to mask radio transmissions.
- Use of built-up areas to conceal equipment and to reduce thermal signatures.
- The site's ability to enhance noise and light discipline.
- Adequate space to disperse vehicles.
- Soil quality and drainage.
- Creating and maintaining a defensible perimeter.

### Layout

The CP may be laid out in a number of different arrangements. Figure 3-5 shows a sample ASB CP organized in a dual-shelter configuration. The CSS mission is managed in the direct support

operations van. The communications, intelligence, and operations missions run from the S2/S3 tent. The aviation brigade rear CP locates near the ASB CP to facilitate communications and coordination.

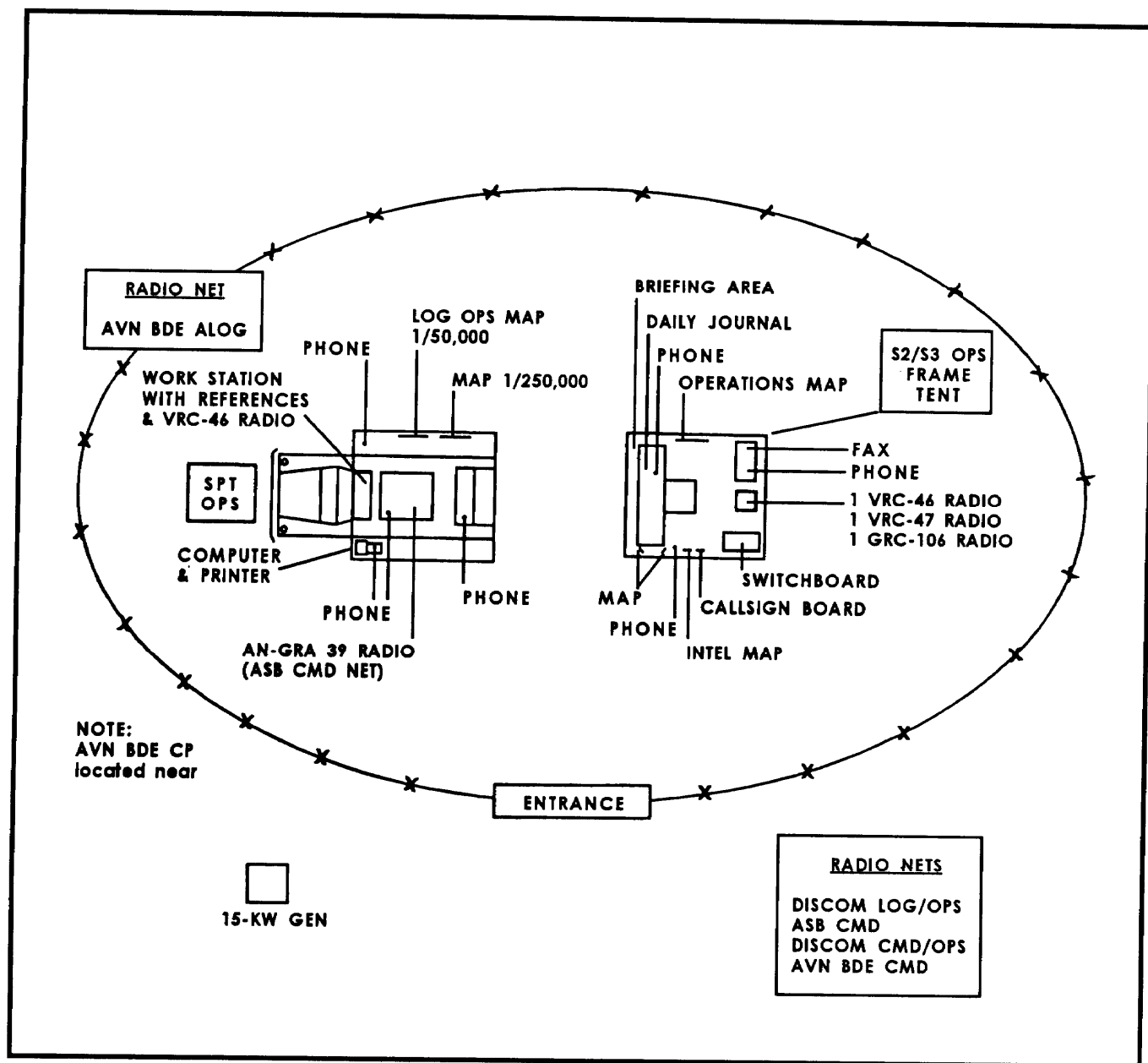


Figure 3-5. Sample ASB CP layout

## CHAPTER 4

**Communications**

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### **PRINCIPLES AND DEVELOPMENTS IN COMMUNICATIONS SYSTEMS**

Ensured, secure communications are essential for effective command and control. The ASB relies on its organic communication assets and on support from the division signal battalion. The length of CSS transmissions and the crowding in the division rear mandate that commanders maximize use of burst transmission devices, couriers, and wire communications. This lessens the security risk of substantial radio use.

Communications systems in the corps and division are changing. The MSE system will replace the current area communications system described below. The single-channel ground and airborne radio system (SINCGARS) and improved high-frequency radios will replace current FM (AN/VRC -12-series) radios.

These changes will affect the ASB in the connectivity to the area system. Under the current system, the command operations company of the division signal battalion runs wire to the ASB switchboard. When using MSE, the ASB will run wire from unit locations to the MSE node. The amount of wire the ASB headquarters and companies will need depends on what is authorized by modification table(s) of organization and equipment (MTOE). The unit SOP will cover wire laying for all units with the deployment of MSE. It must cover who does it and in what priority. The actual communications means will remain essentially the same. The ASB will depend on couriers, combat net radios, and wire access to area communications systems. Automated hardware systems will subscribe to the area communication systems by wire or wireless access.

### **CURRENT AREA SYSTEM**

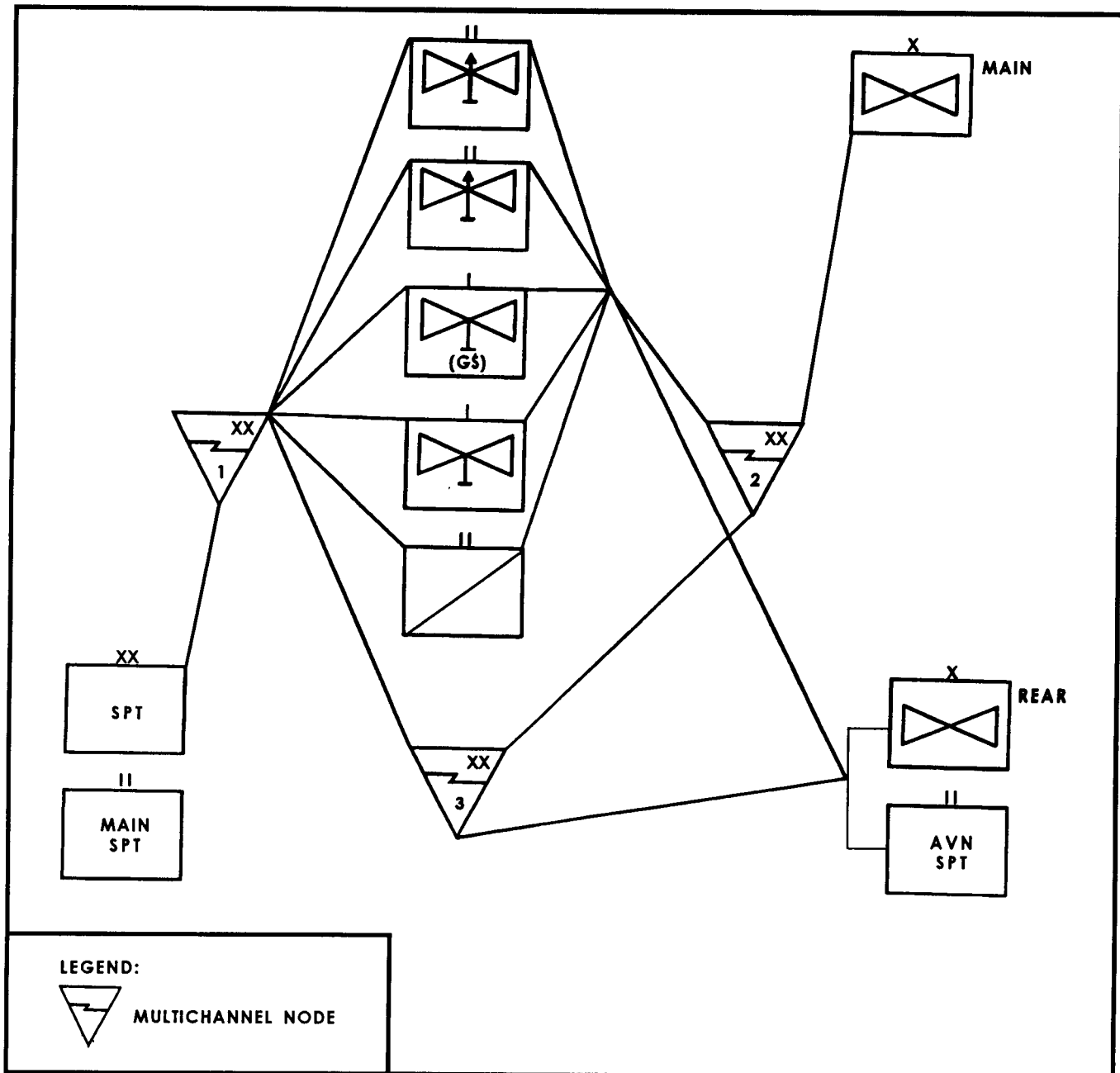
Figure 4-1, page 4-2 shows a sample current area communications system. The ASB headquarters and companies use their organic switchboards and telephones for internal wire communications. The ASB will normally tie into the area communications system

(signal battalion multichannel system) at the command operations company of the division signal battalion. The companies will tie into the ASB switchboard or directly into the signal battalion switchboard to gain access into the area system.



When the MSE system replaces the current area system, the organic two-wire switchboards and telephones will not be capable of entering the four-wire

digital system. The ASB and its companies will retain the two organic switchboards for area security and internal operations.



**Figure 4-1. Sample heavy division aviation brigade multichannel diagram (current area system)**

## MOBILE SUBSCRIBER EQUIPMENT AREA COMMUNICATIONS SYSTEM

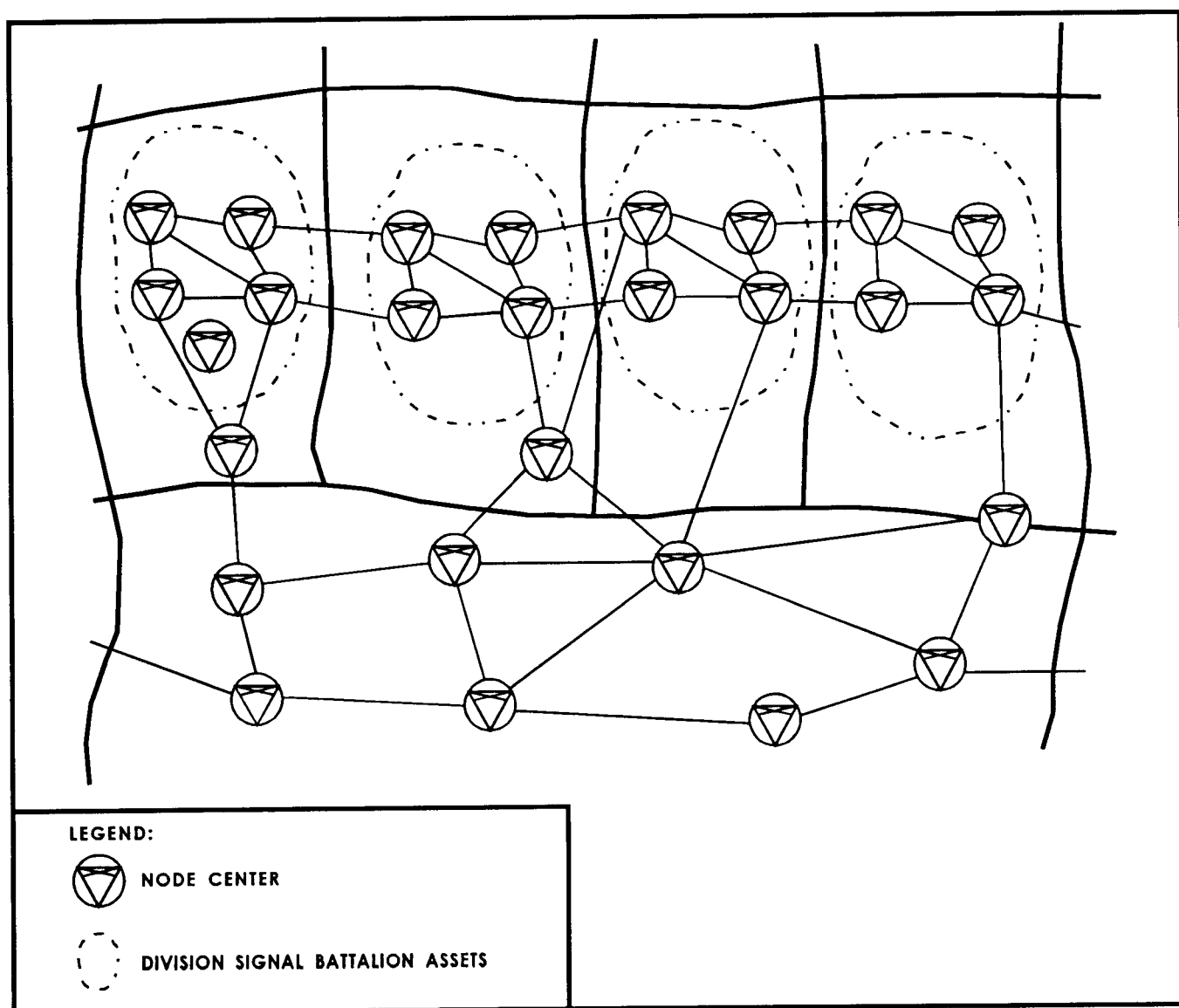
MSE is the area common-user voice communication system within the corps. It will deploy from the corps rear boundary forward to the maneuver battalion main CP.

opposed to dedicated support to a specific unit or customer.

### AREA COVERAGE

Area coverage means that MSE provides common-user support to a geographic area, as

Figure 4-2 shows a sample deployment of area nodes across a corps area. These nodes are called node centers. They are under the control of the Signal Corps. Figure 4-3, page 4-4 shows a node center.



**Figure 4-2. Representative deployment of area nodes (MSE)**

At the division level, the signal battalion operates four of these nodes. Connected to the nodes by line-of-sight radios are small extension nodes (SENs) and large extension nodes (LENs). In the division signal battalion these include—

- 12 SEN (VI) switchboards capable of supporting 26 customers each.
- 4 SEN (V2) switchboards capable of supporting 41 customers each.
- 1 LEN switchboard capable of supporting 176 customers.

A typical deployment of aviation brigade switchboards within the division is shown in Figure 4-4. Tactical dispersion requirements require the ASB to tie into a SEN. Figure 4-4 is only one approach. The G3 will determine the location of switchboards based on the recommendation of the division Signal Officer. The Signal Officer considers the commander's intent, customer requirements, and other factors of METT-T. Switchboard location will not be tied to specific units.

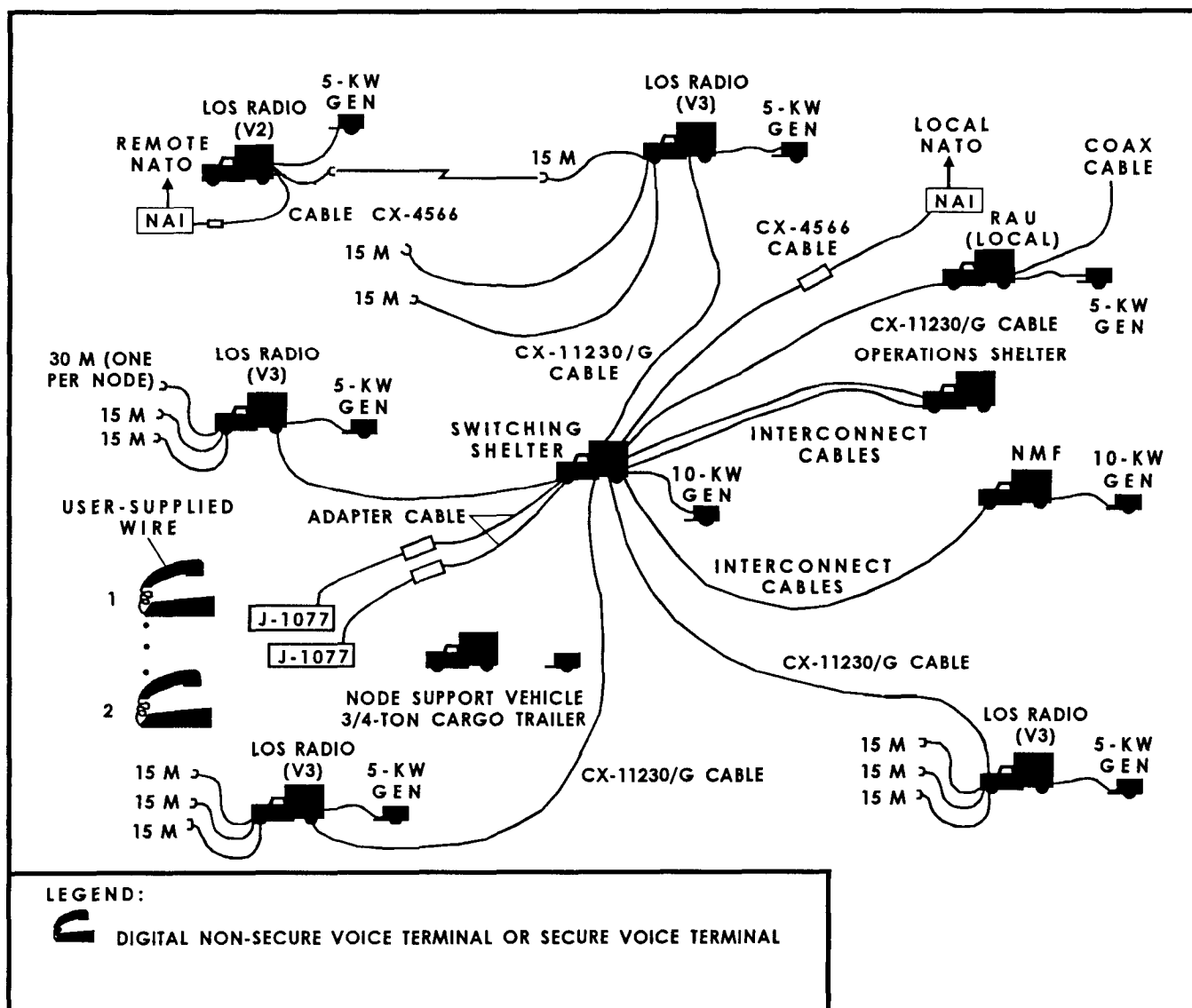


Figure 4-3. Node center

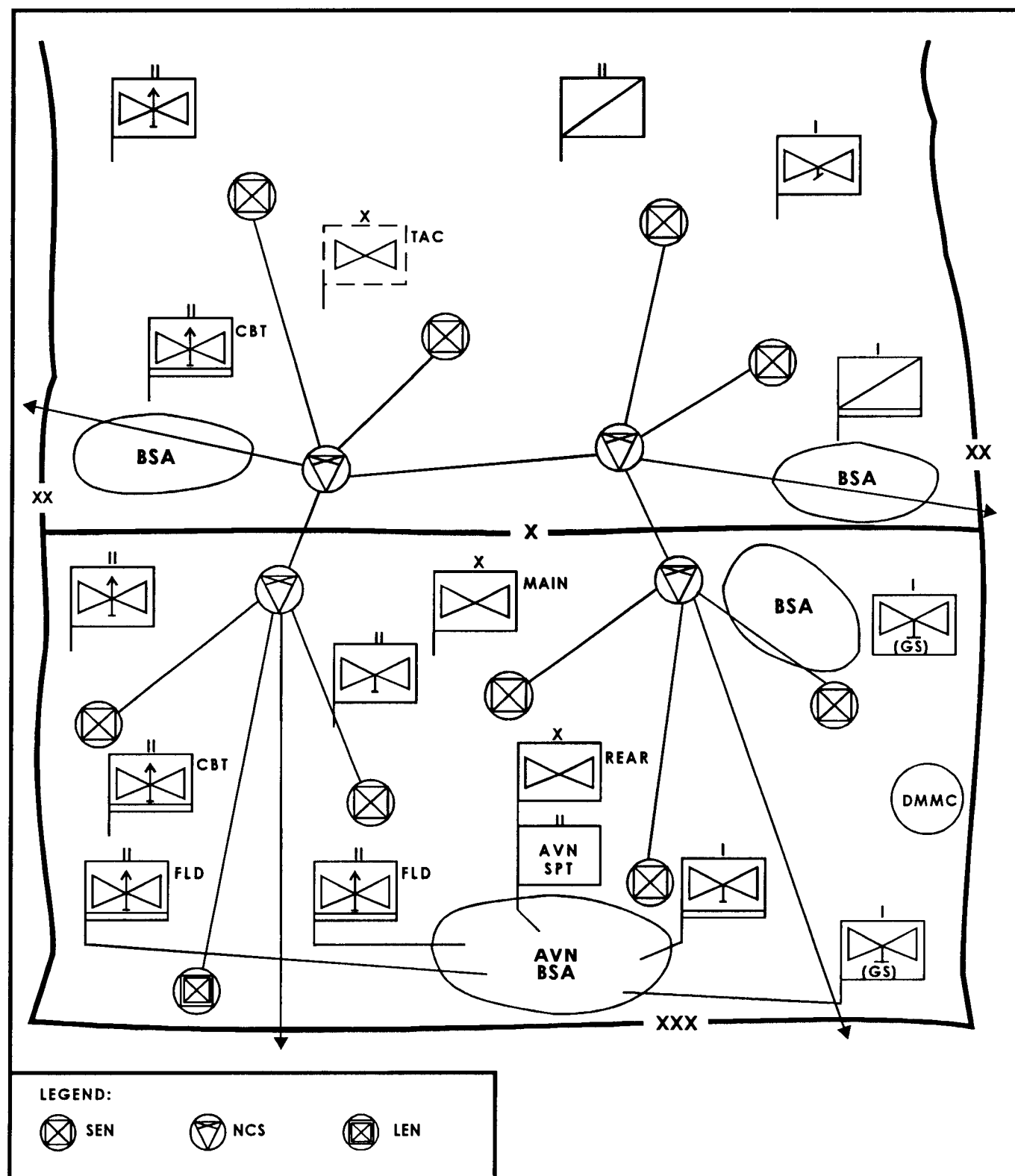


Figure 4-4. Typical aviation brigade deployment of SEN and LEN switchboards

## WIRE SUBSCRIBER ACCESS

Wire subscriber access points provide the entry points (interface) between fixed subscriber terminal equipment (owned and operated by users) and the MSE area system (operated by signal units).

ASB users tie into the area system through MSE switchboards. The two types of interface equipment are the—

- Signal distribution panel (junction box) J-1077, which provides up to 13 subscriber access points.
- Remote multiplexer combiners (RMCs) which provide access for 8 subscriber access points.

Normally, the ASB will interface through the panel. In either case, the ASB is responsible for installing and operating fixed subscriber terminal instruments. It must also install and maintain WF-16 field wire from the instruments to the interface points. WF-16 wire consists of two pairs of wire—one olive drab, the other brown. The olive drab pair has a ridge along the side for night identification.

## FIXED SUBSCRIBER TERMINALS

Subscriber terminals used by the ASB are digital, nonsecure voice telephones. These provide full-duplex, digital, four-wire voice capability. They also have a data port for interfacing the AN/UXC-7 facsimile for informal record traffic; the TACCS for CSS STAMISs; and the unit-level computer, as shown in Figure 4-5. The terminals also provide

the interface for the ASB to enter the ATCCS. Figure 4-6, page 4-8 portrays the assignment of digital, nonsecure voice telephone (DNVT), facsimile, ATCCS, and unit-level computers (ULCs) for the ASB. The DNVT ties into the area system through a panel or RMC.

## MOBILE SUBSCRIBER TERMINAL

The MSE mobile subscriber terminal is the AN/VRC-97 mobile subscriber radiotelephone terminal (MSRT).

The MSRT is a vehicle-mounted assembly consisting of a very high-frequency radio and a digital secure voice terminal. It interfaces with the MSE system through a radio access unit. Figure 4-6, page 4-8 represents assignment of MSRTs in the ASB. The primary use of the MSRT is to provide mobile subscribers access to the MSE area network. Figure 4-7, page 4-9 is a typical MSRT interface into the area system. Radio access units (RAUs) are used for maximum area coverage and MSRT concentration. Staff and fictional personnel operating in CPs can also access MSRTs. The MSRT user will have a KY68 telephone connected to the radio mount in the vehicle. As long as the radio unit has line-of-sight contact with the RAU, it is connected to the area system. The operational planning range is 15 kilometers from any RAU.

## COMBAT NET RADIO SYSTEM

The combat net radio (CNR) structure is designed around three separate radio systems; each has different capabilities and transmission characteristics:

- Single-channel, objective tactical terminal.
- Improved high-frequency radio.
- Single-channel ground and airborne radio.

SCOTT is a stand-alone, transportable, tactical satellite communications terminal that will be transparent to the ASB. If couriers and the MSE system cannot meet data transfer requirements, IHFR and

SINGARS will provide a means for voice transmission of C2 information and for data transmission. Current CNR equipment in the ASB consists of the AN/VRC-12-series radios. These will be replaced by the AN/GRC-213 and SINGARS series. The AN/GRC-213 is a low-power manpack/vehicular radio. It interfaces with the other configurations of the IHFR system. SINGARS is a new family of VHF-FM radios. These radios operate quickly and simply, using a 16-element keypad for push-button tuning. They are capable of short-range or long-range

operation for voice or digital data communications. The planning range is 8 to 35 kilometers. They are capable of a single-channel operation for interface with the

AN/VRC-12 series or other FM radios operating in a single-channel mode. They also operate in frequency-hopping mode, which the operator changes as needed.

