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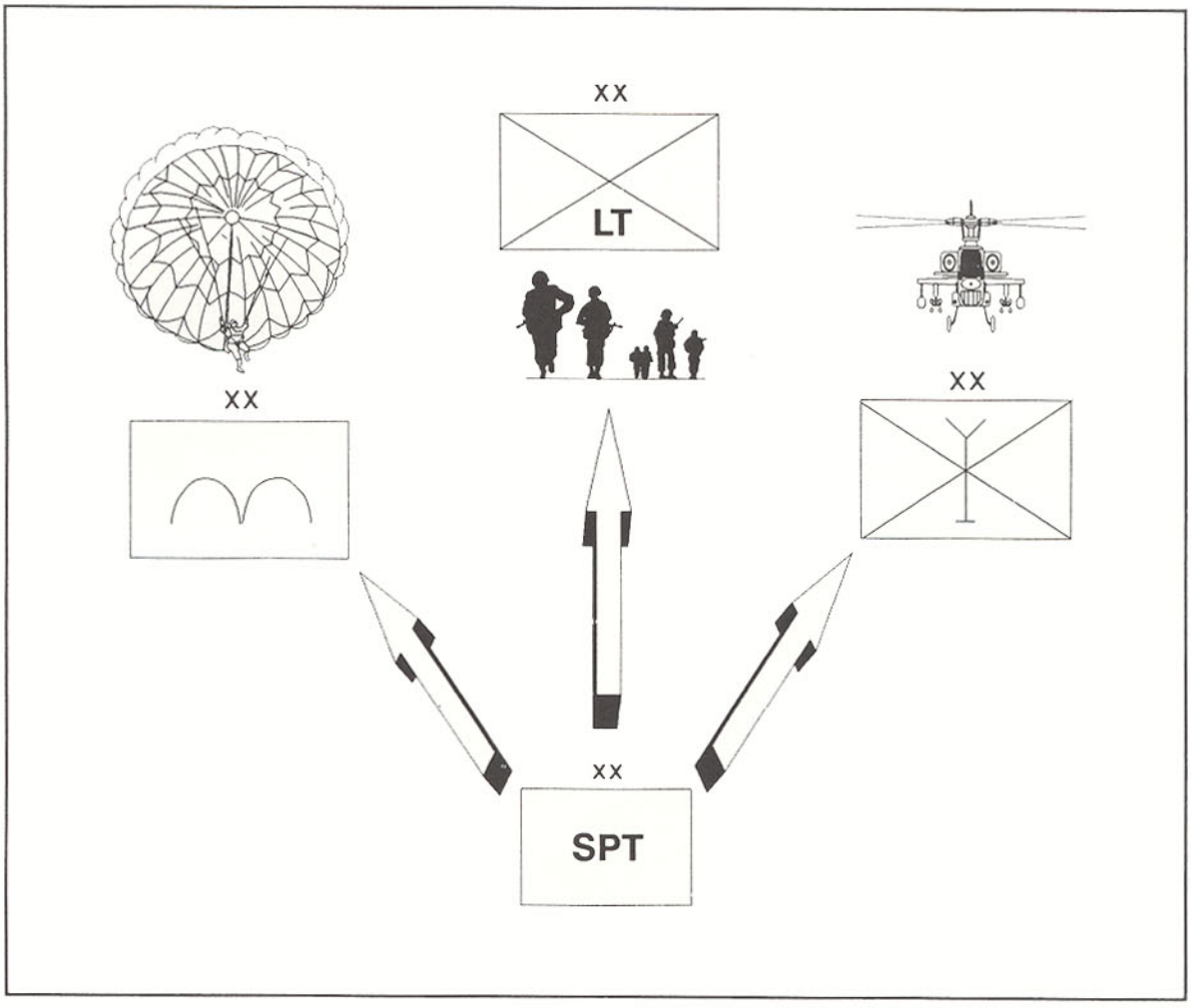
FM 63-2-1

DIVISION SUPPORT COMMAND

LIGHT INFANTRY, AIRBORNE, AND AIR ASSAULT DIVISIONS



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Change 1

Headquarters
Department of the Army
Washington, DC, 20 September 1994

DIVISION SUPPORT COMMAND
LIGHT INFANTRY, AIRBORNE, AND AIR ASSAULT DIVISIONS

1. Change FM 63-2-1, 16 November 1992, as follows:

Remove old pages	Insert new pages
i and ii	i and ii
2-7 and 2-8	2-7, 2-8 and 2-8a
.....	Appendix G
.....	Appendix H
References-1 through References-3	References-1 through References-4

2. A star (*) marks new or changed material.
3. File this transmittal sheet in front of the publication.

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Field Manual
No. 63-2-1

Headquarters
Department of the Army
Washington, DC, 16 November 1992

DIVISION SUPPORT COMMAND
LIGHT INFANTRY, AIRBORNE, AND AIR ASSAULT DIVISIONS

Table of Contents

*Preface

This manual provides information on the structure and operations of the DISCOM in the light infantry, airborne, and air assault divisions. Information specific to the DISCOMs in the airborne and air assault divisions are provided in Appendixes G and H. The division staff, the commander and staff of the DISCOM, and the commanders of the DISCOM's subordinate units are the intended audience.

Logistics and health service support depend on the structure of the divisions, how commanders employ it, how it deploys, and what mission it performs. In its original concept of employment, the divisions deployed as an entity. Accordingly, the divisions logistics and HSS structure consisted of functional battalions, FASCOs, and decentralized materiel management elements. Since then, the divisions employment doctrine has evolved to include split division operations and cross attachments with other forces. To enhance command and control, especially when a brigade-size task force operates apart from its parent division or when operations continue for prolonged periods, the field commanders sought a transition to a design with multifunctional support battalions and centralized materiel management.

FM 63-2-1 (with change 1) outlines the functions and operations of the redesigned DISCOM with a main support battalion, three forward support battalions, an aviation maintenance unit, a materiel management center, and a division medical operations center. It describes how DISCOM personnel integrate their activities to accomplish their logistics and health service mission. Doctrine in FMs 100-5, 100-10, and 71-100 forms the basis of this manual. FM 100-5 outlines how the Army fights. FM 100-10 provides an overview of the CSS system for supporting the Army in the field. FM 71-100 provides doctrine for division operations. It provides information vital to the DISCOM commander's understanding of the organization he supports.

This manual discusses recently approved doctrine and new equipment as they apply to light infantry, airborne, and air assault divisions. These include mobile subscriber equipment, the maneuver-oriented ammunition distribution system, preconfigured unit loads, and the Army field feeding system. The manual also discusses new logistics and health service software, such as SAAS-DAO and TAMMIS-D.

The proponent of this publication is HQ TRADOC. Send comments and recommendations on DA Form 2028 to Commandant, US Army Logistics Management College, ATTN: ATSZ-LSD, Fort Lee, Virginia 23801-6050.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

Chapter 1

Supporting the Division

Contents

LIGHT INFANTRY DIVISION

The LID(Figure l-l) is a flexible fighting force. It is designed to conduct combat operations against light enemy forces. The division consists primarily of combat and CS units equipped with lightweight weapon systems. In the right terrain with the right mission and when augmented with forces and support, the division can fight heavier forces.

The LID's primary focus is low-intensity conflict. It also is used in mid- and high-intensity conflicts. When engaged in combat, the LID is predominantly dismounted. It does not have the assets (without augmentation) to close with the enemy's heavy forces in terrain suitable for mechanized operations. It is effective in darkness and limited visibility. It is also effective

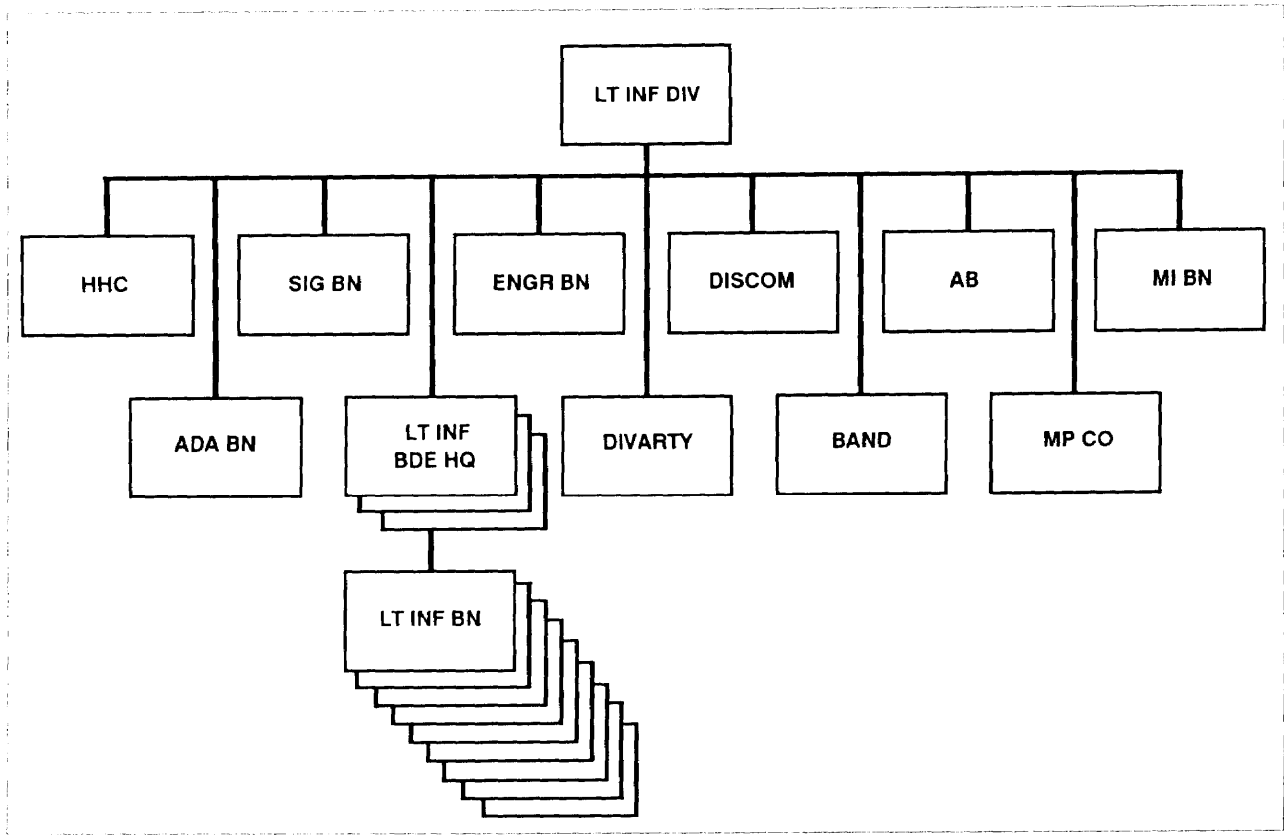


Figure 1-1. Light infantry division.

on restrictive terrain favoring dismounted operations. This includes urban areas, mountains, and jungles.

The LID is capable of immediate combat operations on arrival and quick extraction once the mission is complete. The lightness of the division involves risks inherent in austere CSS structures. The LID is among the most rapidly and strategically deployable US divisions. Its limited heavy weaponry and equipment allow the LID to move easily into secure AOs. When supported by the Navy, it also quickly gains entry from the sea when other forces have established a beachhead. The LID requires EAD CSS within 48 hours. Once deployed, its limited organic vehicles and aircraft constrain its tactical mobility.

The LID deploys rapidly. This presents war planners with multiple employment options. The LID may deploy in support of contingency operations into areas where US or allied bases are nonexistent. Usually The LID deploys on such contingency missions with only essential corps CSS elements. This slice provides a self-supporting capability for limited periods. Chapter 3 covers contingency operations.

The strategic deployability of the LID enables it to rapidly reinforce US and allied forces deployed anywhere in the world. These conflicts may be at the mid-to high-intensity level. In such cases war planners have several options. They base their selection of the preferred option on METT-T. Employment options include employing the LID as it is organized or augmenting the LID before or after deployment. Another option is task organizing the LID to meet theater-specific needs.

Forces augmenting the LID are OPCON or attached to the LID until mission completion. When forces are OPCON to the LID, the parent units remain responsible for the administrative support and logistics of their assigned units. The LID commander has the same degree of control over attached units as he does over organic units. He also assumes responsibility for administrative support and logistics to attached units. However, the LID does not have the assets to support itself for extended times much less those forces augmenting the division. Therefore, it needs additional assets to support attached units.

Task organization is a temporary grouping of forces to perform a particular mission. Combining heavy and light forces is one example. Appendix A covers some basic considerations for such mixes.

Regardless of the option selected, on arrival in the theater, the LID normally becomes an integral part of a corps or JTF. This corps or JTF provides GS supply and field services and reinforcing DS maintenance, transportation, and health services. More information on the LID is in FM 71-100.

SUPPORT PRINCIPLES

Fluid, nonlinear operations and enormous demands for resources characterize the battlefield. Support in such an environment is the challenge facing support planners and operators, They arm, fuel, fix, and move the division, and sustain its soldiers. These actions allow the LID commander to take advantage of opportunities to achieve tactical advantage. The DISCOM commander and staff as well as support planners and operators at division and brigade incorporate the sustainment imperatives in all actions. The imperatives are anticipation, integration, continuity, responsiveness, and improvisation.

The DISCOM commander and staff anticipate future missions. They do this by understanding the division commander's plan and translating current developments into future needs. Anticipation helps the division commander form a supportable plan. The DISCOM commander and staff focus on responsive support of future operations. They do not merely react to support needs sent to the DISCOM. They plan ahead and try to foresee unexpected changes while supporting current operations. To better anticipate needs the DISCOM commander and staff have a close relationship with the division staff. The DISCOM commander attends division staff meetings in accordance with the TSOP. He monitors the division command net to anticipate changes while supporting current operations. He closely follows the flow of battle.

CSS is an integral part of a fighting force. A close relationship with the division staff ensures planners integrate support operations with operations of the maneuver force. The division commander and staff plan tactical and support operations concurrently. The DISCOM commander and staff provide input to the planning process. This ensures the scheme of maneuver and fire support plan are supportable. When the LID is part of a corps or JTF, the DISCOM integrates its operations with other Services, the

COSCOM, and allies. Any deception plan includes support operations.

Another imperative is continuity of support. Any interruption of support diminishes the power of the combat force. The division commander needs continuous support to keep the initiative, build momentum, and ensure the depth of operations is not inhibited by breaks in support. This is a considerable challenge for the DISCOM. It requires the DISCOM to provide continuous support while frequently moving. It also requires planning for alternate modes of support. Planners consider prepositioning of supplies. They also plan to replenish the support base while continuing support operations when the pace of combat activity slows.

The DISCOM is also responsive. It meets needs that change with little notice. DISCOM personnel expect changes in priorities, operations, and organizations. To retain momentum, they respond to changes quickly. DISCOM elements are as opportunistic as maneuver elements.

Finally, supporters improvise to succeed. The fluid nature of the battlefield quickly makes routine methods obsolete. This manual suggests several techniques for the DISCOM. However, leaders and staffs do not interpret a guideline or technique as an requirement. If a method does not help maintain maximum combat power and momentum, DISCOM personnel reach beyond them. They use innovation, suspend normal procedures when necessary, exploit unusual sources of support, and accept risks. The ability to improvise is an advantage in meeting emergencies. It does not substitute for anticipation; it complements it.

In short, the fluid nature of the battlefield requires the DISCOM to anticipate needs, not wait to react to demands. DISCOM and subordinate commanders understand supported commanders' operational plans to be responsive. They use the built-in flexibility and authority to implement innovative concepts. They use initiative to carry out their duties. They know the CSS needs of supported forces and details of the OPLANs. They use their knowledge to advise commanders of the supportability of the plans. They devise innovative ways to support the plans and lessen the risks.

SUPPORT CONCEPTS

The combat mission of the LID is the foremost consideration of the DISCOM. DISCOM units are flexible enough to support from any base arrangement. Commanders tailor resources and priorities to changing combat situations.

The CSS structures provide support as far forward as practical. Corps or division assets provide supplies, weapon systems, services, and repair assets for easily reparable equipment to the field trains or beyond whenever practical. Personnel evacuate damaged equipment from as far forward as practical. HSS elements usc a modular design. This helps provide medical treatment and evacuation as far forward as possible.

Due to its austere support structure, the LID takes advantage of every available support asset, It uses HNS available through formal agreements such as contracts. Effective use of contracting officers ensures timely support from host nation resources. The LID also uses ad hoc measures. These include foraging when necessary during operations.

Using captured and found materiel is another way to make supplies available. In emergencies, units use captured diesel fuel. They use captured and found barrier and construction materials immediately. Medical elements use captured medical supplies and equipment to treat enemy prisoners of war and refugee and civilian casualties. Veterinary personnel inspect captured subsistence. They declare it fit for consumption before personnel use it to feed EPWs and civilian populations. Division troops consume found US subsistence after veterinary approval. Units turn in captured vehicles to maintenance collection points. They turn in equipment to salvage points. Salvage personnel identify, classify, and report it to the DMMC.

The division staff, supported units, and DISCOM units maintain effective communications. They coordinate the CSS needs of the division and the support activities. Coordination helps the DISCOM commanders emphasize the flow of supplies rather than the buildup of stocks. Coordination also ensures effective and integrated transportation support in continuously changing circumstances.

Before commitment to a contingency area, supply personnel plan shipments whenever possible. The LID emphasizes the use of airlift for deployment. For this reason, and also to streamline ground operations, planners count on the use of PULs or UCLs.

Airdrop of preconfigured or emergency loads requires corps support. Chapter 11 covers plans for aerial delivery.

The LID's support assets provide only essential CSS. They stock only mission essential supplies. Personnel normally use supply point distribution. An exception is supply of barrier materials, The corps throughputs these directly to the emplacement site whenever possible. Personnel also deliver bulk fuel and water to the light infantry battalions. Wherever possible, other supplies are throughput from the corps to the unit or the BSA. Intensive management of MHE ensures this limited resource meets a variety of logistics missions. Ambulances returning to forward areas backhaul medical supplies and equipment if necessary.

The LID design stresses commonality of vehicles, weapons, and equipment. This reduces supply needs, streamlines maintenance operations, and simplifies repair parts management. Maintenance units rely heavily on support from EAD. They also rely on equipment and component exchange rather than repair on site. They do only limited end item and component repair.

COMMAND RELATIONSHIPS

The control the DISCOM commander has over nonorganic support elements and the support he provides nondivisional units depend on the command relationship of the units to the division/DISCOM. Possible command relationships include:

- Organic. An organic unit is an essential part of the division/DISCOM. It is listed on its MTOE.
- Assigned, An assigned unit is placed in the division/DISCOM on a permanent basis.
- Attached. An attached unit is placed in the division/DISCOM on a relatively temporary basis. Subject to limitations in the attachment order, the commander has the same degree of command and control and responsibility for the attached unit as he does for organic units. However, responsibility for transfer, application of the Uniform Code of Military Justice, and promotion of personnel are retained by the command to which the unit is assigned. The attachment order states the administrative and support responsibility of the division/DISCOM.
- Operational Control. A unit under OPCON is provided to the division/DISCOM commander for specific missions or tasks usually limited by function, time, or location. The commander deploys the unit and retains or assigns tactical control of the unit. Operational control does not include administrative and logistics responsibility, discipline, internal organization, and unit training.

SUPPORT RELATIONSHIPS

UNIT-LEVEL SUPPORT

The LID soldier turns to the organic support element of his unit for support. CSS elements of maneuver, CS, and CSS units provide unit-level support to organic, assigned, and attached elements. The following manuals discuss unit-level CSS:

- FM 1-111.
- FM 1-500.
- FM 6-20-2J.
- FM 7-10.
- FM 7-20.
- FM 8-10-4.
- FM 10-14.
- FM 10-23.
- FM 10-63-1.
- FM 19-4.
- FM 31-20.
- FM 34-80.
- FM 44-1.

Unit responsibilities include –

- Request, pickup or receipt, temporary storage, and unit distribution of supplies.
- Unit maintenance (ground and aviation).
- Unit-level HSS.
- Field feeding.
- Unit-level mortuary affairs activities.

In maneuver units, the company is the lowest echelon with personnel for these CSS functions. The company XO, the first sergeant, and the supply sergeant coordinate CSS. They make needs known. They also coordinate with the battalion S4 to ensure they are met.

Many of the CSS assets of LID units are at the battalion or brigade level. For example, field feeding under AFFS is consolidated at the battalion level. Exceptions include the DIVARTY HHB, the FA batteries, and the AMCO which have their own food service teams. Unit maintenance is consolidated at the brigade level for LID maneuver units. At the maneuver battalion level, there is a small team from the brigade maintenance section. The battalion teams work out of the battalion field trains area. They carry stocks of LRUs and QCAs with them. The SOP covers repair parts delivery from the brigade consolidated PLL section. The battalion team repairs as much deadlined equipment as possible in time to get it back into the current battle. If the item is extensively damaged, the team arranges for evacuation. Combat medics from the battalion medical platoon operate with the rifle platoons. They provide basic life-saving measures. They can also rapidly evacuate the wounded. An ambulance team from the medical platoon also typically supports each. Another team operates from the BAS.

The battalion/brigade XO supervises battalion/brigade CSS through his staff officers. He integrates CSS into the overall plan and ensures continuous support. Staff officers with basic CSS responsibilities include the—

- S 1 — plans and coordinates HSS.
- S2/S3— sets priorities for support based on commander's guidance and input from the S4.
- S4 — plans and coordinates logistics.
- Battalion surgeon — plans and coordinates HSS with the S1.

The battalion uses several techniques to resupply companies. They are aerial resupply, battalion-operated supply points, LOGPACs, and prepositioning. This manual discusses division-level aerial resupply and supply point operations at length. Battalion-level operations are similar. LOGPACs simplify resupply by assembling all resupply vehicles in the field trains and sending them forward. A LOGPAC includes –

- Replacements or RTD soldiers.
- Supplies. They include Class I, III, V, and IX supplies and water.
- Maintenance contact teams.

The battalion S4 plans and coordinates LOGPAC operations to ensure they support the commander's tactical plan. Battalion SOP establishes standard LOGPACs. The LOGPAC for a company, as much as possible, provides all supplies, equipment, and personnel to support the company for the next 24 hours or until the next scheduled LOGPAC.

Propositioning or cache resupply occurs when the battalion places supplies near points of anticipated consumption. It directs companies to these supplies. The battalion uses this technique in both offensive and defensive operations. However, it is usually used with defensive operations. In such cases, supplies are positioned in subsequent battle positions. It permits continued operations when the CSS system is compromised. Control and coordination of propositioned supplies are critical to allow best use of supplies in a fluid environment. Caches are destroyed if compromised. The Geneva Convention protects medical supplies and equipment. They cannot be intentionally destroyed. The use of caches to support stay-behind operations is discussed in Chapter 3.

Elements often operate away from their parent units. In such cases, planners establish support relationships to ensure that all needs are met. TOEs of the involved units state dependency relationships. FMs also discuss these relationships. OPORDs establish support relationships for specific missions.

DIVISION-LEVEL SUPPORT

The DISCOM is the source of division-level logistics and HSS in the LID. Although the LID stresses area support, the DISCOM also provides CSS on a unit-support basis and a task-support basis. The DISCOM, when augmented as required, may furnish area support to nondivisional units in the division area. Unit support is designated to a unit or units such as a maneuver brigade. In task support, the DISCOM furnishes a specific type or amount of a DISCOM element's support capability to designated units or an area to accomplish identified tasks. An example is the deployment of all ATP personnel to establish a Class V point at an airhead in support of a contingency force.

Chapter 2 covers the organizations and functions of DISCOM units. The DISCOM provides the following to the LID:

- DS supply of all classes of supply (including water).
- DS ground and missile maintenance.
- AVIM.

- Transportation support.
- Division-level HSS.