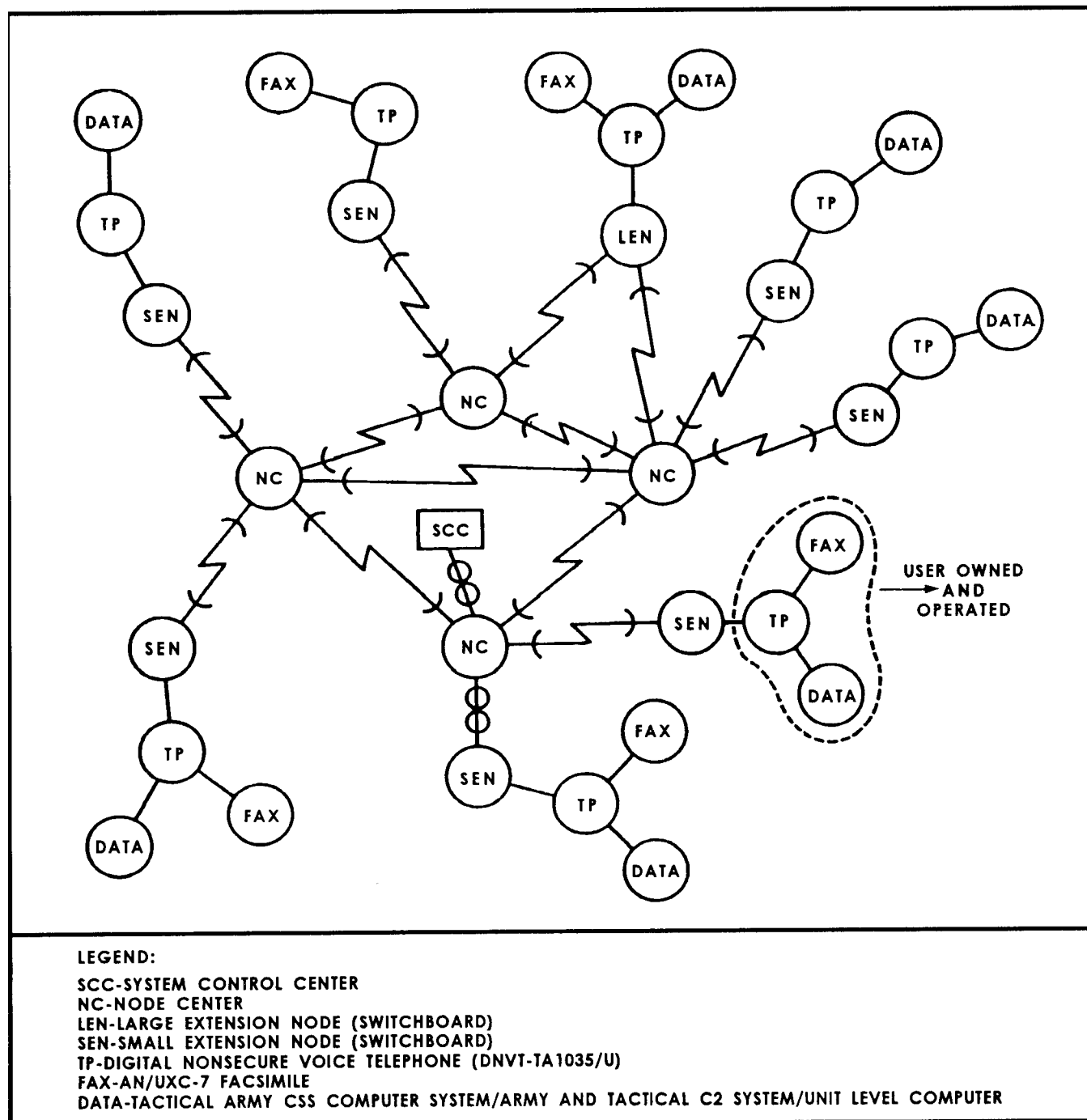


Figure 4-5. Division fixed subscriber terminals

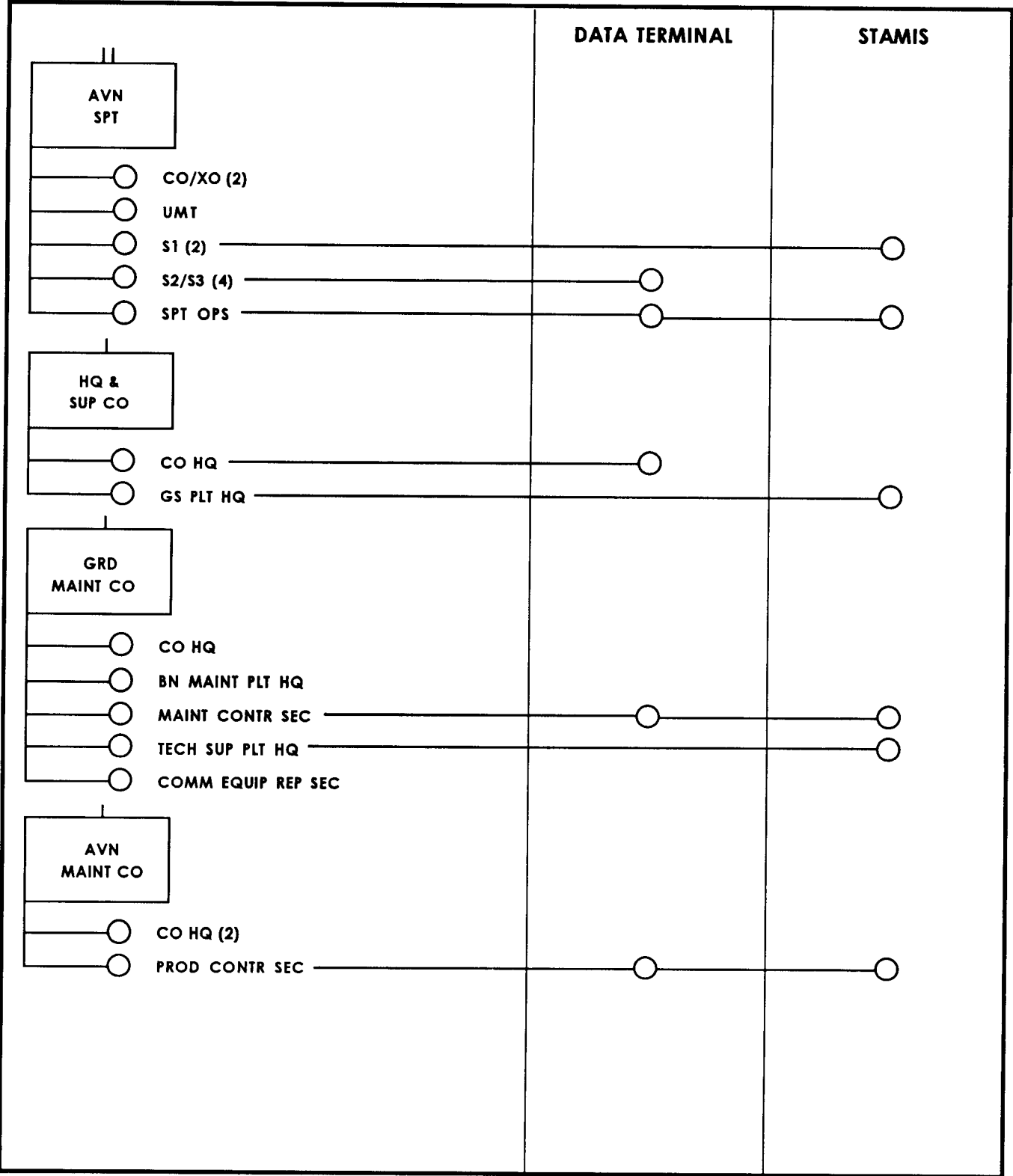


Figure 4-6. ASB subscriber terminal assignments, fixed and mobile

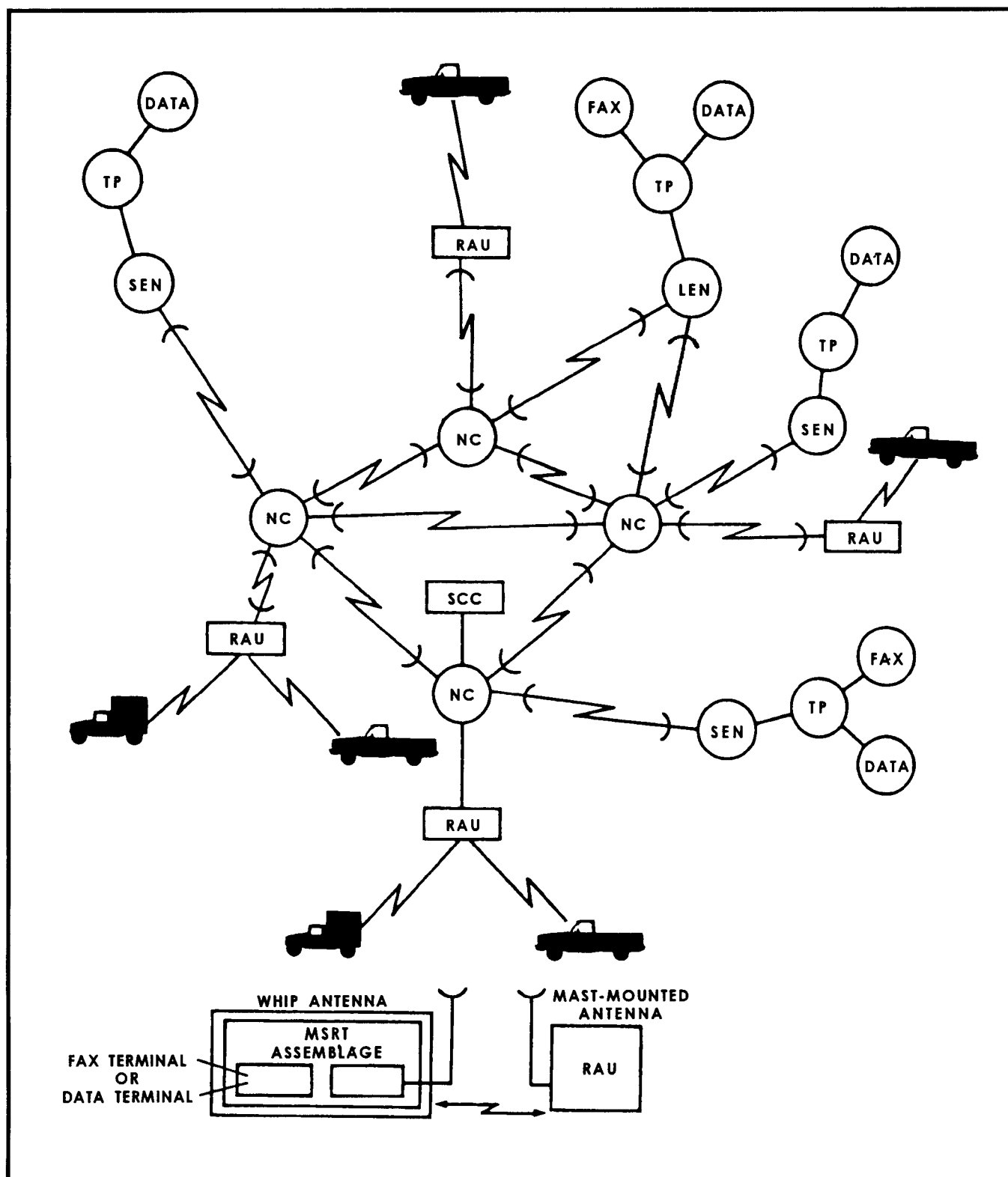


Figure 4-7. Mobile subscriber interface



## ASB RADIO NETS

### ASB COMMAND/OPERATIONS NET

The principal radio net operated by the ASB headquarters is the ASB command/operations net (see Figure 4-8). This is the net used for command and control of ASB elements, both from a command standpoint and from a CSS mission perspective. Its net control station is the S2/S3 site in the CP. Locating the ASB CP near the aviation brigade rear CP may help to overcome perpetual shortfalls in

radios. This may also allow the support operations section access to the AB administrative/logistics net. The S2/S3 section also has access to the AB command net, which is also used for rear operations.

In addition, headquarters personnel/sections also monitors the section/net as shown in Table 4-1.

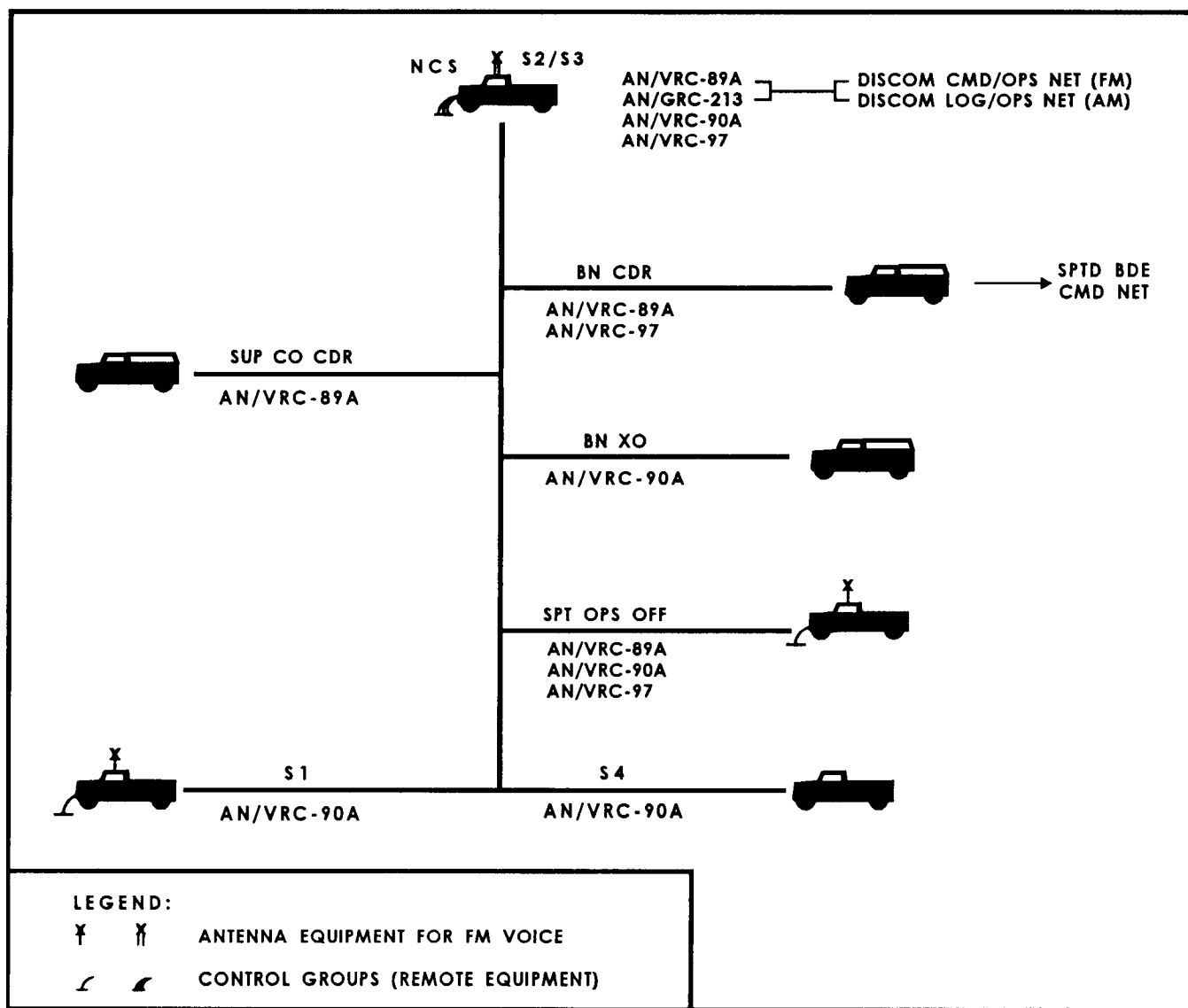


Figure 4-8. ASB command/operations net, FM (SINGARS)

**Table 4-1. Command section/net**

<b>SECTION</b>	<b>NET</b>
<ul style="list-style-type: none"> <li>• ASB commander (in vehicle)</li> </ul>	<ul style="list-style-type: none"> <li>• DISCOM command/operations net</li> </ul>
<ul style="list-style-type: none"> <li>• Support operation section</li> </ul>	<ul style="list-style-type: none"> <li>• Brigade administrative/logistics net (remote to ASB command net radio in S2/S3 tent with AN-GRA-39)</li> </ul>
<ul style="list-style-type: none"> <li>• S2/S3 section</li> </ul>	<ul style="list-style-type: none"> <li>• DISCOM command/operations net AB command net</li> </ul>

### **HEADQUARTERS AND SUPPLY COMPANY COMMAND NET**

This command net provides C2 for both the company headquarters and the supply company. When MSE is deployed, an MSRT locates at the nearest ATP, providing access to the corps Class V structure. Figure 4-9, page 4-12 shows the net.

### **GROUND MAINTENANCE COMPANY COMMAND NET**

Figure 4-10, page 4-12 shows the ground maintenance company net, which provides C2 for its maintenance elements operating throughout the ASB's

area of responsibility. Elements of this net must closely coordinate customer radio frequencies to meet on customer nets.

### **AVIATION MAINTENANCE COMPANY NET**

This net is used for C2 of aviation maintenance elements operating under the ASB. The net (Figure 4-11, page 4-13) is essential for AVIM (and backup AVUM) support for the aviation brigade.

## **SIGNAL SECURITY**

As part of the overall operations security program, ASB elements must consistently practice signal security. A vital consideration is siting of transmitting antennas. Sites must permit communication while reducing the enemy's ability to intercept and locate transmissions. Considerations include—

- Remote antennas away from CPs by at least 1 kilometer.
- Construct and use directional antennas.
- Use terrain features like hills, vegetation, and buildings to mask transmissions.
- Disperse transmitters.
- Maintain radio or radio listening silence; use radio only when absolutely necessary.
- Distribute codes on a need-to-know basis.

- Use only authorized call signs and brevity codes.
- Use wire and messengers whenever feasible.
- Use available secure communications security (COMSEC) devices.
- Maintain net discipline and control.
- Use authentication and encryption codes specified in the current signal operation instructions (SOI).
- Keep transmissions short (less than 20 seconds).
- Report all COMSEC discrepancies to the net control station (NCS).
- Use lowest transmitter power output consistent with good communications.
- Avoid significant surges in traffic on single-channel radio nets.

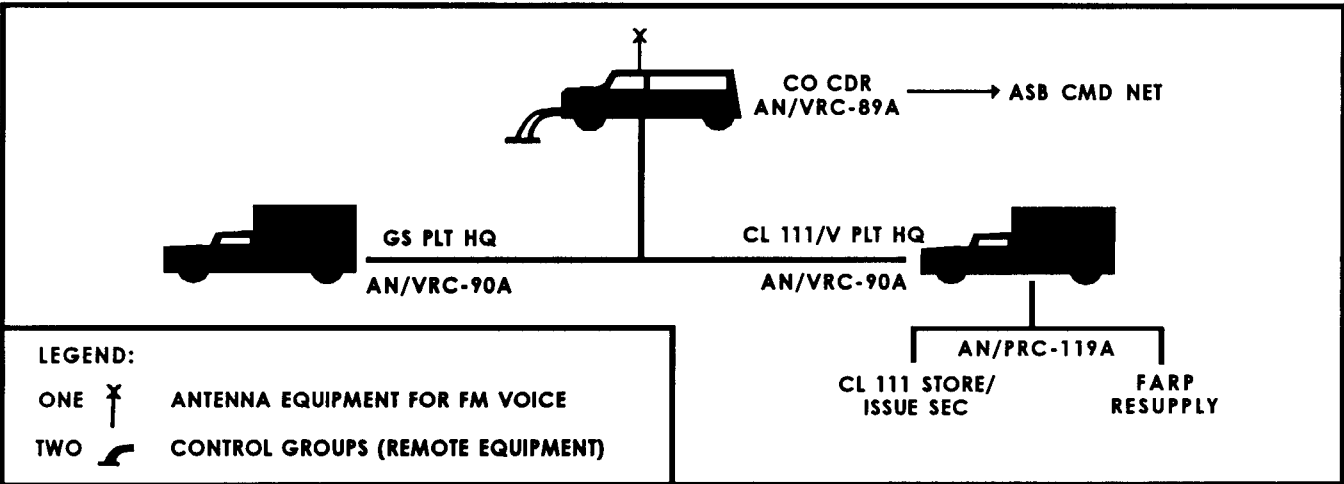


Figure 4-9. HSC command net, FM (SINGARS)

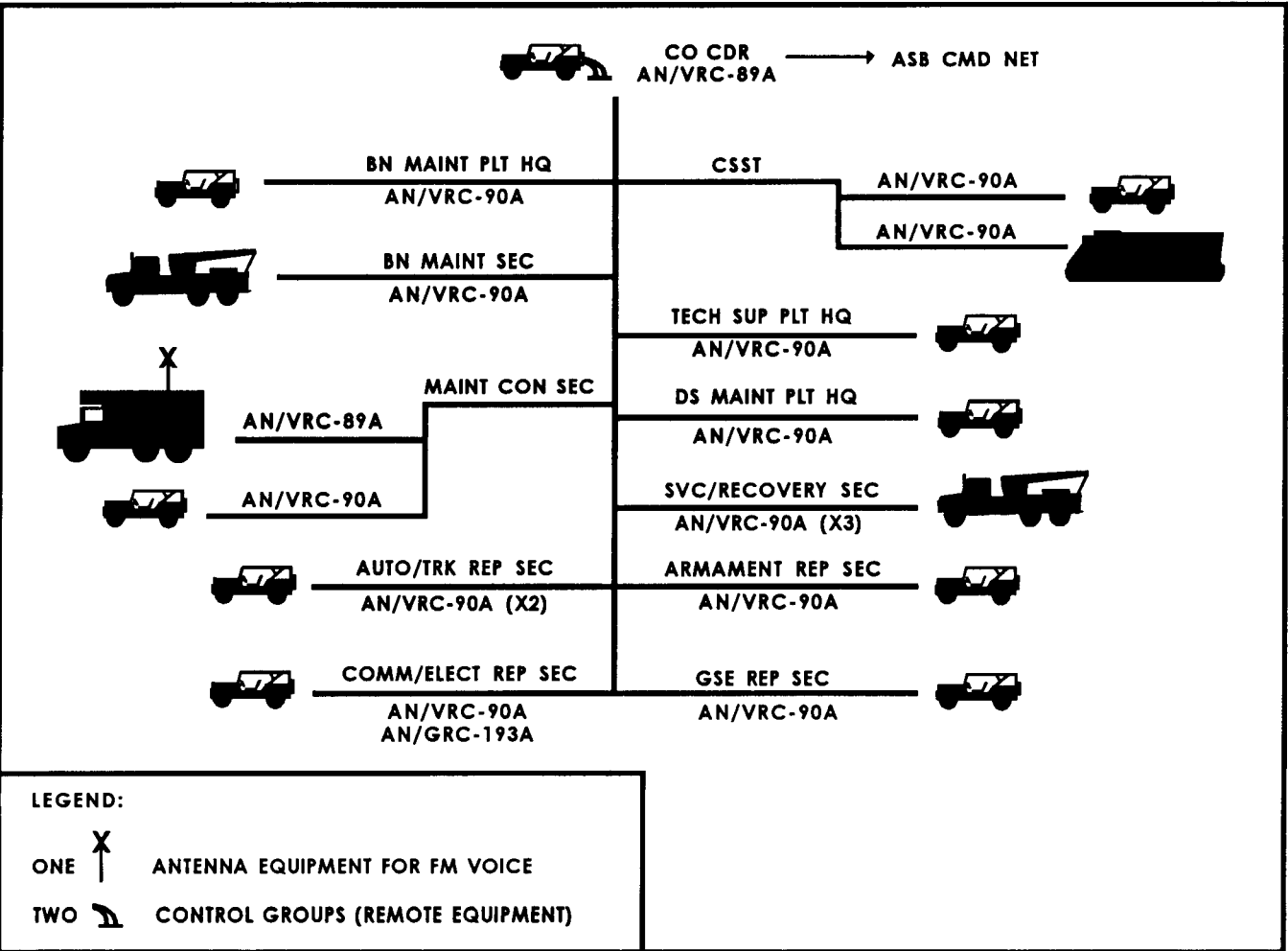


Figure 4-10. Ground maintenance company (GMC) command net, FM (SINGARS)

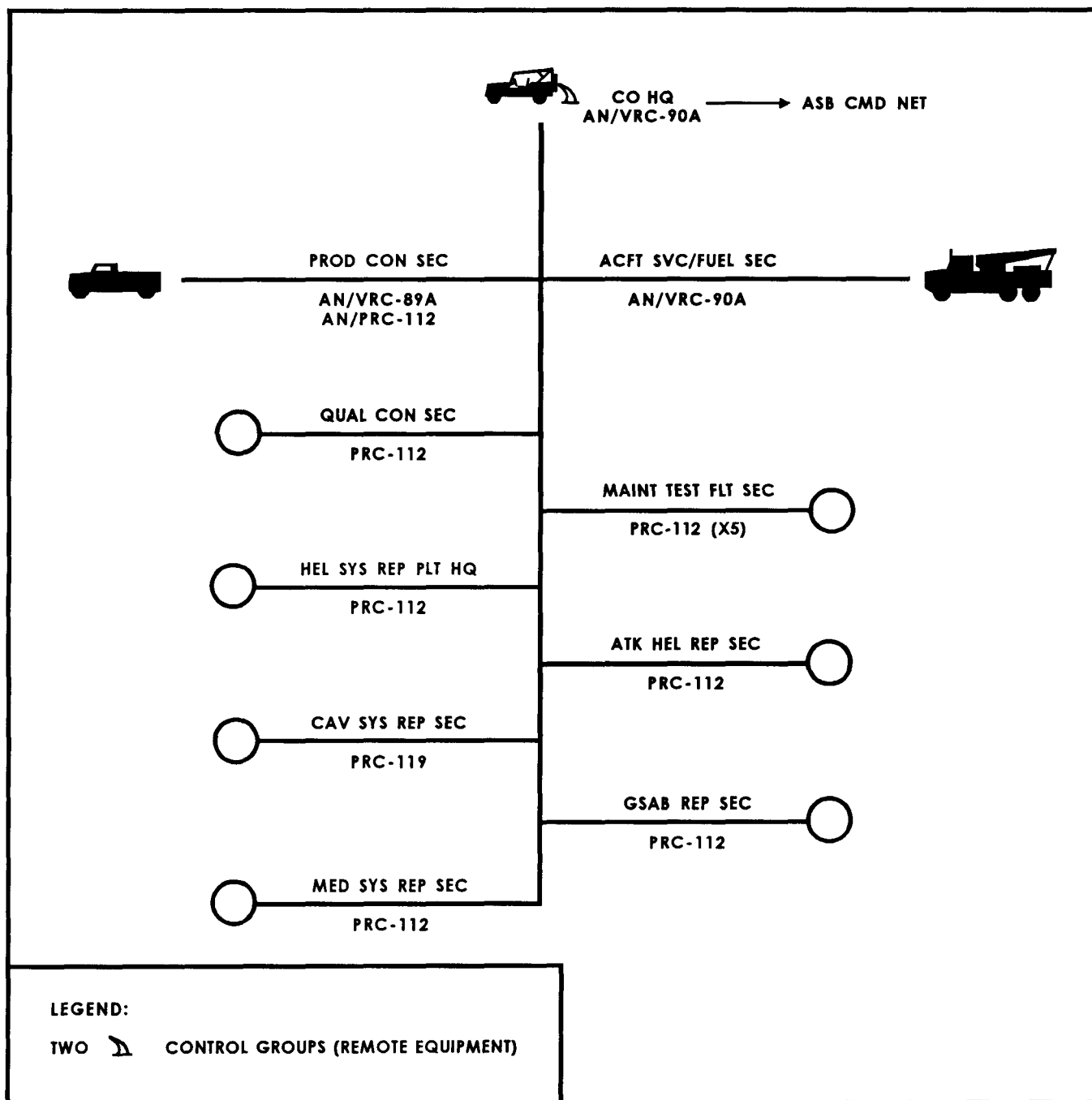


Figure 4-11. Sample AMC command net (SINCGARS)

## CHAPTER 5

**Security and Terrain Management**

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**RESPONSIBILITIES**

Commanders fight throughout the depth of the battlefield. Operations in the rear include efforts to—

- Secure and support the force.
- Neutralize or defeat enemy operations in the rear.
- Ensure freedom of action in deep and close operations.

The division commander is responsible for rear operations within the division boundaries. The keys to rear operations are sound planning, early warning, continuous operations security (OPSEC), and rapid deployment of sufficient forces and resources to counter the threat. Rear operations are a part of the division's overall operations. The division commander ensures that battle planning includes considerations for deep, close, and rear operations. The G3 includes detailed operational planning for the entire rear area. The division commander typically designates the ADC-S as the division rear operations commander.

The Rear Operations Commander (ROC) exercises C2 through the division rear CP. This CP

collocates with the DISCOM CP for Class I and HSS support. Collocation also facilitates local security and support coordination. From the rear CP, the ROC coordinates support of current operations and prepares for future operations. He manages terrain and security for all units currently residing in or moving into or through the division rear area. The division rear CP monitors the battle and is staffed for continuous operations. It is prepared to assume control of the fight if the TAC CP and the division main CP can no longer function.

The rear CP consists of the headquarters, operations, and CSS cells. The ROC is in the headquarters cell. The operations cell plans and controls terrain management, security, and operations in the division rear. Responsibilities include—

- Securing rear areas and facilities.
- Minimizing enemy interference with command, control, and communications.
- Minimizing disruption of CS and CSS forward.
- Providing unimpeded movement of friendly units throughout the rear.

- Providing continuous support to deep, close, and rear operations.
- Finding, fixing, and destroying enemy incursions in the rear area.
- Providing area damage control (ADC) before, during, and after an attack or incident.

The CSS cell is responsible for logistics planning. It works closely with the DISCOM commander and staff. More information on the division rear CP is in FM 71-100.

Typically, the ROC designates the DISCOM commander as the base cluster commander for the DSA. The ROC coordinates with the DISCOM commander to plan and to implement rear operations in the DSA.

The division rear CP controls terrain in the entire division rear. The DISCOM commander is responsible for security and terrain management in the DSA.

All ground units entering the division area report to the division rear CP that is collocated with the DISCOM CP. They coordinate routes, terrain, communications, and CSS. The division rear CP contacts the main CP to confirm operational aspects of the coordination.

The maneuver brigade commander is responsible for rear operations throughout the brigade area. The FSB commander is responsible for security and terrain management only within the BSA. METT-T and the division commander's intent, however, may require the FSB to perform additional rear operations functions. In such cases, the brigade or division commander may allocate additional resources to the FSB. All ground units entering the BSA report to the brigade rear CP that is collocated with the FSB CF. They coordinate routes, terrain, communications, and CSS. The brigade rear CP contacts the brigade main CP to confirm operational aspects of the coordination.

## SECURITY

Security operations enable the DISCOM to perform its foremost rear operations function—support. Each unit in the DSA and BSA provides its own local security. All units except medical companies

assist in the security of the DSA or BSA. DISCOM, MSB, FSB, and ASB commanders ensure that their units are proficient in basic tactical skills.

## ORGANIZATION

To enhance support operations, the DISCOM commander often groups DISCOM elements together. Elements are grouped into bases and base clusters for mutual support. The ROC is responsible for the composition of bases and base clusters in the division rear. The ROC ensures units selected for collocation complement each other. A viable base requires a mix of weapon systems, adequate planning and supervisory personnel, and varied communications assets.

The ROC designates certain bases or clusters as critical. These include groups that contain most of a class of supply or service. Examples include—

- Nuclear or chemical ammunition storage sites.
- Ammunition or fuel storage sites.

- Command and control headquarters.
- Critical communications nodes.

At the same time, the ROC assesses each base for its vulnerability. Vulnerability depends on the base's location, composition, relative target value, and defensive capabilities. The ROC allocates resources to protect the most critical assets first.

## BASES

A base is a geographically small, defensible area. It has a contiguous perimeter and established access controls. Frequently, a DISCOM company constitutes a base. The base commander is the senior unit commander when more than one unit is in the base.