Current concepts for organic mortuary affairs, CEB, and hot/arid environment water supply require use of TOE augmentations. When resourced upon mobilization, the following teams become organic to the division:

- LID GRREG platoon (TOE 42507LA00). This 37-person platoon augments the MSB HSC. It identifies 38 remains per day and collects and evacuates 105 remains per day. It provides search and recovery support in brigade areas as required.
- CEB platoon (TOE 42507LB00). This 27-person platoon augments the MSB HSC. It provides eight bath teams. It provides CEB on a minimum of one cycle per week to all elements of the division. It sets up in a brigade/battalion area.
- Hot/arid environment water team (TOE 42526LC00). This team augments the MSB HSC. It provides water storage and distribution in an arid environment. It can store and distribute at the water points 440,000 gallons of potable water. It has no purification capabilities.

Field services concepts for the future provide mortuary affairs from corps-level mortuary affairs companies. A new field services company (DS) (TOE 42414L000) will provide CEB. When these units are fielded in the corps, the GRREG and CEB platoons will drop out of the force structure.

EAD-LEVEL SUPPORT

Corps Plugs

Original designs for the LID DISCOM dictated that a large portion of supply and maintenance support normally found in a DISCOM be located in the corps. Organizations referred to as corps plugs are designed specifically for the LID. The y exist in the corps structure. However, their sole mission is support to the LID. These corps plugs are:

- Quartermaster supply support detachment (LID) (TOE 42510LY00). This 17-person detachment is assigned to the CMMC and attached to the division. It collocates with the LID DMMC. It operates the DAS-3 computer in support of supply control, inventory management, and stock control for the LID. It controls input and output, report and data distribution to the DISCOM, and data flow between the DISCOM and CMMC. This detachment disappears from force structure when the corps theater ADP service center (CTASCII) is in place. Spaces from this detachment will be used to increase the personnel in the CSS AMO in the LID DMMC.
- LID missile support augmentation team (TOE 09528LP00). This 12-person team is assigned to the corps DS missile maintenance company. It augments the division missile support element, It complements the personnel shortfalls in the division. It also completes its equipment sets. This team provides base shop DS missile maintenance for TOW/Dragon missile systems, Vulcan ADA gun systems and related artillery, and FAAR/TPX-50 radar sets. It can send two MSTs forward for on-site repair of TOW/Dragon missile systems and one MST for repair of Vulcan ADA gun systems. Even with this team, the LID requires support from the corps missile maintenance company.
- LID AVIM team (TOE 01577LB00). This team is attached to the COSCOM AVIM company to offset an estimated 21 percent AVIM work load passed back.
- LID maintenance support team (TOE 43509LP00). One team is allotted per maintenance company (DS) (TOE 43209L00) when in support of a LID. This team performs about 20 percent of the LID DS work load. It helps offset the LID's reliance on passback. It repairs automotive vehicles, construction equipment, power generation equipment, quartermaster and chemical equipment, radios, radio teletype equipment, small arms, central switching equipment, and utility equipment.

Other EAD-Level Support

The DISCOM coordinates with the COSCOM to satisfy logistics needs. COSCOM or EAC resources provide the nondivisional logistics and HSS required. Resources range from selected units task organized to support the LID during contingency operations to a full COSCOM in support of forward-deployed forces. Corps and COSCOM planners and operators should understand that supporting a LID involves different requirements than supporting a heavy division. For instance, the LID depends heavily on corps assets throughputting materiel to the BSAs, configuring unit loads, and storing PULs. Table 1-1 shows other units that could deploy in support of a LID. Every case does not require all this support. Planners determine the support on a case-by-case basis. The division administrative and logistics order addresses support arrangements for corps units supporting the division.

Table 1-1. Nondivisional support.

Function	Unit That Could Provide Support
Materiel management.	COSCOM Materiel Management Center.
GS storage of Class I, II, III (pkg), and IV.	QM General Supply Company, Heavy Materiel Supply Company.
Medical equipment (maintenance and optometric support).	MEDSOM/MEDLOG Battalion (Fwd/Rear).
COMSEC/CCI equipment maintenance.	Corps Signal Unit, Nondivisional Maintenance Company(DS).
Laundry.	Field Services Company (DS).
EOD.	EOD Control Team/EOD Detachment.
Airdrop.	Airdrop Supply Company, Airdrop Equipment Repair and Supply Company.
Transportation management.	Movement Control Center, Movement Control Teams, Air Terminal Movement Control Team.
Ground transportation.	Transportation Light Truck Company, Light-Medium Truck Company, Medium Truck Company, Heavy Truck Company.
Port/airfield clearance.	Cargo Transfer Company, Transportation Terminal Service Company, Military Traffic Management Command Port Detachment.
Storage and issue of A and B Rations.	Perishable Subsistence Platoon.
GS storage and distribution of Class III (bulk).	Petroleum Supply Company, Medium Truck Company (Petroleum).
Quality surveillance of all Class III.	Mobile Petroleum Laboratory.
DS receipt, combat configuration, storage, and issue of conventional ammunition.	Ordnance Company, DS (MOADS).
GS storage of Class VIII.	MEDSOM/MEDLOG Battalion (Fwd/Rear).
GS storage of Class IX.	Repair Parts Supply Company (GS) (with aviation and missile augmentation).
Production, storage, and distribution of water.	Water Supply Company, Medium Truck Company, Water Purification Detachments.
Conventional equipment maintenance.	Nondivisional Maintenance Company (DS).
Missile maintenance.	Missile Maintenance Company.

Table 1-1. Nondivisional support (continued).

Function	Unit That Could Provide Support
Aircraft maintenance.	Aviation Intermediate Maintenance Company (DS).
Public affairs.	Public Affairs Team.
Finance support, funding for support of local procurement.	Finance Support Command.
Postal support.	DS Postal Company/Platoon.
Personnel records, personnel management, and personnel actions.	Personnel Service Company.
Replacements.	Replacement Battalion/Company.*
Health service support.	Surgical Squad/Detachment, MASH, Combat Support Hospital, Area Support Medical Battalion, Evacuation Battalion (Air Amb/Gnd Amb), Combat Stress Control Company/Detachment, Veterinary Detachment, Dental Company/Detachment, Preventive Medicine Detachment, Medical Logistics Battalion, Medical Logistics Support Detachment, Medical Team (Prosthodontics), Medical Team (Neurosurgery), Medical Team (Eye Surgery), Medical Team (Head and Neck Surgery).
Smoke and decontamination.	Chemical Company (Smoke/Decon) (Corps/Theater Army).
Engineer support for gap crossing, LOC maintenance, well drilling, site preparation, and fire fighting.	Assault Floating Bridge Engineer Company, Light Tactical Raft Team, Foot Bridge Team, Engineer Combat Company, Engineer Combat Support Equipment Company, Well Drilling Engineer Equipment Operations Team, Fire Fighting Team.

*Replacements are provided to the DISCOM through the division G1 section's organic replacement section. The replacement battalion/company supports this section.

Chapter 2

The Division Support Command

Contents

ORGANIZATION AND FUNCTIONS OF THE DISCOM

The DISCOM is one of six major subordinate commands in a LID. The others are the three infantry brigades, the aviation brigade, and the DIVARTY. The DISCOM provides effective and responsive support to tactical units. To provide this support to the tactical commander, logistics and HSS assets are effectively organized and positioned where they are needed. The DISCOM units (Figure 2-1) are an HHC/DMMC, an MSB, three FSBs, and an AMCO.

The DISCOM provides division-level logistics and HSS to all organic elements of the division and, in certain cases, to nondivisional units in the division area,

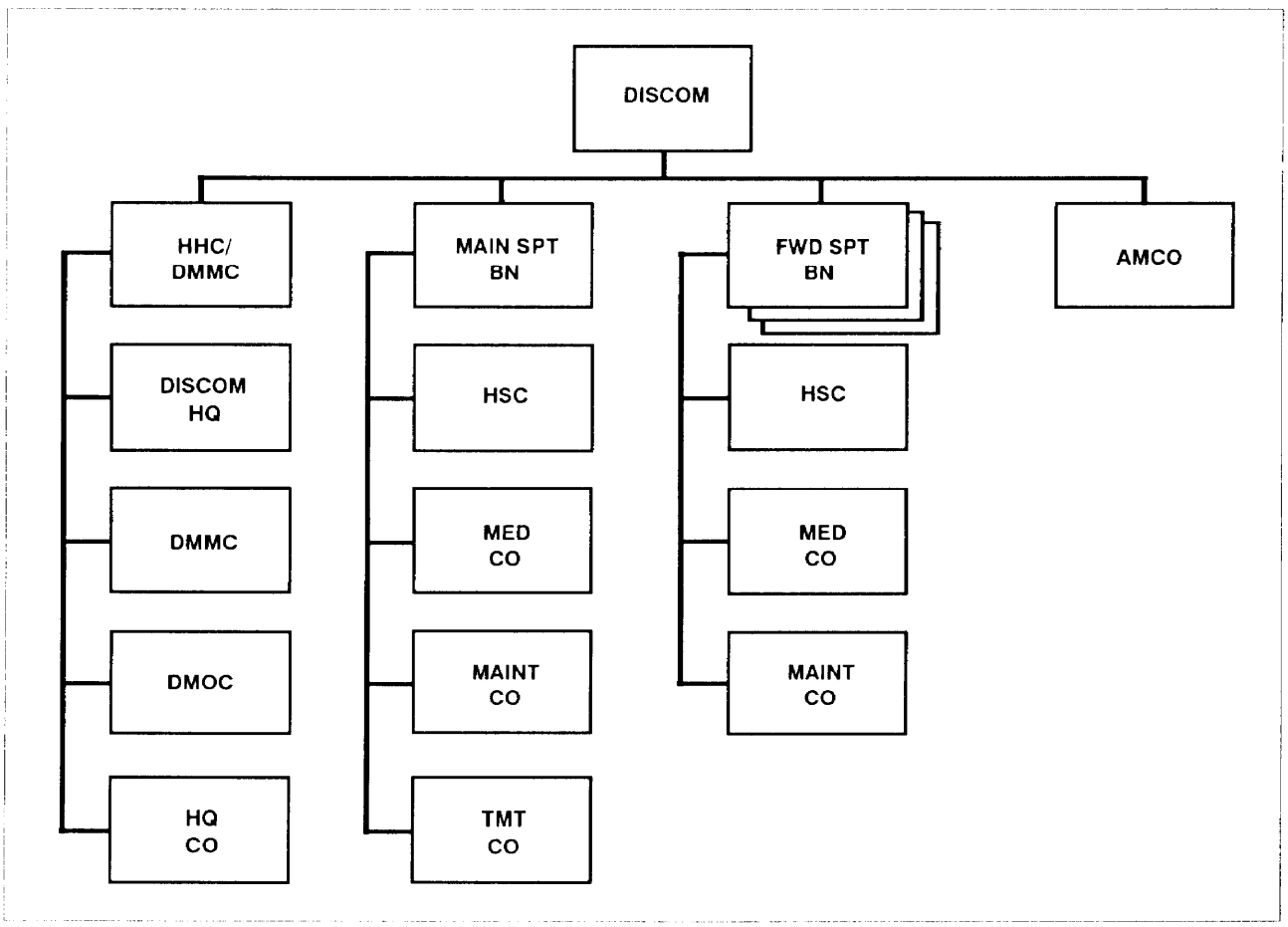


Figure 2-1. DISCOM, LID.

This support consists of–

- Requisition, receipt, temporary storage, and limited distribution of supplies. This includes Class I, II (less classified maps), III, IV, VII (except classified COMSEC equipment), VIII, and IX supplies. The DISCOM also provides purification, storage, and limited distribution of water.
- Operation of an ATP in each maneuver brigade area.
- Limited DS maintenance, including AVIM, for all materiel organic to the division less COMSEC, medical, and certain signal and MI peculiar equipment.
- Materiel (supply and maintenance) management for the division.
- Movement control and limited surface transport for personnel, supplies, and equipment to accomplish division logistics and administrative missions. This includes supplemental ground transportation to support emergency needs.
- Transportation management of organic and augmentation highway assets and allocated air assets.
- Consolidated property book management for the division.
- Materiel collection and classification.
- Limited diagnostic component exchange and liaison with higher maintenance activities for tactical ADPE systems.
- Logistics software support for the division.
- Limited capability to carry reserve supplies.
- Unit-1evel and division-level HSS on an area basis. This includes medical staff services, medical supply, and unit maintenance of medical equipment.
- CEB, mortuary affairs, and water distribution in a hot/arid environment when augmented.
- Logistics interface and coordination with allied units when the division is employed out of sector or attached to an allied command.
- Assigned rear operations duties.
- Identification of HNS needs and coordination of HNS with division G5.
- Coordination with finance group for funding for local procurement.

ORGANIZATION AND FUNCTIONS OF THE DISCOM HHC/DMMC

The DISCOM HHC/DMMC consists of the DISCOM headquarters, the DMMC, the DMOC, and the headquarters company.

DISCOM HEADQUARTERS

The DISCOM headquarters (Figure 2-2) consists of a command section, an S1 section, an S2/S3 section, an S4 section, a unit ministry team, and a food service section. The DISCOM headquarters commands and controls organic and attached units. A more in-depth discussion of C2 is in Chapter 4. The DISCOM headquarters also –

- Plans logistics and HSS operations for the division and selected nondivisional units. Planning guidance is in Chapter 3.
- Provides information and advice on logistics and HSS to the division commander and his staff, particularly the G4.
- Plans, coordinates, and supervises base and base cluster defense operations within the DSA. It does this in conjunction with the division rear CP.
- Operates an MCO to plan and control the usc of aircraft and surface transport organic or assigned or attached for logistics and administrative missions.
- Manages the Army food service program for the division.
- Receives guidance and direction from and coordinates support operations with the division rear CP.

Command Section

The DISCOM commander and his staff provide information to the division commander, the ADC-S, and the division staff on logistics and HSS matters. They also help evaluate the supportability of the division's plans. The DISCOM commander does not advise on personnel and administrative services, legal services, public affairs, finance support, morale and welfare support activities, or engineer support.

The DISCOM commander commands and controls organic and attached units of the DISCOM. He organizes the movement of and directs the disposition of subordinate units within the DSA according to the tactical plan.

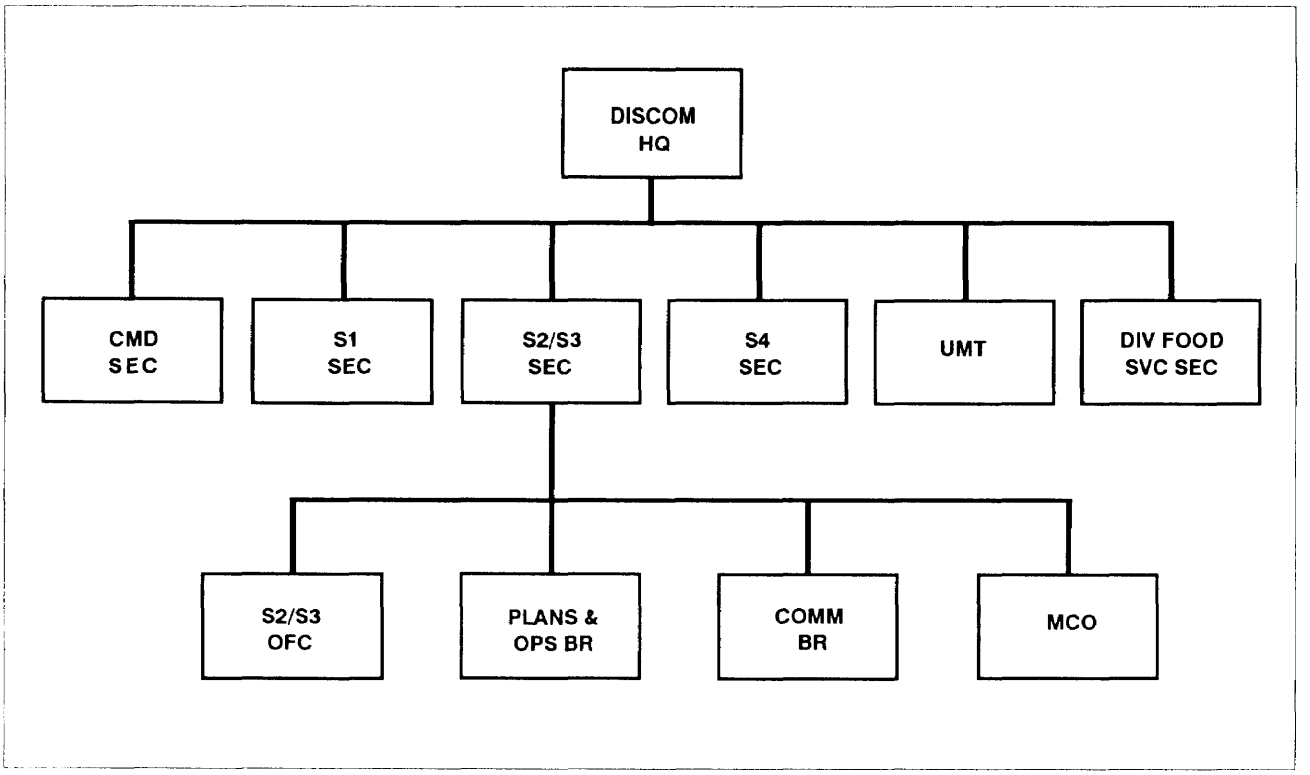


Figure 2-2. DISCOM headquarters.

The DISCOM commander –

- Advises the division commander and staff on supply, maintenance, transportation, HSS, and field services throughout the division.
- Supervises and controls division-level logistics and HSS operations.
- Coordinates logistics operations and movements with the division rear CP.
- Conducts inspections to determine the ability of the DISCOM and attached units to do their missions.
- Makes sure that, in an allied environment, DISCOM operations follow all applicable agreements and HNS commitments.
- Plans and supervises all training of personnel and units of the DISCOM.

The deputy commander (formerly the XO) is the principal assistant and advisor to the DISCOM commander. His functions are similar to those of a chief of staff as outlined in FM 101-5. As second in command, he understands both the support operations and the non-CSS functions of the DISCOM. He supervises the DISCOM staff and coordinates assigned missions with subordinate unit commanders. In accordance with command directives, he formulates staff operating policies. He also oversees the maintenance of the master policy file and supervises CP operations.

S1 Section/PAC

The S1 is the principal staff officer responsible for coordinating PSS within the DMCOM. PSS includes –

- Personnel and administrative support.
- Replacement operations.
- Strength management.
- Awards and decorations program.
- Casualty reporting.
- Postal support.
- Deployment preparation.
- Finance support.
- Religious support.
- Legal support.
- Public affairs support.

The S1 collocates with the S4 near the DISCOM CP. Cross-training of personnel facilitates greater continuous operations,

The S1 section/PAC prepares the DISCOM personnel estimate, It projects personnel losses and replacement needs. It develops casualty projections with emphasis on critical low-density MOSS. It provides the medical staff with projected input to the casualties evacuation planning process. The section also develops OPORD materials such as items for the service support annex.

The S1 section/PAC maintains personnel strength data on all subordinate units. Hasty and deliberate personnel status reports from medical treatment facilities and the division provost marshal's office support this process. The S1 sends DISCOM personnel updates to the division G1 section and to the supporting personnel service company.

The S1 section/PAC conducts replacement operations for the DISCOM. Using replacement projections from the division Gl, the S1 coordinates with the DISCOM commander to set replacement priorities. Processing of replacements includes orientation and indoctrination, inspection of clothing and equipment, and correction of equipment shortages. Transportation to move replacements is coordinated with the S4. Additional information is in FMs 12-6 and 100-10.

S2/S3 Section

The S2/S3 is the security, plans, and operations officer. He is the principal staff advisor to the DISCOM commander on intelligence, organization, communications, NBC matters, and support mission-related matters. The S2/S3 section duties include –

- Advising the DISCOM commander on intelligence and counterintelligence, security, and communications.
- Advising the DISCOM commander on NBC defense and other rear operations functions.
- Supervising DISCOM intelligence operations.
- Coordinating and supervising the rear operations activities performed by DISCOM units in close cooperation with the division rear CP.
- Preparing DISCOM IPB. This includes the medical threat.
- Recommending priorities for the allocation of weapons, personnel, and equipment to units of the DISCOM.
- Coordinating and supervising DISCOM participation in civil affairs activities.
- Determining needs for maps and coordinating issue of classified maps with the division G2.
- Exercising general supervision over the branches and offices in the S2/S3 section.

In coordination with the DMMC, the plans and operations branch is responsible for staff supervision over DISCOM support activities. It also has staff supervision over DISCOM activities not classified as CSS. These include –

- NBC operations.
- Rear operations.
- Air defense.
- Defense against unconventional and psychological warfare operations.
- Intelligence and security matters.
- Determination of needs for storage, maintenance, distribution, and documentation of chemical munitions.
- Recommendation of priorities for weapons and equipment allocation to DISCOM units.
- Civil affairs activities and overall tactical employment aspects of the DISCOM.

It also coordinates with the ADC-S on providing a location and limited support for the division rear CP. Specific functions of the plans and operations branch include —

- Monitoring the tactical operations of the division.
- Preparing the rear operations plan for the DISCOM. It ensures the plan is compatible with the division plan. It also supervises the implementation of the plan for the DISCOM commander.
- Coordinating and monitoring defense against an NBC attack, air defense, and defense against unconventional and psychological warfare operations.
- Planning and coordinating DISCOM movements. For DSA elements, this includes supervising route reconnaissance and road marches. The branch receives closing reports and supervises staff activities during movement. A discussion of movements is in Chapter 11.
- Planning, coordinating, and supervising DISCOM intelligence collection and dissemination.
- Preparing current and long-range contingency plans.
- Planning time-phased force development.
- Coordinating with the division rear CP for CS for DISCOM operations.

- Preparing movement orders and the intelligence annex to orders. The branch also prepares the daily intelligence summary for subordinate units, operations estimates, and the intelligence estimates and updates. It also prepares paragraphs 2 and 3 of the DISCOM OPORD/OPLAN and essential elements of information for inclusion into the division OPORD.
- Coordinating provision of corps CEB, laundry, mortuary affairs, and airdrop support.
- Organizing the DISCOM units to support split division operations and cross-attachments with other forces,
- Coordinating the plans for the logistics provided by DISCOM units with the division staff, DMMC, and supported units.
- Planning for support of attached units or special operations forces passing through the division area.
- Providing information to the DISCOM commander on the NBC threat to assess the impact on all support operations and developing NBC contingency plans.

The operations officer operates the DISCOM intelligence coordination center under the supervision of the S2/S3. His functions and responsibilities are similar to those of the G2 as outlined in FM 101-5. He focuses his effort on the enemy, weather, and terrain in the division area. He provides relevant information to the FSBs. He coordinates his activities with the rear CP intelligence cell.

The chemical officer provides advice and help to the S2/S3 on NBC matters. This officer provides an NBC threat estimate based on enemy force activities. He conducts nuclear and chemical vulnerability analyses. He collects, interprets, analyzes, and evaluates NBC intelligence data. He provides information to the DISCOM commander so he can determine the MOPP level. The chemical officer advises on smoke and flame operations. He monitors NBC plans and staffing. He monitors decontamination operations. He directs the issue of chemical defense equipment within the DISCOM. This officer also helps the DISCOM commander set up OEG for each operation. More information on OEG is in Appendix J of FM 3-3. The chemical officer supports all staff sections in NBC tasks,

The communications branch provides C-E support within the DISCOM. It operates the NCS for the DISCOM command/operations net. It plans, directs, and monitors the management and operation of all DISCOM field communications systems. It coordinates needs with the division signal battalion units providing support in both the DSA and BSA. It provides staff supervision over the installation and operation of all COMSEC equipment within the DISCOM. It helps resolve signal maintenance problems within the DISCOM and provides 24-hour operations. It advises the DISCOM commander and staff on all C-E matters. This branch –

- Coordinates and exercises technical supervision of the communications personnel in the DISCOM headquarters and subordinate units.
- Provides advice on the site selection of the DISCOM CP.
- Installs and maintains communications equipment.
- Plans and implements a backup means of communications and ensures radio communications during a move.
- Coordinates for publication and distribution of the DISCOM portion of the tactical telephone directory and manual or electronic SOI.
- Prepares the communications annex to the DISCOM OPORD/OPLAN.
- Manages CCI equipment keys.
- Plans and coordinates communications support for rear operations and for units attached/OPCON to the DISCOM.