## BASE CLUSTERS

Selection of the base commander is determined, not only by rank, but also by branch and experience. The medical company commander does not command a base or a base cluster with nonmedical units.

The base commander establishes a Base Defense Operations Center (BDOC) to operate 24 hours a day. The BDOC is formed from the staff of the base commander. If the units occupying the base are less than battalion size, the base commander draws personnel and equipment from his own and from tenant units to form a BDOC. The base commander situates and configures the base to take advantage of natural and man-made terrain features. The support mission and security are considered when positioning the base. Additional considerations include—

- Dispersion.
- Cover and concealment.
- Proximity to supported units.
- Security and defense capabilities.
- Communications.
- Enemy avenues of approach.
- Possible landing zones/drop zones (LZs/DZs).

The base commander prepares sketches of the area. These include the traffic circulation plan, observation posts (OPs) and LPs, motor pools, and physical details of the base defense plan. Sketches also show locations and directions of fire for any crew-served weapons. Weapon systems in the DSA or BSA for repair are integrated into the base defense plan.

Base clusters contain several bases grouped together to enhance security and mission accomplishment. A base cluster does not have a defined perimeter or established access points. Base clusters rely on mutual support among bases for protection. Mutual support is achieved through interlocking fires, integrated patrol and surveillance plans, and the use of base cluster reaction forces. The base cluster commander designates the personnel in the reaction forces. He ensures that they have sufficient weapons, mobility, and communications. Reaction forces train to react quickly and appropriately.

If the DISCOM commander is a base cluster commander, he establishes a Base Cluster Operations Center (BCOC) with assets primarily from the DISCOM S2/S3 section. He also designates an alternate BCOC. The MSB CP is an option. The S2/S3 section of the FSB is the BCOC for the BSA. Alternate BCOC possibilities include the FSB company CPs. The BCOC is the C2 cell for base cluster operations. The DSA BCOC interfaces with the division rear CP on terrain management, movement requirements, and security operations. Each base sends a representative to staff meetings. In addition, the BCOC issues a situation report twice daily on a regular basis. The report provides intelligence updates, reporting requirements, and impending movement orders. The base cluster commander integrates base defense plans into a base cluster defense plan.

## COMMUNICATIONS

Communications for security are conducted by wire, radio, signals, and personal contact. The primary means is wire. Each base is linked to the BCOC by wire. The BCOC operates a switchboard 24 hours a day. Wire communications in a rear operations environment are preplanned. Responsibilities for the laying of wire from companies to the BCOC are not necessarily based on the doctrine of higher to lower. Planning takes into consideration the unit's capability to perform this mission. The work load is delegated accordingly.

Ideally, the DISCOM also operates a separate rear operations radio net. However, availability of radios may not permit this. Therefore, if wire communications are lost, units monitor the DISCOM command/operations net, which serves as the BCOC radio net. If communications by these means are lost, the tenant activities send a messenger to the BCOC.

In addition, units in the DSA and BSA do not rely on wire and FM communications to relay alert status. Too much time passes before every soldier receives

the message. The ROC specifies in an SOP recognizable, easy-to-initiate signals. For example, the warning for an NBC attack could be a metal-on-metal signal. This can be relayed quickly by voice,

hand and arm movements, or horn blasts. Detailed information and instructions follow by radio, wire, or messenger. The all-clear signal is passed only via command channels.

## INTELLIGENCE

Though the division rear CP coordinates rear operations in the division, the DISCOM, MSB, and FSB headquarters are involved in intelligence preparation of the battlefield (IPB) for two reasons:

- The information is valuable in support planning, and commanders are responsible for the security of their units.

- Intelligence information is also essential for battlefield deception operations.

Essentials of IPB are briefly discussed here. Detailed information on IPB is in FM 34-130.

## TERRAIN

DISCOM and subordinate commanders know what possibilities the terrain offers to both friendly and enemy forces. This analysis is vital to DISCOM units due to limited availability of personnel and weapons. DISCOM, MSB, and FSB commanders rely heavily on the division rear CP for terrain analysis. A DS terrain team provides information to the G2 for IPB. The G2 passes it to the brigades and to the DISCOM headquarters. After review and modification for level of detail, DISCOM headquarters passes it to the MSB and FSBs.

Intelligence gatherers use observation and fields of fire, concealment and cover, obstacles, key terrain, and avenues of approach (OCOKA) to analyze terrain.

Concealment is protection from air and ground observation. Cover is protection from effects of fire. In built-up areas, DISCOM elements occupy buildings to maximize cover and concealment and reduce heat signatures. Planners also consider the surrounding roadnet for support and security operations.

Obstacles are natural and man-made features that stop, impede, or divert movement. To ensure freedom of movement for friendly forces, DISCOM planners

know all existing obstacles. They also consider the effects of removing, overcoming, or bypassing them. The effects of weather on trafficability also act as an obstacle.

Any feature providing a tactical advantage is key terrain. Whether a particular feature is key or not varies with the tactical situation. However, commanders consider the following as possible key terrain:

- Bridges.
- Fording sites.
- High ground.
- Choke points.
- Road junctions.

Avenues of approach are ground and air routes by which a force may reach an objective or key feature. Considerations for avenues of approach in the rear are their capabilities to support movement and to allow rapid enemy movement into the rear.

## WEATHER

Weather affects mobility and the functioning of virtually all items of equipment. It also affects personnel performance. Planners consider terrain and weather concurrently. DISCOM planners depend on the division rear CP for weather analysis. The six aspects of weather that affect planning are temperature, humidity, precipitation, wind, clouds, and visibility. Inadequate preparation and training for extreme temperatures increases susceptibility to personnel injury and premature equipment failure. Cooler temperatures combined with high humidity cause fog.

Precipitation affects mobility, visibility, and the effectiveness of personnel and equipment. It also affects the quality of some stored materiel. DISCOM planners consider precipitation of more than 0.1 inch per hour or 2 inches in 12 hours critical. Six inches of



snow accumulation or drifts higher than 2 feet severely affect mobility.

Wind usually favors the upwind force. It blows dust, smoke, sand, rain, or snow on the downwind force. It affects employment of NBC munitions, smoke, and conventional weapons.

Clouds affect air operations. These include logistics air missions, our own close air support, and the enemy's ability to conduct airborne or air assault operations.

Poor visibility limits employment of airborne forces. Special-purpose force operations often rely on it to reduce the effectiveness of rear area security. Poor visibility hinders control and reduces effectiveness of reconnaissance, surveillance, and target acquisition.

### **THREAT EVALUATION AND INTEGRATION**

Threat evaluation is a detailed study of enemy forces. It considers threat organization, tactical doctrine, equipment, and support systems. The DISCOM's primary interest for security purposes is in rear area threat evaluation. In coordination with the division rear CP, the DISCOM S2/S3 prepares a doctrinal template. This reflects the enemy's air assault, airborne, operational maneuver group, and special-purpose force employment doctrine. The DISCOM maintains a situation map of enemy and

friendly forces along the FLOT. An unconventional warfare situation map and population status overlay depict other rear area threats. These include insurgents, guerrillas, terrorists, agents, and potential civil unrest. The situation map shows probable operating areas, headquarters, encampments, and movement routes for unconventional forces. The rear area population status overlay shows areas with a high potential for civil unrest or concentrations of enemy sympathizers. The overlay also shows locations where psychological operations are effective.

The DISCOM passes any information on the threat to the division rear CP. Sources of information include local authorities, local civilians, and displaced civilians. Information obtained from base commanders in the DSA and BSA, MPs, truck drivers, customers, and any other elements moving into the area is used. Specific areas of interest include—

- Landing zones and drop zones.
- Key road junctions.
- Forest paths.
- Small groups of individuals attempting to move through or evade detection.
- Guerrilla and insurgency sites.
- Terrorist operating areas.

Intelligence analysts integrate the threat evaluation with weather and terrain factors. They determine how the threat is likely to operate in the rear area. They pass relevant information to the DISCOM.

### **THREAT LEVELS**

Base cluster commanders ensure all base commanders understand the different threat levels and the associated actions. The ROC must keep in mind that DISCOM units are neither staffed nor equipped to continue support operations at normal levels while responding to increased levels of threat. Degradation of support depends on the threat level.

Base or base cluster self-defense measures defeat Level I threats. Level I threats involve the activities of agents, saboteurs, and terrorists. Typical actions the base cluster commander requires include—

- Manning OPs fully.
- Increasing guards and spot-checking vehicles.
- Tightening base security.
- Alerting defensive perimeter personnel.
- Increasing protection of key facilities.

Level II threats are those beyond base or base cluster self-defense capabilities. Response forces, normally MPs with supporting fires, defeat Level II threats. They involve—

- Diversionary and sabotage operations by unconventional forces.

- Raid, ambush, and reconnaissance operations by small combat units.

The base cluster commander requires strictly controlled access to all areas, reinforcement of the defense assets, and preparation for withdrawal from OPs. He also alerts the reaction force.

A tactical combat force is required to defeat a Level III threat. Level III threats involve—

- Heliborne operations.
- Airborne operations.
- Amphibious operations.
- Penetration by enemy forces from the main battle area.

Artillery or air strikes normally precede such enemy operations. The base cluster commander withdraws OPs, commits reaction forces, notifies the DISCOM S2/S3, and curtails support operations.

## DEFENSE OPERATIONS

DISCOM units form base defense perimeters to defend against the threat. When enemy forces exceed base and base cluster defense capabilities, response forces provide the initial force to close with and to destroy the enemy.

Responsiveness is a key to defeating enemy incursions in the DSA and BSA. This involves the immediate deployment of sufficient combat power to destroy the enemy and minimize damage.

Responsiveness is achieved through—

- Effective C2

- Reliable communications.
- Accurate intelligence.
- Centralized planning by BCOC but decentralized execution.
- Organic mobility of response force (this is a special challenge in the light infantry division [LID]) with its limited transportation assets).
  - Training and rehearsals.
  - Accurate assessment of the defensive capabilities of DSA and BSA bases; the assessment is based on their degree of exposure and their importance to division support operations.

## BASE OPERATIONS

The elements in the DSA and BSA are organized into bases for self-defense. Normally, each company in the DSA and BSA constitutes a base. The base cluster commander organizes miscellaneous small teams into bases. The base commander is responsible for preparing the base defense plan. He also coordinates with the base cluster commander. The base commander trains all personnel in basic defensive techniques. He develops a reaction force for internal security and reinforcement of the base. Each base is capable of defending itself against a Level I threat. It can also delay a Level II threat until a response force arrives. If the base is faced with a Level III threat, it takes action to—

- Prevent critical supplies and equipment from falling into enemy hands.
- Defend itself as long as possible.
- Avoid capture.

Base commanders are responsible for the following:

- Coordinating with bases on each side to plan mutually supporting fires and to avoid fratricide; conflicts are resolved by the base cluster commander.
- Ensuring each individual is assigned a fighting position.
- Configuring positions to provide for interlocking sectors of fire.
- Ensuring proper individual fighting positions are prepared in accordance with FM 5-103.
- Deploying crew-served weapons covering the most likely high-speed avenues of approach in accordance with FM 5-103.
- Ensuring each weapon has two adequate range cards; submitting one card to the base cluster commander.
- Identifying target reference points to direct fire against approaching ground or air enemy forces.

- Deploying all weapon-carrying vehicles on the base perimeter. This includes vehicles in the DSA or BSA for repair. Weapons that can be dismounted may be of more value to the defense dismounted and dug-in.

- Ensuring vehicles are properly positioned; using natural cover and concealment.

- Setting up overlapping OPs and LPs that provide a good view of the sector. Both the OPs/LPs and routes to them should provide cover and concealment. They should not be in positions that attract attention or on the very peaks of hills where positions are silhouetted. Further guidance on OPs/LPs is in FMs 17-98 and 19-4.

- Establishing patrols.

- Enforcing noise and light discipline.

- Ensuring proper camouflage is used (see FMs 5-20 and 8-10).

- Planning and establishing hasty obstacles.

- Creating a base reaction force to respond immediately against a threat to the base.

- Ensuring soldiers know alert signals and proper responses to artillery and air attacks.

- Preparing sector sketches and providing them to the base cluster commander. These are updated at regular base cluster meetings. Sketches include major terrain features, weapon positions, and OP/LP positions.

- Coordinating fire support with the division rear CP. The FSO at the rear CP establishes what type of fire support is available and specifies communications means.

- Ensuring that hazardous wastes are labeled, stored, and disposed of properly.

- Preventing unnecessary damage to local ecosystems and the environment.

An effective base defense system accomplishes the following four tasks:

- Security of the base. Each commander applies METT-T analysis to determine defensive requirements. If an attack is unlikely, defensive operations involve fewer people. Only LPs, OPs, and access points are manned. If a threat is probable, defensive requirements disrupt support operations.

- Detection. Detection involves communications, intelligence, radar, chemical and radiological monitoring, and sensor equipment to provide early warning of enemy infiltration. All personnel must understand warning systems and procedures. Alarms notify personnel of alert postures. Warning devices include sirens, pyrotechnics, and horns.

- Delay. The defensive system slows the enemy's progress in order to allow reaction forces to react. Obstacles covered by direct or indirect fires slow or canalize movement. The ROC can, with G3 approval, authorize mine emplacement in the division rear. He coordinates a proposed minefield with adjacent, higher, and subordinate units. He also ensures that limitations to friendly maneuvers are minimized. He makes sure all requirements for reporting, marking, and recording are met.

- Survival. If the threat exceeds the base's capability, the base may not prevent breach of the perimeter. Evacuation of critical units is described in a save plan and rehearsed for emergencies. The save plan can be initiated without any direct physical contact with the enemy. Its use is keyed to events. Examples include a heliborne assault into a nearby LZ or enemy breakthrough of the FLOT.

## SUPPLY POINT BASES

Support units are least capable of self-defense. They are often the targets of enemy action. Time and effort spent on defensive operations degrade the performance of their primary mission. Natural berms, deep-cut protective positions, natural terrain concealment, and camouflage nets protect fuel tanks. Personnel protect Class I, III, and V items in deep-cut trenches if time allows. Traffic control conceals movement at, to, and from supply points. At water points, spills are controlled to avoid standing pools of water, which reflect light.

## MAINTENANCE FACILITY BASES

In the base shop area, personnel prepare individual positions near billeting areas and on the periphery of work stations. They construct simple cut-and-cover or other expedient shelters next to key shop facilities. These provide quick protection from artillery and air

attacks. They integrate weapon systems on vehicles in the DSA or BSA shop for repair into the base defense plan.

### **CLEARING STATION BASES**

Medical personnel require shelters with adequate overhead cover. This allows treatment to continue during hostilities. Although a direct attack on HSS assets is unlikely, the commander does not rule out this action. Enemy actions disrupt HSS operations by interdicting evacuation routes, destroying bridges, and sabotaging supplies. The enemy may damage or destroy HSS assets because of their proximity to other rear area targets. Dispersion of HSS assets, within the limits of the tactical situation, becomes a vital consideration. HSS leaders dispatch treatment and evacuation assets to support the tactical mission.

Security plans do not require medical units to fire on enemy troops except as the result of direct attack on medical units. Medical units do not fire to support adjacent units unless the enemy directly threatens medical units. Medical unit personnel do not man the perimeter defense of nonmedical elements. These include unit trains, logistics areas, or base clusters. Such action causes the loss of

protected status. FM 8-10 has additional information.

### **TRANSPORTATION COMPANY BASE**

Rear operations that impact most on transportation units are the assembly and movement of reserves and the relocation of units. Deployment routes should offer concealment from observation. Supply personnel disperse supply storage areas and move them frequently. Strict traffic regulation and control are essential.

Dispersion of vehicles is essential. A 50-foot dispersion between vehicles and facilities offers some protection against loss from mortar and artillery fire. A dispersion of 150 feet between vehicles and facilities reduces their being targeted by hostile air attack. Alternate exits are selected and marked for emergency use. When authorized, roadblocks are constructed. Antivehicular and antitank mines are placed on likely avenues of approach. Trucks and facilities are camouflaged with natural vegetation or screening systems. Vehicle tracks going into the area are concealed. Vehicle tracks going into unoccupied areas are made to deceive the enemy. As transportation commitments increase, the number of personnel needed to man the perimeter decreases.

### **BASE CLUSTER OPERATIONS**

The base cluster commander integrates base defense plans into a single plan. This requires development of a rear operations communications system and coordination with field artillery, engineer, ADA, signal, and MP representatives through the divisional brigade rear CP.

The base cluster commander assigns a defensive position and a sector to each base. He gives bases located on likely enemy avenues of approach a smaller sector. The base cluster commander ensures that sectors of fire overlap. When interlocking fires are not possible between bases, he plans other defensive measures. He covers gaps by emplacing minefield and obstacles, patrols, OPs, and sensors. He coordinates this planning with each base to avoid fratricide.

The base cluster commander keeps a sketch of the defensive plan. It shows—

- Base sectors of fire.
- Locations of mines and obstacles.
- Planned indirect-fire coverage.
- OPs.
- Patrol routes.
- Positions of key weapons.

Whenever possible, units occupy the same location within the DSA or BSA relative to other units every time the DSA or BSA moves. They build a habitual relationship with the units on all sides of them. This expedites coordination of sectors of fire. Details on sector defense planning are in FM 19-4.

The base cluster commander plans for a reaction force from assets in the cluster. This force is called when a base's defenses may be overwhelmed and combat forces are not available. The reaction force includes personnel, vehicles, weapons, and radios. It is well-rehearsed to react precisely and immediately. It plans rally points and practices detailed procedures in advance, such as lanes of movement to various points on the perimeter. The DISCOM commander submits the base cluster defense plan and indirect-fire support plans to the division rear CP for review and approval.

The base cluster commander determines the level of threat (both ground and air) and issues prearranged alerts to all bases. The base cluster commander also plans emergency move procedures. These are implemented if the DSA/BSA is under imminent danger from a Level II or III threat. The base cluster commander designates key elements in advance and

ensures they are prepared to move to a predesignated site with minimum notice. Key elements include—

- The command section.
- Key battalion staff elements.
- Critical supply elements.
- Emergency medical treatment elements.
- Austere maintenance elements.

Troops perform emergency destruction of equipment and supplies (excluding Class VIII) to avoid enemy capture. Priority items for destruction include COMSEC items, fuel, ammunition, vehicles, communications equipment, and weapons.

Other duties of the base cluster commander are to identify primary and secondary entry points into the DSA or BSA and to designate landing zones for reaction forces. The base cluster commander also conducts regular (preferably daily) meetings with base representatives to update the defensive plan.

## TRAINING

DISCOM personnel are trained in defense principles and techniques. Training includes—

- Use of organic weapons.
  - Communications procedures.
  - Emplacement and monitoring of ground sensors.
  - Preparation of defensive positions.
  - Fire support coordination.
  - NBC defense measures.
- STP 21-24-SMCT provides more information.

### INDIVIDUAL TRAINING

All personnel take part in base defense operations. Some require refresher training in the following areas:

- Preparation of individual fighting positions.
- Camouflage, cover, and concealment.
- Patrols and operation of roadblocks and checkpoints.
- Limited visibility operations.
- Cross training on individual and crew-served weapons and supporting equipment available in the unit.
- Marksmanship, especially night firing, and the preparation of range cards.

• LP and OP operations. Emphasis is on security, sound and light discipline, and reporting procedures.

• Emplacement and maintenance of special observation and detection devices. These include sensors, flares, and remotely employed sensors.

• Cross training in all communications equipment available in the unit.

• Construction of obstacles.

• Use of rally points.

• Use of individual and crew-served weapons in an air defense role.

• OPSEC.

• Identification of threat vehicles and equipment.

• Spot reports using SALUTE format.

• Fire support requests, coordination, and adjustment.

• Target engagement and designation techniques.

• Identification, marking, and neutralization of minefield.

• Employment of mines and expedient defensive measures.

• NBC defense measures.

## UNIT TRAINING

Unit training focuses on rehearsal of base defense plans, continuation of the support mission under limited attack, and full occupation of defensive positions. The DISCOM/FSB asks the division/brigade rear CP for training support from combat units for tactical training. MI units provide OPSEC training.

Rehearsals include—

- Manning of defensive positions.
- Commitment of reaction forces.
- Coordination of supporting fires.
- Coordination with adjacent bases.

- Rearward movement of enemy prisoners of war (EPW).

- Integration of external support by MPs and the tactical combat force.

BDOC and BCOC exercises also train leaders to exercise fire support coordination and test communications. They also exercise coordination among bases, base clusters, and the division rear CP. Rehearsals are conducted at day and night and in various weather conditions.

## TERRAIN MANAGEMENT

DISCOM units have unique terrain requirements. They locate adjacently to established air, road, rail, and, often, water lines of communications (LOC). Their position simplifies the receipt of supplies and materiel from higher echelons, the movement of these supplies forward to the main battle area, and the evacuation, repair, and return of damaged equipment. Terrain also affects mission effectiveness. A maintenance unit located in a built-up area with adequate power, hardstand, and civilian resources is more efficient than one located in a forest with soft soil. The DISCOM S2/S3 and the planners in the rear CP CSS cell must be familiar with the terrain needs of DISCOM units. The terrain managers integrate DISCOM mission considerations with security, environmental, and movement considerations.

The DISCOM establishes a DSA as a base of logistics and HSS operations for the division. The DSA is typically an area occupied by the DISCOM CP and the MSB. This area also contains combat, CS, and COSCOM elements operating in support of the division.

Planners locate the DSA between the division rear and the rear boundaries of the forward deployed brigades. They position it next to the airhead or the beachhead and main supply routes (MSRs). It is normally 50 to 60 kilometers from the FLOT. The

DISCOM commander, the ADC-S, G3, and G4 determine the specific location. They consider—

- Ability to support tactical plans.
- Location of echelons above division (EAD) CSS units.
- Availability of roads and their capability to handle heavy traffic.
- Capacity for defense.
- Terrain.
- Ability of the area to accommodate expansion.

The following DISCOM elements typically operate from the DSA:

- DISCOM HHC and DMMC.
- MSB HSC.
- MSB medical company.
- MSB maintenance company.
- Transportation motor transport company.

Some elements always locate in the DSA. An example is the division rear CP. Others move in and out of the DSA depending on METT-T. Examples are the division MI elements and chemical company elements.

The base of logistics and HSS operations for the maneuver brigade is the BSA. It is normally 25 to 30 kilometers from the FLOT. The brigade S3 selects the general location or sector of the BSA. He bases his decision on the tactical scenario and the

recommendation of the FSB commander and the brigade S4. They consider—

- Availability of LOC capable of supporting the operation.
- Capability of roads to handle heavy traffic in bad weather.
- Concealed areas for parking vehicles.
- Accessibility to air support assets.
- Ease of defense.
- Distance from enemy artillery.

The DISCOM commander may choose to cross-level assets between FSBs or send additional assets from the DSA forward. Although the FSB is based in the BSA, commanders position elements on the battlefield to maximize support. For example, some ambulances forward-deploy at ambulance exchange points (AXPs), ambulance shuttle relay points, or battalion aid stations (BASS).

Elements in the BSA vary with a number of factors. The brigade troop list identifies the division units in the brigade area. The following list is an example of division elements that locate in the BSA:

- FSB CP.
- Brigade rear CP.
- FSB HSC CP.
- Class I point.
- Water point operated by MSB personnel.
- Class III point.
- Class II, III (packaged), IV, and VII point.
- ATP.
- Salvage collection point.
- Mortuary affairs collection point.
- Forward support maintenance company CP.
- Maintenance shops.
- Class IX point.
- Forward support medical company CP.
- Division clearing station.
- Class VIII point.
- MP platoon.
- EPW collection point.
- MI team.

- ADA element.
- Engineer company headquarters.
- Signal platoon elements.
- Field artillery battalion field trains.
- Maneuver battalion task force field trains.

The FSB commander expects a number of corps elements to operate in the brigade area. Examples are a corps artillery unit and chemical and nondivisional engineer units. COSCOM elements may augment the FSB to support these units. Some BSA tenants always locate in the BSA. Examples are the brigade rear CP and the FSB headquarters. Others move in and out of the BSA depending on METT-T. Examples are the division MI elements and the decontamination platoon.

Locations of DISCOM elements in the DSA and BSA vary depending on METT-T. General guidelines for positioning DISCOM elements in the DSA and BSA include the following:

- Position the DISCOM CP/division rear CP near the center of the DSA for C2 and security reasons. Position the FSB CP/brigade rear CP near the center of the BSA for the same reasons.
- Balance the advantages of dispersion (reduced destruction from a single enemy strike) with the disadvantages (C2 constraints and extended perimeter). Normally, the DSA occupies an area approximately 3 to 5 kilometers in diameter; the BSA, approximately 2 kilometers.
- Make supply points accessible to both customers and transportation assets replenishing the supply points.
- Locate supply points near drop zones or landing zones. This reduces the requirement for surface movement to distribute supplies.
- Keep the Class III point away from other supplies to prevent contamination. Locate it downstream from the water point or as far away as possible from a water point on a lake. Ensure that spill containment plans adequately protect the local environment and any necessary cleanup is accomplished rapidly.
- Position mortuary affairs and salvage points near the MSR (possibly in the vicinity of the ATP).

This helps maximize backhaul missions of transportation assets. It also provides a quick turnaround for corps vehicles. Salvage points should also be relocated as far away from water sources as possible. Salvage point managers must pay particular attention to safeguarding against leakage, seepage, and spills from damaged equipment.

- Locate the Class I point near the water point when water points are established in the DSA or BSA and water sources allow.

- Locate medical clearing stations away from likely target areas (ATP, Class III point, bridges road junctions). However, they should be near evacuation routes and an open area for landing air ambulances.

- Locate maintenance sites so they are on firm ground and accessible to customers and recovery and evacuation vehicles and downstream from water sources. Maintenance managers must pay particular attention to safeguarding against leakage, seepage, and spills from equipment. They must also plan for proper storage and disposal of waste petroleum, oil, and lubricants (POL) products and other hazardous materials; for example, batteries.

- Position units with heaviest firepower along the most threatening avenues of approach.

The elements in the DSA and BSA do not remain static. The DISCOM tracks and controls changes. All ground units entering or moving through the division rear area coordinate with the division rear CP. All ground units entering or moving through the brigade rear area coordinate with the brigade rear CP. They coordinate movement routes, positioning, communications requirements and procedures, and security responsibilities. Base commanders notify the BCOC of all support vehicle arrivals and departures. Movement of displaced and local civilians is also controlled.

Special considerations apply to locating a clearing station. There are three possibilities. First, the clearing station may locate near the center of the DSA or BSA. There, surrounding bases can protect it. This increases the size of the DSA and BSA without adding defenders. This also increases traffic

movement in the middle of the DSA and BSA. A second option is to assign a sector of the DSA or BSA defense to the medical company. Medical personnel can carry individual small arms for their own defense and the defense of patients in their charge. However, the duty of medical personnel is to care for the sick, wounded, and injured. They may not operate crew-served weapons. Any defense sector assigned to the medical company could have no such weapons. The final option is to locate the clearing station away from the rest of the DSA and BSA. It is then essentially protected by the enemy's compliance with the Geneva Convention. In view of the medical company's mission and the constant coordination required with DISCOM elements, this option is not usually feasible. Regardless of the option chosen, security plans do not require medical personnel to take offensive action against the enemy. The Geneva Convention states that captured medical personnel exclusively engaged in caring for the sick and wounded or administering medical units are classified as retained personnel.

Determination of the enemy intent through intelligence gathering determines whether or not to employ the Red Cross. If the enemy respects the Red Cross, establishment of a clearing station within the BSA and adjacent to lucrative, legitimate targets is a hazard to the medical facility. It is more prudent to move the forward support medical company some distance from the BSA, fly the Red Cross, and openly declare its presence. When operating in a lodgment area, displaying the Red Cross is a standard procedure.

If operations are pushed forward with the intent of denying the enemy any knowledge of the division's AO, exposure of the medical unit alerts the enemy of a tactical unit's presence. Under these conditions, the medical company operates in stealth. It may be more prudent to disassociate the FSB medical company from the BSA and hide it in a separate location. When hostilities begin, the Red Cross may be displayed without compromising the location of the BSA. At times, the intent of the enemy toward the Red Cross is unknown or is known to be one of no respect.



Then hiding the medical company within the BSA is the best course of action. Personnel do not mark medical treatment facilities (MTFs) and use camouflage

concurrently. FM 8-10 has a detailed discussion of camouflaging medical facilities, vehicles, and aircraft on the ground.

## AREA DAMAGE CONTROL

Area damage control within the rear area is a responsibility of the ROC. He is responsible for ADC plans and activities to reduce the effects of enemy attack or natural disaster on units within the division rear. The ROC places priority on actions preventing or reducing the interruption of logistics and HSS operations. He considers the effect of diverting DISCOM elements to ADC tasks. When ADC assets are available, the division rear CP provides each base with external support to overcome an attack and return to its primary mission.

Effective planning, setting specific responsibilities, and using all available assets to conduct ADC help restore operations and provide continuous support. ADC assets are limited; in emergencies, they are diverted from other missions. In most cases, bases use local assets to deal with the situation.

Effective damage control is decentralized and executed at the lowest level. DSA and BSA base commanders assess their ADC capabilities by identifying all assets available within the base. Assets include medical evacuation and treatment elements, equipment evacuation and repair, critical supply, and explosive ordnance disposal (EOD) teams. DSA and BSA base commanders and the DISCOM commander identify critical support points, including points that are the sole local sources of supplies. They implement ideas and initiatives to minimize damage. Commanders coordinate with host nation assets, MPs, and engineer units through the division rear CP. ADC plans are included in the BDOC and BCOC defense plans.

With DISCOM assistance, the division rear CP reviews all division rear base cluster defense plans. It ensures ADC plans are adequate and compatible. The DISCOM S2/S3 helps the division rear CP identify emergency food, clothing, water,

and fuel sources and determine available distribution assets.

In accordance with ADC guidelines, bases in the rear area complete the following tasks before an incident occurs:

- Designating specific individuals and units to perform ADC operations.
- Attempting to disperse and harden units and facilities to minimize damage, using existing structures when practical; establishing priorities within the area of operations; identifying those critical facilities requiring protection; prioritizing responsibilities based on the commander's directives; reporting critical facilities not provided necessary ADC support immediately.
- Preparing, coordinating, and rehearsing ADC plans and SOPs; organizing, equipping, and training personnel and units for ADC operations.
- Designating alternate operational sites or alert areas; ensuring a distribution of support exists in the rear area when possible; reporting facilities or supply points that are sole-source facilities.

Bases in the rear area complete the following tasks during and after an incident:

- Conducting an immediate assessment of damage; ensuring the information is reported to the ROC; simultaneously initiating actions to isolate danger areas and to prevent extension or continuation of the damage (for example, fighting fires, stopping gas leaks, minimizing flooding).
- Preventing fires by bunkering and isolating flammable material and explosives; fighting existing fires with stored water or identified water sources. Fire fighting is primarily a unit responsibility with support from engineer fire fighter teams where available. Local fire fighting capabilities, such as HNS or the acquisition of commercial material to support ad hoc fire fighting teams, are options.

- Performing self/buddy first aid and transporting casualties. If possible, medical personnel and vehicles are used to evacuate patients. The use of nonmedical vehicles is required in mass casualty situations. If possible, medical personnel accompany those patients being transported in nonmedical vehicles and provide patient care en route.

- Coordinating with the military police to provide traffic control; ensuring fire fighting equipment gains access to the area and ambulances and evacuation vehicles clear the area. MPs notify the nearest base cluster commander of blocked routes. They divert traffic as necessary to ensure forward support is maintained and evacuation routes remain open and uncluttered with traffic. The MPs also provide refugee control, straggler control, and some local security.

- Coordinating with the engineers to support critical facilities. They construct fortifications and barriers and clear debris and rubble in support of the base ADC mission. Engineer units do not

expend ADC resources to remove rubble and debris that have no bearing on mission accomplishment. Rubble and debris not affecting mission support remain as battle damage. Civil affairs units are advised of battle damage not cleared.

- Coordinating EOD support to area damage control operations with the explosive ordnance disposal control team (EODCT). Three to ten subordinate EOD detachments are allocated to each corps. If the division operates in conjunction with a corps, EOD support comes directly from the EODCT.

- Coordinating for decontamination support. Contaminated units evacuate along specific routes (not the MSR) assigned by the MCO to the appointed decontamination sites. The MPs provide route control.

Successful ADC operations require detailed planning, training, and rehearsals. The base is the cornerstone of this system. The ROC carefully weighs base priorities and provides ADC support to the bases as quickly as possible.

## CHAPTER 6

**Headquarters and Supply Company**

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**ORGANIZATION AND MISSION**

The ASB headquarters and supply company consists of a battalion headquarters and a supply company. The battalion headquarters has six sections: command, unit ministry, S1, S2/S3, support operations, and S4. The supply company has a company headquarters, a general supply platoon, and a Class III/V platoon (Figure 6-1, page 6-2).

**BATTALION HEADQUARTERS**

The battalion headquarters performs the C2 functions and employs the C2 facilities discussed in Chapter 3. Its mission includes—

- Command and control of assigned and attached units.
- Command and control of all units in its assigned area for security and terrain management.

- Planning, directing, and supervising the DS supply and DS maintenance missions in support of the AB.

- Providing information and advising the AB and DISCOM commanders on the ASB's support capabilities.

- Planning and supervising administration, training, and internal logistics support for attached and assigned units.

**SUPPLY COMPANY**

The supply company supports the AB by providing receipt, storage, and issue of Class I, II, III(p), IV, and VII items. It also supports bulk Class III and Class V operations through the FARP resupply section.

**BATTALION HEADQUARTERS  
PERSONNEL AND SECTION FUNCTIONS**

**ASB COMMANDER**

The ASB commander commands all units assigned or attached to the battalion. He also has command and control of all elements in his assigned area for security and terrain management.

He provides subordinate elements with clear missions, taskings, and statements of his intent. Upon receipt of a mission, the commander gives planning guidance to his staff. Once he receives the required

information from his staff, he restates the purpose of the mission in a clear, concise statement. He directs the staff to pursue specific courses of action and directs the S2/S3 to issue the warning order to subordinate elements. The commander with his staff supervises the activities of subordinate units. They implement decisions, directives, and instructions that fulfill the commander's intent. The commander issues FRAGOs for required changes. The commander and staff of the ASB also advise the aviation brigade commander on ASB support as required.

EXECUTIVE OFFICER

The XO is the principal assistant to the battalion commander. As second in command, he must understand both the support operations and the non-CSS functions of the battalion. He supervises the ASB staff and coordinates assigned missions with subordinate unit commanders. Following command directives, he formulates staff operating policies. He also oversees the maintenance of the master policy file and supervises CP operations.

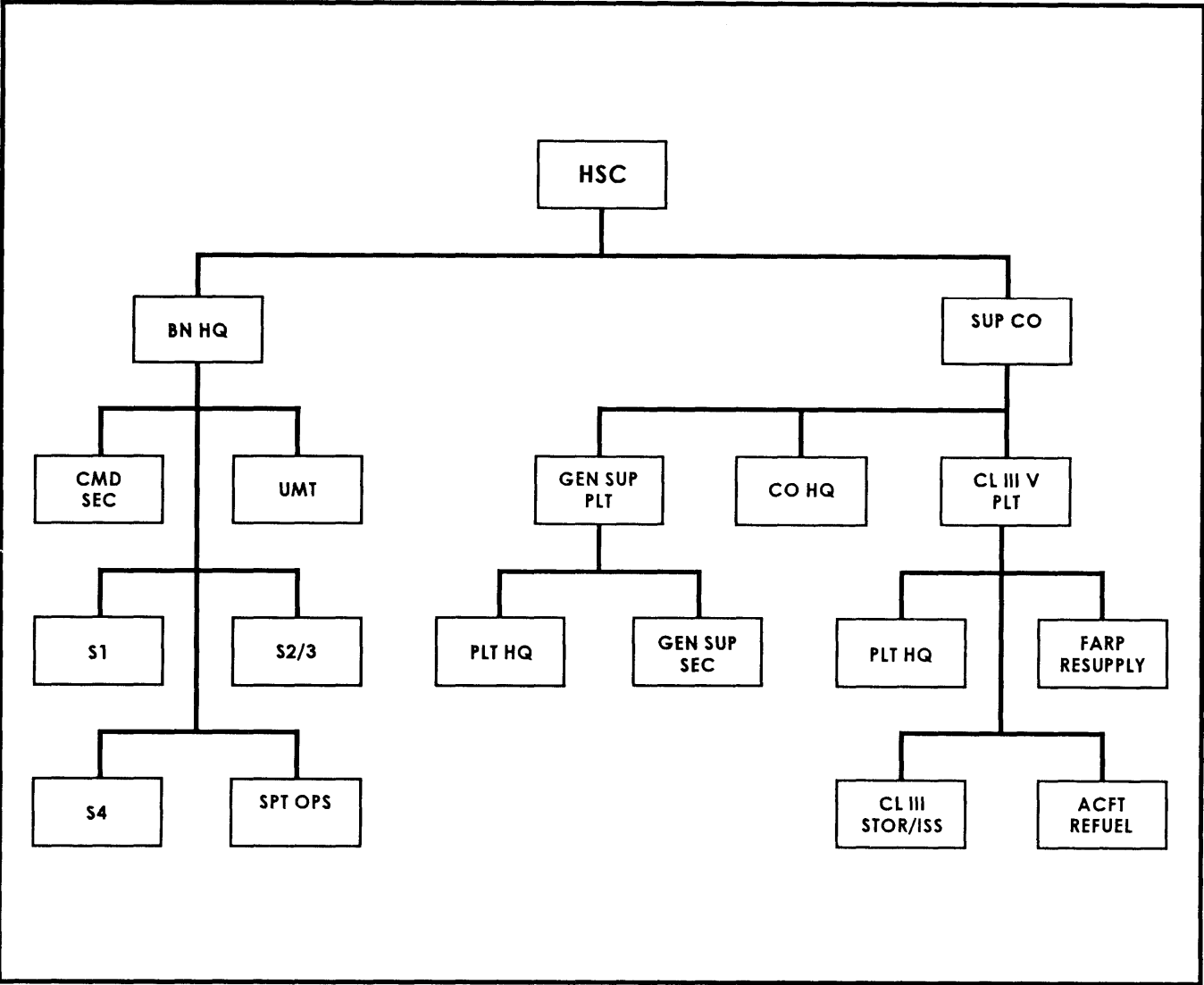


Figure 6-1. Headquarters and supply company

## UNIT MINISTRY TEAM

The unit ministry team provides religious support to personnel assigned and attached to the ASB (as outlined in FM 16-1). The UMT is made up of the chaplain and chaplain assistant.

The ASB commander is responsible for the religious program in his unit. The UMT implements the command religious program by providing religious support to ensure the free exercise of religion. Religious support consists of rites, sacraments, ordinances, services, and pastoral care.

The UMT provides input to the personnel estimate and provides a religious support annex to the OPORD. Additional UMT functions are to—

- Advise the ASB commander on the role of indigenous religions in the area of operations.
- Identify and provide pastoral care to battle fatigue casualties.
- Advise the commander on morals and morale as affected by religion.

## S1 SECTION

The battalion S1 is the ASB commander's human resource manager. He advises the commander on administrative and personnel matters. He coordinates personnel service support, including personnel, administrative, finance, health services, public affairs, and legal support. The S1 develops the battalion's administrative SOP and, with the S4, prepares the administrative/logistics portion of the battalion tactical SOP. He participates in the OPORD process and develops administrative annex materials. He coordinates personnel service support with other staff elements, including MA and health service support. The S1 section consists of personnel services specialists and a legal specialist. The S1 establishes the personnel administrative center. Typically, the PAC collocates with the S4 section near the ASB CP. This allows cross training of personnel and makes continuous operations easier. Guidance on PAC layouts is in TC 12-17. The S1 trains PAC personnel to execute their functions and internal PAC procedures. Primary PAC responsibilities focus on strength accounting,

casualty reporting, personnel actions, and replacement operations. Other responsibilities include matters dealing with—

- Mail.
- Awards and decorations.
- Soldiers' pay.
- Military justice.
- EPWs and stragglers.
- Publications and forms.
- Hometown news releases.
- Distribution center operations.
- Preparation of soldiers for overseas movement.

The S1 coordinates preparation for overseas movement with the DISCOM S1, ASB company commanders, command sergeant major, and other battalion staff officers. Medical records must be current, family care plans developed, identification cards and tags available, and security clearances checked. Appendix Y of TC 12-17 presents a thorough POM checklist.

The PAC prepares the ASB personnel estimate. It projects personnel losses and replacement requirements based on the tactical situation. From the DISCOM S1, it gets the DISCOM personnel estimate, which includes replacement projections. The S1 passes this information to the ASB commander, who sets replacement priorities for the battalion. The PAC also provides the MSB and FSB medical companies with projected ASB casualties for evacuation planning. (See FM 8-55 for details.)

The PAC maintains and processes personnel information through data input to SIDPERS. Information received from subordinate units as hasty strength reports, casualty feeder reports, and battle roster updates is input to SIDPERS. This information updates the personnel summary and personnel requirement report and other SIDPERS data. The PAC prepares a task force personnel summary when subordinate units are task-organized. The PAC sends strength reports to the DISCOM and provides the casualty feeder reports to the supporting personnel service company. In support of the ASB personnel

function, the S1 also monitors MA activities and reconciles casualty reports with MA records for ASB soldiers. He also coordinates requirements with the S4 for MA items for ASB personnel. He also ensures that the section follows proper next-of-kin notification procedures.

Other functions of the PAC in support of the ASB include—

- Processing personnel replacements.
- Projecting numbers of EPWs and civilian internees.
- Determining total transportation requirements for losses, replacements, and EPWs and submitting transportation requests to the S4.
- Providing administrative service if the tactical situation permits.
- Observing the tactical situation and preparing to assume the CP's role in an emergency.
- Coordinating through the DISCOM S 1 to obtain finance services support from the servicing finance support unit.
- Determining requirements for mail distribution.
- Coordinating and supervising postal operations.
- Coordinating morale, welfare, and recreation.
- Coordinating with the DMOC and ASB S2/S3 to develop a combat lifesaver program for ASB personnel.
- Coordinating civil-military operations and law and order activities within the ASB. Considerations include ensuring that civilian activities do not interfere with ASB operations. The ASB commander understands cultural implications, and the ASB fulfills legal obligations to the local population.
- Functioning as ASB public affairs officer when appointed by the commander.
- Coordinating with the MSB/FSB medical clearing stations for return to duty of ASB personnel.

## S2/S3 SECTION

The S2/S3 is the operations, intelligence, security, and training officer. He is responsible for internal ASB operations. The S2/S3 advises and assists the ASB commander in planning, coordinating, and supervising the communications, operations, unit training, security, and intelligence functions of the battalion.

He informs the ASB commander on all IPB information. The S2/S3 supervises ASB functions that are neither logistics nor health service support. However, his and the support operations officer's roles require that they maintain constant contact. The S2/S3 is responsible for writing and reviewing the battalion tactical SOP. Chapter 3 discusses employment of the S2/S3 section. Plans must be made to displace the CP without interruption of S2/S3 activities.

## Plans/Operations

Plans/operations personnel monitor the tactical operations of the ASB, make recommendations to the commander, publish orders, and assist commanders in the implementation of plans and orders. They maintain the current friendly and enemy situations, obtain maps, and prepare overlays. As discussed in Chapter 5, the section positions units within the ASB area and plans ASB security. This includes planning the equipment and personnel for the base cluster reaction force. In coordination with the MPs, it develops and implements the traffic circulation plan for the ASB area. It also ensures that the security plan fits into the overall division rear operations plan. Guidance appears in FMs 19-4 and 55-30. The NBC NCO in the branch monitors and assists in the employment of NBC teams. He receives, coordinates, analyzes, and evaluates NBC activity data. He develops response procedures for NBC defense and makes recommendations to the commander on MOPP levels. He also prepares NBC Reports 1 through 6. For more information on NBC operations, refer to Appendix A. The S2/S3 section also plans and coordinates tactical movements. It conducts route reconnaissance, supervises tactical road marches, receives closing reports, and supervises appropriate staff activities during movement.

The S2/S3 also sets up an S2 operations cell. It employs the IPB techniques detailed in Chapter 5. It also develops procedures for handling and using or disposing of enemy equipment and documents. It supervises the handling of enemy defectors and materiel and monitors EPW collection point activities for the ASB. It also obtains classified maps required by ASB units.

Finally, these personnel are responsible for preparing the following documents:

- Movement orders.
- Intelligence annexes to orders.
- Daily intelligence summaries for subordinate units.
- Operations estimates.
- Intelligence estimate updates.
- Paragraphs 2 and 3 of the ASBOPORD/OPLAN.
- Essential elements of information for inclusion in the OPORD.

### Communications

Communications personnel supervise COMSEC and controlled cryptographic items (CCI) activities. They install, operate, and maintain communications equipment. They establish and operate the net control station for the ASB. They ensure there are communications links with higher, adjacent, subordinate, and supported units. They plan and implement backup communications systems and ensure that radio communications exist during a move. The section develops and implements an ASB security communications system. ASB communications are addressed in Chapter 4.

### SUPPORT OPERATIONS SECTION

The support operations officer coordinates and supervises the ASB's logistics support mission. This mission includes: DS supply, DS ground maintenance, AVIM, coordination of transportation, health service support and field services. The support operations officer advises the commander on requirements versus available assets. The section coordinates with the ABS4 and the ASB S2/S3 to determine requirements. He provides input to the aviation brigade S4 on the brigade logistics estimate and the service support annex. Refer to Appendix C for an example of the service support annex.

The support operations officer ensures support remains consistent with the tactical operation, as discussed in Chapter 2. He—

- Plans and monitors support operations and adjusts to meet support requirements.

- Tracks available assets.
- Keeps the DISCOM support operations branch abreast of the AB's status and requests reinforcing support when required.
- Recommends support priorities and ensures logistics SOPs are up-to-date and followed.
- Coordinates with the ASB S2/S3 on the location of all support points within the ASB area.
- Prepares and distributes the external service support SOP to provide guidance to supported units.
- Coordinates host nation support with the G5 through the DISCOM headquarters.

The support operations section—

- Coordinates supply distribution and services provision with the DISCOM as well as the aviation brigade.
- Monitors daily battle loss reports to anticipate requirements.
- Coordinates requirements that exceed ASB capabilities with the DISCOM.
- Assesses the type of resupply operations required.
- Requests and coordinates airlift or airdrop support as discussed later in this chapter.
- Monitors basic loads of the aviation brigade and coordinates with the brigade S4 to replenish and redistribute as required.
- Coordinates with the brigade S4 and DAO on priority of Class V supply and positioning.
- Monitors the CSR and basic loads of supported units.
- Requests field service support through the DISCOM support operations branch.
- Coordinates with the supply company and aviation brigade S4 on locations and operations of field service augmentations.
- Allocates maintenance resources in coordination with the ground and aviation maintenance companies and supported units.
- Coordinates MST operations.
- Forecasts and monitors the maintenance work load for all equipment.
- Devises plans and policies for quick supply store (QSS), reparable exchange, and Class IX/IX(A) operations.

- Monitors shop production and job status reports.
- Monitors and reviews the authorized stockage list (ASL).
- Tracks the status of critical parts with the DMMC. For unserviceable items, it generates disposition instructions based on DISCOM guidance.
- With the aviation brigade S4, tracks backlogs on critical weapon systems.
- Establishes evacuation, cannibalization, and controlled exchange policies.
- Coordinates and monitors the movement of replenishment stocks and services for the AB and ASB.
- Coordinates backhaul of equipment and supplies with the movements control officer and DMMC.
- Coordinates delivery priorities with the brigade S4.
- Coordinates with the movements control officer when transportation requirements exceed the AB's or ASB's capability.
- Anticipates and recommends MSRs to the movements control officer.
- Monitors medical evacuation and treatment operations to meet AB needs. For health service support, the battalion relies on the MSB and FSB medical companies. It coordinates with supported units and the DISCOM medical operations center.
- Coordinates support during moves; notifies supported units of new supply and maintenance point locations. It must also coordinate with the ASB S2/S3 on shuttle operations.
- Establishes the section area after each move. Refer to Chapter 3 for details on the layout.
- Coordinates with the ASB S2/S3 on the NBC threat to assess its impact on all support operations.
- Develops an NBC contingency plan that includes stocking of NBC equipment and supplies.
- Identifies section personnel assigned to the reaction and CP defense forces and ensures they know their responsibilities.

- Coordinates NBC planning and contingency stockage with the AB staff.

### **S4 SECTION**

The ASB S4 provides internal technical supervision and logistical support. He is responsible for preparing the logistics estimate and making recommendations to the commander on internal logistics activities. In coordination with the S1, he also writes the service support annex to the ASB OPORD/OPLAN. He supervises personnel in the S4 section.

The S4 section supervises and monitors internal supply activities of the ASB companies. It coordinates with them on locations of internal supply and services activities. It processes requests for Class II, III, IV, V, and VII items to replenish basic loads of all ASB elements. It requests and issues all required CTA 50-900 items within the ASB. It monitors requests that ASB elements submit to the ground maintenance companies for Class IX items. The section also monitors the status of Class I, III, and V items for all battalion elements. It checks the readiness of equipment. It prepares the Class III forecast for the ASB and submits it to the support operations section. The section develops and distributes the battalion feeding plan.

The S4 section coordinates with the S1 on unit strength and replacement data to project logistics requirements. They ensure ASB replacements are correctly equipped. The S4 also coordinates movement plans with the S2/S3 and monitors field feeding and sanitation activities within the ASB. He consolidates transportation requirements for ASB units and passes them to the support operations section. The S4 coordinates through the DISCOM S4 to get payment support for local procurement and imprest fund operations from the servicing corps finance support unit.

## **HEADQUARTERS AND SUPPLY COMPANY PLATOON AND SECTION FUNCTIONS**

### **COMPANY HEADQUARTERS**

The company headquarters maintains administrative control over the HSC. It is responsible for

billeting, discipline, security, training, and administration of personnel assigned to the HSC. Headquarters



personnel provide unit-level food service, supply, and administrative support to ASB elements. Functions of the headquarters are to—

- Maintain load plans.
- Perform route reconnaissance.
- Organize the unit for movement and issue movement orders to HSC personnel.
- Request additional transportation through the ASB S4.
- Coordinate with the S2/S3 on the quartering party.
- Provide C2 of HSC in response to an air or ground attack.
- Coordinate base defense.
- Establish communications.
- Determine placement of NBC assets in the headquarters area.
- Function as the HSC armorer.

### **GENERAL SUPPLY PLATOON HEADQUARTERS**

The platoon headquarters supervises the operations of the GS supply section in its Class I, II, III(P), IV, and VII missions.

### **GENERAL SUPPLY SECTION**

This section provides Class I, II, III(P), IV, and VII and unclassified map supply support. The company can store one day's requirement of Classes I and III(P). The section also receives and issues Class II, IV (limited), and VII supplies, as well as unclassified maps. It provides limited storage for these items and maintains prescribed reserves of supplies and equipment for the AB and the ASB.

### **CLASS III/V PLATOON HEADQUARTERS**

The platoon headquarters coordinates activities of the Class III storage/issue, FARP resupply, and

aircraft refueling sections. Headquarters personnel provide for petroleum quality surveillance and inventory control of bulk petroleum.

### **CLASS III STORAGE/ISSUE SECTION**

This section operates fuel system supply point (FSSP) equipment for receipt, storage, and issue of bulk petroleum. It receives bulk fuels from corps tankers and off-loads them into collapsible fabric tanks for temporary storage and issue. The section can receive, store, and issue one day's requirement of bulk aviation fuel, diesel, and MOGAS.

The section is responsible for maintaining the spill contingency plan for the HSC.

### **FARP RESUPPLY SECTION**

This section distributes bulk petroleum products and ammunition to the AB FARPs. It operates a Class III/V transload site in the BSA. The section also has the capability to refuel aircraft using HTARs kits with HEMTT tankers. It supports Class V transload operations with materials-handling equipment (MHE) and some truck assets. It also has responsibility to minimize environmental damage by safeguarding against spills and leaks.

### **AIRCRAFT REFUELING SECTION**

This section is responsible for refueling brigade aircraft in the rear area. The section uses 5,000-gallon tankers with Hot Tactical Aircraft Refueling System (HTARS) kits capable of setting up four refuel points per tanker. These kits can refuel aircraft from a variety of fuel sources, including collapsible drums, HEMTT tankers, and cargo aircraft with collapsible containers inboard or sling-loaded. Section personnel are also responsible for minimizing environmental damage by safeguarding against spills and leaks.

## **SUPPLY PRINCIPLES**

The AB mission determines where support will be provided. All support requirements are coordinated with the ASB support operations section. When an AB squadron is operating in a maneuver brigade area, the ASB arranges for it to receive support

from the FSB. HSC supports AB elements in the division rear. The supply company applies various supply principles to reduce response time between the initial request and subsequent issue to aviation brigade units.

## THROUGHPUT DISTRIBUTION

Throughput distribution bypasses one or more echelons in the supply system to minimize handling and speed delivery forward. Supplies such as barrier materials and some Class VII major end items may be throughput directly to the user. When most of the load is for a specific unit, the transporter may deliver directly to the requesting unit.

### SUPPLY POINT AND UNIT DISTRIBUTION

In an effort to tailor supply distribution, the supply company uses a combination of supply point distribution and unit distribution to support the aviation brigade. When using supply point distribution, unit representatives come to the established supply points to pickup their supplies. The supply company tries to cut down on the distance supported units must travel by positioning supplies as close to them as possible.

To provide a quick turnaround for supported units, the supply company staggers unit pickup times. It sets up to provide a smooth traffic flow through supply areas. With limited transportation assets in the ASB, supply point distribution is normal for most classes of supply. Corps assets use unit distribution to deliver barrier materials to emplacement sites. Other classes of supply may be delivered using unit distribution when the tactical situation permits and transportation assets are available. The ASB can provide emergency resupply using unit distribution via motor or air transport. Aerial resupply is discussed later in this chapter.

### CAPTURED AND FOUND SUPPLIES

Another way to speed supplies to users is to take advantage of captured and found materiel. Fuels can be used as soon as they have been tested.

**Note:** *Two pieces of equipment have been developed to enhance capability to use captured fuel. A captured fuels test kit in a single plastic housing can determine fuel usability. Tactical vehicles can carry a lightweight, quickly deployable electric pump for fuel transfer.*

Barrier and construction materials can be used immediately. EPWS and civilian populations can eat captured subsistence after it has been inspected by veterinary personnel and declared fit for consumption. US troops may consume found US subsistence after veterinary approval. Captured and found medical supplies may be used to treat EPWS and civilians. Refer to FM 8-10 for additional information on handling of captured medical supplies.

Units report captured vehicles and equipment through intelligence channels and turn them in to maintenance collection points. Other equipment is turned in to a salvage point. The salvage point personnel identify, classify, and report the equipment through the ASB S2/S3 to the DMMC. The S2/S3 provides disposition instructions on the basis of DMMC guidance.

Other specific actions for all units in the aviation brigade include:

- Reporting all enemy materiel captured or found through intelligence channels.
- Considering all enemy materiel booby-trapped; limiting access to materiel until the area is clear.
- Reporting toxic agents to NBC elements in the S2/S3 section.
- Reporting medical materiel to the supporting medical element.
- Ensuring that EOD personnel examine explosives.

## SUPPLY OPERATIONS

### PLANNING

The ASB commander and the support operations section anticipate AB supply requirements in order to provide responsive support. The commander bases requirements on—

- Tactical plans.
- Environment and terrain.
- Demand data and previous experience.
- Troop strength.

- Equipment densities.
- Time and distance factors.

Supply planners track the tactical situation as well as personnel and equipment status. This allows them to anticipate support requirements, for example, transportation or critical supplies, without unit requests. It also enables them to task-organize or request reinforcements to meet critical requirements. This may involve shifting supplies and personnel or receiving assets from supporting elements to overcome critical shortfalls.

Planners must also coordinate with the DMMC to supply items that supported units do not normally use during peacetime. The division chemical officer will provide planning assistance through G4 channels for chemical items. Items to consider include—

- Chemical filters.
- Body bags and other MA supplies.
- MOPP gear.
- Additional Class IV and VI supplies.
- Wire.
- Chemical decontaminants.

The commander may designate expensive, highly technical, or scarce items as command-regulated. They require item management IAW command guidance. This guidance may specify the units, priority, and quantity that the DMMC may release. The support operations section and supply sections should establish procedures in their external SOPs in advance.

The supply site should be large enough to accommodate operations, yet not too large to adequately secure it. The site should have good roads, areas with level ground and good drainage, and, when possible, natural cover and concealment. Chapter 5 lists considerations for positioning ASB elements.

### CLASS I

Class I is a scheduled supply based on the supported troop strength and the Army wartime feeding plan. Class I supply operations are kept as simple as

possible to maintain high mobility. There is little equipment, limited stockage, and minimum paperwork. When possible, personnel combine receipt, ration breakdown, and issue so that supplies are handled only once. Initially, AB units eat the MREs in their unit basic loads. These are replenished as supply lines are established. When the theater commander directs, units receive T-rations and then B-rations. (When refrigerated carriers can safely move forward, the final transition to A-rations is made; the ASB has no organic capability to handle A-rations.)

Supported units do not request rations. Class I supplies are issued based on personnel strength reports. Figure 6-2, page 6-10 shows the interaction of personnel strength data and Class I supply. The Class I supply branch at the DMMC converts personnel strength data to stock numbers and calculates quantities of rations for delivery to the ASB. These depend on the field-feeding ration mix or on the AB commander's instructions. The supply branch anticipates the increased use of MREs during an offense or a deep operation. Single-item requisitions are sent to the COSCOM MMC. The DMMC branch then prepares and sends a consolidated issue document. Corps transport assets move rations to the ASB Class I point, where personnel break bulk rations according to the issue documents. In emergencies, ASB assets may pick up at corps supply points.

When using supply point distribution, supported units pick up Class I supplies with organic transportation. The aviation brigade S4 and other supported unit logistics planners, the ASB support operations officer, and the supply section coordinate a schedule for pickup of issues. When units arrive to pickup their rations, they check in at a control point. Class I personnel make sure that the unit is an authorized customer and the unit representatives are authorized to draw rations. There are three basic methods of issue:

- Truck to truck. Supplies transfer directly from the corps vehicle to the supported unit vehicle. This is the preferred method because it saves time, labor, and handling, keeps supplies under cover, and

increases mobility. However, it ties up the corps delivery vehicle.