The MCO is responsible for all CSS-related movement within the DISCOM. It dckx-mines missions for surface and preplanned air transport assets assigned or attached to the DISCOM for logistics and administrative missions. It plans, coordinates, and controls the allocation of available transportation assets. The duties of the MCO include–

- Advising the DISCOM commander and staff on transportation matters.
- Controlling commitment of the TMT task vehicles for CSS within the division.
- Maintaining data on the status of transportation assets committed to existing logistics missions.
- Ensuring personnel follow movement priorities.
- Submitting a request to the DTO for additional support with recommended priority when transportation requirements exceed capabilities.

- Coordinating arrival of personnel replacements and resupply movements with receiving units.
- Reporting the status of containers in the division area. It also coordinates with receiving units to ensure that they can offload the containers.
- Providing transportation intelligence data to the DISCOM S2/S3, rear CP staff, and DTO. These activities involve close liaison among the MCO, the DISCOM subordinate commanders, the DTO, and the AB liaison officer.
- Coordinating transportation for the backhaul of the maintenance work load, salvage, and empty ATP containers and other empty trailers and tanks. It also coordinates for evacuation of remains.
- Coordinating helicopter external transport operations between aviation and supply units.
- Coordinating nonmedical transportation for casualty evacuation in mass casualty situations.

S4 Section

The S4 is the principal staff assistant on internal logistics for DISCOM units. He prepares the logistics estimate and makes recommendations to the DISCOM commander on internal logistics activities. He also writes the service support annex to the DISCOM OPORD/OPLAN. The S4 section –

- Monitors DISCOM unit supply activities,
- Monitors DISCOM unit maintenance.
- Coordinates with the DISCOM units on the location of internal supply, services, and transportation activities.
- Coordinates requests for CTA 50-900 items within the DISCOM.
- Develops Class 111 and V usage forecasts for DISCOM units.
- Checks the Class I, III, and V, and water supply status of DISCOM elements. It also checks the operational readiness of equipment.
- Coordinates with the S2/S3 section for field services for DISCOM units.
- Provides policy on salvage for DISCOM items on the basis of guidance from the G4.
- Coordinates with the S1 on DISCOM strength and replacement data to project support needs.
- Coordinates movement plans with the S2/S3.
- Monitors field feeding and sanitation activities within the DISCOM.
- Requests unclassified maps for DISCOM units based on needs identified by the DISCOM S2/S3.

Unit Ministry Team

The UMT provides religious support for all subordinate units. It nurtures the living, cares for casualties, and honors the dead. The DESCOM chaplain exercises technical control and coordination over subordinate UMTS. He ensures direct and general religious support for all DISCOM units. He coordinates with the maneuver brigade and battalion chaplains to ensure general religious coverage.

The UMT, under the division religious support plan, provides general religious support to units other than DISCOM units. It also helps in mass casualty situations and during reconstitution. DISCOM chaplains also provide religious support to EPWs and nonmilitary persons for whom the commander is responsible. They provide limited religious support to the local population in coordination with the division G5.

Division Food Service Section

The division food service section plans and conducts the Army food management program in the division. It has staff supervision over brigade and equivalent level food service supervisors. It inspects field-feeding facilities of division units. It also advises commanders and their staffs on sanitation, food preparation, and food accountability. The division food service officer habitually works with the division G4.

DIVISION MATERIEL MANAGEMENT CENTER

The DMMC (Figure 2-3) consists of a DMMO, a general supply section, a DAO, a materiel section, and a CSS automation management office. The DMMC is the primary supply and maintenance managing element. It advises the DISCOM commander and staff on supply (less Class VIII) and maintenance matters. It provides division units with centralized and integrated materiel management for Class I, II, III, IV, V, VI, VII, and IX supplies and water. The DMMC works closely with the DISCOM S2/S3 section to coordinate support operations. The DMMC is responsible for the following activities:

- Providing materiel management information and advice to the DISCOM commander.
- Determining requirements for supplies.

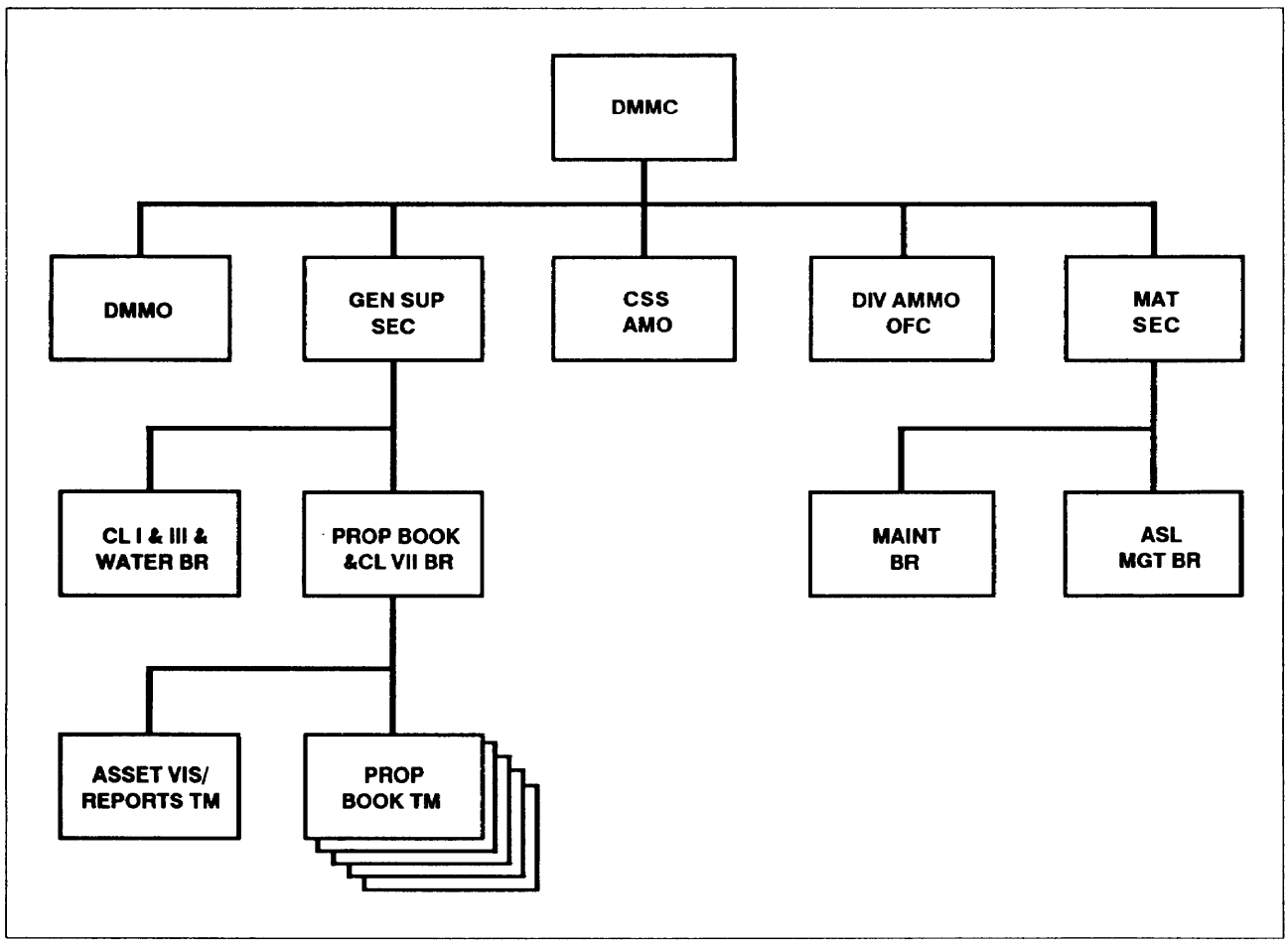


Figure 2-3. DMMC.

- Requisitioning and directing the distribution of supplies within the division (except Class VIII).
- Developing and maintaining the division ASL and ORF items.
- Determining ASL mobility needs.
- Maintaining the division property book and hand receipt files, Army equipment status reporting data, and CBS-X data.
- Coordinating with the CMMC for materiel evacuation and reinforcing support. This includes technical assistance.
- Operating an integrated division maintenance management information program. This program keeps the division staff, DISCOM commander, and battalion commanders and their staffs informed on maintenance problems and needs, and unit materiel readiness.
- Developing and prioritizing transportation needs for DISCOM materiel distribution and evacuation missions. It coordinates those requirements with the MCO.
- Providing contracting support to the division.
- Monitoring daily battle loss and consumptionreports and forecasts to anticipate needs.
- Directing the redistribution of maintenance assets between FSBs based on the level of activity.
- Providing weapon system management in coordination with the division G1.

Division Materiel Management Office

The DMMO plans, directs, and supervises the center's operations. Its duties include –

- Advising the DISCOM commander and staff on management of supply and maintenance operations. It recommends actions to improve the logistics posture.

- Providing supply and maintenance management data to the DISCOM S2/S3 for logistics operations.
- Coordinating with the division G4 on forecasting and logistics status reporting.
- Carrying out DISCOM policies. It prescribes procedures and mission standards for the DMMC.
- Maintaining the division materiel management status profile.
- Coordinating with the DISCOM S2/S3 on production support, reports, controls, and the location of supply distribution points and maintenance shops.
- Exercising control over technical aspects of supply and maintenance operations (less Class VIII)-of the MSB, FSBs, and AMCO. It ensures compliance with prescribed procedures and regulations.

* The DMMO also includes a division contracting element. It provides contracting support to division units and the division headquarters. With the division G4 and G5, it prepares contracting procedures, policies, and plans for the division OPLANs. These elements also coordinate support available through the logistics civil augmentation program and host-nation support agreements.

* The contracting element maintains contracting support kits for contingency contracting operations. Kits include the following forms and materials required for all contingency areas:

- A 90-day supply of required forms:
  - Department of Defense Forms 250, 448, 448-2, 1131,1155,1594
  - Standard Forms 26,30,33,44, 1409
  - Optional Forms 36,1419
- Block of authorized Procurement Instrument Identification Numbers.
- Sample contract and ordering officer appointment formats.
- Catalogs with pictures of supplies.
- List of approved sources of supplies and banking facilities.
- Office supplies including typewriter or personal computer.
- Contract file folders.
- Calculators and batteries.
- Electric socket adapters.
- Cash box.
- Flashlights and batteries.
- Authority to carry sidearms.
- Certificates of appointment.
- Copies of the Federal Acquisition Regulation, Defense Federal Acquisition Regulation Supplement, and Army Federal Acquisition Regulation Supplement
- Julian date calendar.
- Currency (in coordination with the finance and accounting officer).

* In coordination with civil affairs personnel, contracting personnel also maintain a database of local resources available in possible deployment areas. Resources include local labor, material, services, and facilities. The element ensures division units have appointed and trained ordering officers. The contracting personnel keep current and trained in contracting operations and may work with the installation directorate of contracting during peacetime to do so. In such cases, they should be sure to participate in all training exercises with the division headquarters.

* During operations, the contracting element coordinates with the G4 to validate requirements authorized to be met through contracting. It coordinates finance support with the supporting finance and accounting officer. It then lets contracts as required. The section also exercises functional control over ordering officers. It does this through limitations on the use of Standard Form 44, monetary limitations, and restrictions on the goods and services purchased. It reviews transactions produced by subordinate ordering officers as well as claims arising from irregular procurements.

General Supply Section

The general supply section coordinates and supervises supply management for Class 1 and III (bulk) supplies and water. It also manages the property book for the division. It consists of a supply and services officer, a chief supply sergeant a Class I and III and waterbranch, and a property book and Class VII branch. The supply and services officer is the accountable officer for Class I and III supplies in the division. The chief supply sergeant ensures that personnel maintain files of all supply publications and regulations to support section activities.

The Class I and III and water branch manages the supply of Class I items, bulk fuel, and water. It determines requirements for current and contingency operations. It recommends priorities allocations, and other controls.

It also provides advice on the receipt, storage, and distribution of Class I and bulk III supplies and water.

The branch develops Class I requisitions based on personnel status reports or, in a stable theater, consolidates ration requests. It develops basic load data. It uses this data in coordination with the supporting COSCOM to ensure timely receipt of Class I in the division. It coordinates with the DMOC for veterinary support to inspect Class I supplies. It performs stock control over Class I supplies and the free issue of sundry items.

The Class I and III and water branch manages all bulk fuel for the division. This includes bulk aviation fuel throughput from the corps to the aviation brigade. It requisitions fuel based on forecasts. It supervises bulk fuel accounting. It also ensures that quality surveillance is maintained.

The branch maintains water supply status. It manages water purification, storage, distribution, and issue. It monitors water allocations and division priorities for water resources. It ensures supported units have adequate water stocks to meet needs. If necessary, it diverts stocks. It directs water shipments in accordance with plans for specific operations. The branch consolidates division water needs beyond the DISCOM's capability and forwards them to the CMMC. It provides data to the division G4 for requirements planning and water support operations planning. It provides staff expertise on water quality control and treatment standards. It coordinates with the DISCOM surgeon on water quality matters. The branch provides direction and mode of delivery for the issue of water supplies to division units. It provides information on division water operations during deployments. Branch personnel coordinate with the division engineer staff for assistance in preparation, site access, or the construction support for water sites. They coordinate with the corps engineer staff on division requirements for water source detection support and water well drilling.

The property book and Class VII branch in the general supply section maintains the consolidated division property book and automated hand-receipt files. The branch consists of a property book office, an asset visibility and reports team, and five property book teams. The branch operates under the SPBS-R. The division property book officer supervises the branch. He is responsible for property until it is assigned to one of the units in the division. At that point, responsibility passes to the property book team chief maintaining the records for that unit. The teams are dedicated to the three light infantry brigades, the DIVARTY and division troops, and the DISCOM and aviation brigade. The branch verifies, records, and processes data for the division property book. It develops specialized management reports and manages the hand-receipt accounts. It also processes reports of survey, statements of charges, and other inventory adjustments. It provides data for equipment status reports. The asset visibility and reports team maintains asset visibility through the CBS-X. It recommends priorities for division-wide redistribution of property book equipment based on mission needs.

Division Ammunition Office

The division ammunition office maintains records of ammunition allocations, receipts, quantities on hand

at ATPs, and expenditures for division units. The DAO serves as the chief of the division ammunition office. He is the division manager for ammunition. The DAO maintains logistics management and operational control of the ATP in each BSA. The DAO coordinates and controls the supply and use of Class V supplies for the division. He represents the DMMO and the DISCOM commander on matters pertaining to ammunition requirements and availability. He monitors RSRs provided by the division G3 and enforces the CSRs determined by EAD and prioritized by the division G3 and G4. He authenticates ammunition requests for users. He maintains liaison with the division G3 and G4, supporting ASPS, the CSA, and the CMMC. The office provides technical help and advice on ammunition supply, safety, transportation, handling, and storage to division units. It helps the units in preparing ammunition forecasts. It maintains accountable records. It evaluates ammunition storage and safety procedures and improvements. It maintains specifications on ammunition packaging and storage. It operates the SAAS-DAO and provides data for use in adjusting basic loads, CSR, and RSR, and making other management decisions.

Ammunition supply NCOs provide liaison to the ATPs in the brigade areas. Under MOADs, another ammunition supply NCO provides liaison to the ATP in the division rear operated by the corps. An ammunition supply NCO provides DAO staff supervision for the operation of each ATP. The responsibilities of the ammunition supply NCOs are discussed in Chapter 8.

Materiel Section

The materiel section manages DISCOM maintenance operations and all division materiel (less medical and COMSEC) whose control has been automated. This includes Class H, packaged III, IV, and IX supplies. It uses SAMS-2 to assist in collecting, analyzing, and reporting maintenance statistics. It monitors applications of MWOs and compiles operational status reports, It also directs the disposition of unserviceable materiel. It uses SARSS-2A to help manage the division ASL. The section consists of a maintenance branch and an ASL management branch.

The maintenance branch performs integrated maintenance management for –

- Weapon systems.
- Automotive and ground support equipment.
- C-E equipment.
- Aviation equipment,
- Missiles.

It generates detailed reports and analyses using SAMS-2. Maintenance managers in the branch coordinate with the ASL management branch to ensure timely repair parts supply. They also recommend cross-leveling of maintenance work load and passback based on the divisionwide mission situation. The maintenance branch —

- Collects maintenance data through SAMS-2 from SAMS-1 sites. It also supervises the operation of the maintenance data reporting system.
- Analyzes automated and manual reports to detect trends and problem areas. It looks for any other situations that create a need for action by the maintenance units and staff elements.
- Compiles special reports on the status of division equipment.
- Develops policies and plans for controlling and managing the maintenance effort.
- Provides disposition instructions for unserviceable items of equipment exceeding the repair ability or capacity of maintenance support units. This is done in liaison with the property book and Class VII branch. Working closely with the MCO, it develops transportation needs for evacuating items from the division area.
- Develops maintenance plans to support projected combat operations. This is done in liaison with the maintenance company commanders and the division G4.
- Monitors DS maintenance operations. It checks procedures and the use of equipment and personnel.
- Maintains the status of all MWOs for equipment. It recommends the order of completion of MWOs.
- Coordinates with other DMMC sections on the replacement and status of end items.
- Identifies materiel requiring calibration and schedules calibration actions with TMDE support units.
- Coordinates the Army Oil Analysis Program functions.

The ASL management branch manages Class II (less classified maps), packaged III, IV, nonproperty book VII, and IX supply functions. It performs automated stock control over expendable and durable Class II,

packaged III, IV, and IX items stocked and supplied by the DISCOM. It develops ASLs and controls overall Class IX supply. In coordination with other HHC and DMMC elements, it develops the ASL mobility requirements. It provides technical guidance to subordinate DSUs and recommends cross-leveling of nonproperty book supplies. It advises the supply and maintenance companies on catalog changes. This branch measures system performance through the use of management techniques and tools. Some of the tools it uses are stock status reports, the daily transaction register, and the input transaction and error listing. It coordinates with the supporting CMMC to ensure timely fill of all requisitions placed on the COSCOM. The branch determines the ASL in coordination with the division G3 and G4, MSB and FSB commanders, and the supply and maintenance company commanders.

CSS Automation Management Office

The CSS AMO serves as the central point of contact for coordinating logistics and HSS automated systems software functions. These include receipt, distribution, implementation, retrieval, and disposal of CSS STAMIS software run on the TACCS and ULC as directed by higher headquarters. It interacts with EAD activities responsible for software support. It also helps units with automation continuity of operations planning and execution. It advises the DISCOM commander on the status of automated systems.

The office provides user-level assistance, system troubleshooting, and replacement of software. It has limited system maintenance capability. It provides user-level training and integrates data bases for new units. It helps staffs and units of the division which operate TACCS for property book, supply, and maintenance management information systems.

When the corps/theater ADP service center (CTASCII) is in place in the corps, the supply support detachment will disappear from the force structure. Spaces from the supply support detachment will be used to increase the number of personnel in the CSS AMO.

DIVISION MEDICAL OPERATIONS CENTER

The DMOC (Figure 2-4) provides direction, control, and management for HSS to the division. It consists of—

- The chief of the DMOC.
- Medical operations personnel.
- The DISCOM surgeon.
- Medical materiel management personnel.
- Patient disposition and reports personnel.
- Medical communications personnel.

The DMOC is responsible for advising and assisting the DISCOM commander and staff in determining requirements for HSS. It is responsible for planning, coordinating, and monitoring HSS to the division. It ensures all HSS requirements within the division are met. It is responsible for synchronizing HSS operations so division medical elements (and corps medical units OPCON or attached to the DISCOM) are used most effectively. It has 24-hour radio capability for medical regulating requirements. Specific functions of the center include –

- Planning and ensuring Echelon I and II HSS for the division is provided according to current doctrine.
- Developing and maintaining the division medical troop base. It revises the troop base as required to ensure task organization for mission accomplishment.
- Monitoring and planning HSS operations of DISCOM organic medical assets and attached corps assets.
- Updating the DISCOM commander on health-related programs, policies, and threats.
- Assisting the DISCOM commander, in coordination with the division G3, in directing the reallocation of corps medical augmentation assets to the division as required by the tactical situation.
- Ensuring the division plans, policies, and procedures for HSS are prepared and executed.
- Monitoring medical training.
- Advising and assisting medical company commanders and battalion-level medical platoon/section leaders on all HSS issues.
- Coordinating and prioritizing medical logistics and logistics aspects of blood management for the division.
- Monitoring and recommending medical personnel assignments and replacements.
- Coordinating and directing patient evacuation from division-level medical facilities to corps-level medical facilities. This is done through the brigade/group medical regulating officer.
- Coordinating and managing the disposition of captured medical materiel.
- Planning, monitoring, and allocating preventive medicine resources and programs.

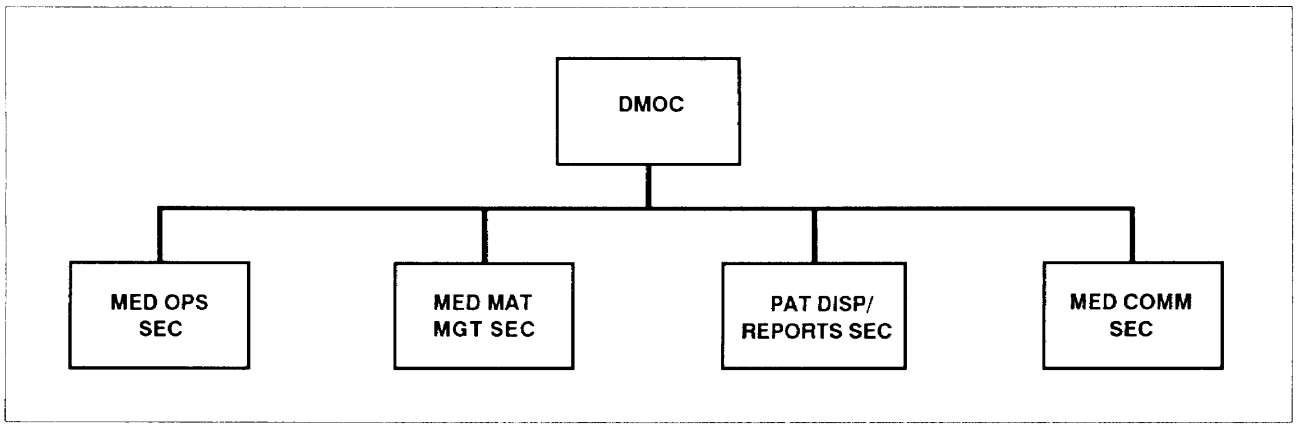


Figure 2-4. DMOC.

- Coordinating the medical regulation of patients in the division to the mobile army surgical hospital if one is operating in the division rear.
- Monitoring patient decontamination operations.

The chief of the DMOC is in the command section. He has responsibility for directing and coordinating the activities of the DMOC. In coordination with the division commander and G3, he proposes the reallocation of division medical assets as required by the tactical situation. His duties also include —

- Identifying the division HSS needs.
- Providing input to the DISCOM service support annex.
- Providing analyses of medical threats to the DISCOM commander, DISCOM surgeon, and DISCOM staff elements.
- Integrating and coordinating OPCON or attachment of corps HSS assets in accordance with medical support requirements and tactical SOP.
- Assisting the DISCOM surgeon in managing divisionwide medical logistics activities, the development of logistics plans, and the development of the medical logistics plan for contingency operations.

Medical Operations Section

The medical operations section consists of the DISCOM surgeon, medical operations officer, chief medical operations sergeant, and medical NCO. They are responsible for —

Developing and coordinating patient evacuation support plans with the division and DISCOM staff and with the corps evacuation battalion.

Coordinating corps-level medical support for the division with the corps MEDSOM/MEDLOG battalion (forward/rear).

Coordinating A2C2 information with supporting corps air ambulance assets. They also coordinate the use of contaminated routes when ambulances are contaminated.

Obtaining and providing road clearance and priorities for supporting corps ground ambulance assets,

Monitoring medical troops strength to determine task organization for mission accomplishment.

Forwarding all medical information of potential intelligence value to the DISCOM S2/S3 section,

Obtaining updated medical threat/intelligence information through DISCOM S2/S3 section for evaluation.

Managing the disposition of captured medical materiel.

Coordinating combat stress control team support to forward areas with the MSB medical company mental health section.

Monitoring division optometry services to minimize RTD time during optical fabrication,

The DISCOM surgeon provides technical medical staff advice to the DISCOM commander, DISCOM S1, and chief of the DMOC. He helps determine medical priorities in the division. In addition, he–

- Implements staff supervision and control of DISCOM medical assets.
- Reviews the division and DISCOM evacuation plan and ensures it complies with the division tactical SOP.
- Monitors the division preventive medicine program

to ensure maintenance of health and welfare priorities.

- Monitors the division mental health program for implementation of stress prevention measures.

Medical Materiel Management Section

The medical materiel management section is responsible for coordinating and managing medical logistics for the division. Specific duties include –

- Managing the MEDLOG system.
- Monitoring emergency medical supply requests to the corps.
- Monitoring DMSO operations to maintain current status of Class VIII supplies. It provides technical supervision of DMSO operations.
- Monitoring division medical maintenance programs to expedite availability of essential medical equipment.
- Coordinating medical equipment repairs beyond the DISCOM capability with the corps.
- Coordinating blood product needs with MEDSOM for the division MTFs.
- Providing staff assistance to the DMSO to ensure divisionwide Class VIII support.

Patient Disposition/Reports Section

The patient disposition/reports section coordinates patient disposition throughout the division. Specific duties include–

- Preparing medical statistical reports,
- Providing daily evacuation and mortality reports to the G1 and the DISCOM surgeon. It updates the DISCOM commander as appropriate in coordination with the DISCOM S1.
- Obtaining and coordinating the disposition of patients with [he medical operations section and the corps.

Medical Communications Section

The medical communications section operates the radio and wire communications systems for the DMOC. It performs the following:

- Installing and maintaining communications equipment for the DMOC.
- Coordinating communications needs with the DISCOM communications officer.
- Coordinating communications needs with subordinate DISCOM medical companies and supporting corps medical units.

HEADQUARTERS COMPANY

The headquarters company for the DISCOM provides unit administration, internal supply, security, and field feeding for the DISCOM headquarters and DMMC. It also provides limited support to the division rear CP which collocates with the DISCOM CP. The HHC/DMMC depends on the MSB maintenance company for unit maintenance.

The headquarters company provides unit administration in the form of records management. This includes unit correspondence, files, and publications. It provides mail service and unit fund management. It maintains qualification records, duty rosters, policy files, and a unit journal and history. It operates a messenger service and distribution center. It submits SIDPERS feeder data and personnel reports to the DISCOM S1.

The company supply clement requests, receives, stores, safeguards, and issues supplies and equipment for the internal operations of the HHC/DMMC. More information on unit supply operations is in DA Pamphlet 710-2-1 or the automated procedural publication for the unit's automated supply system.

The headquarters company provides food service support to the DISCOM headquarters and DMMC and the division rear CP. It also provides food service support to other small units located in the DISCOM headquarters operating areas not assigned to a specific unit for feeding.

The company commander is responsible for the movement of the DISCOM headquarters. More information on unit movements is in Chapter 11.

ORGANIZATION AND FUNCTIONS OF THE MSB

The MSB is organic to the DISCOM. The MSB consists of headquarters and supply, medical, maintenance, and TMT companies. The battalion provides direct support logistics and division-level HSS to division and, in some cases, nondivisional units located in the division rear area. This includes storage and issue of Class I, II, III,

IV (less construction), VII, VIII, and IX supplies and limited distribution of Class III. The MSB provides three water points in the division and brigade support areas for purification and distribution of water. It provides unclassified map supply service. The battalion provides motor transport for supplies and personnel in support of division operations. It provides DS maintenance (less medical equipment) and common/missile repair parts supply support. It provides component/item reparables service for C-E, fire control, night vision, power generation, CCI, and automotive equipment; missile components; and major assemblies. It provides Echelon I and II HSS on an area basis for units in the division rear. This includes medical staff services, medical supply, and unit maintenance of medical equipment. It plans and conducts rear operations as assigned by the DISCOM commander. It also provides reinforcing logistics and HSS to the FSBs.

HEADQUARTERS AND SUPPLY COMPANY

Figure 2-5 depicts the MSB HSC. It consists of a command section, S1 section, S2/S3 section, S4 section, support operations section, supply company headquarters, and a supply platoon. The supply platoon consists of a platoon headquarters, supply section, Class III section, and water section. The HSC receives augmentation of a GRREG platoon and a CEB platoon to provide support to the division. (Note: In the future, this

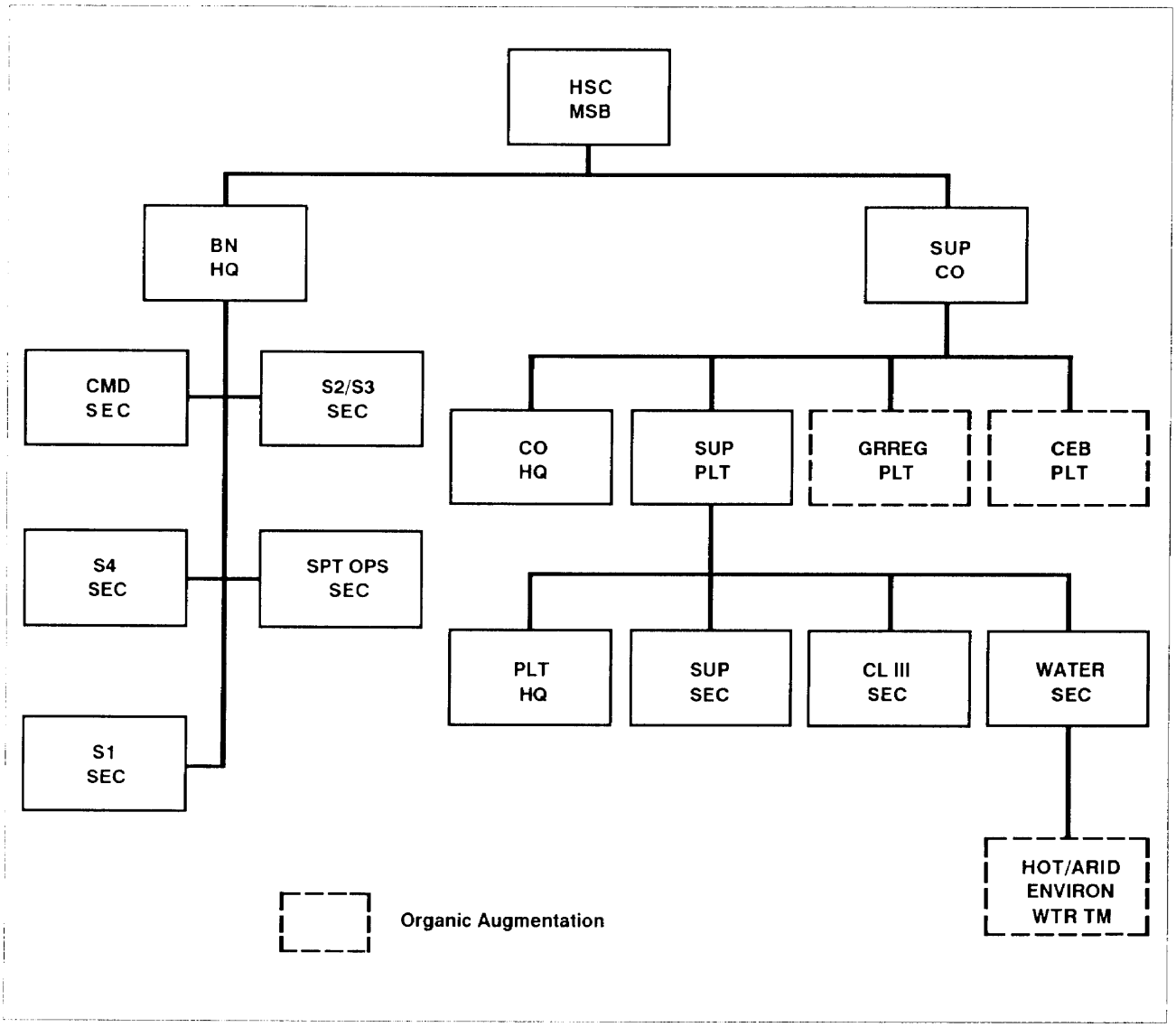


Figure 2-5. HSC, MSB.

support will come from a corps field services company.) In appropriate situations, it also receives a hot/arid environment water team which is designed for the LID.

MSB Headquarters

The mission of the MSB headquarters is the command and control of units assigned or attached to the MSB. Additional functions of the headquarters include –

- Planning, directing, and supervising DS maintenance, supply, transportation, health services, and field services support provided by the MSB to division units in the division rear and reinforcing support to the FSBs.
- Providing information and advice to the DISCOM commander and staff on MSB capabilities.
- Planning, directing, and supervising administration, training, security, and logistics for units organic or attached to the MSB.
- Planning and directing rear operations as assigned by the DISCOM commander, primarily self-defense.
- Providing a nucleus for planning and supervising mortuary affairs.
- Serving as the alternate DISCOM headquarters.

Command Section. The MSB commander commands all units organic or attached to the battalion. His duties and those of the MSB XO are similar to those of the DISCOM commander and deputy commander described previously.

S1 Section/PAC. As the personnel staff officer, the S1 has primary responsibility for PSS matters. These include personnel, administrative financial, religious, medical, public affairs, and legal support.

In addition to coordinating PSS activities and advising the commander on them, the S1 participates in the full range of staff officer functions. He –

- Participates in the OPORD process.
- Develops administrative annex materials.
- Prepares personnel estimates,
- Develops loss rate estimates.
- Recommends replacement priorities.

He ensures his areas are fully coordinated with other staff elements. He pays particular attention to areas v'here close coordination is necessary to ensure proper completion of PSS missions. These areas include mortuary affairs, transportation, and HSS.

The PAC provides the MSB S1 with primary staff support on personnel, administrative, financial, public affairs, and legal matters. Other battalion staff officers who provide PSS include the chaplain and the medical officer. PSS staff personnel support both the command and its soldiers.

Primary PAC combat duties focus on strength accounting, casualty reporting, and replacement operations. Other responsibilities include matters dealing with–

- SIDPERS.
- Mail.
- Awards and decorations.
- Soldier pay.
- Uniform Code of Military Justice.
- EPWs and stragglers.
- Publications and forms.
- Hometown news releases.
- Distribution center operations.
- Preparation of soldiers for overseas movement,

The S1 and PAC collocate with the S4 section near the MSB CP. This collocation provides for improved continuous operations capability. Cross-training of S1 and S4 section soldiers is key to this capability.

The PAC maintains and processes personnel information through data input to the TACCS. Information received from subordinate and supported units includes hasty strength reports, casualty feeder reports, and battle roster updates. They are the basis of the TACCS input. When this information is entered into the TACCS, it automatically updates the personnel summary report, the personnel requirement report, and other SIDPERS input. When subordinate units are task force configured, the PAC prepares a task force personnel summary. The PAC forwards strength reports to the DISCOM and the casualty feeder reports to the supporting personnel service company. Further information on S1 and PAC operations is in FM 12-6.

S2/S3 Section. The S2/S3 is the operations, intelligence, security, and training officer. He is responsible for internal MSB operations. The S2/S3 advises and assists the MSB commander in planning and coordinating battalion operations. The S2/S3 is responsible for writing and reviewing the battalion tactical SOP. The S2/S3 supervises the MSB functions not classified as logistics or HSS. He supervises intelligence gathering, formulates plans, and is responsible for the training of MSB units.

He is also responsible for the security functions of the battalion. His role and the role of the support operations officer require that they maintain constant contact.

The S2/S3 section plans and supervises the tactical operations of the MSB. It makes recommendations to the commander, publishes orders, and supervises implementation of plans and orders. It also maintains the current friendly and enemy situation. It plans and coordinates tactical movements. It supervises route reconnaissance and tactical road marches. It also reeives closing reports and supervises appropriate staff activities during movement.

The S2/S3 section prepares intelligence estimates. It identifies information needs by reviewing missions. It identifies current intelligence holdings by reviewing the S2/S3 workbook and situation map. It also reviews policy files, journals, intelligence files, and summaries. It prepares the IPB, to include the medical threat, and provides it to the commander,

The section prepares and develops the battalion defense plan. It coordinates the integration of MSB defense with the DISCOM S2/S3. It identifies probable engagement areas and selects target reference points. Other plans the section develops under the battalion defense plan include –

- Mobility and countermobility plan.
- Air defense plan.
- Communications plan.
- ADC plan.
- Rear operations annex.

This section is also responsible for the preparation of–

- Movement orders.
- Intelligence annex to orders.
- Daily intelligence summary for subordinate elements.
- Portions of the OPORD.

This section also operates the communications equipment and serves as the NCS for the MSB command/operations net. It ensures communications links with higher, adjacent, subordinate, and supported units. It operates in the DISCOM command/operations net and in the DISCOM logistics operations net. It operates the battalion message center. It plans and implements backup means of communications. It also ensures radio communications exist during a move.

The NBC NCO monitors, receives, coordinates, analyzes, and evaluates NBC activity data. He develops response procedures for NBC defense. He makes recommendations to the commander on MOPP levcls. He also prepares NBC reports 1 through 6. He provides support as required to other staff sections in NBC matters.

Support Operations Section. The support operations section coordinates and provides supervision for external logistics and HSS functions. It advises the MSB commander on requirements versus available assets. It ensures logistics to the supported units remains at a level consistent with the tactical operation. It recommends support priorities. It ensures logistics SOPS are up to date. It prepares and distributes the external support SOP. This SOP provides guidance to supported units on locations of support, time schedules, and procedures involved in receiving support. The section is responsible for the following

- Coordinating DS supply, field services, transportation, and maintenance to units in the division rear and reinforcing support to the FSBs.
- Providing technical assistance to the MSB companies and supported units.
- Coordinating with the MSB S2/S3 to integrate the technical mission with operation plans.
- Maintaining the logistics situation map depicting locations of units providing logistics and HSS to units in the division rear.
- Coordinating with the S2/S3 on the location of all support points within the DSA. It ensures supported units are aware of the locations and time schedules.
- Implementing the commander's guidance on priority of support to committed brigades.
- Advising the MSB commander on logistics and HSS operations.
- Preparing, reviewing, and implementing plans and procedures based on guidance from the MSB commander.
- Coordinating with the DISCOM S2/S3 and FSBs for reinforcement when the FSBs are overcommitted.
- Interfacing with the staff officers from supported units and the DMMC.
- Providing input to the DISCOM service support annex on HSS in coordination with the medical company. Topics covered include evacuation

procedures, augmentation of medical personnel, helicopter landing sites, Class VIII supply, and the priority of medical efforts.

- Coordinating treatment and evacuation plans with units in the division rear, the medical company, and the DMOC.
- Coordinating the delivery of supplies with the MSB HSC.
- Monitoring Class II, packaged III, IV, and VII issues from the distribution points.
- Monitoring the daily battle loss reports to anticipate needs.
- Requesting and coordinating airlift and airdrop support.
- Coordinating with the DISCOM MCO for daily vehicle availability and requirements.
- Maintaining statistics on the operational capabilities of the TMT company and other organic or attached transportation assets.
- Coordinating transportation of supplies to supported units when unit distribution is in use.
- Requesting field services and coordinating through the DISCOM S2/S3 for augmentation.
- Coordinating with the supply company on the placement and operations of field service elements.
- Coordinating transportation needs for the mortuary affairs collection points.
- Coordinating maintenance operations between the maintenance company and division units in the division rear.
- Coordinating the execution of the work load assigned by the DMMC. It requests additional required maintenance support from the EAD.

S4 Section. This section is responsible for planning, coordinating, and supervising unit-level supply and services. It also plans for maintenance and transportation support within the battalion. The S4 section coordinates schedules and methods of distribution between subordinate elements and DS units. It processes requests for Class II, III, IV, V, and VII items. It monitors requests for all required CTA items within the MSB. It also monitors the MSB company requests for Class IX items from the maintenance company. The S4 section monitors the status for all battalion elements in the areas of Class I, III, and V items. It monitors operational readiness of equipment. It also prepares the MSB Class III forecast and submits it to the support operations section.

The S4 section coordinates unit maintenance operations. It consolidates subordinate units' maintenance reports to analyze overall battalion equipment status. It provides equipment status reports to the commander and other staff sections. It monitors subordinate units' PLLs. This ensures operating levels are consistent with tactical SOP requirements. It coordinates with subordinate elements to ensure timely recovery and evacuation of all battalion equipment.

The S4 section coordinates with the S1 section on unit strength. Together they ensure MSB replacements are issued all authorized equipment. The S4 section monitors the field feeding and sanitation activities within the MSB. It also coordinates field service needs with the support operations section for all MSB units.

Supply Company

The MSB supply company consists of a company headquarters and a supply platoon. The supply platoon is made up of a platoon headquarters, a supply section, a Class III section, and a water section. It can be augmented with a hot/arid environment water team, a GRREG platoon, and a CEB platoon. The supply company of the MSB provides receipt, storage, and issue of Class I, II, III, IV, and VII supplies. It operates up to three water points in the division rear and brigade areas for purification and distribution of water at the water points and unit distribution of water to the light infantry battalion trains. It coordinates with the DMOC for preventive medicine support. This unit does not handle classified maps, aircraft, airdrop, rail equipment, or COMSEC supplies.

Supply Company Headquarters. The supply company headquarters provides the personnel for command and control, communicant ions, billeting, training, and discipline of the supply company. It provides for the security of the supply company and the MSB headquarters, It provides field feeding operations to the MSB. Field feeding operations are described in FM 10-23. It coordinates unit maintenance and is responsible for moving the HSC. FM 43-5 describes unit maintenance operations. Movements are described in Chapter 11 of this manual. It supervises CEB and mortuary affairs services to the division when augmented. FM 10-280 describes unit-level CEB. Unit-level mortuary affairs information is in FM 10-63-1.

The unit supply element supports the company with supplies and TOE equipment. The supply sergeant is responsible for directing and supervising internal supply

operations. The armorer and supply specialist assist the supply sergeant in the receipt, storage, security, and issue of unit supplies. The unit supply update and FM 10-14 have information on unit supply operations,

Supply Platoon. The supply platoon operates the supply points which provide Class I, II, III, IV and VII supplies to supported units in the division rear and water throughout the division area. It also provides supply support to the FSBs.

The supply platoon headquarters provides C2 for the supply platoon. It supervises, directs, and manages the receipt, storage, and issue of supplies to supported units. It coordinates through the support operations section with supported units on the hours of operation, the schedule of issues, turn-in procedures, and salvage operations.

The supply section receives, stores, and issues Class I, II, packaged III, IV, and VII supplies in support of units in the division rear. It also maintains the division reserve of these supplies. Chapter 7 of this manual and FM 10-27 have details on supply operations.

The Class III section establishes and operates the Class III supply point in the DSA. It is responsible for receipt, storage, issue, quality control, delivery, and dispensing of bulk fuel in support of the division mission. Chapter 9 of this manual and FM 10-69 discuss details of bulk fuel operations.

The water section provides up to three water purification sites. The section provides issue of water at the water points. It also provides unit distribution of water to the light infantry battalion trains. Chapter 7 of this manual and FM 10-52 have more information on field water supply.

MEDICAL COMPANY

The medical company in the MSB is shown in Figure 2-6. The medical company provides Echelon I and II medical care on an area basis to forces in the division rear. The medical company contains the centralized division assets for preventive medicine, mental health, and optometry services and the Class VIII supply system. The modular design of the company allows it to task organize and reinforce unit- and division-level medical elements. Elements of the company provide reinforcement to the forward support medical companies. Responsibilities of the company include –

- Performing triage, initial resuscitation, stabilization, and preparation for evacuation of sick, wounded, or injured patients generated in the division rear.
- Providing outpatient consultation services for patients referred from unit-level MTFs.
- Providing emergency dental care and limited preventive dentistry.
- Providing medical laboratory, radiological, and patient-holding services.
- Providing ground ambulance evacuation from medical companies operating in the forward areas and unit-level MTFs and nonmedical units operating in the division rear.
- Providing Class VIII supplies to FSB medical companies.

Company Headquarters

The medical company headquarters provides C2 for the company and attached medical units. It provides for billeting, discipline, security, training, unit-level administration, and supply and communications support.

Treatment Platoon

The treatment platoon operates the division clearing station in the DSA. It receives, triages, treats, and determines the disposition of patients based on their medical condition. It provides professional services in the areas of minor surgery, internal and general medicine, and genera! dentistry. It provides basic diagnostic laboratory, radiological, and patient-holding services.

The platoon headquarters provides C2 of the treatment platoon as well as unit administration and logistics. It determines and directs the disposition of patients received from the forward support medical companies and other supported units. It coordinates their further evacuation. It also coordinates the movement of treatment squads within the division area.

The two treatment squads perform routine medical care, triage, and ATM. They are identical to those of the forward support medical companies and the maneuver battalions' medical platoons. These squads may reinforce other division medical elements. They also assist in direct ADC and mass casualty operations. Each squad can separate into two treatment teams for short periods.

The area support section operates the division clearing station. It consists of an area support squad, area support treatment team, and patient-holding squad. These three elements operate as a single treatment unit. They provide unit-level HSS to units without

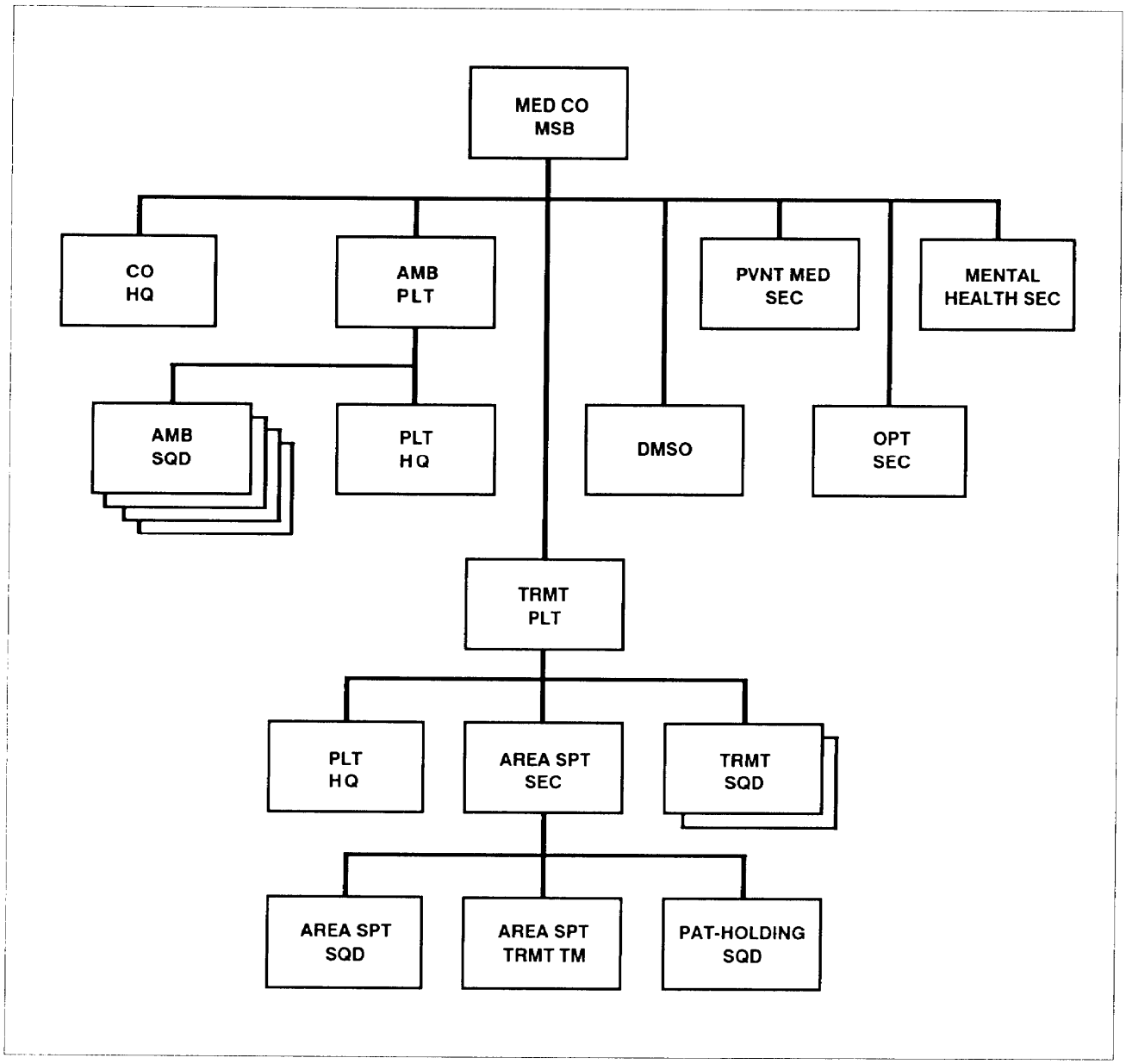


Figure 2-6. Medical company, MSB.

organic unit-level assets. They provide division-level HSS to units operating in the division rear. They serve as the primary MTF for patients who overflow BSA clearing stations, Elements of the section are not used to reinforce division medical elements. Also, they are not normally used on ADC teams.