- **Unit pile.** All the items for a supported unit are in one marked pile on dunnage. The entire pile goes on the supported unit's vehicle when it arrives. This method is the best for control. It is used when Class I personnel have time to sort supplies.

- **Item pile.** Like items are placed in separate piles on dunnage. As supported units pass each pile, unit personnel load the correct quantity into their vehicle under the supervision of Class I personnel. Supported unit personnel spend more time at the supply point

than they would with the other two methods. This method is used when Class I personnel do not have the time to sort supplies.

Due to the scarcity of Class I point assets, unit distribution is rarely possible. When using unit distribution, supply section vehicles rendezvous with supported unit vehicles at prearranged grid coordinates.

Complete issue and receipt documentation is maintained at the DMMC. The Class I point does not keep copies of issue documents.

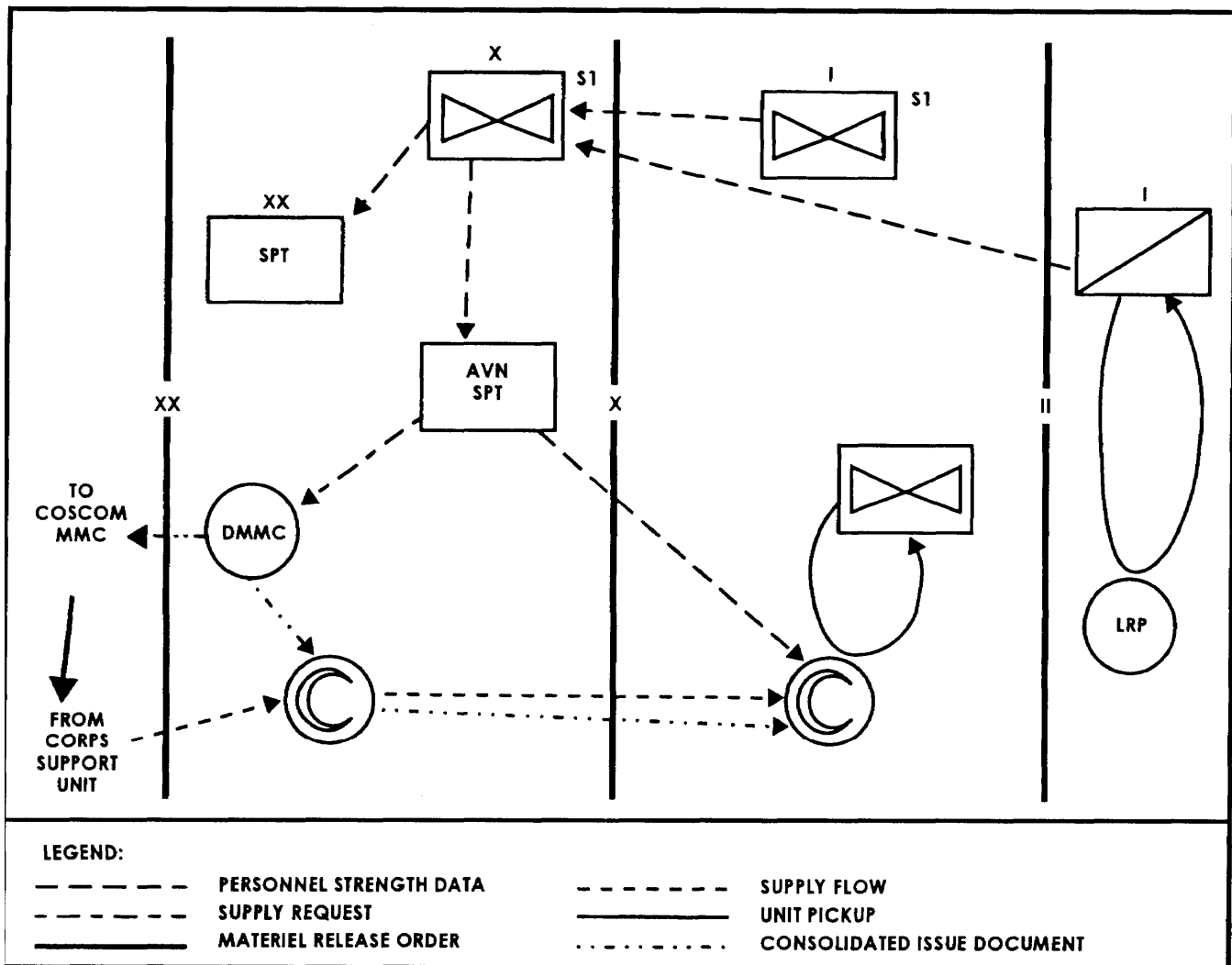


Figure 6-2. Typical Class I supply

## CLASS VI

The soldier receives Class VI items without cost through Class I channels when units have been operating under combat conditions for more than 15 days without AAFES support or access to civilian markets. In early, highly mobile, or intense conflicts, there is little leisure time and little need for Class VI items. This restricts issue of Class VI items to items required for the minimum personal hygiene, comfort, and welfare of soldiers. Bulk Class VI supplies fill initial requirements. AAFES stocks provide interim supplies until RSSPs, packaged to meet the requirements of 100 persons for one day, become available. Personnel strength data determine how many RSSPs to requisition. They are issued just like Class I supplies. AR 30-7 and FM 10-27 provide more information on Class VI items.

## WATER

The ASB has no organic water supply capability. The AB depends on the MSB for water purification and distribution. The MSB is capable of operating up to five water points. The MSB may attach enough equipment and personnel to the ASB to set up a water point. Otherwise, the AB receives water from the water point in the DSA or other locations in the division rear. For more information on operating a water point, refer to FMs 10-52 and 63-21.

## CLASSES II, III (PACKAGED), IV, AND VII

### Class II

Clothing and individual equipment are bulky and impede mobility. This limits Class II supply operations to critical items. Many Class II items not considered critical are not normally stocked. Items normally stocked are Class II minimum-essential combat ASL items. Demand experience and the tactical commander's priorities determine the list. These items normally include high-demand mechanics' tools and protective items such as MOPP gear, boots, and helmets. EAD support units may package Class II items in lots designed to support a specific number of troops to speed receipt and issue. Intense combat and

sustained operations in an NBC environment increases the demand for Class II items. When tactical intentions are clear, support units should arrange for scheduled resupply of required protective overgarments and other Class II NBC-related items and equipment.

Soldiers returning to duty from medical facilities may be re-equipped by the supply company. The SOP may require the unit to bring required personal equipment, including individual weapons, when it picks up personnel returning to duty.

### Packaged Class III

Requests and distribution of packaged Class III supplies are handled in the same manner as Class II and IV items. Items include: packaged products such as lubricants, greases, hydraulic fluids; solvents in containers of 55 gallons or less; and cylinders of liquid and compressed gases. Mobility restricts stockage to limited high-demand items.

FM 10-69 describes the receipt, storage, and issue of packaged petroleum products and fuels. Spill control should be an integral part of planning and mission execution; it should be included in the HSC internal SOP.

### Class IV

Class IV supplies consist of construction and barrier materials. Because of the bulk of these materials and the limited transportation assets, the supply company handles little Class IV materiel. It handles no construction materials. Corps assets transport barrier materials (including Class V barrier materials) as close to the emplacement site as possible. This requires the unit to provide grid coordinates, unit designations, and POCS along with the supply request. In addition, the convoy commander must coordinate with the receiving unit's field trains (if one exists) before moving to the emplacement site. This ensures that the situation and requirement have not changed since the request was made. The supply company can handle limited quantities of survivability items, Class IV (A). These are items that any unit can put in place. They

## FM 63-23

include such common items as sandbags and concertina wire. Requests for these items are processed in the same way as Class II items.

The GS supply company in the corps prepackages generic barrier packages like the one developed for the LID. (Refer to Table 6-1.) Use single NSNs to request these packages.

The corps engineer may change these packages depending upon METT-T. Requirements for these items will be heaviest during preparation for defense. Units should take action to request these materials as soon as they know the intention to defend. FM 101-10-1/2, Chapter 1, provides detailed planning data on materiel and manpower requirements for countermobility and survivability.

### Class VII

Class VII items are often command-controlled because of their cost and importance to combat. The demand for these items depends on the intensity of battle. There is no stockage of Class VII items at the ASB. Combat losses reported through command channels to the division G3 and G4 determine needed replacements. The division commander directs the distribution of critical items depending on METT-T. Class VII items often

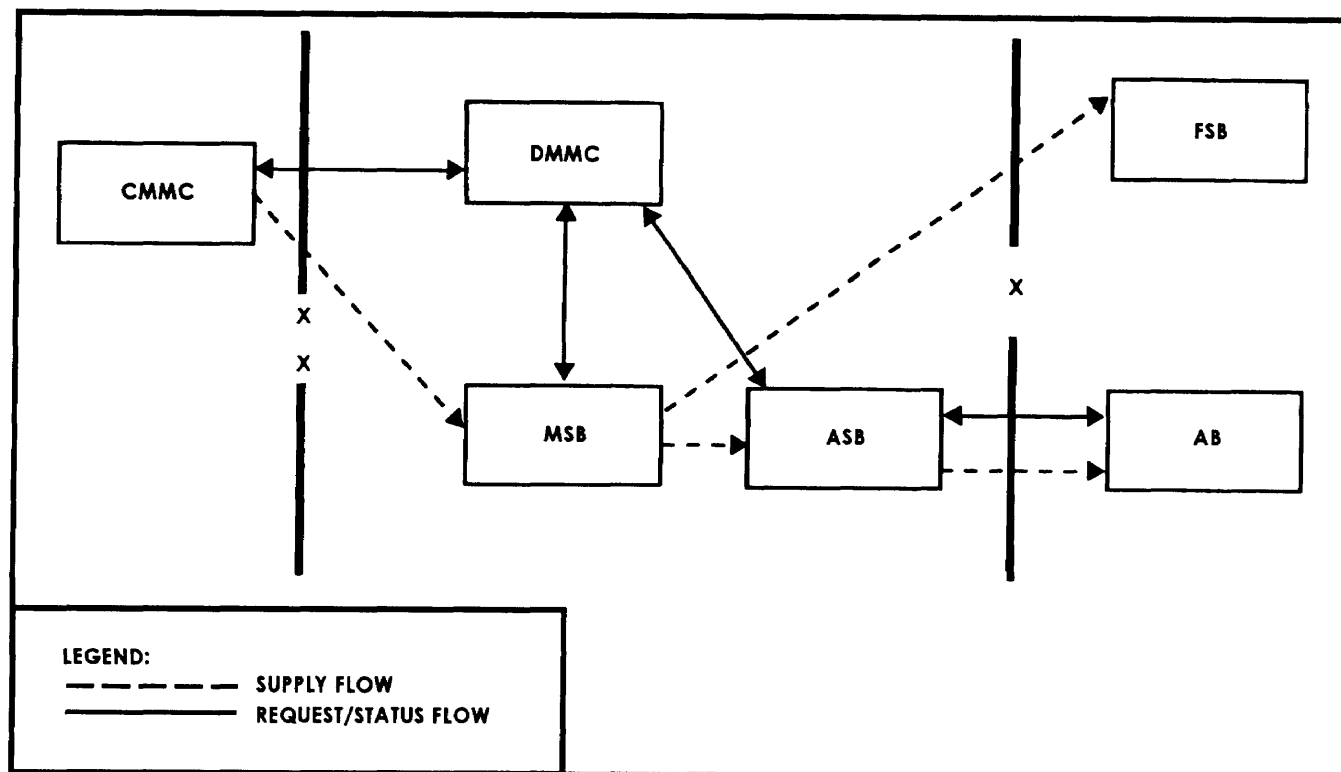
bypass normal supply channels and go directly from point of entry to user. Requests for Class VII supplies follow the same flow as Class II, packaged III, and IV supplies. For more information on Class VII supply, refer to FM 63-2.

### Request and Supply Flows

Supported units submit requests for Class II, III (packaged), IV, and VII supplies to the DS supply section. If the supplies are on hand, the section issues them (unless the item is command-controlled) and notifies the DMMC. (If the item is command-controlled, the DMMC approves the issue.) Requests for items not on hand are consolidated and sent to the DMMC. The DMMC searches the stock asset records of the MSB S&S company. (SARRS-O will allow the DMMC to also search the other FSB's stock asset records.) If the supplies are on hand, the DMMC sends a material release order (MRO) to the MSB S&S company directing the issue of supplies to the ASB supply section. The MSB transportation motor transport (TMT) company usually transports the supplies from the MSB to the ASB supply point. If the supplies are not on hand at the MSB, the DMMC forwards the request to the COSCOM MMC. Figure 6-3 shows the flow of Class II, packaged III, IV, VII, and IX supplies.

**Table 6-1. Light barrier preconfigured unit load (NSN 5660-01-224-8542)**

NSN	NOMENCLATURE	QTY	UNIT OF ISSUE
5660-00-251-4482	Barbed wire	1	Spool
5660-00-921-5516	Barbed Tape	20	Roll
56600-00-270-1587	Post, Fence	54	Each
5660-00-270-1589	Post, Fence	4	Each
8415-00-926-1674	Gloves, Barbed Tape, Wire Handlers	3	Pair
8430-00-823-7451	Pin, Tent, 12-inch	133	Each
5120-00-926-7117	Mallet, Wooden	1	Each



**Figure 6-3. Typical flow of Class II, III(P), IV, VII, and IX supplies**

### MAPS

When items arrive, receiving personnel verify quantities, condition, item description, and markings of items received against shipping documents. Priority designation determines how supplies are processed. Items coded for a specific unit transfer directly into the unit's vehicle using the truck-to-truck method whenever possible. Otherwise, they are put in a unit pile for scheduled pickup. Remaining items are put in item piles or placed into storage using the established stock locator system.

Class II, packaged III, IV, and VII supplies normally reach supported units through supply point distribution. The ASB uses unit distribution to distribute supplies when the tactical situation permits and transportation assets are available.

For additional information on Class II, IV, and VII items, refer to FM 10-27. For information on supply of packaged Class III, refer to FM 10-69.

The MSB S&S company stores unclassified maps. The ASB supply section receives these maps from the MSB S&S company. It provides supply point distribution to supported units according to established tables of allowances or to fill special requirements. Classified maps are handled through the brigade S2 section.

### BULK FUELS

Supported units do not formally request bulk fuels. The AB S4 coordinates with the ASB support operations section to forecast bulk fuel requirements to the DMMC. Future tactical operations are the basis for the forecasts. The Class III/V platoon of the HSC submits a daily status report on petroleum received, issued, and on hand to the DMMC. If METT-T prohibits forecasting, the ASB may receive standard prearranged shipments on a regular basis. These would continue until the aviation brigade S4 requests a change.

The DMMC uses the forecasts and status reports to compute bulk Class III requirements for the division. The DMMC forwards the requirements to the COSCOM MMC. The COSCOM MMC coordinates the delivery of bulk fuel to the division according to the Class III distribution plan. The flow of Class III bulk fuels appears in Figures 6-4 and 6-5.

The ASB receives its bulk fuel directly throughput from the corps. Class III/V platoon leaders coordinate deliveries through the ASB support operations office. The fuel is transferred from the corps tank semitrailers

into the FSSP. FM 10-71 gives details on fuel transfer operations. Drivers may also drop off full semitrailers at the ASB and backhaul empty ones. Trailer transfers save time but require accurate tracking of the trailers. Prior coordination (between ASB, MSB, DMMC, and MCC) is critical to implementing this system successfully. Class III storage and issue section personnel sign receipts for the amount and type of fuel received. They post the quantities received to the stockage record and update the daily status report. They also abstract receipts daily to the monthly abstract of issues.

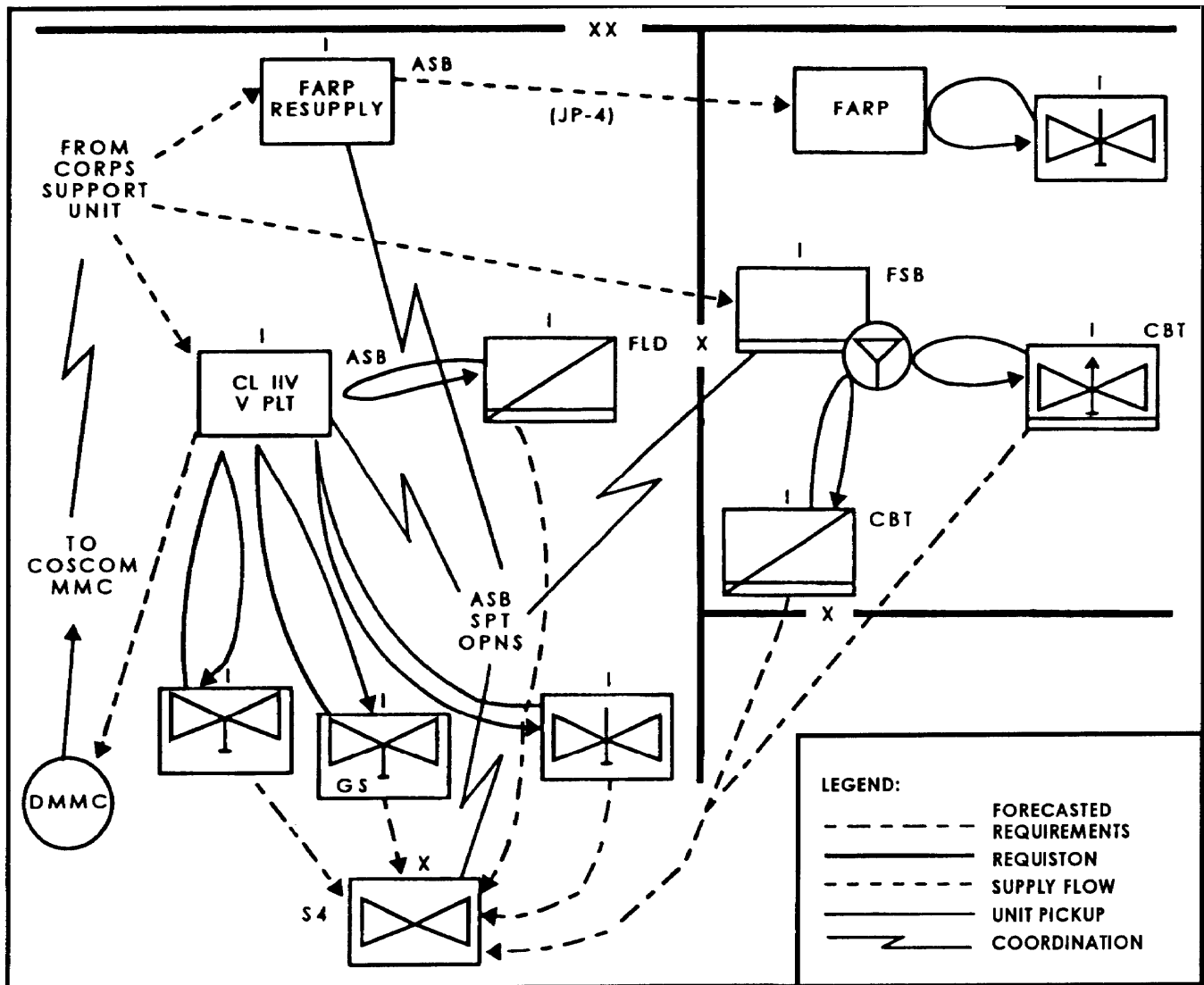
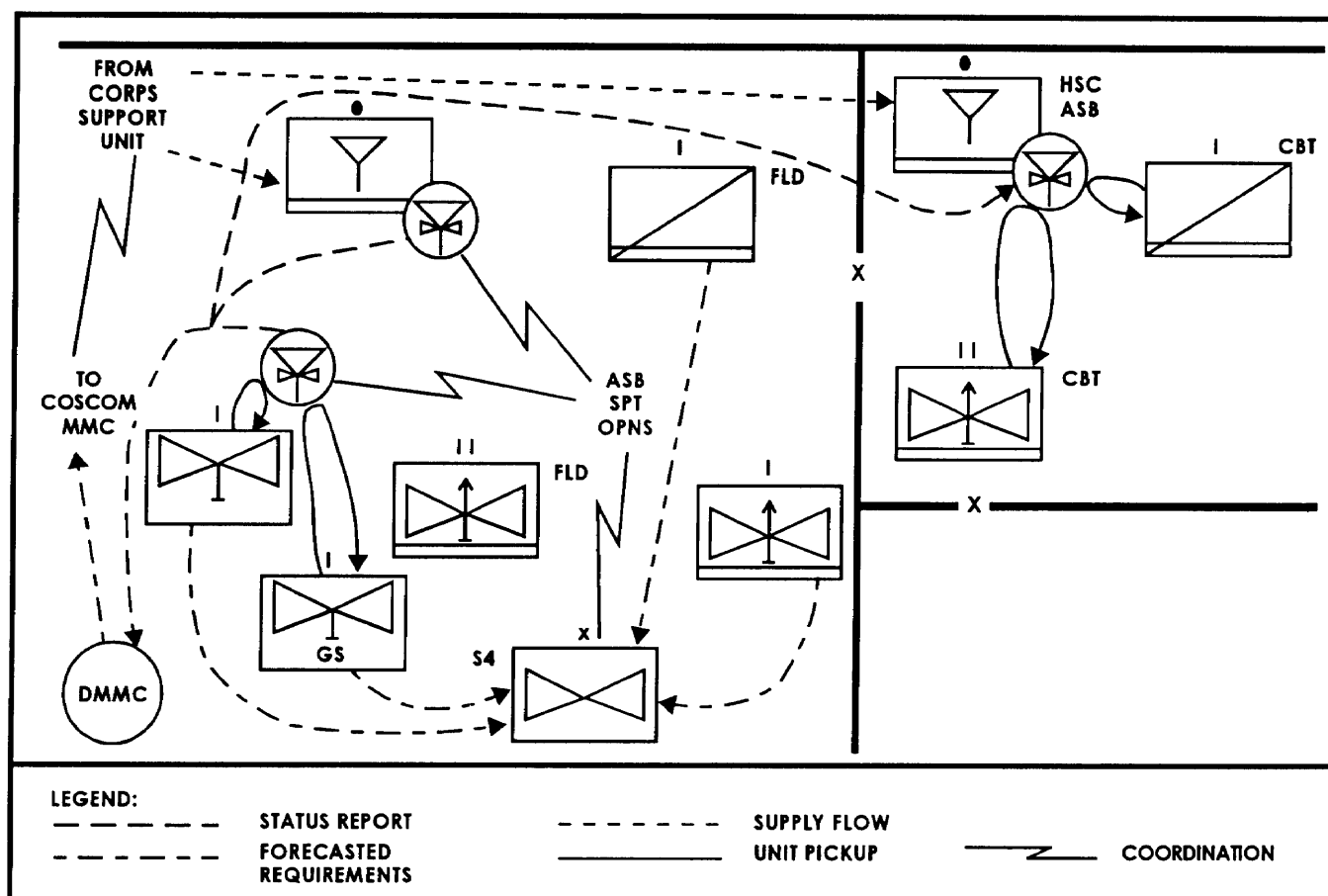


Figure 6-4. Typical bulk fuel supply (Class III)





**Figure 6-5. Typical bulk fuel supply (Class III -Air)**

The ASB provides fuel to AB units using supply point distribution. They schedule issues of bulk fuel to all aviation brigade units in the division rear area through the HSC Class III point. The Class III storage and issue section also has the capability to store petroleum using collapsible fuel tanks in an FSSP. This arrangement is most feasible in the offense when fuel requirements are highest. There is not as much chance that they may have to move quickly, which would be difficult with filled bags on the ground.

Aviation units are responsible for refueling their own aircraft. Fuel requirement forecasts are submitted to the DMMC through the ASB support operations office. Emergency resupply of aviation fuel to the AB is provided through the MSB. When a FARP needs Class III resupply, the aviation brigade S4 coordinates the operation with the MSB and ASB support

operations sections. The FARP resupply section of the ASB can resupply the aviation brigade FARP. The Class III/V platoon can also refuel aircraft in the AB rear area using HTARS kits. This ensures that helicopters can deploy to the FLOT fully fueled. The AB S4 coordinates times, quantities, and locations with the ASB support operations sections. The primary benefits of this technique are speed and reduced equipment requirements. FM 63-21 details bulk fuel operations.

When the AB's cavalry squadron or attack helicopter battalions are in a maneuver brigade area, they are supported by the FSB Class III supply point. The support must be coordinated among ASB, DISCOM, and FSB support operations personnel. (Refer to FM 63-20 for details.)

## CLASS V

Class V support for the aviation brigade is provided directly by the FSB and corps ATPs in the division rear. (Refer to Figures 6-6 and 6-7.) The AB requests support to a FARP from the HSC FARP resupply section. Class V resupply is a continuous refill system. The aviation brigade S4 requests ammunition for assigned and attached units to the DAO. The DAO then directs shipment of ammunition through supporting ATPs to the units. The DAO representative at the supporting ATPs ensures that requirements do not exceed the CSR.

When possible, ammunition transloaded at the ATP is in combat-configured loads (CCLs). CCLs are predetermined ammunition packs based on mission requirements. The AB receives all its CCLs at an ATP. They are requested by type and number with any additional single-line items needed. The DAO

forwards the requests through the COSCOM MMC to the corps storage area (CSA) or the ASP. The CSA reconfigures containerized and break-bulk ammunition into CCLs. It ships them via corps ground and air transportation to the ASP and ATPs. The CSA sends single DODAC ammunition (non-CCL) items to the ASP.

The AB S4 coordinates with the ASB support operations officer to schedule issue of Class V supplies. AB units submit completed, authenticated requests for ammunition at the ATP. The DAO representative validates and fills all requests. Personnel transload the ammunition from the corps transportation assets to AB unit vehicles using available MHE. ATP personnel then forward signed receipt documents to the DMMC. Supported units reorganize/reconfigure the ammunition for delivery to rearm points.