The area support squad includes the dental and diagnostic support elements of the division clearing station. The dental element provides emergency dental care, dental care designed to prevent dental emergencies, and limited preventive dentistry. The diagnostic element provides for basic laboratory and routine x-ray diagnostic services.

The area support treatment team is the base medical treatment element of the division clearing station. It provides troop clinic type services and ATM, This team, in coordination with the DMSO, also provides limited emergency medical resupply of supported medical units in the division rear.

The patient-holding squad operates the holding ward facility of the division clearing station. It can hold

40 patients. Its primary function is to provide nursing care for patients awaiting evacuation and patients admitted for minor injuries or illnesses that are expected to RTD within 72 hours.

Ambulance Platoon

The ambulance platoon performs ground evacuation and en route patient care for supported units in the division rear. It also evacuates patients from division clearing stations in the BSAs to the division clearing station in the DSA. This platoon also reinforces ambulance platoons of the forward support medical companies.

The platoon headquarters provides C2 of the ambulance squads. It also provides communications for the platoon to direct ground evacuation of patients.

The four ambulance squads provide ground evacuation. Each squad consists of two teams, One ambulance team supports each forward support medical company. Two teams normally support units in the division rear. The remaining three teams are used in task force operations, reinforcing support, and ambulance shuttles.

Division Medical Supply Office

The DMSO provides Class VIII supply and unit maintenance on biomedical equipment for the division. Other functions of the DMSO include –

- Developing and maintaining of prescribed loads of
- contingency medical supplies.
- Managing the medical quality control program,
- Supervising unit medical maintenance.
- Monitoring the division medical assemblage management program.
- Coordinating the logistics plan for preconfigured Class VIII packages.

Preventive Medicine Section

The preventive medicine section can organize into teams to provide direct support to the light infantry brigades. This section ensures personnel implement preventive medicine measures. These protect against food-, water-, and arthropod-borne diseases and environmental injuries such as heat and cold injuries. The duties of this section include --

- Performing environmental health surveys and inspections.
- Monitoring water production and distribution in the division area.
- Monitoring the immunization program.
- Monitoring disease and injury incidence to recognize disease trends early and recommending preemptive disease suppression measures.
- Conducting surveillance of division units to ensure implementation of preventive medicine measures. It identifies health threats and recommends corrective action.
- Monitoring division-level resupply of disease prevention supplies and equipment. These include water disinfectants, pest repellents, and pesticides.
- Deploying preventive medicine teams in support of specific units or operations as required.
- Investigating incidents of food-, water-, and arthropod-borne diseases and other communicable diseases.
- Assisting in the training of unit field sanitation teams. Information is in FMs 21-10 and 2110-1.
- Monitoring environmental and meteorological conditions and assessing their health-reia[ed impact on division operations. It recommends preventive medicine measures to minimize heat and cold injuries as well as arthropod-borne diseases.

Optometry Section

This section provides limited optometry services. These include –

- Routine eye examination and refraction.
- Spectacle frame assembly using presurfaced single-vision lenses.
- Spectacle repair services.

Mental Health Section

This section is responsible for assisting the command in controlling combat stress. This is done through prevention programs and maximizing the RTD rate with far forward care of battle fatigue casualties. It provides divisionwide mental health services. It has staff responsibility for establishing policy and guidance for prevention, diagnosis, management, and RTD of battle fatigue casualties. It has technical responsibility for the diagnosis, treatment, and disposition of NP disorder and disease cases. Other duties are —

- Advising the division surgeon on mental health issues and the morale of troops.
- Assisting in patient triage to ensure personnel handle BF/NP patients properly.

- Providing education programs and individual case consultation to unit leaders and medical personnel. Education covers prevention and early recognition. It also deals with intervention at the unit level for battle fatigue, substance abuse, suicidal risk, and NP and personality disorders.
- Providing technical supervision of unit combat mental fitness plans and SOPS.
- Maintaining contact with supported units and providing staff planning to predict battle fatigue casualties.

MAINTENANCE COMPANY

The maintenance company in the MSB is depicted in Figure 2-7. The maintenance company provides DS maintenance and repair parts supply to division units not supported by the maintenance companies of the FSBs. It also provides reinforcing maintenance for the maintenance companies of the FSBs.

Company Headquarters

The maintenance company headquarters is the C2 center for the company. It provides necessary billeting, discipline, security, administration, and supply support to elements of the company.

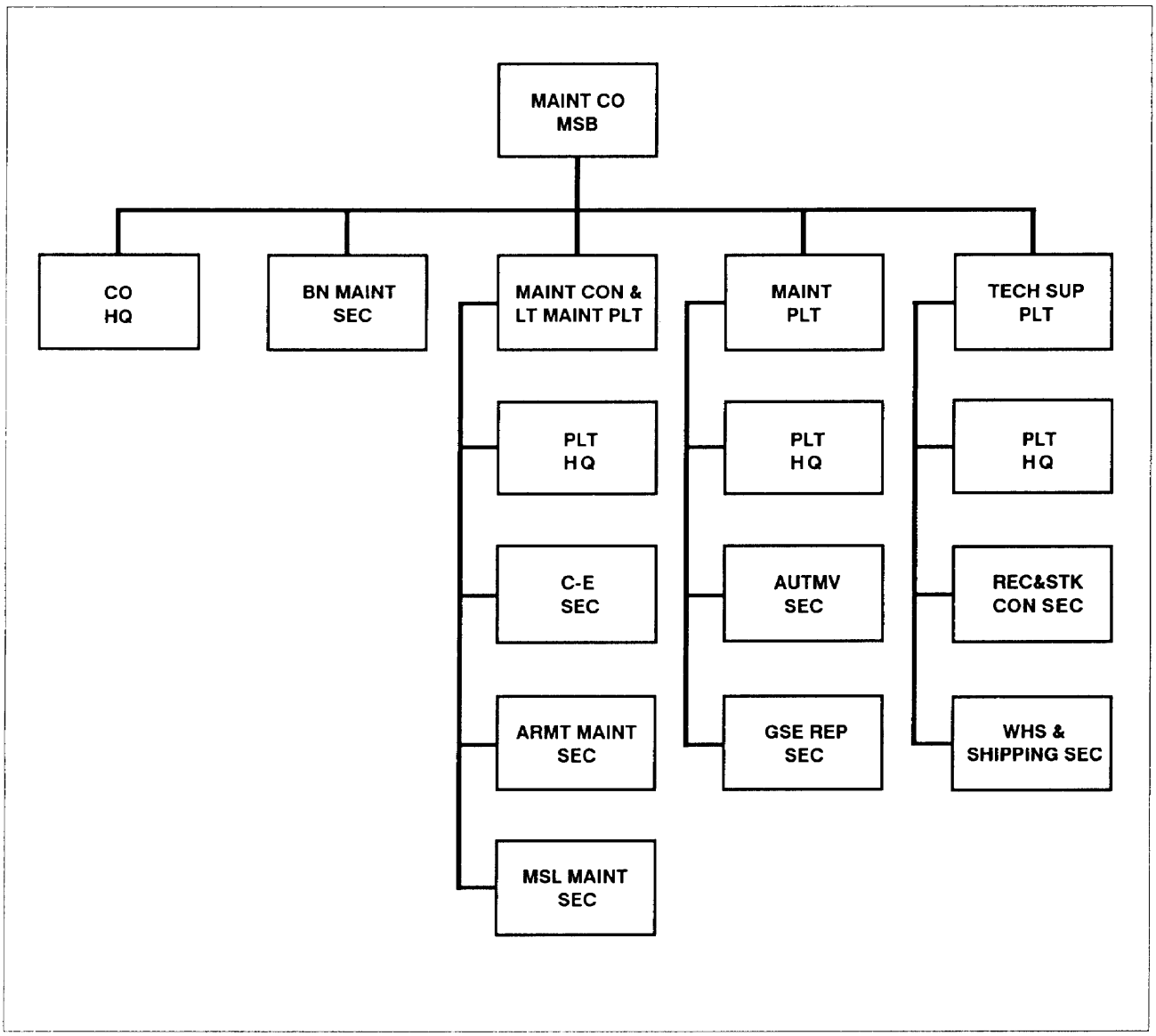


Figure 2-7. Maintenance company, MSB.

Battalion Maintenance Section

Unit maintenance for the MSB and the HHC, DISCOM, is consolidated in this section. It performs unit maintenance for organic equipment. This includes wheeled vehicles, trailers, MHE, generators, water purification equipment, and fuel-handling equipment. It does not include unit maintenance on aircraft and medical and avionics equipment.

Maintenance Control and Light Maintenance Platoon

This platoon repairs C-E equipment and small arms and artillery pieces. It also performs missile maintenance within limitations. The platoon headquarters provides C2 for the platoon and the overall supervision of DS maintenance shops. It provides technical inspections, shop supply, job orders, and equipment accountability. Technical inspectors are responsible for all aspects of quality assurance, technical inspection, and quality control.

The C-E section repairs C-E equipment for all units of the division less signal and MI battalion items. These include radios, telephones, electronic devices, target acquisition and surveillance radar equipment, and tactical computers,

The armament maintenance section provides armament base shop support for small arms, fire control instrumentation, and artillery pieces not repaired on site. It also provides technical advice to units on armament maintenance.

The missile maintenance section provides repair to TOW, Dragon, and Vulcan systems, It also provides MSTs to support missile systems users. Service by MSTs is limited to the exchange of faulty LRUs.

Maintenance Platoon

This platoon repairs automotive equipment and ground support equipment. The platoon headquarters provides C2 for the platoon. The automotive section provides base shop repairs for automotive equipment. Automotive repairs include engine, powertrain, and chassis components of wheeled vehicles, MHE, and related items. The ground support equipment repair section provides base shop support of utility, power generation, and construction equipment. The platoon also has a reinforcing recovery capability.

Technical Supply Platoon

This platoon maintains the division's main ASL (less aircraft) for Class IX, manages reparable, and maintains QSS stocks. The platoon headquarters provides C2 of the functions of the platoon. The receiving and stock control section receives and accounts for all incoming supplies to include turn-ins. It issues selected reparable to supported units. It receives, stores, and issues QSS items. The warehouse and shipping section stores supplies, performs in-storage warehouse operations (such as shelf life monitoring and protecting from weather and pilfering), and processes supplies against shipping documents. It packages and crates supplies when required.

TRANSPORTATION MOTOR TRANSPORT COMPANY

Figure 2-8 shows the TMT company. The primary mission of the company is to –

- Provide truck transportation for limited distribution of Class I, II, IV, and VII supplies not throughput to the BSA.
- Transport troops in support of division operations.
- Transport division reserves for which the MSB is responsible. It also furnishes vehicles in support of division headquarters displacements,
- Furnish vehicles to assist division elements which need supplemental transportation. This includes emergency unit distribution of supplies and water.
- Evacuate unserviceable to the next level of maintenance.
- Assist with displacement of division elements with less than 100 percent organic mobility.

Company Headquarters

The TMT company headquarters provides for C2 and meets the administrative and logistics needs of the company. It provides necessary billeting, discipline, security, administration, and supply support to elements of the company.

Light Truck Platoon

The light truck platoon consists of a platoon headquarters and two light truck cargo squads. The platoon headquarters provides C2 and technical guidance to the squads performing motor transport support tasks. The cargo squads move general cargo and personnel by light truck, perform daily operator maintenance, and prepare operator dispatch records.

Light/Medium Truck Platoon

The light/medium truck platoon consists of a platoon headquarters, a light truck cargo squad, and a medium

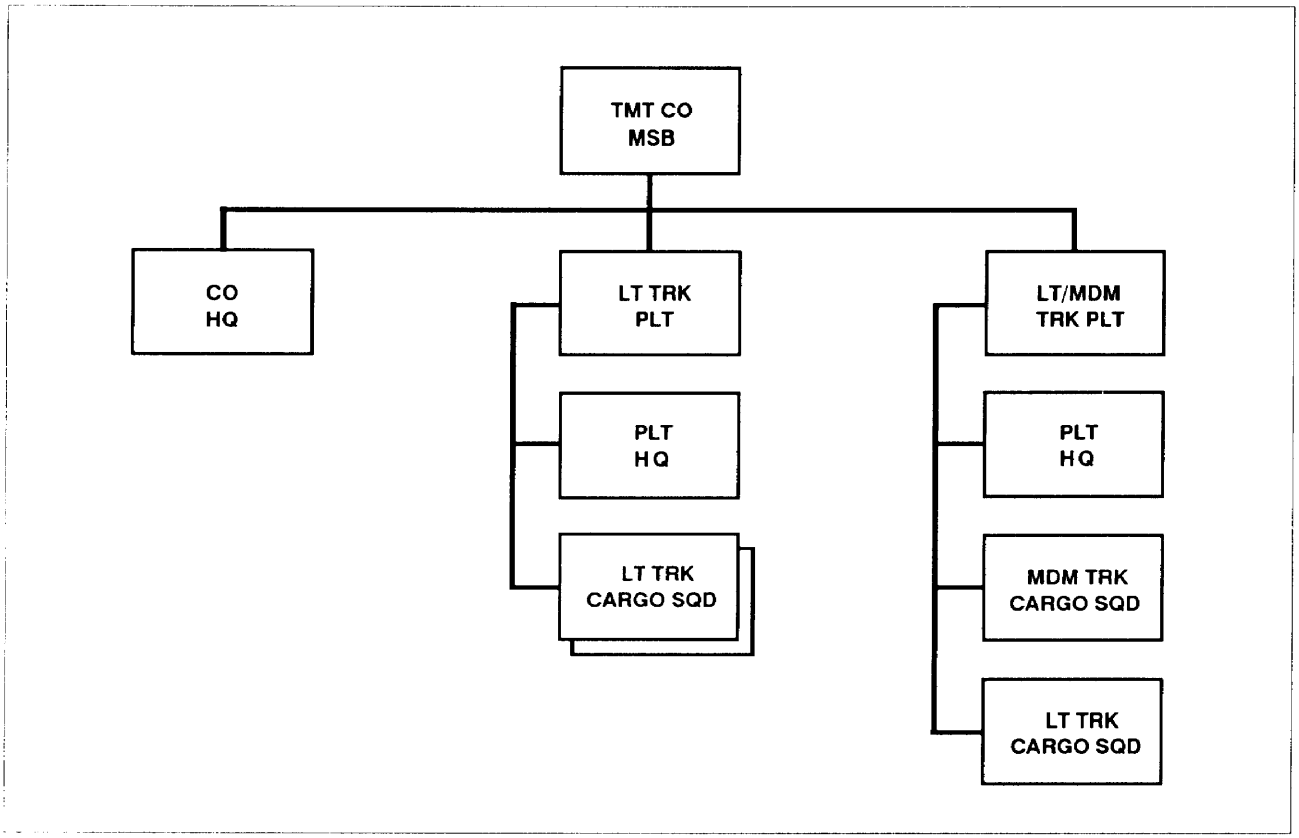


Figure 2-8. TMT company, MSB.

truck cargo squad. The platoon headquarters provides C2 and technical guidance to the cargo squads performing motor transport tasks. The light truck cargo squad moves general cargo and personnel by light truck. The medium truck cargo squad moves containerized and general cargo via truck tractor and semitrailer.

ORGANIZATION AND FUNCTIONS OF THE FSB

Three FSBs are organic to the DISCOM. Each FSB consists of an HSC, medical company, arid maintenance company. The FSB provides DS-level logistics and HSS to a light infantry brigade and other division units in the brigade AO. The FSB is the single point of contact for support in the brigade AO. Specifically, it supports the brigade by providing or coordinating to provide Class I, II, III, IV, VII, and IX items as well as maintenance, health w-vices, field services, and transportation support. It provides support in the amounts and at the times specified in the brigade service support annex and the FSB SOP. It operates an ATP in the BSA. It replenishes its supported units' basic loads of supplies. It replenishes prescribed loads of maintenance-significant Class II and IV items and repair parts. It maintains equipment at prescribed operational levels or passes it to the maintenance company in the DSA. It coordinates transportation needs identified by the brigade with the MCO. It provides HSS and coordinates medical evacuation and treatment operations with the brigade. It plans and conducts security and terrain management in the BSA.

HEADQUARTERS AND SUPPLY COMPANY

The FSB HSC (Figure 2-9) consists of a battalion headquarters and a supply company. The battalion headquarters has command, S1/PAC, S2/S3, S4, and support operations sections. The supply company consists of a company headquarters and a supply platoon. The supply platoon consists of a platoon headquarters and supply, Class III, and ATP sections.

FSB Headquarters

The FSB headquarters commands and controls organic and attached units. It plans, directs, and supervises

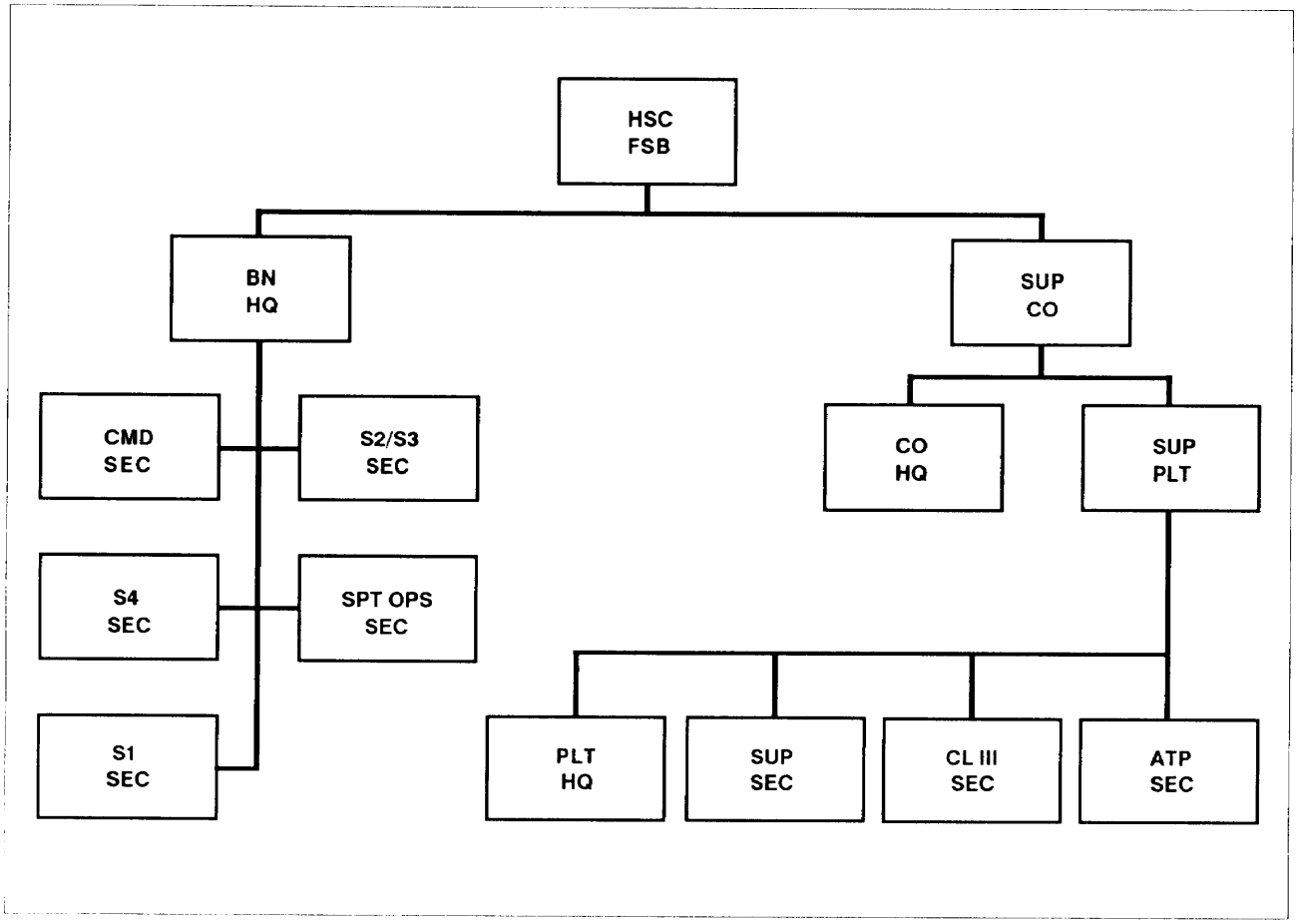


Figure 2-9. HSC, FSB.

DS maintenance, supply, transportation, health services, and field services support provided to division units in the brigade area. It provides information and advice to the DISCOM and supported brigade commanders and their staffs on support capabilities of the FSB. It plans, directs, and supervises administration, training, security, and logistics for units organic or attached to the FSB. It also coordinates support for corps units in the brigade area. It plans and directs security and terrain management in the BSA.

Command Section. The FSB commander commands all units organic or attached to the FSB. His duties include —

Attending the daily brigade staff meeting.

Coordinating logistics and HSS for the supported brigade.

Acting as OIC of the BSA. He recommends the location of the BSA to the brigade commander. He controls all BSA occupants in the establishment of the BSA defense,

- Determining, with brigade S4 help, the allocation of operational sites within the BSA. He assigns areas, tents, and buildings to BSA elements.
- Advising the brigade commander on requirements versus available assets. He determines needs in coordination with the brigade S2/S3 and S4 and the logistics representatives of other supported units.
- Providing input to the brigade S4 on the brigade logistics estimate and service support annex.
- Planning and coordinating security arrangements for all FSB elements.
- Maintaining contact with DISCOM headquarters.
- Informing the DISCOM commander of FSB status and potential changes.
- Submitting a daily LOGSTAT to the DMMC.
- Reporting to the brigade on maintenance status, Class I, III, V, and water status, and personnel status of the FSB.

- Advising and assisting brigade units in logistics and HSS matters.
- Keeping informed of brigade tactical plans and informing DISCOM elements in the BSA of these plans.
- Coordinating logistics and HSS for division and nondivisional elements in the brigade area that are not a part of the supported brigade.
- Ensuring each FSB company has a minimum of one trained drop zone support team.
- Coordinating field services if provided in the BSA.
- Providing SOI and weather reports to FSB elements,
- Coordinating the displacement of elements in the BSA.
- Coordinating support during moves. He notifies the brigade S4 and other supported units of new supply, maintenance, and medical points and operating times,
- Establishing the operating area after each move.
- Coordinating with the brigade S2/S3 and S4 on the NBC threat to assess the impact on all support operations and to develop an NBC contingency plan which includes stocking of NBC equipment and supplies.

The XO is the principal assistant to the FSB commander. As second in command, he understands both the support operations and the non-CSS functions of the FSB. He supervises the FSB staff and coordinates assigned missions with subordinate company commanders. In accordance with FSB commander directives, he formulates SOPs. He also oversees the maintenance of the master policy file and supervises FSB CP operations.

S1 Section/PAC. The FSB S1 has primary responsibility for FSB PSS matters. These include personnel, administrative financial, religious, medical, public affairs, and legal support. He performs the same functions in support of the FSB as the MSB S1 performs for the MSB. These functions are described earlier in this chapter.

S2/S3 Section. The FSB S2/S3 is the operations, intelligence, security, and training officer. He is responsible for the internal FSB operations. He advises and assists the FSB commander in planning, coordinating, and supervising the communications, operations, training, security, and intelligence functions of the FSB. The S2/S3 supervises the FSB functions not classified as logistics or HSS. He is responsible for writing the battalion tactical SOP. He informs the FSB commander on all IPB matters relative to the defense of the BSA. He is also responsible for staff coordination of the defense of the BSA.

The S2/S3 section monitors the tactical operations of the FSB. It makes recommendations to the FSB commander, publishes orders, and supervises the implementation of plans and orders. It also maintains the current friendly and enemy situation. It positions units within the BSA and plans BSA security. This includes planning the equipment and personnel for the base cluster reaction force. Also, it develops and implements the traffic circulation plan for the BSA. It ensures that the BSA security plan is integrated into the overall brigade rear operations plan.

The S2/S3 section plans and coordinates tactical movements. It supervises route reconnaissance and tactical road marches. It also receives closing reports and supervises staff activities during movement.

The S2/S3 section prepares intelligence estimates. It uses the IPB techniques described in Chapter 6 to prepare the IPB. It also develops procedures for handling and using or disposing of enemy equipment and documents. It supervises the handling of enemy defectors and materiel. It monitors EPW collection point activities. It also is responsible for obtaining classified maps required by FSB units.

This section is also responsible for the preparation of –

- Movement orders.
- Intelligence annex to orders.
- Daily intelligence summary for subordinate elements.
- Operations estimates.
- Intelligence estimates updates.
- Portions of the FSB OPORD/OPLAN.

This section also operates the communications equipment and serves as the NCS for the FSB command/operations net. It ensures communications links with higher, adjacent, and subordinate, and supported units. It plans and implements backup means of communications. It also ensures that radio communications exist during a move.

The NBC NCO assists in the employment of NBC teams. He monitors, receives, coordinates, analyzes, and evaluates NBC activity data. He develops response procedures for NBC defense. He makes recommendations to the FSB commander on MOPP levels. He also

prepares NBC reports 1 through 6. The NBC NCO supports all staff sections, as required, in NBC operations.

Support Operations Section. The support operations officer coordinates and provides technical supervision for the FSB's external logistics and HSS mission. This mission includes DS supply and maintenance (less medical) and coordination of transportation and field services. The support operations officer advises the FSB commander on requirements versus available assets. He coordinates needs with the brigade S4, the FSB S2/S3, and the logistics representatives of other supported units, The support operations officer provides input in the form of an external service support annex to the brigade S4. This is included in the brigade logistics estimate and service support annex.

The support operations officer ensures support remains at a level consistent with tactical operations. He plans and monitors support. He makes necessary adjustments to ensure support requirements are met. He tracks available assets through the FSB companies and the brigade S4 and supported units. He keeps the DISCOM S2/S3 section abreast of the logistics and medical situation in the brigade area. He requests reinforcing support when requirements exceed capabilities. He coordinates additional support with the DISCOM S2/S3 section whether it comes from the MSB or the corps. He recommends support priorities and ensures logistics SOPS are followed. He also coordinates with the FSB S2/S3 on the location of all support points within the BSA. He ensures supported units are aware of the locations and time schedules for support operations. He prepares and distributes the external service support SOP. This provides guidance to supported units on procedures involving support. The support operations officer directs the activities of the support operations section.

The support operations section has several specific functions in the area of supply and services. It coordinates supply distribution and services provision with the DISCOM as well as the brigade and other supported units. It monitors daily battle loss reports to anticipate requirements. Requirements that exceed FSB capabilities are coordinated with the DISCOM S2/S3 section. It also assesses the type of resupply operations required. If airlift or airdrop is required in the BSA, it requests and coordinates the support. The section monitors basic loads in coordination with the brigade S4 and makes distribution adjustments. The section coordinates with the brigade S4 and DAO representative on priority of Class V supply. They also coordinate locations of any ammunition propositioned for specific tactical operations. The section monitors the CSR and basic loads of supported units. It plans, coordinates, and trains for the FSB's unit mortuary affairs functions.

Field service support is coordinated through the DISCOM S2/S3 section. The FSB support operations section coordinates with the FSB supply company and brigade S4 on locations and operations of field service augmentations. The section monitors activities in the brigade for compliance with the brigade sin-vice support annex.

In the maintenance area, the section recommends the allocation of resources in coordination with the maintenance company and supported units. It forecasts and monitors the work load for all equipment (less medical) by types of equipment. It devises the plans and policies for QSS and Class IX operations. It monitors shop production and job status reports. It also monitors and reviews the ASL. It coordinates critical parts status with the DMMC. For unserviceable items, it generates disposition instructions on the basis of division and DISCOM commander guidance.

The section also has a role in transportation. It coordinates and monitors the movement of replenishment stocks and services for the FSB. It also coordinates the backhaul of equipment and supplies with the MCO and DMMC. It coordinates delivery priorities with the brigade S4. When transportation requirements exceed the FSB's capability, it coordinates support with the MCO.

For HSS, the FSB support operations section, assisted by the brigade surgeon/medical company commander, provides input to the service support annex on medical evacuation and hospitalization. Plans are coordinated with supported units and the DMOC. The section monitors medical evacuation and treatment operations to ensure brigade needs are being met. It also monitors the level of medical assets available, If additional resources are required, it requests them through the DMOC.

The FSB support operations section performs several other functions. These include —

- Coordinating support during moves. It notifies the brigade S4 and other supported units of new supply, maintenance, and medical points and operating times.
- Establishing the section area after each move.
- Coordinating with the FSB S2/S3 on the NBC

threat to assess the impact on all support operations. It develops an NBC contingency plan. This includes stocking of NBC equipment and supplies.

- Ensuring that section personnel assigned to the reaction and defense forces are identified and know their responsibilities.
- Providing mortuary affairs training, supervision, and advice to all units in the brigade.

S4 Section. The FSB S4 provides technical supervision and assistance for unit-level logistics within the FSB. He is responsible for preparing the logistics estimate and making recommendations to the FSB commander on internal logistics activities. He also writes, in coordination with the S1, the service support annex to the FSB OPORD/OPLAN. He supervises the personnel in the S4 section.

The FSB S4 section coordinates with the FSB companies on the locations of internal supply and services activities. It processes requests for Class II, 111, IV, V, and VII items of all FSB elements. It monitors requests for CTA items. It monitors requests from FSB elements for Class IX items. It also monitors the status of all FSB elements in the areas of Class I, III, V, and water supplies and operational readiness of equipment. It prepares the Class III forecast for the FSB and submits it to the support operations section of the FSB. The S4 section coordinates with the S1 section on unit strength and replacement data to project logistics requirements. It develops the battalion feeding plan and disseminates it among feeding and feeder elements. The S4 section also coordinates movement plans with the S2/S3 section. It monitors field feeding and sanitation activities within the FSB. It consolidates transportation requirements for FSB units and passes them to the support operations section. It also assists the brigade S4 in planning and executing resupply operations.

Supply Company

The mission of the supply company is to provide Class I, II,III, IV, and VII supplies. It also operates one ATP in or near the BSA. It maintains the brigade prescribed reserve supplies and equipment.

The company performs the following functions:

- Receives, temporarily stores, and issues Class I, II, packaged III, IV and VII supplies, as well as unclassified maps. It does not handle classified maps, aircraft, airdrop equipment, COMSEC supplies, or ADPE.
- Receives, stores, and issues bulk petroleum using supply point distribution.
- Distributes bulk petroleum on a daily basis to light infantry battalions using unit distribution.
- Operates an ATP under the supervision of the DAO. The ATP personnel transload Class V supplies from corps transportation to brigade supply vehicles in the BSA.

Company Headquarters. The company headquarters maintains C2 over the supply company. It is also responsible for C2 of corps supply, service, and transportation augmentation units. It plans and supervises the establishment and operation of supply distribution points and an ATP. Headquarters personnel provide unit-level administrative and supply support to the company. They also provide field feeding for all FSB units.

Supply Platoon. The supply platoon consists of a platoon headquarters, a supply section, a Class III section, and an ATP section. Headquarters personnel supervise, direct, and coordinate platoon operations. The supply platoon provides Class I, II, packaged III, IV, and VII supplies. It maintains the ASL for these supplies. It also provides unclassified map supply support. It maintains prescribed reserves of supplies and equipment for the brigade. The Class III section provides bulk fuel to all division units and designated nondivisional units in the brigade area. It provides bulk fuel to the light infantry battalions by unit distribution using three tank and pump units. It also operates a FARE station. The ATP section operates one ATP in the BSA to transload Class V supplies from corps transportation to brigade unit ammunition supply vehicles. If mortuary affairs and CEB elements are employed in the brigade area, they are attached to the FSB supply platoon. When necessary the MSB supply company also attaches water equipment and personnel to the FSB supply platoon. Water personnel operate purification, storage, and distribution points.

FORWARD SUPPORT MEDICAL COMPANY

The forward support medical company (Figure 2-10) consists of a company headquarters, treatment platoon, and ambulance platoon. The company is organized in the same manner and contains the same number of modules as the medical company in the MSB. However, the MSB company also has specialized sections that provide divisionwide support. The company commander also serves as the brigade surgeon and coordinates HSS for the brigade to include aeromedical evacuation.

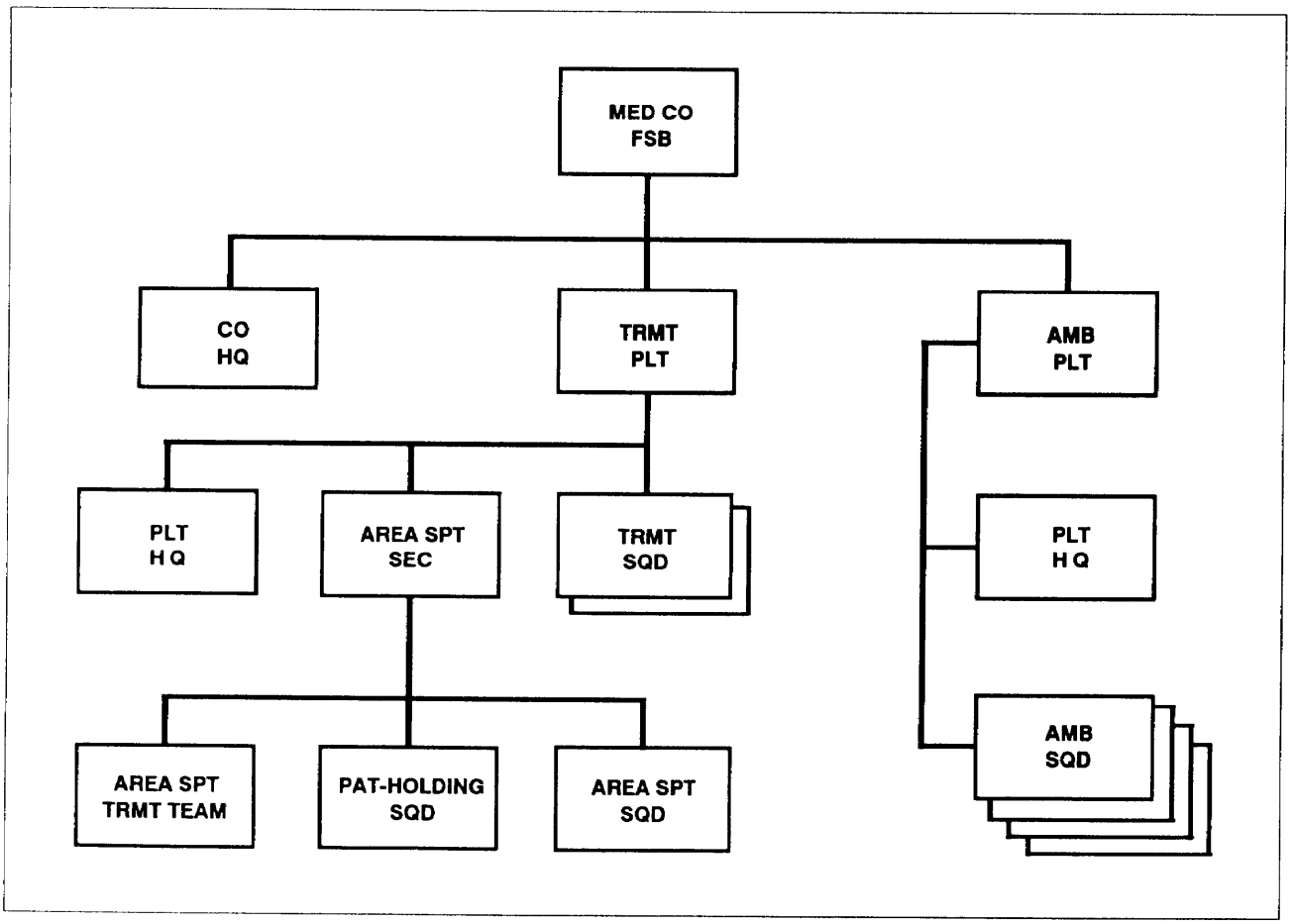


Figure 2-10. Medical company, FSB.

The mission of the company includes –

- Providing division-level HSS to forces operating in the brigade area.
- Treating patients with diseases and minor injuries and performing triage. It initially resuscitates, stabilizes, provides ATM, and prepares patients incapable of RTD for further evacuation.
- Evacuating patients by ground ambulances from the BASS.
- Providing unit-level HSS on an area basis to elements of the division which do not have organic support.
- Sending treatment squads forward for limited periods of time to replace or reinforce BASS.
- Providing dental care.
- Providing medical resupply to units operating in the brigade area.
- Providing limited laboratory and radiological services.
- Providing outpatient services for patients referred from BASS.
- Providing patient holding for up to 20 patients able to RTD within 72 hours.

Company Headquarters

The headquarters provides C2 for the company and attached medical units. It provides unit-level administration, general supply, and NBC operations and communications support. It also provides supply point distribution of Class VIII items for the brigade. Unit medical equipment maintenance is provided by the DMSO of the MSB medical company.

The company commander also serves as the brigade surgeon. As such, he keeps the brigade commander informed on the medical aspects of brigade operations and the health of the command. He regularly attends brigade staff meetings. There he provides input and

obtains information to facilitate medical planning. Specific duties in this area include –

- Assures implementation of the HSS section of the SOP.
- Determines the allocation of medical resources in the brigade.
- Supervises technical training of medical personnel and the combat lifesaver program in the brigade area.
- Determines procedures, techniques, and limitations in the conduct of routine medical care, EMT, and ATM.
- Monitors and coordinates requests for aeromedical evacuation from supported units.
- Ensures implementation of automated medical systems.
- Informs the DISCOM surgeon on the brigade's HSS situation.
- Monitors the health of the command and advises the commander on measures to counter disease and injury,
- Assumes operational control of augmentation medical units when directed.
- Exercises technical supervision of subordinate battalion surgeons.
- Provides the medical estimate and medical threat input for inclusion in the commander's estimate.

Treatment Platoon

The treatment platoon operates the division clearing station in the BSA. It also provides assets to reinforce supported unit medical elements. Platoon elements receive, triage, treat, and determine disposition of patients. The platoon consists of a platoon headquarters, area support section and two treatment squads.

The headquarters is the C2 element of the platoon. It determines and directs the deposition of patients. It coordinates further evacuation with the ambulance platoon.

The area support section operates the division clearing station. It consists of an area support treatment team, area support squad, and a patient-holding squad. These elements operate as a single medical unit. They are not normally used to reinforce other units. The area support treatment squad is the base treatment element of the clearing station. The squad consists of two teams which provide troop clinic services, trauma treatment, and tailgate medical support. When the clearing station moves, one of the treatment teams along with elements of the patient-holding squad serves as a jump element. They set up the new clearing station while remaining elements close out operations at the old site. The area support squad consists of dental and diagnostic support elements of the clearing station. The patient-holding squad operates a 20-bed facility for patients awaiting evacuation and patients expected to RTD within 72 hours.

The two treatment squads provide troop clinic services, trauma treatment, and tailgate medical support. They are oriented toward reinforcing the combat medical platoon/section treatment squads and alleviating mass casualty situations.

Ambulance Platoon

The ambulance platoon performs ground evacuation from BASS and preplanned patient-collecting points to the BSA clearing station. The platoon has a headquarters and four ambulance squads. The headquarters provides C2 and plans for the employment of the platoon. It coordinates with the medical platoons/sections of supported units and plans ambulance routes. It sets up and operates AXPs and the ambulance shuttle system in its AO. Squads from the platoon also reinforce ambulance squads in the light infantry battalion or CS battalion medical platoon/sections. Each squad splits into ambulance teams and provides evacuation from forward areas.

MAINTENANCE COMPANY

The maintenance company in the FSB is depicted in Figure 2-11. It consists of a company headquarters, battalion maintenance section, maintenance control and maintenance platoon, and technical supply section. The maintenance control and maintenance platoon consists of a platoon headquarters, electronic maintenance section, armament section, and automotive and ground support repair section. The company provides DS maintenance to brigade elements (less missile). This includes —

- Artillery.
- Communications equipment.
- Fire control instruments.
- Power generation equipment.
- Small arms.
- Special electronic devices.
- Wheeled-vehicle repairs.

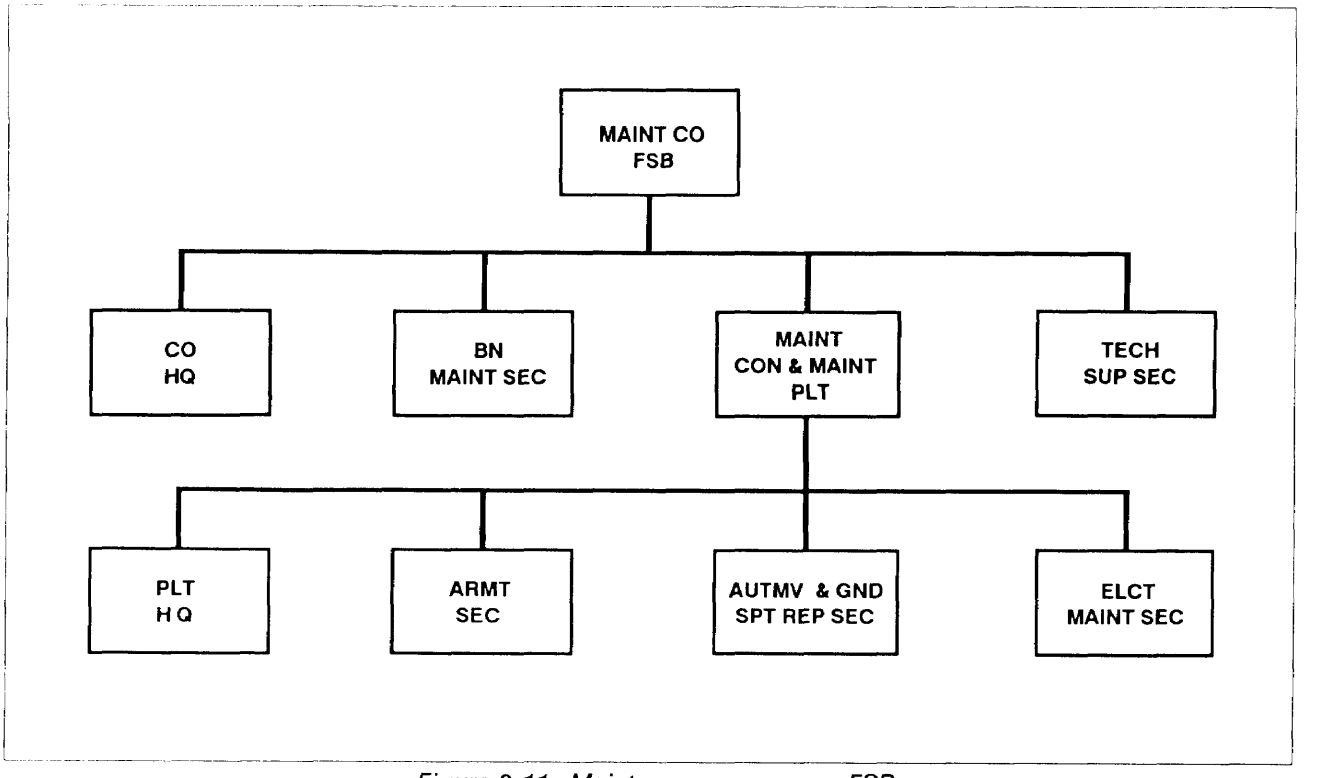


Figure 2-11. Maintenance company, FSB.

It is responsible for the inspection and diagnosis of vehicles and weapon systems for repair by the division or for evacuation to the corps. It provides limited recovery capability to supported units. It provides unit maintenance to the FSB less medical equipment.

Company Headquarters

The headquarters provides C2 for accomplishment of the company's mission. It provides unit-level administrative and supply support to elements of the company. A particular concern for the headquarters is command, control, and communications for contact teams performing on-site repairs.

Battalion Maintenance Section

Unit maintenance for elements of the FSB is consolidated at the battalion level. This section performs unit maintenance on all equipment (except medical) organic to the battalion.

Maintenance Control and Maintenance Platoon

The maintenance control officer is the main assistant to the company commander for DS maintenance support. With the other members of the platoon headquarters, he provides the control, coordination, and overall supervision of the maintenance shops, MCPs, and contact teams. The headquarters performs job ordering and equipment accountability and dispatches contact teams. The inspection element is responsible to the company commander for quality assurance, technical inspections, and quality control for all DS maintenance. Maintenance management is supported by SAMS software run on the TACCS device in the platoon headquarters.

The electronic maintenance section provides DS maintenance for all C-E equipment in the brigade area less COMSEC and certain signal and MI peculiar items, It repairs —

- Radio receivers and transmitters.
- Teletypewriters.
- Facsimile machines.
- Switchboards.
- Telephones.
- Multichannel equipment.
- Special electronic devices such as night observation devices, searchlights, and mine-detectors.

The armament section provides DS maintenance for artillery, fire control instruments, and small arms. It provides base shop support for equipment not repaired

on site, Artillery repairs are those to towed weapons including firing and breech mechanisms. The section repairs fire control instruments such as binoculars, telescopes, aiming circles, and rangefinders. Small arms repairs include those made to individual weapons such as rifles, mortars, pistols, and machine guns.

The automotive and ground support repair section provides base shop capability and on-site repairs. Automotive repairs center on DS maintenance on engine, powertrain, and chassis components of wheeled vehicles and MHE. Ground support repairs include those to—

- Power generators.
- Construction equipment.
- Air conditioner units.
- Refrigeration equipment.
- Heaters.
- Utility packs.
- Water purification units.
- Chemical equipment.

Technical Supply Section

The technical supply section provides Class IX supply support. It receives customer requests. It fills requests from on-hand stocks or passes requisitions for the items not on hand to the DMMC. The TACCS device to run SARSS-1 for Class IX is in this section. The section also provides technical assistance to supported units.

ORGANIZATION AND FUNCTIONS OF THE AMCO

Figure 2-12 shows the AMCO. It is a separate company organic to the DISCOM. It is structured to support the specific aircraft assigned to the LID. The AMCO provides the AB with AVIM and backup AVUM at its main location. It also provides maintenance support teams in the AB operational areas.