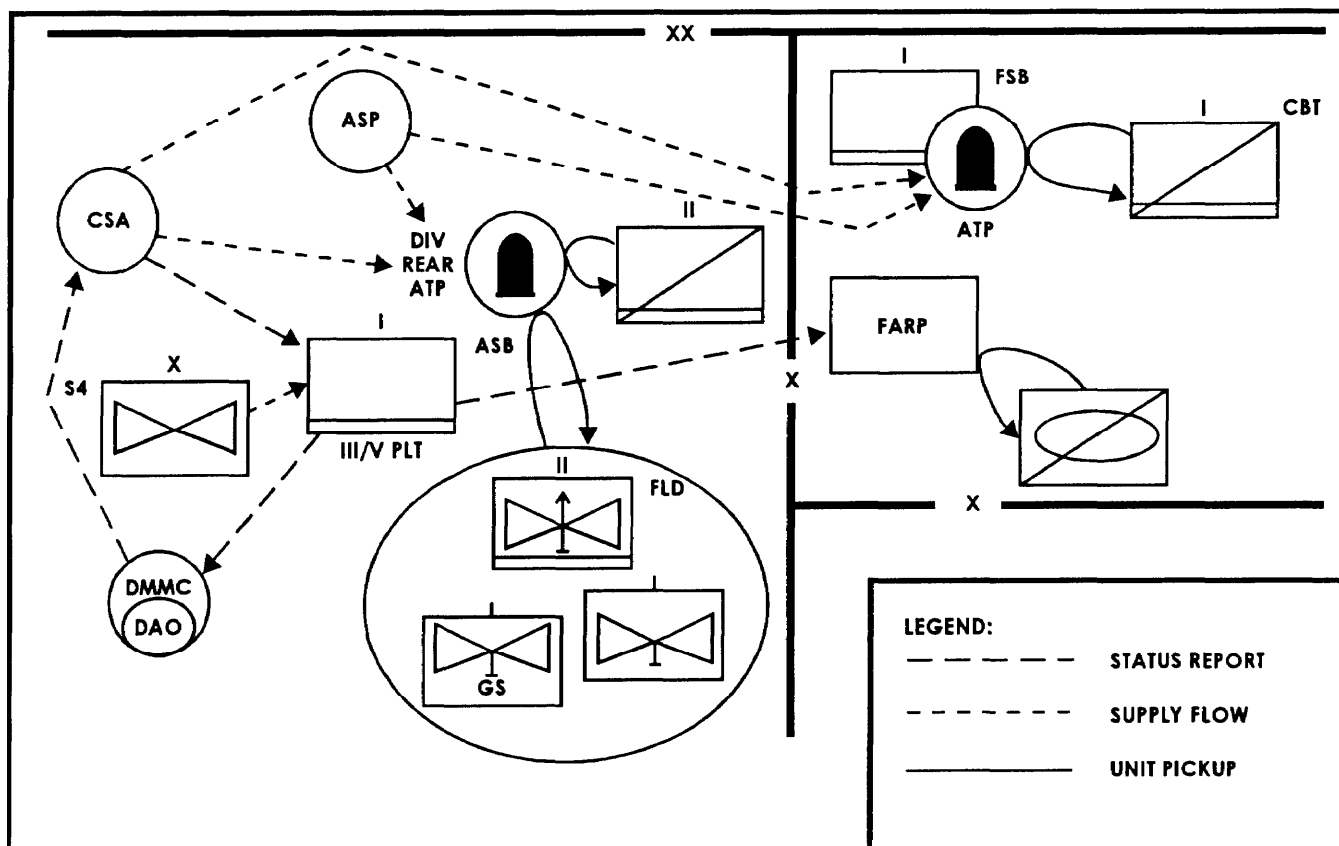
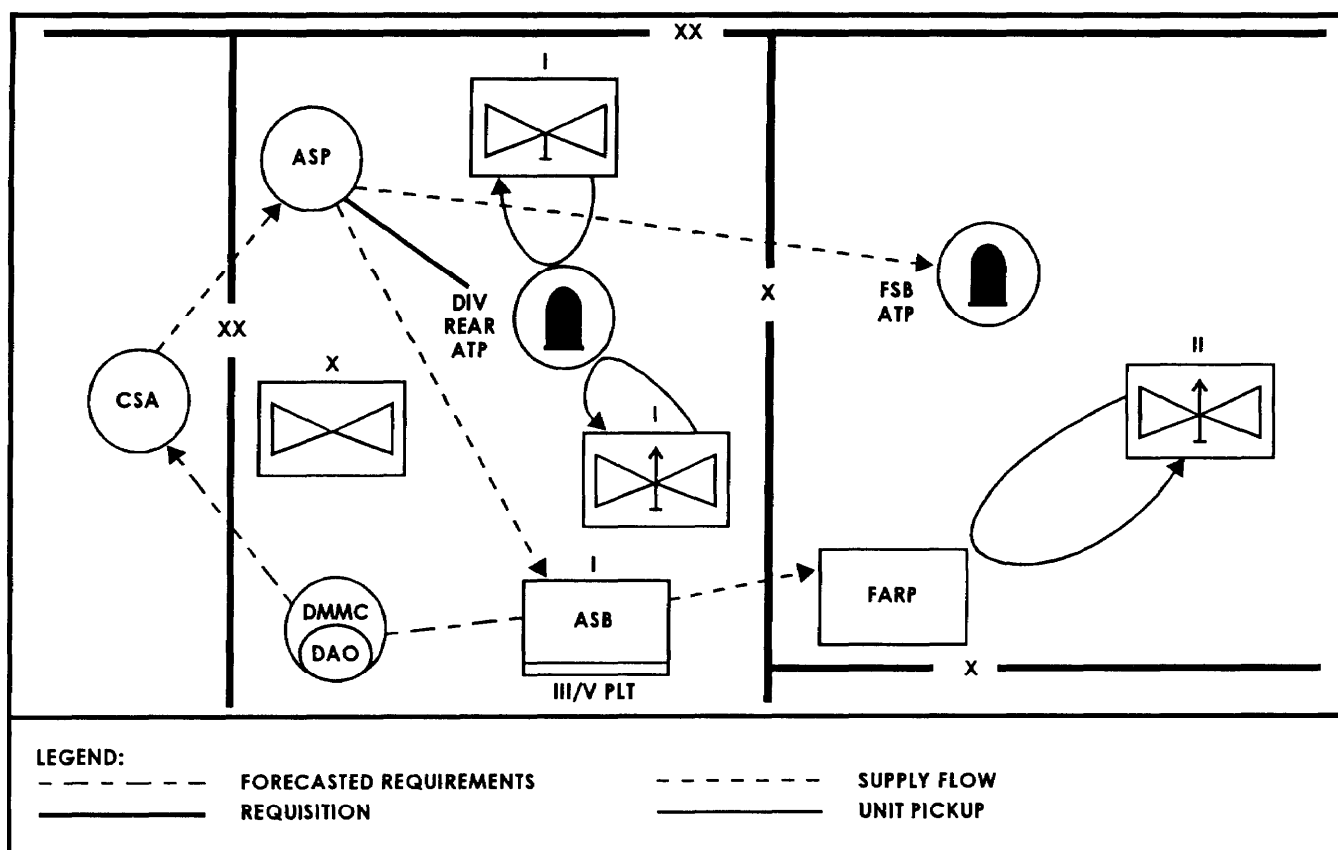


Figure 6-6. Typical Class V supply flow



**Figure 6-7. Typical Class V (Air) supply flow**

Future automated systems will reduce request-to-ship time. The Standard Army Ammunition System is the automated system for ammunition management (SAAS-1-4). SAAS-4, addressed in DA Pamphlet 710-2-2, will enhance responsiveness at echelons above division. SAAS-DAO will assist the DAO in managing the division's ammunition. It will provide a predictive ammunition resupply system based on consumption data from tactical automated systems, manual reports, and division staff input. FM 9-6 has additional details on Class V supply.

### AERIAL RESUPPLY

Air resupply missions are categorized as preplanned or emergency. Preplanned missions are routine air transport operating in support of programmed requirements. Emergency air movements are responses to requirements that cannot be determined in advance.

The movement control officer coordinates movement of supplies with the ASB support operations section. If the movement control officer determines that air resupply is appropriate, he passes a request through the division transportation officer (DTO) to the G3. The G3 allocates helicopters by balancing combat, CS, and CSS requirements. The G4 ensures the CSS role for helicopters is developed and considered concurrently with the tactical mission. The OPORD should address priorities for helicopter resupply for use by the movement control officer.

Emergency requests pass through supply channels the same as routine requests. However, they also pass simultaneously through command channels from the user to the G3. The G3 approves emergency requests and tasks the AB to perform the mission. The G4 also coordinates with the DISCOM support operations branch to task the supply activity to

prepare the shipment. A liaison officer from the aviation brigade coordinates with the movement control officer and the requesting unit. Prerigged loads of standard resupply packages may reduce response time for emergency air resupply. For details on requests for aerial resupply, refer to FMs 55-2 and 100-27.

If the mission cannot be performed by division helicopters for any reason, regardless of its being preplanned or emergency, the request goes from the division tactical operations center (TOC) to the corps TOC. It is also coordinated with the tactical airlift liaison officer.

Selection and control of pickup and landing zones are extremely important. Pickup zone selection and control are the responsibilities of the unit that requests the mission. The receiving unit is responsible for landing zone selection and control.

The supporting unit, normally the HSC, is also responsible for rigging and loading the cargo at the pickup point. This responsibility includes providing all equipment needed to rig cargo for sling-load operations. (For details on sling-loading, refer to FMs 55-450-4 and -5.) Receiving units are responsible for—

- Providing trained ground crews to guide the aircraft in and unload/derig the load.
- Providing ground security.
- Establishing radio communications with the helicopter and informing the aircrew of enemy activities.
- Marking the loading zone.
- Coordinating with the sending unit for control and return of the rigging equipment.
- Preparing, coordinating, and inspecting backhaul loads to have them ready for hookup or loading when the aircraft arrives.

## FIELD SERVICE OPERATIONS

### MORTUARY AFFAIRS

All commanders are responsible for unit-level mortuary affairs. ASB personnel do not provide MA for the aviation brigade. Unit responsibilities include the initial search, recovery, identification, and evacuation of its deceased personnel to the nearest MA collection point. FM 10-63-1 provides details of unit MA responsibilities.

The ASB does not include assets designed to operate an MA collection point. When the MSB S&S company is augmented with an MA platoon, it sends a team to set up a collection point in each BSA and the DSA. The ASB will receive MA support from the nearest MA point that is tactically practical. In the initial stages of hostilities before the MSB receives the augmentation platoon, unit personnel will operate collection points or evacuate remains to the collection point in the DSA. The decision on whom to pull is made by the ASB CP and the brigade rear CP. The MA point receives remains from supported units, continues the identification process initiated by the unit, and arranges for evacuation to the division MA

collection point. MA point personnel ensure that a DD Form 567 (Record of Search and Recovery) is completed for individual remains. The collection point maintains a record of remains processed. Once remains are identified to the extent possible and registered, they are evacuated to the DSA collection point as a backhaul mission by vehicles bringing supplies (except Class I) to the ASB area. For morale purposes, remains should always be covered and screened from sight.

All remains found in a contaminated area should be handled as if contaminated. NBC tags should be attached to contaminated remains. If NBC tags are not available, a tag with a large “C” written on it is attached to each contaminated remains. Personnel handling contaminated remains must maintain an adequate level of individual protection. Contaminated remains are kept separate from uncontaminated remains. Due to the possibility of mass fatalities in an NBC attack, normal MA methods may not be feasible. Contaminated remains will not be evacuated

unless they can be thoroughly decontaminated and checked by NBC personnel. In extreme cases, mass burials may be required. Requests are made through command channels. Permission for mass burials comes from the Joint Mortuary Affairs Office in the theater with the theater commander's approval.

FMs 10-63 and 10-63-1 contain more information on mortuary affairs operations. For details on the MSB's mortuary affairs platoon, refer to FM 10-27-2.

### **SALVAGE**

AB units are responsible for bringing salvage materiel to the nearest salvage point. The ASB does not normally operate salvage points because it lacks personnel and transportation assets. It does assist the AB when necessary and may also act as a transshipping point. The salvage point ensures that entries on turn-in documents are accurate. It often locates near the maintenance collection point. It receives all salvage materiel for which maintenance units do not have responsibility, with the exception of—

- Toxic agents.
- Radioactive materials.
- Aircraft.
- Ammunition and explosives.
- COMSEC.
- Health service support materiel.

Salvage point personnel may use technical publications to identify items. This assists them to classify items as serviceable or unserviceable. If they cannot determine an item's identity or serviceability, maintenance personnel may perform a technical inspection. Salvage personnel set up separate areas for serviceable, repairable, or scrap items in the holding area. Serviceable items are protected from the elements as much as possible.

The DMMC issues general guidance on disposition. The salvage point, in turn, reports on the status of items to the DMMC. Foreign or captured materials are reported to the appropriate S2/S3 for disposition instructions.

Normally, repairable items are sent to the maintenance base shop and serviceable clothing and canvas items to the COSCOM laundry and renovation platoon. Unrepairable items and scrap are evacuated through salvage channels to a property disposal unit.

### **SHOWER, LAUNDRY, AND CLOTHING REPAIR**

Clothing exchange/repair and bath service is provided on an area basis throughout the division by the MSB S&S company when it is augmented with a shower, laundry, and clothing repair (SLCR) platoon. The platoon includes three sections, each of which can operate an SLCR point. The location of the three points depends on METT-T. If circumstances permit, points may be moved as far forward as the BSA. AB units typically receive support from an SLCR point in the division rear. The ASB support operations section coordinates support with the DISCOM support operations branch.

SLCR points provide showers from portable bath units, delousing service, and exchange of soiled clothing for laundered clothing. SLCR operations are also integral to decontamination. The ASB support operations section coordinates with the AB S4 to schedule SLCR. As a planning factor, SLCR operations should be scheduled weekly. Supported units coordinate with the brigade S4 for SLCR and provide soldiers to guard valuables and assist with clothing exchange. For more information on clothing exchange and bath operations, refer to FM 10-280. For information on the MSB's SLCR platoon, see FM 63-21.

## **VARYING TACTICAL SITUATIONS**

### **OFFENSE**

The ASB's supply goal when preparing for an offensive operation is to ensure that aviation brigade

elements begin with their basic loads of all classes of supplies to sustain the attack. It is equally important

to have the ASB units ready to quickly resupply the brigade once basic loads are depleted. The two most critical supply categories will be Classes III and V. In cases where full loads are not expected to be sufficient to sustain the battle, the HSC commander, with the support operations officer, may coordinate for additional stockage at predesignated areas. ASB elements must prepare to move quickly as the brigade moves forward.

In coordination with the aviation brigade and task force S4s, the ASB may develop predetermined emergency resupply packages of ammunition, POL, and, in arid and tropical environments, water. They should identify emergency procedures in advance. These may involve the HSC's automatically providing emergency packages or the supported elements' requesting them. Aerial resupply should be used whenever possible in these conditions.

Frequent movement will be critical in the offense. Supply assets must prepare to move with the division. Supported elements do not have the assets to travel long distances to the rear to pick up supplies. This requires careful coordination to minimize the stress on MSB and corps assets caused by frequently moving supply points forward.

As mentioned in Chapter 2, other supply considerations in the offense are reliance on MREs and use of captured and found supplies.

## **DEFENSE**

Defensive operations may require stockpiling of supplies for elements such as the cavalry squadron. ASB planners should coordinate with the division to identify successive defensive positions. These positions will be used to stockpile critical supplies. Units must plan to destroy stockpiles if necessary. Though Class III usage may be lower than during an attack (depending on the nature of the defense), Class V use is likely to be higher, especially in a static defense.

## **RETROGRADE**

Supply company elements begin to move to the rear before combat units. This minimizes interference with maneuver. It also allows them to set up supply points along the route of withdrawal. The HSC support operations section will identify noncritical items. These may include Class I, II, IV, VI, and VII items. Any forward stocks of these items should be withdrawn immediately and not replenished. Supplies (except Class VIII) which cannot be evacuated should be destroyed.

## CHAPTER 7

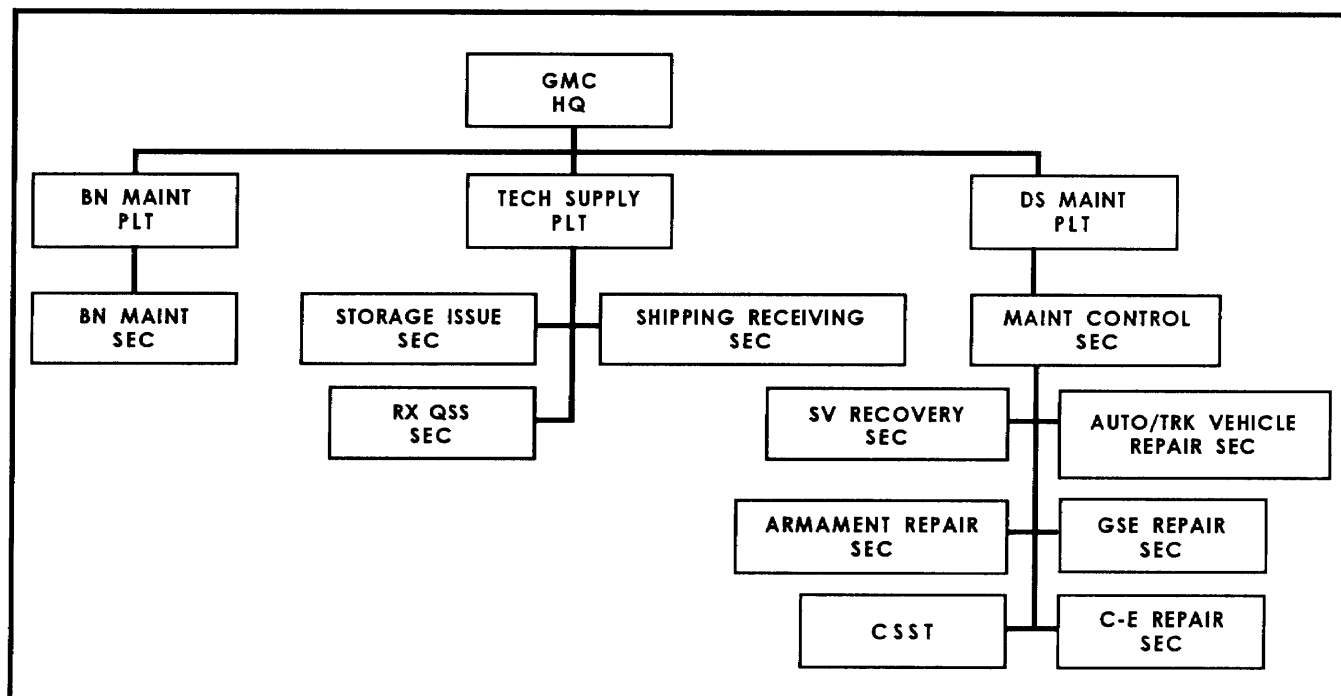
**Ground Maintenance Company**

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**ORGANIZATION AND MISSION**

The ground maintenance company is a critical component in fixing the force. To counter a potential numerical superiority in fielded weapon systems, the aviation brigade must make the most of each system it has. The GMC provides unit maintenance for all ASB non-air items and direct support maintenance for AB/ASB non-air items, including automotive,

engineer, utility, power generation, C-E equipment, and small arms. Figure 7-1 shows the company organization, consisting of a company headquarters, a battalion maintenance platoon, a DS maintenance platoon, and a supply platoon. The CSST is structured to support the AB cavalry squadron. This team normally works in a maneuver BSA.



**Figure 7-1. Organization of ground maintenance company**

The ground maintenance company—

- Performs DS maintenance for the AB and supported elements, including repair of small arms and of communications, engineer, power generation, automotive, and utility equipment.
- Operates a collocated ASL for ground and air Class IX to support the AB prescribed load lists (PLLs). Though collocated, air and ground ASL stocks will not be intermingled.

- Performs consolidated unit maintenance for all ASB units.
- Provides technical assistance to supported unit maintenance operations within the brigade.
- Provides limited recovery assistance to supported units.
- Provides reparable exchange (RX) and quick supply store (QSS) for selected common hardware and low-cost repair parts.

## PRINCIPLES

### FORWARD SUPPORT

The ASB ground maintenance company's mission is to provide support as far forward as possible to return combat systems to the battle rapidly. Repairing equipment forward saves transportation assets and time. Whenever practicable, equipment repair should be done on site. The tactical situation, extent of damage, and availability of resources may require recovery or evacuation.

are on hand and the required time exceeds the specified limit, the GMC should consider recovery or evacuation. Time lines are set by SOP or by the ASB or AB commander. They are only guidelines. If they are not effective, commanders adjust them to accomplish the mission.

### REPAIR TIME LINES

Units decide whether to repair or to recover inoperable equipment to a maintenance site. Established time lines serve as tools to help make this decision. Sample time lines appear in Table 7-1. If all resources

**Table 7-1. Maintenance time lines**

LOCATION	HOURS
On site	2
BSA	24
DSA	36

## CENTRALIZED CONTROL

The GMC commander and the maintenance control officer control all maintenance operations even though support assets are decentralized. They must be aware of the total maintenance work load and of the available assets and their locations. The maintenance control officer manages resources to maximize combat effectiveness and to minimize equipment failure and down time.

### BATTLE DAMAGE ASSESSMENT AND REPAIR

BDAR techniques expedite the return of damaged equipment to the current battle. Battle

damage assessment determines the extent of damage to equipment. Repairers classify damaged equipment by the extent of repair required, available resources, and each item's priority. Priorities for repair of battle-damaged items are usually those—

- Most essential to the immediate mission.
- Reparable in the least time.
- Reparable but not in time for the immediate mission.

Battle damage repair (BDR) involves use of emergency repair techniques to enable combat



systems to move, to shoot, and to communicate. Commanders normally direct use of BDR only in combat. BDR includes—

- Taking shortcuts in parts removal or installation.
- Modifying components from other items.
- Using parts from a noncritical function elsewhere on an item to restore a critical function.
- Bypassing noncritical components to restore basic function capability.
- Cannibalizing vehicles or aircraft.
- Making parts from kits or available materials.
- Using substitute fuels, fluids, or lubricants.

Weapons and fuel systems are primary candidates for BDR in combat. When the mission is over, repairers use standard maintenance procedures. Leaks and seepage are repaired to prevent further environmental damage.

### **CONTROLLED EXCHANGE**

Controlled exchange is the removal of serviceable parts from unserviceable, economically repairable equipment and using them to return a similar piece of equipment to full readiness. Controlled exchange must be authorized by the commander of the unit that owns the equipment. The goal is to restore a system to mission-capable status.

### **CANNIBALIZATION**

Cannibalization is the authorized removal of serviceable components from material designated for disposal. During combat cannibalization may be a valuable source of critical repair parts. The

designated commander controls cannibalization operations.

### **RECOVERY AND EVACUATION**

Recovery is retrieving or freeing immobile, inoperative, or abandoned materiel. It is then returned to operation or to a maintenance site for repair, evacuation, or disposal. Recovery is a unit responsibility. Whenever possible, units should use self-recovery and like-vehicle recovery. Wreckers can recover wheeled vehicles and light tracked vehicles. When recovery requirements exceed a unit's capability, the GMC maintenance control officer provides assistance. The unit commander may have to designate priorities for recovery if recovery demands exceed capability. Usually, key weapons systems and fuel transport vehicles are recovered before other vehicles.

Evacuation is moving an item from a collection point to a higher-level logistics activity for repair, cannibalization, or disposal. Evacuation is a support unit responsibility that requires a coordinated effort between maintenance and transportation elements. HETs for heavy equipment evacuation (and other missions) locate in the MSB for centralized control. Whenever possible, the CSST locates maintenance collection points close to MSRS to allow HETs to pick up unserviceable equipment. With assistance from supported units, the GMC identifies equipment for evacuation, including unserviceable items beyond the AB/ASB's repair capability, unserviceable assemblies, and abandoned items. Refer to FMs 9-43-2 and 43-5 for detailed coverage of recovery and evacuation principles.

## **COMPANY FUNCTIONS**

### **COMPANY HEADQUARTERS**

The company headquarters provides C2 to accomplish the company's mission. It provides unit-level operational, administrative, and supply support to elements of the company. Unit maintenance

is detailed in FM 43-5. FM 10-63-1 covers unit mortuary affairs (MA) responsibilities; Chapters 3 and 4 cover C3 considerations for the headquarters.

## **BATTALION MAINTENANCE PLATOON**

### **Platoon Headquarters**

The platoon headquarters provides C2 to accomplish the platoon's mission. It provides unit-level administrative, supply, and technical maintenance support to elements of the platoon.

### **Battalion Maintenance Section**

The section conducts consolidated unit-level maintenance for ASB units, including scheduled services, troubleshooting, and unscheduled repairs, quality assurance, organic recovery, TAMMS, and repair parts supply. The section personnel also serve as the nucleus for BDAR teams. These teams make on-site determinations on repair and evacuation. ULLS-G supports maintenance management in this section.

## **TECHNICAL SUPPLY PLATOON**

### **Platoon Headquarters**

The platoon headquarters directs, supervises, and controls platoon functions in support of the ASB's DS Class IX supply mission. SARSS-O for Class IX is located in this platoon.

The platoon manages the requisition, receipt, storage, issue, and stock control for both common and aviation repair parts. The platoon consists of a headquarters, a shipping and receiving section, a storage and issue section, and an RX/QSS section.

### **Shipping/Receiving Section**

This section receives and accounts for all Class IX repair parts coming from supply sources, field returns, and shipment redirects. It also packages and crates supplies when required.

### **Storage/Issue Section**

This section stores supplies and performs warehouse storage operations such as shelf-life monitoring, protection from weather, and security against

pilferage. It assigns storage locations, maintains stock location systems, and administers document control procedures. It is also responsible for selecting materiel for issue or shipment and for preparing materiel release orders.

### **RX/QSS Section**

The RX/QSS section provides exchange of selected repairable items to supported units and receives, stores, and issues QSS items. The section may maintain a quick supply store for customers to get low-cost, high-demand, consumable parts (light bulbs, wiper blades, common bolts) without formal requests. QSS service improves availability of low-cost, consumable items. RX of selected repairable is handled as a simple exchange of an unserviceable for a serviceable item. Unserviceable repairable must accompany any requests for repairable.

## **DIRECT SUPPORT MAINTENANCE PLATOON**

### **Maintenance Control Section**

The maintenance control officer is the primary manager of DS maintenance. He provides control, coordination, and overall supervision of the maintenance shops, the CSST, and MSTs.

The section controls work flow and equipment accountability. The section includes an inspection section responsible for technical inspections and quality control of all DS maintenance functions. The inspectors also serve on the BDAR teams. SAMS-1 supports maintenance management in this section.

In addition to the maintenance control section, the platoon consists of six sections—automotive/track vehicle repair, service and recovery, ground support equipment repair, armament

repair, communications/electronics repair, and the cavalry system support team.

### **Platoon Headquarters**

The platoon headquarters provides administrative control for personnel of the six sections in support of the GMC's DS maintenance mission.

### **Automotive/Tracked Vehicle Repair Section**

The section performs base shop and on-site DS maintenance. It repairs transmissions, engines, electronics items, hydraulics, and steering controls on tracked vehicles. It also works on the engines, power trains, and chassis components of wheeled vehicles.

### **Service and Recovery Section**

This section provides welding services, metal body repair, heavy-lift capability for shop operations, and machine working. The section is also responsible for recovery of organic equipment and has limited evacuation capability.

### **Ground Support Equipment Repair Section**

The GSE repair section performs base shop and on-site DS maintenance on power generators, construction equipment, air conditioner units, refrigeration equipment, heaters, utility packs, water purification units, and NBC equipment.

### **Armament Repair Section**

The armament repair section performs base shop and on-site maintenance on—

- Tank turret—turret, cupola, loading, firing, and recoil mechanisms.

- Fire control system—laser range finders, electronic ballistic computers, tank thermal sights.
- Fire control instruments—binoculars, telescopes, aiming circles, range finders.
- Small arms—rifles, mortars, pistols, machine guns.

### **Communications-Electronics Repair Section**

This section performs base shop and on-site maintenance on—

- Radio receivers, transmitters, and associated equipment.
- Computer terminals and facsimile equipment.
- Manual/semiautomatic and some transportable automatic electronic telephone central office equipment.
- Night vision equipment.
- Certain electronic fire control and alignment devices.

The bulk of the section normally works out of the base shop. However, the maintenance control officer may tailor the MSTS for specific missions using any of his assets.

### **Cavalry System Support Team**

This team provides direct support maintenance to the aviation brigade's cavalry squadron. The team normally operates out of the cavalry squadron trains area. It is reinforced with other DISCOM elements as required. The team's repair capabilities include: automotive/tracked vehicles, armament/fire control systems, ground support equipment, and communications-electronics.

## OPERATIONS

### PLANNING

Maintenance planning in the ASB anticipates resource requirements and applies them IAW command priorities. The goal is to return the maximum number of critical items to the battle while consuming the fewest resources. Planners must recognize limitations in armor protection, mobility, and communications that influence the GMC's capabilities. Planning considerations include the—

- Tactical situation.
- Time and distance factors.
- Reinforcement support responsibilities.
- Command support priorities.
- Critical weapon systems and repair parts.
- Proposed maintenance collection point (MCP) locations.
- Maintenance time lines.
- Cannibalization and controlled exchange policies.
- Work load across the brigade area.

The maintenance control officer assists the ASB commander and support operations officer in planning support. They must determine which maintenance assets will operate at the ASB's base shop, MCPs, and on-site locations. This determination is a continuing process, not a onetime decision. Task organizing of aviation brigade units requires flexible asset management.

### BASE SHOP OPERATIONS

The base shop area in the division rear consists of GMC elements not employed at MCPs or AB battalion field trains. The shops are responsible for receipt, inspection, control, repair, and coordinating the evacuation of equipment received from supported units.

The shop layout must allow free flow of work and minimize the required movement of repair parts, tools, and equipment. In addition to the considerations listed in Chapter 5, the company

commander should try to lay out the shops so that the—

- Supply storage areas are accessible to trucks.
- Service section is accessible to all shop locations.
- Electronics and instrument repair can be done in a dust-free area.
- Vehicles may disperse near maintenance areas but locate to facilitate control and security.
- Control and inspection elements are near the area entrance.
- Supply storage and RX areas are near the entrance to keep traffic out of the work area.

The same principles apply to shops in a built-up area. For example, control, inspection, and supply activities should be near the entrance to the shop area, and elements with related or complementary functions should be near each other. Where buildings are sound and road systems adequate, it is preferable to use them as they may provide better work areas and concealment.

The GMC internal SOP outlines shop procedures, which should follow guidance in DA Pam 738-750. An external SOP for use by supported units should also follow those guidelines.

Management activities vary depending on the system available in the division. TAMMS is described in DA Pam 738-750. SAMS-1 automates DS maintenance management within the GMC. It also provides a daily interface with SARSS-O and SAMS-2.

### MAINTENANCE COLLECTION POINTS

MCPs operated by the GMC receive unserviceable equipment from supported units. The company can operate two MCPs, one of which is at the base shop. A forward-moving tactical situation may require another point in the BSA to reduce recovery distances. At the MCPs, GMC personnel perform

large-scale BDAR, using controlled exchange and cannibalization to maximize operational systems. Any contaminated equipment is segregated at the MCP. If a supported unit cannot recover equipment to an MCP, it should recover the items as close as possible to an MSR to await maintenance support. The unit must provide or arrange for security for the equipment. The unit must also provide accurate location information to the maintenance control station (MCS).

Units finding abandoned US equipment turn it in to the MCP. There, maintenance personnel inspect and classify it. The DMMC provides disposition instructions. It may direct that the item be turned in to a supply unit or be evacuated to a corps facility.

### **MAINTENANCE SUPPORT TEAMS**

MST operations present the maintenance control officer and MST leader and members with the same challenges faced by any other small unit in a tactical environment. In addition to its technical mission, the team must have the mobility to get to repair sites and to move with the supported unit. The team must be proficient in self-protection techniques during a move. Supported elements must be aware that the MST has limited self-defense assets. Time spent in defense activities increases maintenance time.

For operations other than self-defense, the MCO retains command and control of the teams. Changes in the tactical situation or communications limitations may threaten control. MSTs must prepare to conduct independent operations by SOP when required.