The AMCO performs extensive maintenance on aircraft systems. This maintenance includes—

- Making structural and airframe repairs.
- Repairing components for immediate reinstallation on aircraft or to support its organic reparable management program.
- Performing scheduled AVIM.
- Weighing aircraft.
- Maintaining the division Class IX (A) ASL to replenish the supported unit PLL stocks,
- Serving as the next-level processing agency.

Class IX (A) supply transactions include the receipt, storage, and issue of repair parts. They also include the control and distribution of Army intensively managed items.

The AMCO uses mobile, weapon system-oriented MSTs to perform AVIM in the forward areas. This enhances the quick repair and return to user doctrine. This maintenance includes–

- Inspecting, testing, and troubleshooting.
- Diagnosing and repairing.
- Adjusting and calibrating.
- Backup recovering and evaluating.

At times, the work load of the AMCO becomes too great. When this occurs, passback of the work load to the corps AVIM battalion takes place. Any excess passback is offset by the attachment of an augmentation team to the corps AVIM battalion.

AMCO HEADQUARTERS

This headquarters provides command, supply, administrative, and organizational maintenance functions (less communications and aircraft-related equipment).

PRODUCTION CONTROL SECTION

This section establishes formal procedures to ensure efficient use of maintenance mission resources. It receives and processes work requests and coordinates and schedules jobs through various shops. It also maintains aircraft parts status boards and shop status reports. It coordinates inspection and test flight requirements and the return of repaired aircraft and equipment to the supported unit. In the case of ORF aircraft, it coordinates the return of repaired aircraft to the supply platoon.

QUALITY CONTROL SECTION

This section enforces acceptable standards in repair, overhaul, modification, safety-of-flight, and other maintenance functions pertaining to Army aviation. It is also responsible for safety in all maintenance areas. The QC

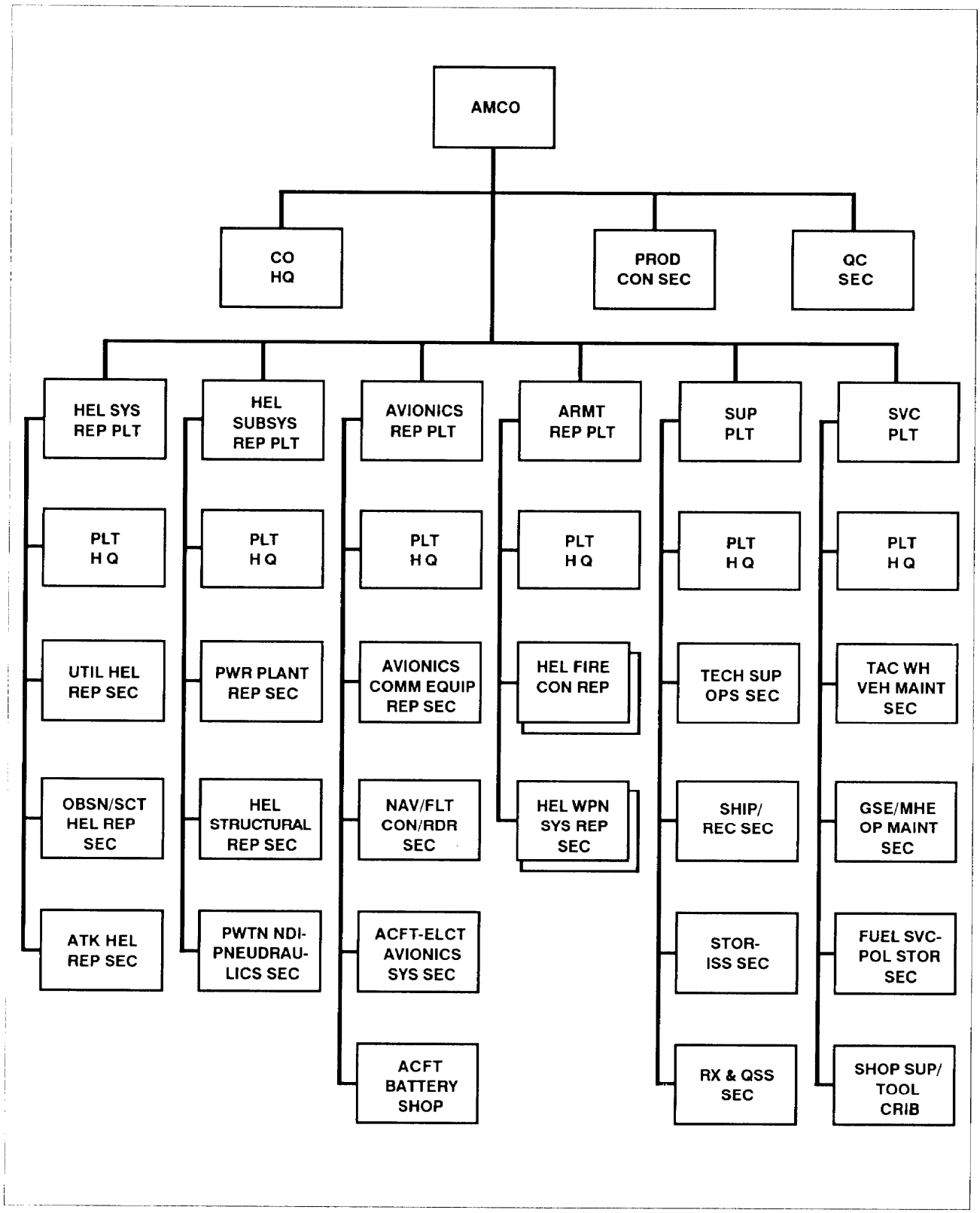


Figure 2-12. AMCO.

section uses procedures to ensure maximum effectiveness with an acceptable level of quality. To ensure objectivity and preclude conflicts of interest, the QC section is directly responsible to the company commander. (FM 1-511 has more details on QC functions.)

HELICOPTER SYSTEMS REPAIR PLATOON

This platoon performs intermediate-level maintenance on major end items at a semimobile support base. It dispatches MSTs from this base to supported unit locations. These teams are tailored for each maintenance, recovery, or inspection requirement. The platoon receives assistance from other AMCO platoons as needed.

HELICOPTER SUBSYSTEM REPAIR PLATOON

This platoon is responsible for component, airframe, rotor, and other subsystem repairs. Its repair work supports both the supported unit and the supply system because much of the platoon's work load is repairing aircraft repair parts within the reparable management program.

AVIONICS REPAIR PLATOON

This platoon is responsible for avionics communications equipment, avionics navigation and flight control items, radar equipment, and aircraft electrical and battery repair.

ARMAMENT REPAIR PLATOON

This platoon performs intermediate maintenance on all weapons, armament systems and subsystems, fire control subsystems, and components installed on Army aircraft. The fire control repairers work primarily on optical and electrical/electronic components.

SUPPLY PLATOON

This platoon is responsible for technical supply. This includes aircraft parts, associated hardware, and bulk material.

SERVICE PLATOON

This platoon is responsible for wheeled vehicle maintenance, ground support equipment maintenance, fuel servicing, and shop supply.

Chapter 3

Combat Service Support Planning

Contents

PLANNING GUIDELINES

The DISCOM commander and staff conduct support planning. They do so in coordination with the division rear CP. In planning support for combat operations, the commander continuously performs benefit/risk analysis. He does this on support options for courses of action received from his staff. He balances the benefits from a support concept against the risks involved. He evaluates the cost in personnel and materiel resources. He also asks what the benefit is in responsiveness and whether the responsiveness outweighs the risks.

The location of support areas is one example of benefit/risk analysis, To provide support responsively, the commander may locate logistics and HSS elements within the range of enemy artillery. There is clearly a risk involved, The commander assumes this risk if that is the only way to provide critical support.

There are no hard and fast rules for planning. For every mission contemplated and every support concept proposed, the DISCOM commander assesses the circumstances. He measures the risks and decides on the best course of action.

Logistics and HSS plans include priorities for support. Units with the highest tactical priority receive support first. The ADC-S, G1, and G3 aid the division commander by developing broad plans and policies. They recommend support priorities with input from the G4 and the DISCOM staff. To increase critical support capabilities, planners rank classes of supply. This allows them to shift assets used for a low-priority class of supply to support a higher priority.

There are many considerations when planning for support. This chapter discusses aspects of planning for various tactical operations, contingency operations, and low-intensity conflicts. Chapter 6 discusses planning for rear operations. Appendix A covers planning for heavy/light mixes. Appendix B addresses specific considerations for NBC operations. Appendix C contains material essential to planning night operations.

CONSIDERATIONS FOR CLOSE OPERATIONS

OFFENSIVE OPERATIONS

The main purpose of logistics and HSS in the offense is to maintain the momentum of the attack. Adequate supplies and transportation to sustain the attack become more critical as the attack progresses. Supply lines lengthen and communications are strained. Requirements for repair and replacement of weapon systems also mount. The DISCOM commander and staff expect these problems. In general, the DISCOM commander considers –

- Forward positioning of essential DISCOM elements. These forward logistics elements may include ammunition, POL, and maintenance elements. See Chapter 6.
- Use of preplanned or preconfigured push packages of essential items if communications break down.
- Maximum use of throughput.
- Availability of HNS.
- DISCOM units echeloning forward to start operations

at the new site before they cease operations at the old site.

- Use of captured enemy supplies and equipment. This is important for vehicles and POL.
- Availability of natural water supplies, local civilian and captured water supplies, and facilities.
- Adequacy of communications between tactical and DISCOM units.
- Careful selection of supply routes and alternative routes and means.
- Development of predetermined emergency resupply packages of ammunition, POL, water, and medical supplies in arid and tropical environments in coordination with the supported unit. **SOPS** identify emergency procedures. These include the DISCOM automatically initiating requests for emergency packages. The supported elements could also usc radios, couriers, or MSE to request them. Personnel use emergency airdrop resupply whenever possible in these conditions.
- Materiel uploaded as much as possible.
- Logistics and HSS preparations for the attack not revealing tactical plans.

The supply goal of the DISCOM in preparing for an offense is to ensure supported elements begin with their basic loads to sustain the attack. The DISCOM elements also top off and position themselves far enough forward to resupply the force once basic loads are depleted.

Frequent movement is critical in the offense. Supported elements do not have the assets to travel extensive distances to the rear to pick up supplies. Therefore, planners consider unit distribution as an alternative. Also, in some cases, operational requirements dictate the FSB move up to once a day. Most movements occur at night. Careful coordination lessens the stress on DISCOM and corps assets caused by these frequent moves. Use of airlift or airdrop for resupply also increases.

Considerations for Sustaining the Soldier

During an offense, use of MREs increases and mortuary affairs operations intensify. Supply and **service** personnel plan accordingly. In arid regions, water supply presents unique problems. Lack of natural water resources in AOs requires water to be purified at distant locations and trucked to the storage sites in the BSA. This reduces the FSB's ability to move quickly.

Offensive operations involve high casualty and evacuation requirements. The basic characteristics of HSS in offensive operations are as follows:

- As areas of casualty density move forward the routes of patient evacuation lengthen. This requires forward movement of medical assets.
- Heaviest patient loads occur during disruption of enemy main defenses, at terrain or tactical barriers, and during assaults on final objectives.
- HSS elements provide temporary EMT and ATM to indigenous or displaced persons as a humanitarian act. This also prevents their interference with combat operations.
- The main attack normally receives the most HSS.

Initially treatment assets locate as far forward as combat operations permit. At times, a maneuver brigade is assigned an independent mission or one that disperses its elements over long distances. In such cases, the maneuver battalions receive assets from the forward support medical company.

A medical company faces two basic challenges in the offense. First, it maintains continuous contact with the supported units. Also, the treatment elements maintain their mobility. Evacuation elements operating within and between the unit-level facilities and the clearing stations also maintain contact. Treatment elements are of minimum size consistent with the patient work load. Personnel position available ambulance assets forward to evacuate patients as promptly as possible.

An offensive operation places high demands on the Class VIII supply system. Treatment elements receive maximum allowable loads of medical supplies before the start of an attack. From the clearing station, ambulances move supplies and equipment forward. These are provided as informal push packages or in response to requests from supported medical elements.

In fast-moving situations the commander predesignates patient-collection points along the axis of advance. The points operated by medical company assets also provide units lacking organic HSS with areas for patient disposition in high mobility situations where area support is not possible.

During an offense, the commander suspends some field services. These include laundry, bath, and clothing exchange.

Considerations for Arming the Force

Class V is critical. Ammunition expenditures usually arc not as high as with a defense. However, responsive resupply is essential to maintain the momentum of the

attack. A significant problem exists in maintaining this support over extended supply lines. The ATP elements are as far forward as the tactical situation allows. They prepare to move forward as the attack advances. The DAO and the FSB commanders also coordinate with the artillery battalion S4s to stockpile ammunition at designated firing positions.

Considerations for Fueling the Force

Another critical supply category is Class III. The amount of POL consumption is normally high. However, it varies with the terrain. When full loads are not enough to sustain the battle, the supply company commander coordinates for additional stockage at designated areas. POL stockage points require corps assets. These include collapsible storage tanks, fittings, engineer equipment, and personnel.

Considerations for Fixing the Force

Offensive operations generate high vehicular maintenance needs. This is especially true when movements occur over rough terrain. Before an offensive operation, operators and mechanics inspect equipment. They perform required maintenance. Personnel make up shortages where possible. They also bring repair parts stockage up to desired levels. They set up reserve stocks of critical items. They increase the stockage of certain items on the basis of the operation, geography, terrain, and weather. For example, extensive operations over rough terrain dictate increased stockage of vehicle springs, shock absorbers, and tires. Priorities for support include issue of critical repair parts.

Recovery and evacuation and roadside-type repairs receive priority during an offensive phase. Planners consider collection, classification, and reporting of abandoned equipment. As the tempo increases and distances lengthen, maintenance support moves forward. Forward deployed elements increase stockage of small, high-usage assemblies. These include starters and generator alternators. However, planners consider possible enemy counterattacks and maneuver clement needs for space and roads. Maintenance elements require security assistance if they have to bypass pockets of enemy action.

Continuous movement forward also influences the maintenance time guidelines. In fast-moving operations, repair times at forward maintenance sites shorten. Guidelines at rear maintenance points (like the DSA shop) lengthen. As lines continue to lengthen, operations include expedient maintenance techniques as listed below:

- Instituting BDAR.
- Increasing emphasis on controlled substitution.
- Setting up an MCP forward of the BSA base shop.
- Using air transportation to move contact teams and repair parts.
- Attaching contact teams to tactical units.

Considerations for Moving the Force

During a fast-moving offensive operation, supply lines lengthen. The turnaround time for transportation units increases. As vehicular maintenance increases, the addability of assets decreases. The need for protection for supply **convoys** increases. Bypassed enemy forces try to get supplies by force. Unconventional forces ambush single vehicles. This is especially true for ones moving fuel and ammunition. C2 of transportation elements decreases as transportation assets are more dispersed and communications more difficult.

Overcoming the problems of longer LOCs requires detailed planning. Planners carefully select MSRs. They plan alternative routes. Units move at night. They require support from COSCOM motor transport units. The use of aerial resupply increases. The commander dedicates escorts to critical convoys or positions response forces along the MSR Transportation units usc captured enemyvehicles and POL.

Considerations for Specific Types of Offensive operations

DISCOM planners consider specific factors for each type of offensive operation. DISCOM considerations for a movement to contact include the following:

- DISCOM supply elements top off supported forces before the operation begins.
- DISCOM elements conduct only minimal resupply during the operation.
- Ammunition expenditures arc light.
- Repair requirements are low in most commodities. However, they are relatively high for vehicles.
- Field services, except mortuary affairs, are typically suspended during the operation.
- Patients are evacuated from holding facilities to enhance mobility of the HSS clement.
- Planners consider potential bypassed enemy elements. They have the latest intelligence on the enemy situation.

Considerations for support of an attack are generally those listed above for offensive operations. other considerations include —

- Positioning ATPs as far forward as tactically possible if resupply is possible during the operations.
- Placing refueling assets forward.
- Giving priority of support to the main effort and making plans to support follow-on actions.
- Arranging to throughput obstacle-breaching and bridging materiel.

Considerations for support of an exploitation include the following:

- DISCOM and FSB headquarters coordinate forward echelonment with maneuver elements to keep ground LOCs open.
- Planners arrange for aerial resupply of critical items to the exploitation force securing deep objectives.

A pursuit depends on open and secure LOCs. Planners consider air resupply. Other support considerations are as follows:

- Planners arrange for air resupply of emergency ammunition and fuel.
- Medical elements plan and coordinate evacuation procedures for extended LOCs.
- Maintenance managers plan for the evacuation of disabled equipment. They consider use of prearranged collection points.

DEFENSIVE OPERATIONS

Defensive operations take many forms. They range from absolutely static to wholly dynamic. That is, they range from relying solely on firepower from fixed positions to total dependence on maneuver to disrupt and destroy the attacking force. The DISCOM commander and staff ensure that they are able to effectively support the wide range of defensive operations. In general, the DISCOM commander –

- Plans to reconstitute within his capabilities the logistics and HSS capability lost to enemy fire. He identifies personnel from DISCOM units as potential replacements as early as possible.
- Echelons DISCOM units in depth through the defensive area as much as possible with his austere organization. When a forward unit moves to the rear, he designates another to pick up the work load until the moving unit is operational again.
- Sends support elements as far forward as the DISCOM or subordinate commander can safely control.
- Sends push packages of critical supplies forward on a scheduled basis. This eliminates repeated calls for supplies. This technique also reduces the chance a lapse in communications interrupts supply. Resupply continues until the receiving unit issues instructions to the contrary. Elements prepare to backhaul unneeded supplies.
- Plans to resupply during periods of limited visibility or with large area smoke support. This reduces the chances of enemy interference. Elements infiltrate resupply vehicles to reduce the chances of detection. They use additional ground guides in reduced visibility. Also, they mark MSRs well. They identify reassembly points and alternate supply routes. They brief drivers in detail. If the supported unit operates at night, resupply may have to occur during the day.

Considerations for Sustaining the Soldier

DISCOM elements plan for increased demand for chemical filters, MOPP gear, and decontaminants. They also take into account possible increased use of water.

HSS of defensive operations is more difficult than in an offense. Casualty rates are lower. However, enemy action and the initial direction of maneuver to the rear complicate forward acquisition. Increased casualties among medical personnel reduce treatment and evacuation capabilities, The heaviest casualties typically occur during the initial enemy attack and in the counterattack. These casualties include those produced by enemy artillery and NBC weapons. Enemy attacks disrupt ground and air routes. This delays evacuation of patients to and from aid and clearing stations.

The probability of enemy penetration requires locating treatment elements farther to the rear than in the offense, However, their locations do not interfere with the maneuver of reserve forces.

The depth and dispersion of the mobile defense create significant time and distance problems in evacuation support to security and fixng forces. Security forces withdraw while simultaneously carrying patients to the rear. Air ambulances help where tactically feasible.

Considerations for Arming the Force

High expenditures of ammunition stress the supply system. Supply personnel preposition stocks of essential

supplies in defensive positions in the forward MBA. Personnel plan to destroy these stocks if necessary. Resupply occurs in reduced visibility to reduce enemy interference. Supply and transport units resupply cutoff or isolated units by air.

Demands for Class IV barrier, obstacle, and fortification materials are high during the preparation for defensive operations. These materials are throughput to the emplacement site whenever possible. The use of standard packages of Class IV and engineer Class V supplies speeds delivery. The MCO coordinates delivery times and places between the FSB commander and the corps MCC through the DTO.

Considerations for Fueling the Force

Fuel usage is low during a static defense. The DISCOM commander considers stockpiling limited amounts of POL in centrally located battle positions in the forward MBA. In most cases, the DISCOM coordinates successive defensive positions with the brigades and stocks these positions. Personnel plan to destroy these stocks if necessary.

Considerations for Fixing the Force

Vehicular maintenance needs are generally low. Typically, supported units are not as widespread as in offensive operations. Therefore, maintenance assets centralize more.

In a static defense, movement is less frequent. Therefore, more time is available for maintenance operations. Time guidelines for forward repair increase. Reserves of critical items build up consistent with mobility considrtions. Commanders emphasize inspections and technica help to maintain readiness at a high level.

A dynamic defense has many of the same maintenance implications as an offensive operation. For instance, maintenance sites move frequently, and vehicle maintenance requirements rise. Repair time guidelines at forward sites are shortened. Evacuation increases from forward elements to maintenance elements in the rear. If the defensive situation becomes critical, maintenance personnel cease operations. They participate in the defense of their unit. Such a situation requires large-scale reinforcing support from nondivisional sources to end the resulting backlog.

Considerations for Moving the Force

Defensive operations require transportation support immediately shiftable to an offensive operation. Transport elements position themselves to be ready for support of the offense. They prepare to take advantage of windows of opportunity at very short notice.

STAY-BEHIND OPERATIONS

Stay-behind operations are high-risk, high-payoff tactical operations. They provide the commander with a potential force multiplier. Essentially, a stay-behind force goes into hiding. It then emerges to –

- Disrupt the enemy rear area.
- Force the enemy to dispatch combat units to deal with a rear area threat.
- Inflict maximum enemy casualties.
- Call for and adjust fires on enemy targets.
- Provide intelligence on enemy activities.
- Seize and hold key terrain or critical sites.

Later the stay-behind force is extracted, exfiltrates, or links up with the main force.

The usc of a s[ay-behind force is usually planned and prepared in detail. Logistics planning is critical to the success of the mission. Therefore, it receives the personal attention of all commanders involved. Some basic considerations are –

- The location and composition of caches are planned in detail. Substantial coordination between COSCOM and the DISCOM is required to tailor, prepackage, and deliver caches.
- Caches are redundant, both in and outside the hide position. This keeps the loss of a cache site from jeopardizing the mission.
- Stockagc levels of needed items are two or three times normal amounts, This creates redundancy of caches and needed equipment that cannot be readily repaired or resupplied.
- Caches include MREs, water, diesel fuel in 5-gallon cans, packaged Class III items, limited Class IV, Class V, Class VIII, limited Class IX, and batteries.
- Unit medical facilities are established within the hide position; the unit may only be able to evacuate the most serious cases. Patients are treated and retained until the HSS element exits the hide position.
- All resupply activity and vehicle movements take place at night.
- Caches are dug in below ground level or placed

in existing buildings. This prevents discovery by enemy forces.

- Nontraditional medical and maintenance arrangements are required because of the isolation of the stay-behind force.
- Use of indigenous facilities and equipment is maximized.

RETROGRADE OPERATIONS

Logistics and HSS for retrograde operations are complex because many activities take place concurrently. Maneuver units at any given time may defend, delay, attack, or withdraw during a retrograde. However, the retrograde is basically a movement to the rear or away from the enemy. Therefore, the following considerations apply:

- Consider echeloning DISCOM elements in depth.
- Emphasize keeping supply and evacuation routes open.
- Plan to move all nonessential DISCOM and supporting COSCOM units and facilities to the rear as soon as possible. These include CEB and laundry activities.
- Plan to supply and evacuate in limited visibility.
- Be alert for the rear area threat.

Considerations for Sustaining the Soldier and Arming and Fueling the Force

DISCOM supply elements begin to move to the rear before combat units. This lessens interference with maneuver. It also allows them to set up supply points along the route of withdrawal. The supply companies and the DMMC identify noncritical items. Replenishments do not go forward of a specified point. The following considerations apply:

- Plan to limit the flow of supplies forward to the most combat essential. Evacuate all other supplies and equipment early.
- Plan to evacuate supplies and equipment to planned fallback points along the withdrawal routes.
- Plan to destroy all supplies (except medical) that personnel cannot evacuate. The OPORD includes destruction authority.
- Position supplies along routes of withdrawal. This reduces the enemy's ability to interfere with supply operations. This also simplifies resupply, reduces vehicular clutter, and permits early withdrawal of supply units.
- Plan for POL and water elements to leapfrog supplies so they can provide continuous supply.