MSTs require adequate communications to assist in security, to report to the MCS, and to request support from the base shop. When the MST's organic radio capability is inadequate, additional support may be available from the supported unit. MSTs also carry a limited supply of repair parts with them. Past experience and work load determine which parts to carry.

The ground maintenance company's internal SOP should describe—

- Organization of teams for recurring situations.
- Command relationships.
- Assignment of work order numbers.
- Hand receipt and repair parts procedures.
- Recovery and evacuation guidelines.
- Spill contingency plan.
- Waste POL storage and disposal.

### **ON-SITE OPERATIONS**

When unit maintenance resources (mobility, security, tools and parts, or communications) are inadequate, MSTs or other maintenance teams may be formed from the GMC to perform on-site repairs. Procedures for requests for such support must be in the external SOP and available to all supported units. Requests should include the following information:

- Identification of unit and equipment.
- Location (grid coordinates).
- Nature and extent of damage.
- Repair parts required.
- Security and NBC considerations.
- Recommended route of approach.
- Pickup points for unit guides, if required.
- Required environmental protective measures.

Once the team arrives, the team chief makes a battlefield damage assessment (BDA) and decides whether to repair on site or to recover to an MCP. Maintenance time lines, available resources, and the tactical situation are primary determinants. If on-site repair is feasible, the team repairs the item and returns it to the user. If the item must be recovered, the team considers short tracking or other expedient self-recovery and like-vehicle recovery before committing a recovery vehicle.

### **REPAIR PARTS SUPPLY**

The technical supply operations section of the GMC receives, stores, and issues repair parts. It edits

and fills all requests when parts are available. The section also notifies the DMMC of the issue. If the part is not available, the section passes the requisition to the DMMC. If the item is available in the MSB Class IX section, the DMMC passes an MRO to the MSB, which provides the item to the ASB. If the MSB does not have the item, the DMMC passes a requisition to the COSCOM MMC. The DMMC also specifies Class IX items and quantities to locate in the division rear area. This decision is based on the PLLs of supported units and on the ASB's mobility requirements. To ensure that the ASB remains mobile, the DMMC restricts stockage in the GMC. AR 710-2 lists stockage parameters for direct support units. Whenever possible, critical items are transported by air.

Figure 7-2, shows the flow of Class IX requests and stocks. The aerial resupply discussed in Chapter 6 also applies to Class IX.

### **MSB Reinforcing Support**

The maintenance relationship between the MSB and the ASB is established by the DISCOM commander. Command priorities and the ASB's

capabilities to accomplish specific missions determine the amount of support. The MSB provides timely, tailored reinforcing support for DS maintenance. The ASB support operations section coordinates with the DISCOM S3 when the GMC needs reinforcing support. The MSB light and heavy maintenance companies maintain technical relationships with the GMC.

### **DMMC Materiel Section**

The DMMC provides maintenance management for the ASB as it does for the MSB and the FSBS. The DMMC manages all classes of supply (except VI, VIII, X, and classified maps). It monitors ASLs and specifies the quantities of Class IX material physically maintained by the GMC. It also provides disposition instructions for excess items and for evacuation of items to higher levels of maintenance. The materiel section manages repair parts supply and maintenance. It designs and manages the division Class IX inventory and directs the Class IX issue. Its management is limited to maintenance functions that are generally external to the ASB. The DMMC monitors unit maintenance throughout the division and provides day-to-day assistance on maintenance to the ASB.

## **VARYING TACTICAL OPERATIONS**

### **OFFENSE**

Before an offensive operation, maintenance personnel inspect equipment and perform required maintenance. They eliminate shortages whenever possible and set up reserve stocks. Using METT-T, repairers increase stockage of certain critical items. For example, in many offensive operations MSTs going forward would increase stockage of small, high-usage RX items, such as automotive subassemblies and fire-control instruments.

As the tempo increases and distances lengthen, maintenance support moves forward. Forward deployment must consider MST vulnerability,

possible enemy counterattacks, and maneuver element requirements for space and roads. Maintenance elements may require security assistance if they must bypass pockets of enemy activity. Continuous movement forward may also require the commander to adjust maintenance time lines. As lines continue to lengthen, expedient maintenance techniques may be required:

- Establishing procedures to allow MSTs to draw from the FSB's ASL.
- Increasing emphasis on cannibalization and controlled exchange.
- Setting up MCPs.

- Increasing emphasis on evacuation, with repair in forward areas limited to component replacement, adjustments, and servicing.
- Using air transportation to move repair personnel and parts.

### DEFENSE

- Typically, supported units are not as widespread as in offensive operations. Therefore, the ground maintenance company's assets can usually be more centralized.

In a static defense, movement is less frequent; more time is available for maintenance operations. Commanders may increase time lines for repair and may build up reserves of critical items consistent with mobility requirements and capabilities.

A dynamic defense has many of the same maintenance implications as an offensive operation. For instance, maintenance sites need to move frequently and vehicle maintenance requirements increase.

### RETROGRADE

Ground maintenance company assets begin to move to the rear before combat elements. Movement is by echelon with maintenance elements leapfrogging each other to maintain continuous support. Maintenance operations concentrate on weapon systems and other items required to support the retrograde. Other equipment is evacuated to future planned support areas before opposing forces can overtake it. The commander determines priority of support.

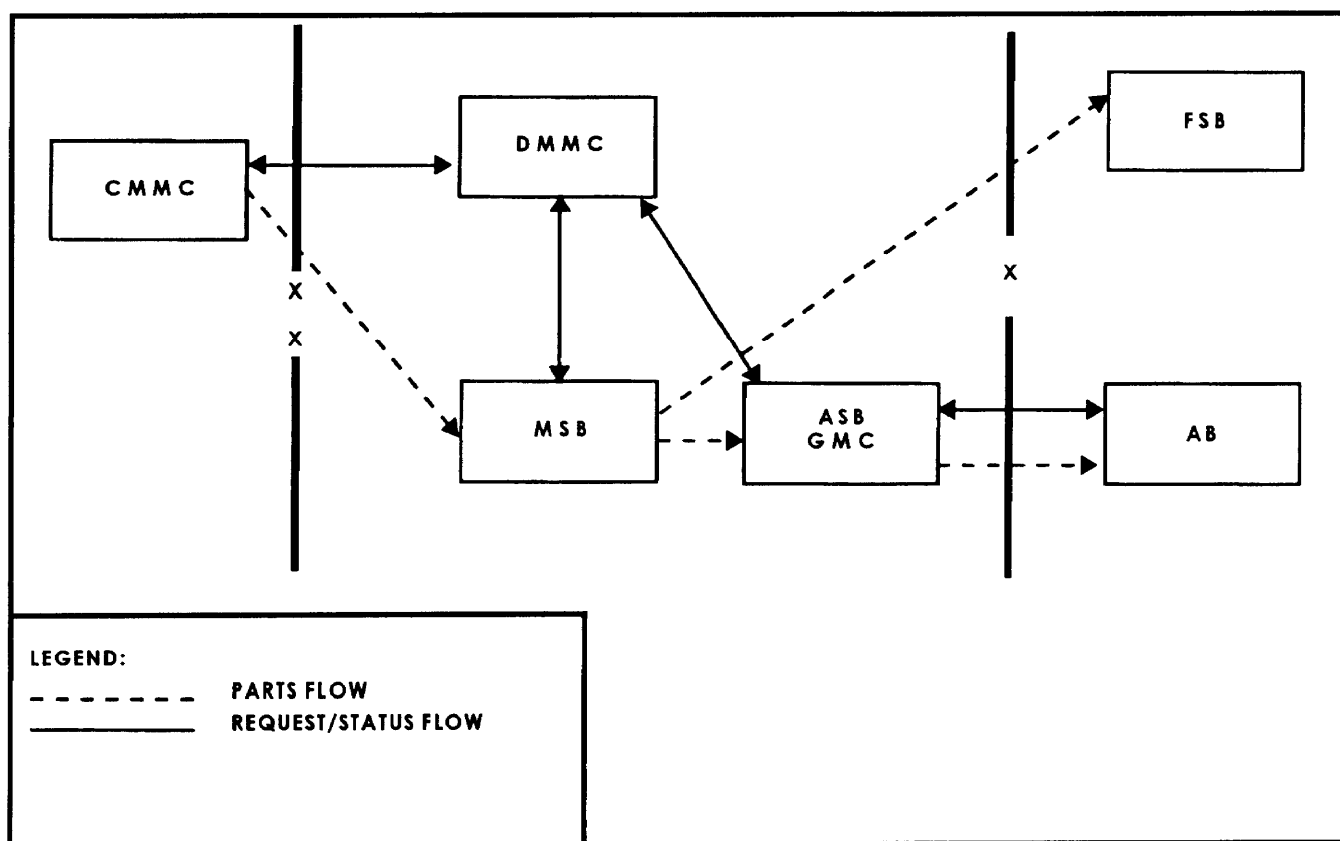


Figure 7-2. Flow of Class IX requests, status, and stock

## CHAPTER 8

**Aviation Maintenance Company**

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**ORGANIZATION AND MISSION**

The aviation maintenance company is a critical element in fixing the force. The AMC serves as a bridge between units owning or operating aircraft and overhaul depots located away from Army operations. The AMC provides aviation intermediate and reinforcing aviation unit maintenance to divisional aircraft at its base location in the aviation BSA. The company also fields forward repair and recovery teams to units in the operating areas. The company organization consists of a company headquarters, production control section, quality control section, and maintenance

test flight section (refer to Figure 8-1, page 8-2). The company has platoons for helicopter systems repair and aircraft maintenance repair. The company performs the following on-aircraft systems maintenance:

- Structural and airframe repairs.
- Component repairs for reinstallation in aircraft or to support its RX program.
- Scheduled AVIM.
- Reparable exchange service and operation of a quick supply store for selected common repair parts.

**PRINCIPLES****FORWARD MAINTENANCE SUPPORT**

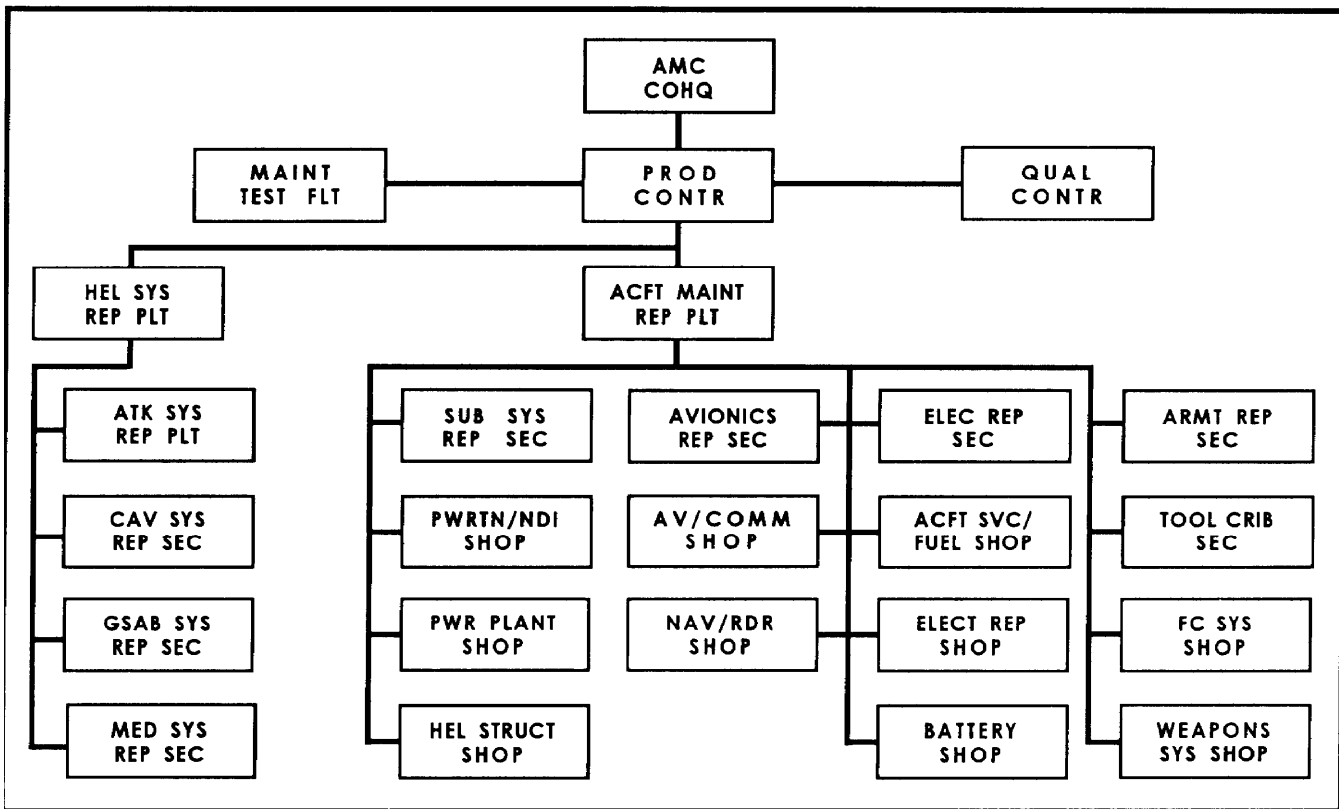
The overriding goal in ASB maintenance operations is to provide forward support to return aviation combat systems to the battle as soon as possible. Repairing aircraft forward makes the maximum amount of equipment available to the aviation brigade commander.

The AMC has the capability to perform forward maintenance using forward repair/recovery teams (FR/RTs). Whenever possible, repairs are made on site. The tactical situation, extent of damage, and availability of resources may dictate recovery or evacuation.

**REPAIR TIME LINES**

Time is a critical maintenance resource. TB 43-0002-3 and unit SOPS establish time guidelines for forward maintenance. Guidelines are normally expressed in numbers of hours allowed to repair certain items. METT-T, shop work backlogs, and resource availability may require leaders to shorten or exceed the stated numbers. The support operations officer and the AB S4 should address specific time lines in the OPLAN/OPORD when they deviate from established norms. All personnel—users, maintainers, maintenance managers, and commanders—must remember that these time lines are flexible and be guided by common sense and situational awareness.





**Figure 8-1. Organization of aviation maintenance company**

## SYSTEMS EXCHANGE

At the AVIM level, two systems permit exchange of damaged or unserviceable parts to speed repair and return aircraft to combat.

### Reparable Exchange

The GMC handles the reparable exchange function in the ASB. (Refer back to Figure 7-1, see page 7-1.) RX is an AVIM-level supply system that exchanges unserviceable items for serviceable ones on a one-for-one basis. The GMC provides all supported units with an RX listing showing the NSN, item description, end-item application, and authorization.

### Controlled Exchange

Controlled exchange permits removal of serviceable parts from unserviceable equipment for

installation in other equipment to make it serviceable. AR 750-1 details the circumstances that permit controlled exchange.

### CENTRALIZED CONTROL

With assistance from the production control officer (and his staff), the AMC commander has centralized control over all aviation maintenance operations. They manage the AVIM work load and all available resources to accomplish their mission. Situational awareness is critical to this management function.

### BATTLE DAMAGE ASSESSMENT AND REPAIR

During combat operations, routine maintenance procedures may not be feasible. The unit

commander may authorize BDAR procedures to expedite return of a damaged aircraft to the current battle. The BDAR concept modifies peacetime aircraft maintenance standards to safely return damaged aircraft to battle. If the return-to-battle repairs are temporary, permanent maintenance actions follow when the tactical situation permits. Although BDAR is an AVUM-level responsibility, the AMC may provide reinforcement. Remember, BDAR can only be used in combat situations. The BDAR team uses special assessment criteria, repair kits, and trained personnel. The team follows its initial inspection with a decision to—

- Clear the aircraft for immediate return to battle, deferring any repairs until later.
- Make permanent repairs to return the aircraft to a fully serviceable condition.
- Make temporary repairs that permit the aircraft to return to the immediate battle. Higher-standard permanent repairs will be made later.
- Repair the aircraft to permit a onetime flight to a more secure maintenance facility.
- Rig the aircraft for aerial recovery (when repair is not feasible at the repair site).

- Cannibalize critical components and abandon or destroy the aircraft (when repair or recovery is not feasible). FM 1-500 provides more detail on BDAR.

## RECOVERY AND EVACUATION

If a unit cannot repair an aircraft on site, it must recover it to an MCP or maintenance location. Aircraft recovery is the responsibility of the operational aviation unit, using its organic AVUM capability. (FM 1-513 contains details on recovery operations for specific aircraft.) Whenever possible, the unit should try to fly the aircraft to the nearest maintenance facility. When this is not possible, it should use air or surface transport. If the recovery is beyond the unit's capability, the AMC provides reinforcing support. If the aircraft cannot be flown out, the recovery team assumes the mission and decides which recovery method to use—surface or air. (FM 1-500 details both methods.) The AMC commander may assume the mission for recovery and evacuation.

## COMPANY FUNCTIONS

### COMPANY HEADQUARTERS

The company headquarters provides command, control, administration, and logistical support required to conduct AVIM operations. The commander has direct control over all the company's administrative functions. He coordinates all training and operational matters. He is also responsible for the care, maintenance, and accountability of all AMC equipment. Chapters 3 and 4 cover C3 considerations for the headquarters.

### Production Control Section

The production control officer is the principal maintenance manager of the AMC. He is the single point of contact between AVIM and supported units on aviation maintenance matters. The section sets up formal procedures (SOPS) to

maximize the efficient use of maintenance resources. It receives and processes work requests, coordinates and schedules jobs into various shops, and maintains the status of aircraft parts and shop reports. It coordinates inspection and test flights as well as the return of repaired aircraft and equipment to supported units.

### Quality Control Section

This section enforces standards in repair, overhaul, modification, safety of flight, and other require maintenance functions. It is also responsible for safety in all maintenance areas. The quality control (QC) section reports directly to the company commander—this avoids conflicts of interest and maintains objectivity.

### **Maintenance Test Flight Section**

The maintenance test flight section performs test flights on aircraft to troubleshoot problems, confirm repairs, and conduct initial break-in of major components.

### **HELICOPTER SYSTEMS REPAIR PLATOON**

This platoon performs intermediate-level aviation maintenance at a semifixed support base. It consists of a headquarters and four repair sections: attack, cavalry, GSAB, and medical. It sends forward repair/recovery teams to the supported units. The teams provide task-organized, mobile, forward maintenance support and on-site technical assistance. Personnel and equipment from this platoon are the nucleus for aircraft recovery and evacuation teams. When needed, the platoon receives assistance from other AMC platoons.

### **AIRCRAFT MAINTENANCE REPAIR PLATOON**

This platoon consists of a headquarters and four repair sections: subsystems, avionics, electrical, and armament. Together, these sections perform the majority of AVIM and repairs to the aircraft assigned to the aviation brigade. Because the aircraft mix of ABs varies, the structure of the AMC also varies.

#### **Subsystem Repair Section**

Within the section are shops for repair of power plants, helicopter structures, and power trains and pneudraulics. This section is responsible for component, airframe, turbine engine, pneudraulic, rotor, and other subsystem repairs. Much of the platoon's work load involves repairing aircraft assemblies supporting the RX program.

### **Avionics Repair Section**

This section is responsible for repair of avionics communication equipment, avionics navigation and flight control items, and radar equipment. The section has two shops: avionics/communication equipment and navigational/radar.

#### **Electrical Repair Section**

This section has two shops: electrical repair and battery. It is responsible for aircraft electrical and battery repair.

#### **Armament Repair Section**

This section has two repair shops: helicopter fire control and helicopter weapons systems. The two shops provide the capability for intermediate maintenance on electrical and electronic components of aircraft weapons fire control systems and on mechanical and hydraulic aircraft weapon systems.

#### **Aircraft Service/Fuel Section**

The aircraft service/fuel section gives the platoon 24-hour capability to fuel or defuel aircraft during maintenance operations. It also services organic helicopters and provides bulk and packaged POL. The section also maintains the AMC spill contingency plan.

#### **Tool Crib Section**

The tool crib obtains, stores, and issues bench stock for the different maintenance shops and sections. It also maintains all special tools, tool sets, special equipment, test sets, and assigned GSE used in aircraft maintenance.

## **OPERATIONS**

### **PLANNING**

Maintenance planning in the AMC predicts resource requirements and develops a proactive response to fulfill them adequately. The goal is to provide the AB commander with the maximum

number of combat-ready aircraft and GSE. Planning considerations include—

- The tactical situation.
- Time and distance factors.

- Reinforcing support responsibilities.
- Command support priorities.
- Critical weapon systems and repair parts.
- Maintenance time lines.
- The work load across the aviation brigade area.
- Environmental damage reduction and control.

The production control officer, the AMC commander, the support operations officer, and the brigade S4 plan aviation maintenance support. Together, they determine which maintenance assets operate at the AMC base shop and which operate at on-site locations. This determination is a continuing process, not a onetime decision. Task organizing of aviation units requires changes in the maintenance configuration.

The formation of forward-repair/recovery teams is a key planning process for the AMC. FR/RTs are task-organized; they provide mobile, weapon-system-oriented, intermediate maintenance in the forward areas. The teams emphasize remove-and-replace maintenance. Team mobility is critical. Teams must be able to diagnose aircraft damage quickly and determine if repairs can be made on site. When time and the situation allow, the team repairs the aircraft. If not, the team prepares the aircraft for recovery to a maintenance site.

The AMC commander intensively manages maintenance assets. When forming FR/RTs, the commander considers—

- The tactical situation.
- The supported unit's AVUM repair capabilities.
- Repair assets available to the AMC.
- The length of LOC.
- Recovery and evacuation capabilities.
- Time constraints.
- Specialized tool and test sets required and available.
- Parts available.
- The risk assessment.
- Mobility requirements.
- Communications.
- Security requirements.

The basic structure of the FR/RTs should remain the same if possible. Moving personnel, especially leaders, from one team to another should be minimized. Each team should regularly support the same base battalion to allow team leaders to develop working relationships with that battalion's maintenance structure.

Combat operations often impair C2. FR/RTs must train to operate independently. They require an adequate communications capability to assist in security, to report the maintenance situation, and to request additional resources from the base shops. If organic radio capability is inadequate, additional support may be available from the supported unit.

The AMC internal SOP should explain FR/RT procedures in detail to save time. The SOP should cover team organization for recurring situations, C2 responsibilities, assignment of work order numbers, hand-receipt and repair parts procedures, and recovery and evacuation guidelines.

## BASE SHOP OPERATIONS

The AMC provides one-stop aircraft intermediate maintenance support from its base location in the vicinity of the aviation brigade headquarters. The shop is responsible for receipt, inspection, control, repair, and coordinating evacuation of equipment received from supported units.

The principles of shop layout are the same for any level of conflict. The selected site should enhance work flow by minimizing movement of repair parts, tools, and equipment. In addition to considering the positioning tenets listed in Chapter 5, the commander should lay out the shop area so that—

- Supply storage areas are accessible to trucks.
- Electronics and instrument repair can be done in a dust-free area.
- Vehicles may disperse near maintenance areas but locate close enough to facilities control and security.
- Control and inspection elements are near the airfield and helipad.

Figure 8-2 shows a sample base shop layout in a field environment. The same principles apply to shops in built-up areas. Control, inspection, and supply activities should be near the entrance to the shop area; elements with related or complementary functions should be near each other. Where buildings are sound and road systems adequate, buildings are preferred. They provide better work areas and concealment.

The maintenance internal SOP outlines standardized shop procedures for the AMC and its sections. It

specifies subunit missions for aircraft maintenance and related supply support. The AMC develops an external SOP for use by supported units.

The management activities vary depending on the system available in the division. TAMMS-A is described in DA Pam 738-751. SAMS-1 automates source data input using TACCS devices. It also provides a daily interface with SARSS-1 and SAMS-2. Details on SAMS-1 procedures are in ADSM 18-L21-AHN-BUR-UM.

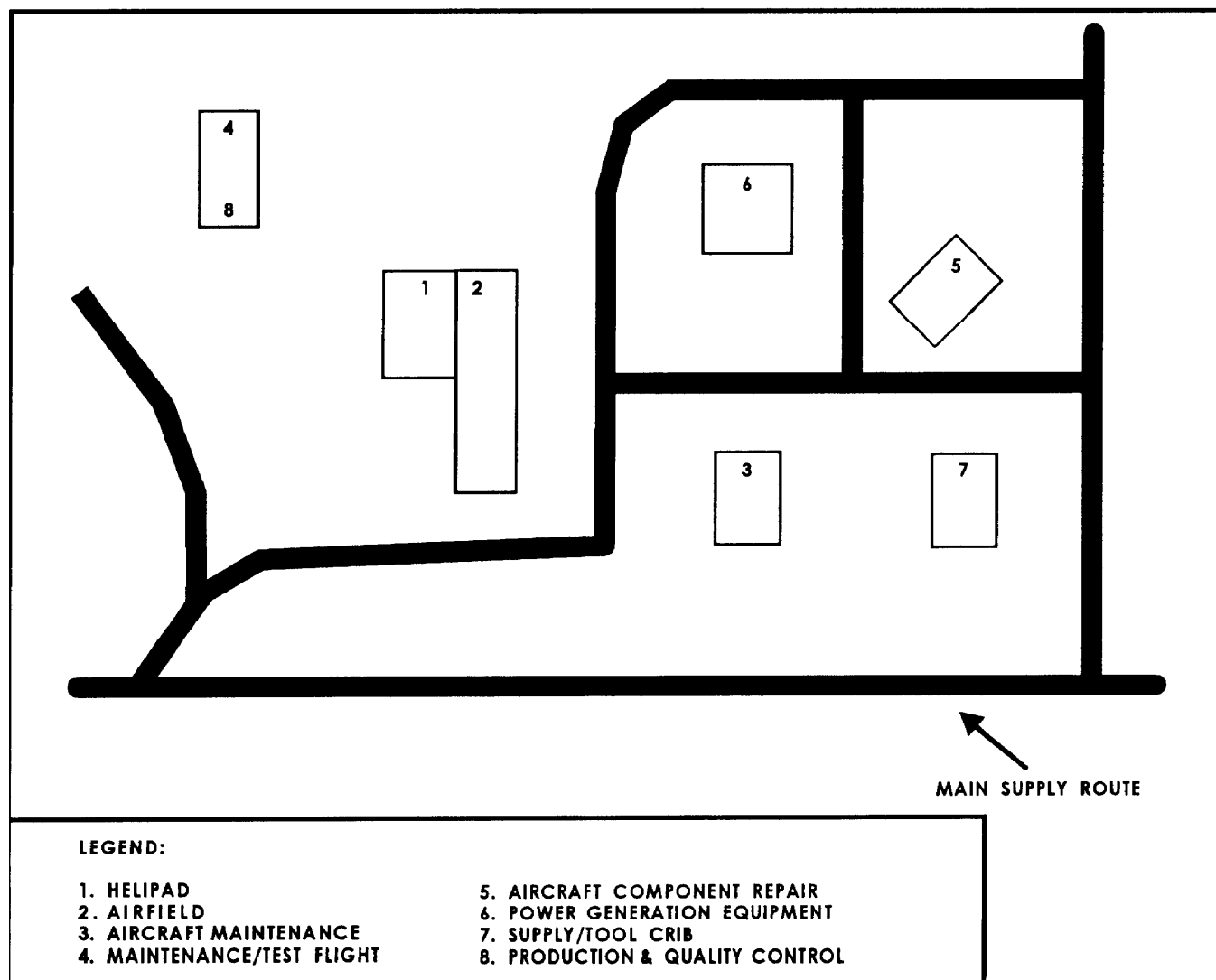


Figure 8-2. Sample layout of aviation maintenance base shop

## REPAIR PARTS SUPPLY

Class IX-A repair parts for aircraft support are maintained by the supply platoon of the GMC along with common repair parts (Class IX) as discussed in Chapter 7. The platoon also maintains a quick supply store for customers to get low-dollar, high-demand, consumable parts (light bulbs, wiper blades, common bolts) without formal requests. RX of selected repairable is handled as a simple exchange of an unserviceable for a serviceable item.

All requests are edited and filled when parts are available. If the part is not available, the GMC passes

the requisition to the DMMC. The DMMC directs the MSB to issue the part or passes the requisition to the COSCOM MMC. The DMMC also specifies the items and quantities of Class IX to be located in the brigade area. These quantities are based on the PLLs of supported units, demand history, and mobility requirements.

Refer back to Figure 7-2, see page 7-9 for an illustration of the flow of Class IX requests and stocks. The aerial resupply discussion in Chapter 6 also applies to Class IX.

## VARYING TACTICAL OPERATIONS

### OFFENSE

The primary purpose of maintenance support of offensive operations is to maintain the momentum of the attack. Maintenance commanders and managers plan and organize based on the tactical operation plan, the nature of the battlefield, and the need for flexibility. Maintenance managers must—

- Position essential maintenance repair parts and supplies forward to reduce time and distance for support.
- Make maximum use of FR/RTs in forward areas.
- Increase use of airlift and airdrop of essential repair parts and supplies.
- Be sure maintenance preparations do not interfere with tactical planning and operation.

As the tempo increases and distances lengthen, maintenance support moves forward. Forward deployment must consider FR/RT vulnerability, possible enemy counterattacks, and maneuver element requirements for space and roads. Maintenance elements may require security assistance if they have to bypass pockets of enemy activity. Continuous movement forward may also require the commander to adjust maintenance time lines. As lines continue to

lengthen, maintenance may require the expedient techniques listed below:

- Allow FR/RTs to draw from ASL or RX stock any items expected to be required in large quantities.
- Increase emphasis on controlled substitution and exchange.
- Increase emphasis on evacuation, with repair in forward areas limited to component replacement, adjustments, and servicing.
- Use air transportation to move FR/RTs and repair parts.

### DEFENSE

Defensive operations aim to create opportunities to return to the offense. Typically, supported units are not as widespread as in offensive operations. Therefore, the AMC can centralize its maintenance assets.

In a static defense, movement is less frequent. More time is available for maintenance operations. Time lines of forward repair may increase and permit buildup of critical item reserves. Inspections and technical assistance are emphasized. A dynamic defense has many of the same maintenance

implications as an offensive operation. For instance, maintenance sites must move frequently and vehicle maintenance requirements rise.

### **RETROGRADE**

Retrograde operations must be well-organized and executed. AMC assets begin to move to the rear before combat elements. Movement is done by echelon with maintenance elements leapfrogging each other. This permits them to maintain continuous support for units involved in defending, delaying,

attacking, or withdrawing. Maintenance operations concentrate on weapon systems and other items critical to the retrograde. The company should limit flow of maintenance repair parts and supplies to the most combat-essential items. It is important to evacuate other equipment to planned support areas to prevent enemy capture. Equipment and supplies that cannot be moved or evacuated must be destroyed in place. The tactical commander usually has the authority to order the destruction of nonrecoverable aircraft.

APPENDIX A

**NBC Operations**

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**NBC THREAT**

Threat forces have engaged in sustained efforts to build up their combat capability to employ NBC weapons and to survive and fight in an NBC environment. Their doctrine clearly envisions use of chemical weapons along with either nuclear or conventional weapons. Their forces are large, well equipped, and well trained in NBC operations and defense. In addition to specialized NBC troops, all other threat combat and combat support forces receive extensive NBC training. Therefore, US forces must plan to fight in an NBC environment.

Nuclear weapons have a greater blast effect than conventional weapons. The thermal (heat) and nuclear radiation that they generate pose significant hazards. The blast effect can crush, drag, or tumble CSS supplies and equipment. Personnel can receive internal and external injuries from the blast, the nuclear

radiation, and the thermal radiation. Thermal radiation can cause fires in supply points. Blown-down trees may hamper unit supply distribution. In addition, dirt and dust raised by the blast can obscure both vision and sighting devices. The electromagnetic pulse (EMP) from a nuclear detonation can damage automatic data processing (ADP) and communications equipment, making it inoperative. Nighttime nuclear attacks can create a serious dazzle for personnel in the vicinity of the detonation.

Biological and chemical weapons delay, degrade, incapacitate, or kill personnel. In a chemical environment, personnel must wear protective clothing, gloves, masks with hoods, and overboots to protect themselves from contamination. Considering the immediate threat, ASB commanders must know what MOPP level to take.

**NBC EFFECT ON OPERATIONS**

The NBC environment poses a challenge to ASB systems. In an NBC environment, personnel casualties increase, compounding the graves registration and health services support work load. Equipment and supply distribution points sustain damage from nuclear blast effects and from fires caused by thermal radiation. Maintenance needs increase sharply, quickly depleting levels of supplies and equipment. Demands for repair parts increase, while fewer people are available to continue the support mission.

In a chemical environment CSS personnel may have to work in full protective equipment for extended periods, resulting in lower productivity. ASB units take longer to do their jobs. Contamination of damaged equipment hampers salvage, recovery, reclassification, and maintenance operations. Time-consuming decontamination operations must begin, or commanders must increase personnel risk to accomplish the mission. Equipment may have to be repaired while contaminated. All medical patients must be decontaminated before entering medical treatment facilities.



## NBC DEFENSE

As the NBC threat increases, the ASB commander should consider greater dispersion of units. Even though companies are more spread out, they must prepare for the conventional threat. When ASB elements disperse, they must make sure that their support of AB units continues. In addition ASB units must reduce their vulnerability to enemy attack.

Contamination avoidance, protection (individual and collective), and decontamination are the basic defense measures against NBC hazards. Units must train in these defensive measures to reduce the effects of NBC attacks.

The basic individual protection against a biological agent attack is the protective mask with hood attached. The duty uniform and gloves provide additional protection against bites from vectors like mosquitoes and ticks that carry disease microorganisms. Adequate protection against biological toxins like “yellow rain” require the appropriate MOPP level of protection.

Critical equipment and supplies should be covered to protect them from chemical biological contamination or fallout, and personnel should avoid chemical biological contamination or radiation whenever possible. These procedures keep the requirement for decontamination to a minimum.

Equipment decontamination and smoke support are available from the division chemical company. Supporting teams available from the division chemical company may be attached to an ASB, depending on the existing situation and threat.

ASB plans for NBC operations must be flexible; as basic information of interest to tactical commanders, it must receive wide dissemination. NBC operations require increased emphasis on —

- Vulnerability analysis.
- Contamination avoidance.
- Plans for alternative methods of supply, services, and health services support. Units must anticipate interruptions in the lines of communications.
- Balancing the need for increased movement against the capability to perform the mission.
- Continuing support with reduced resources.
- Possible changes in basic loads.
- Plans to augment the ASB capability with the addition of NBC decontamination teams as required.
- Traffic control to prevent development of potential targets resulting from traffic congestion.
- Plans to rehabilitate critical routes as soon as possible after damage.
- Plans to procure civilian resources (manpower and materiel) promptly to supplement division capabilities in rear operations and for certain other logistics functions.
- Plans reflecting that the tempo of all operations slows (some activities may actually come to a halt) in an NBC environment. This occurs because of individuals or units operating in chemical/biological protective clothing, equipment, or facilities. In addition, they use modified operational procedures to control and minimize contamination.
- Significant increases in demand and consumption rates for individual and unit NBC defensive clothing, equipment, and supplies.

## COUNTERING NUCLEAR WEAPONS OR CHEMICAL/BIOLOGICAL AGENTS

The use of nuclear weapons or chemical/biological agents places unusual demands on all ASB activities.

### SUPPLY

A marked increase in contaminated supplies may occur. Units must check (monitor) supplies exposed

to contamination before use or issue. Class I supplies and water sources suspected of NBC contamination require special attention. Contamination avoidance for supplies (and other ASB elements) includes taking passive measures and limiting the spread of contamination—detecting, identifying, and marking

contaminated supplies. It also includes issuing contamination warnings and relocating to an uncontaminated area.

### **MAINTENANCE**

A marked increase in contaminated equipment may occur in an NBC environment. Maintenance units must decontaminate their own equipment as much as possible before using it. Aircraft decontamination requires special procedures, which ASB personnel who are repairing aircraft must be aware of. Refer to FM 1-111 for details on specific requirements for aircraft decontamination. The intensity and fluidity of combat establishes the partial decontamination of materiel as an expected mode of operation. Decontamination resources from the chemical company may not be available to provide assistance due to other priority division missions. Therefore, maintenance personnel must be trained and prepared to decontaminate equipment or to repair it "as is." Contamination avoidance for maintenance is the same as it is for supply.

### **HEALTH SERVICE SUPPORT**

There may be a marked increase in the number of persons needing HSS. The ASB must rely on the MSB and FSBs for health service support. In such circumstances, these HSS personnel require assistance in decontaminating patients and providing treatment. The mass casualty potential of NBC warfare establishes the need for backup support for evacuation assets. Nonmedical units use organic vehicles to transport casualties to HSS treatment facilities when MSB/FSB evacuation assets cannot.

Sick and wounded personnel must be decontaminated before they can enter a treatment facility. Decontamination of sick or wounded individuals unable to perform self-decontamination is the unit's responsibility. HSS personnel may supervise decontamination procedures. Under HSS staff supervision, patient decontamination teams from supported units

decontaminate patients in medical treatment facilities. Staff within HSS treatment facilities decontaminate themselves if they are able. Contamination avoidance for health services support is the same as it is for supply.

### **TRANSPORTATION**

Supply routes may become contaminated. Contaminated supply routes may be used, but personnel need to employ protective equipment. Vehicles used on these routes require decontamination. This is very time-consuming and causes delays in cargo delivery. Therefore, units must take special precautions to avoid contaminated supply routes.

NBC reconnaissance and strict traffic control measures aid in contamination avoidance. They limit the spread of contamination and the exposure of other individuals, equipment, and areas. However, detours and rerouting increase turnaround time and require more cargo vehicles.

Use of Army aviation assets for resupply of forward areas increases on a contaminated battlefield because of the heightened need for dispersion. Resupply by air is often more effective than ground means because aircraft can fly over obstacles and contaminated areas. All aircraft have the additional mission of medical evacuation. They must prepare to perform that mission when medical evacuation assets are overloaded during mass casualty situations. Contamination avoidance for transportation is the same as it is for supply.

### **CONTROL**

Enemy employment of nuclear weapons or chemical/biological agents increases problems of traffic control, evacuation of EPWs, and the security of critical activities and materiel under conventional operations. Contamination of areas, facilities, and surface routes causes confusion and increases demands on security and control personnel.

## APPENDIX B

**Reconstitution**

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**OVERVIEW**

Reconstitution includes those actions taken to return a unit to an acceptable level of combat power. Going beyond normal day-to-day sustainment activities, reconstitution divides into two categories: reorganization and regeneration. Reorganization shifts combat power potential between units according to

the commander's plan of action. Regeneration infuses a unit with increased resources to rebuild combat power potential. The commander can execute them separately, but most often he will effect them in combination, depending on the current and anticipated situation, command priorities, resources, and time.

**REORGANIZATION**

Reorganization is the shifting of resources within a degraded unit to increase its overall combat effectiveness until more extensive efforts can take place. It is the easiest means of maintaining combat power in the early stages of a conflict and in forward units throughout the duration of the conflict. It also forms a basis for designing regeneration efforts. Reorganization is the method used most by commanders.

Since assets for reorganization are internal to the reorganizing unit, commanders and staff can predict reorganization activities and make them a matter of SOP. Immediate battlefield reorganization is the quick, temporary restoration of degraded units to minimum levels of combat capability. This type of reorganization meets near term requirements and takes place either in or near the unit's battle position.

It is normally implemented by the reorganizing unit's commander. The essence of immediate battlefield reorganization is to shift readily available assets within the unit to increase combat power.

When time and resources permit, units conduct deliberate reorganization. This normally occurs farther to the rear than immediate battlefield reorganization. Procedures are similar to those of immediate battlefield reorganization with these exceptions:

- Limited replacement resources may be available.
- More equipment repair is possible.
- Weapon system replacement operations (WSRO) can be implemented.
- More extensive cross leveling is possible.

**REGENERATION**

Regeneration involves the rebuilding of a unit through large-scale replacement of personnel, equipment, and supplies, the re-establishment of essential command and control, and mission-essential training.

The intensive nature of regeneration may require the unit to move to an area protected from enemy interdiction and harassment. Regeneration is the most difficult reconstitution option to use; it requires the

most effort, coordination, training, personnel, and materiel.

Regeneration requires external assistance from an echelon of command (normally two levels higher than the regenerating unit) which owns the support assets required for the operation. There are two methods of regeneration: incremental regeneration and whole-unit regeneration.

### INCREMENTAL REGENERATION

Incremental regeneration is the massive infusion of individual personnel replacements and single items of equipment into a unit. This method uses the existing personnel and supply system to provide replacement personnel and equipment.

### WHOLE-UNIT REGENERATION

Whole-unit regeneration is the replacement of whole units or definable unit subelements, including squads, teams, or crews. A degraded unit or subelement may be replaced entirely when it has suffered heavy losses, is no longer combat-effective, or incremental replacement is not possible.

A selected reconstitution site must be located to be reasonably safe from enemy activity, beyond the range of enemy artillery. The site must be large enough to accommodate the unit as well as corps or division assets involved in the reconstitution operation. CSS reconstitution planning should include—

- Locations for reconstitution.
- Equipment requirements. What are the most likely candidate items of replacement equipment? Will they be available?
- Supply replenishment. What supplies will the unit need? Will they be available?
- Personnel replacements. What individual (by MOS) and small unit (team, crew, squad, section) replacements will most likely be required?
- Transportation. What are the transportation requirements for moving the unit and its equipment to the reconstitution site? How will the replacement equipment, personnel, and replenishment supplies move to the site?

- Decontamination. If decontamination is necessary, who will do it? Where?
- Medical requirements. Will medical treatment be available at the site, or will treatment require further evacuation? Are there sufficient resources to treat the unit's likely battle fatigue casualties?
- Maintenance. What type of maintenance support is likely to be required? What about repair parts and equipment?
- Morale, welfare, and recreation. What MWR resources can allow soldiers even a short respite? MWR is especially important when a unit has taken major losses and is awaiting reconstitution.

The above considerations are not inclusive; they are all situational-dependent. What is important is that they should be part of a reconstitution plan that is adaptable to changing situations.

Restorative efforts begin within an attrited unit and from external resources even before the unit arrives at the reconstitution site. If possible, basic loads are replenished at the battle location. Resupply may be critical to moving the unit to the reconstitution site. The unit should upload Class V supplies to give itself a self-defense capability. It may also need water, rations, and critical repair parts. Recovery and evacuation begin immediately. Emergency medical treatment begins at once and continues into the reconstitution site. These efforts require close coordination and quick reaction among assisting elements.

Once the unit reaches the reconstitution site, it replenishes all classes of supply. Among the more critical will be Class VII, particular weapon systems. Class VII will come from several sources: prepositioned war reserve materiel stocks (PWRMS), if still available; evacuated and repaired equipment; distributed assets; and equipment received through the normal replacement supply system. All assets should be ready to issue and ready to fight if possible.

Regeneration requires external as well as internal transportation assets during all stages. Medical evacuation must meet requirements beyond the medical system's capability. Transportation resources will

evacuate disabled and damaged equipment and personnel to the reconstitution site.

Unit and direct support maintenance personnel will get the maximum amount of equipment to en route maintenance sites and to the reconstitution site. They will concentrate on restoring equipment to at least minimal operational capability for return to the unit. Emphasis is on repair of end items critical to unit effectiveness, according to the commander's priorities.

Emergency medical treatment begins as soon and as far forward as possible and continues rearward. Triage procedures provide the greatest benefit to the force. Soldiers with minimal injuries and wounds return to duty as soon as possible.

Mortuary Affairs assets will be in demand en route and at the reconstitution site. Clothing exchange and bath services should be available. Decontamination units may be needed; however, decontamination should be performed en route in selected decontamination sites, if possible. Pastoral care and religious services should be available.

Individual replacements will come from the replacement system, medical returns, and redistributed assets. Individual replacements take time to integrate into units and to train. Replacement personnel orient to the unit and receive initial training in the positions they will fill.

## APPENDIX C

**Sample Standing Operating Procedures**

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MAINTENANCE ANNEX TO ASB SOP (WARTIME) .....	C-1
SUPPLY AND SERVICES ANNEX TO ASB SOP (WARTIME) .....	C-3
HEALTH SERVICE SUPPORT ANNEX TO ASB SOP (WARTIME) .....	C-4

**The following three sample annexes to an ASB SOP provide guides for format and level of detail; they are not intended to be prescriptive.**

Annex \_\_\_\_\_ (Maintenance) to \_\_\_\_\_ ASB SOP (Wartime)

1. Purpose. To prescribe policies and procedures for maintenance operations during wartime. Procedures for a particular OPLAN will be published in the service support annex/paragraph of that plan.
2. Scope. Applicable to all customers and elements of \_\_\_\_\_ ASB.
3. General
  - a. Maintenance operations in the field follow standard maintenance procedures as fully as the tactical situation permits.
  - b. All maintenance is performed at the lowest level consistent with maintenance allocation charts in applicable TMs.
  - c. Maintenance teams and MSTs perform on-site repair as much as possible.
  - d. Urgent maintenance work orders are begun as soon as possible. Lower-priority MWOs are addressed as the tactical situation permits.
  - e. The aviation brigade commander determines the priority of a particular task force.
  - f. The aviation brigade S4 is the POC for all interservice and HNS maintenance operations.

4. Responsibilities

a. \_\_\_\_\_ ASB provides DS maintenance for all organic and aviation brigade units and any other designated supported units except as noted below.

b. \_\_\_\_\_ MSB provides reinforcing DS maintenance.

c. \_\_\_\_\_ Signal Battalion provides DS maintenance for classified items.

5. Battle Damage Assessment and Repair

a. All maintenance personnel and customers down to vehicle commanders will be familiar with the policies and procedures in TM 9-2350-276-BD.

b. All nonstandard repairs are noted on DD Form 1577. This tag is tied to the vehicle commander station. It stays there until standard repairs are made. If cannibalization is performed, a tag is attached to the cannibalized vehicle where the part was removed. The tag includes the nomenclature and NSN of the missing part.

c. Battalion commanders can authorize controlled substitution.

6. Recovery and Evacuation

a. Battlefield recovery is a unit responsibility. Companies recover disabled vehicles to the first rearward terrain feature as soon as possible.

b. Vehicles that cannot be repaired by the crew or unit maintenance team within \_\_\_\_\_ hours are recovered to a unit maintenance collection point (UMCP).

c. Like-vehicle recovery is used whenever possible. Units should have one tow bar for every two vehicles.

Annex \_\_\_\_ (Supply and Services) to \_\_\_\_ ASB SOP (Wartime)

1. Purpose. To prescribe policies and procedures for supply and service operations during wartime. Procedures for a particular OPLAN will be published in the service support annex/paragraph of that plan.

2. Scope. Applicable to all customers and elements of \_\_\_\_ ASB.

3. General

a. Priority of issue is to units in contact, then to units farthest from the supply point.

b. Supply procedures in DA Pamphlet 710-2-1 are followed as fully as the tactical situation permits.

c. Only the aviation brigade commander has authority to suspend AR 710-2 accountability procedures.

d. Cross leveling of supplies is conducted at the lowest level possible.

4. Class I

a. Units maintain \_\_\_\_ days of MRE supplies on hand.

b. When the tactical situation permits, the ration cycle becomes T-MRE-T. Fresh fruit supplements are provided whenever available.

c. H&S CO, \_\_\_\_ ASB, operates the Class I point in the ASB area.

d. Ration quantities are based on personnel status reports.

e. Class I status report is submitted in accordance with format and procedures in Annex \_\_\_\_ (Reports).

5. Classes II and IV

a. Units maintain 10 days of supply.

b. H&S CO, \_\_\_\_ ASB, operates the Class II, III (packaged), IV, and VII point in the ASB area.

c. The supply point has very limited stockage of Classes II and IV on hand. Requests are normally passed to \_\_\_\_ DISCOM. Fill time is normally 24 hours or more.



Annex \_\_\_\_ (Health Service Support) to \_\_\_\_ ASB SOP (Wartime)

1. Purpose. To prescribe policies and procedures for HSS operations during wartime. Procedures for a particular OPLAN are published in the service support annex/paragraph of that plan.

2. Scope. Applicable to all supported elements.

3. General

a. C Co, \_\_\_\_ MSB, and C Co, \_\_\_\_ FSBs, are responsible for health service support on an area basis.

b. C Companies establish clearing stations in the DSA and BSA respectively.

## Glossary

<b>A</b> air	<b>avn</b> aviation
<b>A2C2</b> Army airspace command and control	<b>AVUM</b> aviation unit maintenance
<b>AAFES</b> Army and Air Force Exchange Service	<b>AXP</b> ambulance exchange point
<b>AB</b> aviation brigade	<b>BAS</b> battalion aid station
<b>acft</b> aircraft	<b>BCOC</b> base cluster operations center
<b>ADA</b> air defense artillery	<b>BDA</b> battlefield damage assessment
<b>ADC</b> area damage control	<b>BDAR</b> battlefield damage assessment and repair
<b>ADC-S</b> assistant division commander - support	<b>bde</b> brigade
<b>ADP</b> automatic data processing	<b>BDOC</b> base defense operations center
<b>AF</b> US Air Force	<b>BDR</b> battle damage repair
<b>AFMIS</b> Army Food Management Information System	<b>bn</b> battalion
<b>AH</b> attack helicopter	<b>BSA</b> brigade support area
<b>AHB</b> assault helicopter battalion	<b>C-E</b> communications-electronics
<b>AHC</b> assault helicopter company	<b>C2</b> command and control
<b>ALOC</b> air lines of communication	<b>C3</b> command, control, and communications
<b>ALOG</b> aviation logistics	<b>cav</b> cavalry
<b>AMC</b> aviation maintenance company	<b>cav sys rep sec</b> cavalry system repair section
<b>AO</b> area of operations	<b>CBSX</b> Continued Balance System—Expanded
<b>AR</b> Army regulation	<b>cbt</b> combat
<b>ARI</b> Aviation Restructuring Initiative	<b>CCI</b> controlled cryptographic items
<b>arrnt</b> armament	<b>CCL</b> combat-configured load
<b>ASB</b> aviation support battalion	<b>CCS2</b> command, control, and subordinate system structure
<b>ASL</b> authorized stockage list	<b>cdr</b> commander
<b>ASP</b> ammunition supply point	<b>CEB</b> clothing exchange and bath
<b>ATCCS</b> Army Tactical Command and Control System	<b>cl</b> class
<b>atk</b> attack	<b>cmd</b> command
<b>atk hel rep sec</b> attack helicopter repair section	<b>CMMC</b> corps materiel management center
<b>ATP</b> ammunition transfer point	<b>CNR</b> combat net radio
<b>AV</b> avionics	<b>co</b> company
<b>AVIM</b> aviation intermediate maintenance	<b>comm</b> communications
	<b>COMSEC</b> communications security

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<b>con</b> control	<b>flt</b> flight
<b>COSCOM</b> corps support command	<b>FR/RT</b> forward repair/ recovery team
<b>CP</b> command post	<b>FRAGO</b> fragmentary order
<b>CS</b> combat support	<b>FSB</b> forward support battalion
<b>CSA</b> corps storage area	<b>FSO</b> fire support officer
<b>CSM</b> command sergeant major	<b>FSSP</b> fuel system supply point
<b>CSR</b> controlled supply rate	<b>gen</b> generator
<b>CSS</b> combat service support	<b>gen sup sec</b> general support section
<b>CSSCS</b> Combat Service Support Control System	<b>GMC</b> ground maintenance company
<b>CSST</b> cavalry system support team	<b>GS</b> general support
<b>CTA</b> common table of allowances	<b>GSAB/GSAC</b> general support aviation battalion/ company
<b>DAO</b> division air officer	<b>GSE</b> ground support equipment
<b>DISCOM</b> division support command	<b>H&amp;S</b> headquarters and supply
<b>DMMC</b> division materiel management center	<b>hel</b> helicopter
<b>DMOC</b> division medical operations center	<b>HEMTT</b> heavy expanded mobility tactical truck
<b>DNVT</b> digital, nonsecure voice telephone	<b>HET</b> heavy-equipment transporter
<b>DOD</b> Department of Defense	<b>HHC</b> headquarters and headquarters company
<b>DODAC</b> department of defense ammunition code	<b>HMMWV</b> highly mobile multipurpose wheeled vehicle
<b>DS</b> direct support	<b>HNS</b> host nation support
<b>DSA</b> division support area	<b>HQ</b> headquarters
<b>DTO</b> division transportation officer	<b>HS</b> health services
<b>DZ</b> drop zone	<b>HSC</b> headquarters and supply company
<b>EAC</b> echelons above corps	<b>HSS</b> health services support
<b>EAD</b> echelons above division	<b>HTARS</b> Hot Tactical Aircraft Refueling System
<b>elec</b> electrical	<b>IAW</b> in accordance with
<b>elect</b> electronics	<b>IEW</b> intelligence and electronic warfare
<b>EMP</b> electromagnetic pulse	<b>IHFR</b> improved high-frequency radio
<b>EOD</b> explosive ordnance disposal	<b>intel</b> intelligence
<b>EODCT</b> explosive ordnance disposal control team	<b>IPB</b> intelligence preparation of the battlefield
<b>EPW</b> enemy prisoner of war	<b>kw</b> kilowatt
<b>equip</b> equipment	<b>LEN</b> large extension node
<b>FARP</b> forward area rearm/refuel point	<b>LID</b> light infantry division
<b>FC</b> flight control	<b>LIN</b> line item number
<b>fld</b> field	<b>LOC</b> line of communication
<b>FLOT</b> forward line of troops	

<b>log</b> logistics	<b>NAI</b> NATO analog interface
<b>LRP</b> logistics release point	<b>nav</b> navigation
<b>LSA</b> logistics support area	<b>NBC</b> nuclear, biological, chemical
<b>LZ</b> landing zone	<b>NC</b> node center
<b>MA</b> mortuary affairs	<b>NCO</b> noncommissioned officer
<b>maint</b> maintenance	<b>NCOIC</b> noncommissioned officer in charge
<b>mat</b> sec materiel section	<b>NCS</b> net control station
<b>MCC</b> movement control center	<b>NSN</b> national stock number
<b>MCO</b> movement control officer	<b>OCOKA</b> observation and fields of fire, concealment and cover, obstacles, key terrain, and avenues of approach
<b>MCP</b> maintenance collection point	<b>OIC</b> officer in charge
<b>MCS</b> maintenance control station	<b>OOTW</b> operations other than war
<b>med sys rep sec</b> medical system repair section	<b>OP</b> observation post
<b>MEDLOG-D</b> Medical Logistics—Division	<b>op</b> operation
<b>MEDPAR-D</b> Medical Patient Accounting and Reporting-Division	<b>OPLAN</b> operation plan
<b>METT-T</b> mission, enemy, terrain, troops and time available	<b>OPORD</b> operation order
<b>MHE</b> materials-handling equipment	<b>OPSEC</b> operations security
<b>MI</b> military intelligence	<b>PAC</b> personnel and administration center
<b>MMC</b> materiel management center	<b>PLL</b> prescribed load list
<b>MOGAS</b> motor gasoline	<b>plt</b> platoon
<b>MOPP</b> mission-oriented protective posture	<b>POC</b> point of contact
<b>MOUT</b> military operation on urbanized terrain	<b>POL</b> petroleum, oil, and lubricants
<b>MP</b> military police	<b>POM</b> preparation for overseas movement
<b>MRE</b> meal ready-to-eat	<b>prod</b> ctr production control
<b>MRO</b> material release order	<b>PWRMS</b> pre-positioned war reserve materiel stocks
<b>MSB</b> main support battalion	<b>pwrtn</b> power train
<b>MSE</b> mobile subscriber equipment	<b>QC</b> quality control
<b>MSR</b> main supply route	<b>QSS</b> quick supply store
<b>MSRT</b> mobile subscriber radiotelephone terminal	<b>qual con sec</b> quality control section
<b>MST</b> maintenance support team	<b>RAU</b> radio access unit
<b>MTF</b> medical treatment facility	<b>rdr</b> radar
<b>MTOE</b> modification table(s) of organization and equipment	<b>rep</b> repair
<b>MWO</b> modification work order	<b>RMC</b> remote multiplexer combiner
<b>MWR</b> morale, welfare, and recreation	<b>ROC</b> rear operations commander
	<b>RSSP</b> ration supplement—sundries pack

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<b>RX</b> reparable exchange	<b>sys</b> system
<b>S&amp;S</b> supply and service	<b>tac</b> tactical
<b>S1</b> Adjutant (US Army)	<b>TACCS</b> Tactical Army Combat Service Support Computer System
<b>S2</b> Intelligence Officer (US Army)	<b>TAMMIS-D</b> Tactical Army Medical Management Information System—Division
<b>S3</b> Operations and Training Officer (US Army)	<b>TAMMS</b> The Army Maintenance Management System
<b>S4</b> Supply Officer (US Army)	<b>TAMMS-A</b> The Army Maintenance Management System—Aviation
<b>SAAS</b> Standard Army Ammunition System	<b>tech</b> technical
<b>SALUTE</b> size, activity, location, unit, time, equipment	<b>TMDE</b> test, measurement, and diagnostic equipment
<b>SAMS</b> Standard Army Maintenance System	<b>TMT</b> transportation motor transport
<b>SARSS</b> Standard Army Retail Supply System	<b>TOC</b> tactical operations center
<b>SCC</b> system control center	<b>TOE</b> table of organization and equipment
<b>sec</b> section	<b>tp</b> telephone
<b>SEN</b> small extension node	<b>trans</b> transportation
<b>SIDPERS</b> Standard Installation/Division Personnel System	<b>trk</b> truck
<b>SINGARS</b> single-channel ground and airborne radio system	<b>ULC</b> unit-level computer
<b>SLCR</b> shower, laundry, and clothing repair	<b>ULLS</b> unit-level logistics system
<b>SOP</b> standing operating procedure	<b>ULLS-A</b> unit-level logistics system—aviation
<b>SPBS-R</b> Standard Property Book System—Revised	<b>ULLS-G</b> unit-level logistics system—ground
<b>spt</b> support	<b>UMCP</b> unit maintenance collection point
<b>SSA</b> supply support activity	<b>UMT</b> unit ministry team
<b>STAMIS</b> Standard Army Management Information System	<b>WIA</b> wounded in action
<b>stor</b> storage	<b>WSR</b> weapon system replacement
<b>struct</b> structural	<b>WSRO</b> weapon system replacement operations
<b>sup</b> supply	<b>XO</b> executive officer
<b>svc</b> service	

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