HSS in retrograde operations varies widely. However, planners consider certain factors:

- Time available for medical operations is likely to decrease.
- Personnel evacuate patients early, develop alternate means of evacuation, and use air evacuation. The movement of troops and materiel on evacuation routes and the enemy disruption of C2 and communications complicate patient evacuation. Tactical SOPS include plans for evacuation in such conditions.
- Sorting of patients becomes more critical. Proper sorting and rapid evacuation lessen the need for setting up complete clearing stations.
- When patient loads exceed the means to move them, the tactical commander decides whether to leave patients behind. Personnel use nonmedical transportation assets to the maximum to move patients before making a "stay behind" decision, The brigade requests medical personnel from the supporting medical company to attend patients. Medical personnel and supplies stay with patients not evacuated.
- The forward medical treatment teams withdraw as early as possible. Medical company assets displace by echelon.Theyhold patients for the shortest time possible. Planners determine the locations of successive positions in advance. Initial locations are further to the rear than in other types of operations. The next rearward locations are operational before personnel close the forward MTFs.

Considerations for Fixing the Force

Maintenance company assets begin to move to the rear before combat elements. Maintenance points leapfrog each other to provide continuous support. Displacement of maintenance elements does not conflict with the movement of combat units. Maintenance elements displace at night.

Personnel emphasize evacuation of equipment over forward repair. Maintenance personnel concentrate on weapon systems and other items required to support the retrograde. They place emphasis on items they can repair readily. They evacuate other unserviceable equipment to planned support areas before opposing forces an overtake it. They use fighting vehicles whose

weapon systems are inoperable to tow other vehicles with inoperable motor systems. They use extensively damaged equipment for controlled exchange or cannibalize or destroy it, They give priority of support to units which have completed the move and are preparing new positions.

Recovery equipment is critical to the support of retrograde operations. Personnel rigidly control and coordinate its use. They marshal recovery equipment at critical locations to keep routes open and recover all material possible.

Considerations for Moving the Force

Movement control and highway regulation are key during a retrograde. Keeping supply and evacuation routes open is essential. Nonessential logistics and HSS elements move to the rear as early as possible. They evacuate supplies and equipment to planned fallback points along withdrawal routes. Personnel use nonmedical assets to move patients to the rear.

CONSIDERATIONS FOR DEEP OPERATIONS

The division is the smallest force capable of conducting deep operations. The division conducts deep fires operations through the employment of organic and supporting field artillery. Logistics and HSS are conducted as usual. Deep maneuver is a high-speed, short-duration, audacious operation. Logistics and HSS are austere. Logisticians carefully plan support of deep maneuver.

CONSIDERATIONS FOR SUSTAINING THE SOLDIER AND ARMING AND FUELING THE FORCE

Early in the planning phase, the DISCOM commander informs the division commander of available supply assets. He provides information on replenishment prospects and the effect of support on the tactical operation. A division involved in a deep maneuver supports itself or external support assets support it over a LOC.

A LID unit planning to support itself takes advantage of every opportunity to forage. It carries as much Class V as possible. Even so, the division can support itself for only a few days. War planners task organize a corps slice of supply assets to accompany a division force on a deep operation. The slice depends on the depth and duration of the operation.

Logistics and HSS assets also support a force conducting a deep operation over a surface or air LOC. Staging supplies near the FLOT makes support over a surface LOC less difficult. This is because supply vehicles directly supporting the force have a shorter distance to cross. Support over an air LOC requires close coordination between the DMMC, the supply activity providing the shipment, the MCO, and the aviation unit. Chapter 11 discusses aerial delivery.

During deep operations, LOCs close. Therefore, medical task-organizing is necessary to provide increased patient-holding and forward treatment capabilities. Air evacuation over extended distances is essential. Self- and buddy-aid, the combat life saver, and ATM training are critical, The modular medical support system and unit-configured palletized medical loads are also vital.

Two situations which are likely during deep operations have an impact on medical operations. First, the use of NBC weapons against isolated forces is possible. As a result, mass casualties are more likely. Large numbers of contaminated casualties rapidly overload and contaminate evacuation assets. This is particularly true of air ambulances. This creates backlogs at medical treatment facilities. Secondly, bypassed enemy units escape the detection of follow-on forces. They inflict severe damage on medical units and evacuation vehicles.

CONSIDERATIONS FOR MOVING THE FORCE

The LID needs additional transportation assets to perform deep maneuvers. Providing support to ground forces in deep operations is hazardous. Because of the difficulty in securing LOCs, units may move over enemy-controlled routes and use aerial resupply. Planners expect the enemy to use NBC warfare to destroy logistics elements and to block routes, Turnaround times lengthen. This is due to the delays that occur when operating in an NBC environment, Transport elements take advantage of overhead camouflage as much as possible to avoid detection. They also avoid bridges. The enemy destroys bridges to block routes.

CONSIDERATIONS FOR REAR OPERATIONS

Commanders conduct rear operations to secure the force and neutralize or defeat enemy operations in the rear area. Rear operations also ensure freedom of action in close and deep operations. The goal is to ensure the threat does not impair logistics and HSS operations in the rear. If rear areas are not secure, the DISCOM cannot support division elements conducting close and deep operations. Chapter 6 contains an in-depth discussion of rear operations.

CONSIDERATIONS FOR CONTINGENCY OPERATIONS

Contingency operations are politically sensitive military actions. They require rapid deployment to perform military tasks in support of national policy. Army forces may provide a rapid show of force in support of a threatened ally to deter aggression by a hostile neighbor. National policy also uses them to react to the invasion of a friendly government, project property of US nationals, rescue hostages, or perform other tasks.

The LID deploys quickly and is easier to support than other divisions. Before an impending crisis develops into open hostilities which increase risks to US interests, early deployment of light forces may deter an opponent. This prevents a costly later engagement. Light forces **are** not appropriate, however, to face tank-heavy forces or to operate over great distances. Heavy forces take longer to deploy and are more difficult to support. However, circumstances may require them to defeat the enemy.

A LID may also rapidly reinforce US and allied forces deployed anywhere in the world. Conflicts in these areas are at the low-to mid-intensity level. The versatility y of the LID presents planners with multiple employment options. Planners select the preferred option after consideration of the terrain, the type of enemy, and the capabilities and limitations of the division. Employment options for a LID include:

- Employ it as it is organized. Planners consider the division's maneuver manpower, tactical transportation assets, fire support, and logistics capabilities.
- Augment it after deployment. Task-organizing the division with forward-deployed elements or support increases its capability. The division's C2 structure can accept and quickly integrate these assets into the division's scheme of maneuver.
- Augment it before deployment. Units assigned to support the division need strategic mobility compatible with that of the division.
- Designate selected items of prepositioned equipment in the theater for issue to the LID.

Regardless of the option selected, on arrival in the theater, the LID becomes an integral part of the corps or JTF to which it is assigned.

A LID may deploy to conduct operations in areas without US or allied bases. The indigenous populations range from friendly to neutral to overtly hostile to US forces. Local air superiority and tactical air support are essential in all phases of a contingency operation. A secure airfield, port, or beach is required. For contingency operations, a light division organizes into an assault echelon, a follow-on echelon, and a rear echelon.

CONTINGENCY OPERATIONS PHASES

Contingency operations are phased. Phases begin with planning and end with redeployment of the LID. The information below provides the general planning and execution structure for a contingency operation. Planners adjust it to fit the needs of a particular contingency.

Predeployment and Crisis Action Phase

Contingency operations begin with predeployment or crisis action activities. The LID anticipates needs. It sequences activities that case its transition into the deployment or initial combat actions phase. Based on information from the corps or JTF, the LID tailors a force to meet specific tactical needs. It sets up temporary C2 facilities and organizations to support the operation.

Deployment and Initial Combat Actions Phase

The LID cannot make a forced entry. Operations in contingency areas normally begin with the movement of the division's assault force to airfield, port, or beach secured by the host nation or other forces. The assault force lands on or close to objectives. Air Force and Navy aircraft normally provide required fire support during and after the airland operations. The commander assigns operations to the assault force based on METT-T. The assault force secures its initial objectives. It establishes and maintains a secure lodgment. It also protects the area from indirect fire and observed direct fires. This facilitates the landing of follow-on forces during the

next phase of operations. Reconnaissance and security elements operate beyond the lodgment. They gain enemy information, provide early warning, and facilitate planning for future operations.

A brigade headquarters serves as the base for each assault force. Combat, CS, and CSS units accompany it. One of the brigades is the lead unit. It contains the assault elements for deployment. Those combat, CS, and CSS elements not task organized are organized to deploy after the lead brigade. The advance element prepares the support for operations of the lead brigade. This structure of nontask-organized elements provides the flexibility to tailor and deploy support packages for separate brigade operations. With this type of organization, the LID maintains a flexible base to respond to most tactical situations within hours of notification.

Force Buildup and Combat Actions Phase

This phase begins with the introduction of follow-on forces into the contingency area airfield, beachhead, or port. Follow-on forces reinforce and support the assault force and establish lodgment. During this phase, these forces generate enough combat power and conduct tactical operations to fully secure the lodgment area. They expand the security area out to the range of organic indirect fire weapons. As necessary, combat forces destroy, delay, or disrupt enemy forces threatening the lodgment. Air and naval aircraft and naval gunfire provide fire support, ADA provides air defense against penetrating enemy aircraft. A corps or JTF normally assumes command of the LID as soon as the corps or JTF establishes its C2 and logistics base.

The force buildup and combat actions phase of the contingency operation is the most critical point for the LID. Therefore, staff planners fully resource the lead brigade for the mission. C2 of the lodgment area rests initially with the ADC-M or a designated representative. However, as the main body of the division arrives, C2 of the lodgment area is turned over to the DISCOM commander. The ADC-S controls the air-flow operations from home station to the lodgment area through the airfield control groups.

Decisive Combat Operation Phase

The decisive combat operation phase is an extension of the force buildup and combat operation phase. Combat forces and a logistics base expand to support decisive operations. As the situation in the lodgment area stabilizes, the division performs expanded combat operations. It continues to eliminate the enemy force. Long-term and widely dispersed operations require additional combat, CS, and CSS forces.

Redeployment Phase

The aims in the final phase are to –

- Consolidate friendly control of the AO.
- Redeploy the force as rapidly as possible to CONUS, to an intermediate staging base, or to another theater of operations.
- Rapidly restore the capability of the LID for other contingency missions.
- Shift the force of operations from combat to nation-building.

As in the initial phases, echeloning C2 and maintaining flexibility and security are essential.

SUPPORT OF CONTINGENCY OPERATIONS

There are unique factors involved in supporting contingency operations. Support is phased. Planners ensure the force has adequate support in each phase. They synchronize the deployment of CSS units, supplies, and CSS C2 with the increase in combat capabilities.

Contingency forces rely on airlift for initial deployment of the force and for support, Before the execution of the deployment phase, planners arrange for feeding, fueling, arming, maintaining, and loading the assault force at the staging areas and any intermediate bases. Planners emphasize deploying maximum combat capability. Therefore, they reduce support to the essentials. These are initially food, water, ammunition, and fuel. They plan supply shipments for each phase of the contingency operation. They also plan for emergency resupply. Contingency operations require the use of accompanying, follow-on, and routine phases of supply

- Accompanying. These are supplies taken into the contingency area by assault forces. Each unit receives and prepares its own accompanying supplies before marshaling. These supplies include unit basic and prescribed loads.
- Follow-on. These are supplies delivered during outflow. They arrive after initial assault landings to resupply units until routine procedures start. Delivery is either automatic or on call.
- Routine. These are supplies obtained through normal requisitioning procedures to replace expended supplies or to build reserve stocks.

Logistics planners tailor the initial support package to ensure it provides the projected requirements and

critical support. After considering local support available, they give careful attention to the phasing in of follow-on CSS resources. Use of local resources reduces the need to deploy CSS assets. Supporting elements plan to make the best use of local resources. These may include fuel, transportation, facilities, labor, and services.

If the LID deploys to a theater with an established HNS infrastructure, the DISCOM links into that system. However, contingencies also occur where no such system exists. In such cases, a HNS coordination team is one of the first elements to deploy. The team's role is to obtain local resources through purchasing and contracting. It consults with US embassies, consulates, and government agencies operating in the area for relevant information regarding commercial contracts. It also coordinates closely with the civil affairs team and legal and financial activities of US forces supporting the operation.

Whether the team is the TOE organization designed for this mission or an ad hoc clement, it is assigned to the senior logistics headquarters of the task force. It consists of CSS and purchasing and contracting specialists. Expertise includes maintenance management, supply and services, and transportation. It also includes expertise in other areas required in the particular environment. These include medical, engineer, or signal matters. Logistics planners develop contracting support kits for each location in the LID's OPLANs. For each environment, they consider such items as use of interpreters and local guides, need for local currency, and the laws and customs of the area.

Corps supply elements preconfigure unit loads. The division stocks and issues mission-essential supplies. PLL and ASL criteria focus on essentials. Maintenance elements ensure that all equipment meets the highest standards of operational readiness before departure. They also provide support during marshaling. The medical evacuation policy lessens a wounded soldier's stay in the area and the need for a large medical contingent.

The G3 provides the for-cc structure and projected intensity of conflict to the logistics planners. The planners develop the amount of support required for loading of the supply pipeline. When developing the OPLAN, the division G4 determines the source of support. Resupply comes from CONUS, designated OCONUS facilities, or a third country. It relics heavily on airlift. The G4 determines if EAD support is necessary. The G4 also examines transportation from the departure point to the arrival facility. The G5 and the HNS coordination team coordinate the amount of support provided by the host nation.

In contingencies, the LID requires augmentation for port and airfield operations. It also needs resupply, maintenance, and transportation support. Such augmentation places special demands on the DISCOM staff and the C2 system. The staff prepares to integrate augmenting units and staff elements into the DISCOM structure. It plans to accommodate changes to the force structure without disruption or degradation of operations.

Initially, the ADC-S is at the departure airfield. He synchronizes the flow of supplies, personnel, and equipment into the AO. Under certain circumstances, some DISCOM elements with EAD augmentation arrive in the contingency area or in an adjacent country before the rest of the LID deploys. These elements may arrive by air at a commercial airfield. They move to the contingency area to operate as an AACG. (Appendix D gives further information.)

The deploying force enters the AO with its accompanying basic loads of Class I (to include water), II, 111 (packaged and bulk), IV, V, and VIII, and a prescribed load of Class IX. These supplies support operations until troops establish a secure area or resupply begins. During the deployment phase, unit maintenance personnel support the assault force. Selected DISCOM elements land soon after combat units. This forward logistics element may include Class I, III, and V personnel, some critical ground maintenance and AVIM elements, and HSS personnel. If required, the deploying force includes an ATP made up of all the ATP personnel and equipment from the DISCOM. They set up an initial Class V point at the airhead or beachhead.

As discussed earlier, qualified personnel authorized to purchase goods and services and to let contracts and make payment also deploy early. If necessary, HSS personnel from the medical companies augment medical elements organic to maneuver units. They increase their medical support capabilities and oversee evacuation from the contingency area. The commander commits no other DISCOM elements in this phase.

During this phase, emergency resupply involves the usc of tactical airlift. Maintenance personnel use cannibalization and controlled exchange to reduce weapon systems downtime. Also during this phase, mortuary affairs is a unit responsibility. Unit commanders are responsible for initial identification, collection, and

evacuation of remains. When the situation requires hasty burials, unit commanders maintain records of such burials and locations. (Note: Hasty burials require the authority of the theater or JTF commander.)

AVUM personnel assigned to AB units provide AVUM support for organic aviation assets. Each battalion or separate company in the AB has its own AVUM capability. An advance element of the AMCO normally deploys MSTs early. It provides backup AVUM functions as well as limited AVIM to AB units. The mission scenario and support requirements determine the composition of the MSTs.

The light infantry brigades may deploy with attached TOW-Dragon missile support teams. The teams provide support to land combat missile systems during this phase. The teams carry selected LRUs. They exchange them with the user for malfunctioning LRUs. Later, control of the missile support teams returns to the DISCOM.

During the force buildup and combat actions phase, the division G1/AG and G4 pay close attention to the number of CSS units in country. Many of the support units are detachments, teams, and companies without a parent headquarters. To execute effective C2, they send some element of the DISCOM headquarters in early increments. This headquarters element organizes the smaller elements into a composite DISCOM and provides a C2 structure. As the situation develops and more headquarters elements arrive, the temporary composite headquarters transitions to the normal DISCOM headquarters.

More supply elements enter the AO and establish distribution points in the division area. Most of the division supplies come in by air, to include airdrop. Personnel distribute to supported units by a combination of supply point distribution and aerial resupply. The division transportation elements arriving in the AO provide emergency unit distribution.

DS maintenance elements in the division enter the AO with follow-on forces. Depending on the tactical situation and support requirements, the first DS maintenance elements introduced are the maintenance companies of the FSBs. They initially support forces by performing expedited, low-time consuming repairs. They also coordinate unit-level repair parts support. Combat essential ASL items come in with follow-on maintenance increments. As the lodgment area expands and becomes more secure, additional increments of the maintenance elements deploy.

During the early stages of the force buildup and combat actions phase, AVIM support consists primarily of replacement aircraft, component replacement, aircraft combat maintenance/BDR techniques, and controlled exchange of combat damaged or inoperable equipment. As this phase progresses, the remaining elements of the AMCO deploy into the AO. They bring with them the full complement of Class IX.

Before the decisive combat operation phase, the remainder of the DISCOM supply, service, and transportation elements, the DMMC, and the corps support units enter the AO. These include the corps aviation maintenance unit. It provides reinforcing AVIM support. The supply, service, and transportation mission fully expands to support decisive combat operations. The DMMC provides centralized materiel management. The DAO releases DISCOM Class V assets from the lodgment area. Forward supply elements accompany maneuver elements to set up ATPs in the BSAs.

During this phase, the rest of the missile maintenance element arrives with stocks of LRUs. The user is responsible for determining which LRU is malfunctioning. The user also transports the malfunctioning LRU to the missile support element. That element exchanges the LRU for an operable one. Limited missile maintenance support is available from the missile support element. It helps users when they have problems isolating the malfunctioning LRUs. Increased support arrives during the buildup with the arrival of the corps missile maintenance company.

The missile maintenance company in the corps provides LRU exchange with the missile support element in the division. The corps company repairs these LRUs and returns them to DS stocks. This company contains a section which goes forward with the division when it deploys without a supporting corps.

Remaining division-level medical elements and essential corps medical elements deploy to provide immediate support of the contingency operation. During force buildup and combat actions, division HSS commanders adjust their HSS assets to changes in the tactical situation. As the AO expands, they adjust the evacuation policy. The capabilities of the HSS structure increase accordingly.

CONSIDERATIONS FOR INDEPENDENT BRIGADE OPERATIONS

The support force for a LID brigade operation depends on the organization of the brigade task force employed. In all cases, the FSB associated with the brigade deploys with it. However, the LID FSB is an austere organization. To support an independent brigade operation, it requires additional assets. These include both C2 and operational resources.

The support force requires an augmented FSB C2 cell with capabilities not included in the FSB headquarters. The cell expands to meet the needs of the mission. It —

- Provides logistics expertise in support operations beyond the normal scope of FSB operations.
- Assists any follow-on forces on arrival and supports their movement out of the BSA.
- Calls forward from the DISCOM/support base additional CSS elements. The cell also serves as the DISCOM (forward) if the mission expands to become essentially a division operation.
- Provides management and communications links **to** the JTF/corps and DISCOM.

Personnel augmentations from the LID DISCOM HHC/DMMC to the FSB headquarters include –

- Materiel management officer.
- S2/S3 plans officer.
- S2/S3 intelligence sergeant.
- MCO representative.
- DMMC Class I and III representative.
- DAO representative.
- DMOC operations officer to manage Class VIII and plan for medical operations.
- DMMC Class IX representatives. One manages parts for ground equipment and one for aircraft.
- DMMC maintenance management representative.

The cell also includes a CMMC liaison element, This clement facilitates support provided by the FSB. However, whatever the composition of the augmentation cell, it falls under the FSB commander. He is the landlord of the BSA.

To a large extent, the C2 augmentation assets depend on the additional resources the FSB needs. As mentioned above, these resources depend on the number and types of combat and CS elements that makeup the brigade task force. However, they also depend on other factors. These include the environment, duration of the mission, nature of the threat, availability of local resources, and type of missions assigned to the brigade task force. Some of the considerations for task force developers are discussed below.

The FSB likely requires additional assets to operate a small ammunition supply point. The FSB is only staffed and equipped to transload ammunition, not store it. These assets include ammunition handlers and forklifts. They come from the other forward supply companies of the LID or the nondivisional ammunition company.

To fuel the brigade in a contingency operation where there is no ground LOC from the DSA to the BSA, the FSB needs additional fuel storage capability. This compensates for the absence of a backup normally retained in the DSA. In addition, the augmented FSB includes fuel-handling personnel and equipment to receive, store, and issue aviation fuel to support the aircraft of the brigade task force.

The austere maintenance company of the LID FSB depends on repair support from the main support company and EAD elements as discussed in Chapter 10. In a brigade contingency operation, backhaul aircraft evacuate unserviceable equipment. If passback to the DSA/support base is not responsive enough and local resources are not available, the FSB receives additional capability to support light systems. This comes from the main support company and nondivisional elements. Planners also provide repairers, parts, and tools to fix systems of task force elements not found in a light infantry brigade. For example, AVIM assets deploy to the contingency area to support any aircraft in the task force. These assets are provided by the LID AMCO or the COSCOM. They maybe attached to the AVUM unit supporting the aviation task force.

Sustaining the soldier in a brigade contingency operation also requires FSB augmentation. This includes HSS assets to perform services provided out of the DSA. These include an additional treatment squad, a patient-holding squad, a surgical squad, and ground and air ambulances. Typically, planners also ensure the FSB includes water point equipment and operators. The force also needs assets to deliver water to light infantry battalions. Water supply for a contingency operation in an arid environment is a significant challenge. First, the FSB needs ample reserve storage capability. In addition,

transporting water to the BSA requires careful planning and commitment of substantial movement assets. These may have to be aircraft. Mortuary affairs operations depend on evacuation via backhaul on resupply aircraft. COSCOM mortuary affairs assets provide services until augmentation units arrive.

The LID FSB has limited transportation capability, It relies on the COSCOM for such things as throughput of supplies from EAD to the BSA. In a brigade contingency, the FSB needs additional transportation assets to perform the following tasks:

- Move troops of the light infantry brigade.
- Stockpile supplies.
- Move emergency supplies or reserves for responsive support.
- Move barrier material from the BSA to the emplacement site.
- Provide supported units with supplemental transportation to move equipment or to provide emergency Class V or water supply.
- Enhance the movement capability of the augmented FSB.

If transportation assets are not available locally, assets may come from the LID TMT company (if they are not supporting another mission). They may also come from a COSCOM truck company, Planners also consider aviation assets. If CH-47s are available, the first priority for their use is often emergency movements of fuel, ammunition, and barrier material from the DSA/supporting base to the BSA. If medical air evacuation assets are insufficient to handle casualties, they also backhaul casualties that have been stabilized. Fixed-wing aircraft may fill this role. If possible, HSS personnel accompany patients on nonmedical transportation assets. They provide en route medical care.

CONSIDERATIONS FOR LOW-INTENSITY CONFLICTS

LICs take place at levels below conventional war. They often involve a struggle of competing principles and national ideologies. LICs are waged by a combination of political, economical, informational, and military means. They are often localized. However, they can have significant global implications.

The most appropriate force in the US division structure to conduct operations in a LIC is often the LID. More information on conducting LIC operations appears in FM 100-20 and in Appendix B of FM 71-100. FM 63-6 discusses CSS in a LIC operation. FM 8-42 covers HSS operations in low-intensity conflicts.

Supporting a force in a LIC covers the entire spectrum of CSS. It ranges from a medical team providing humanitarian aid to supporting a division conducting military operations.

The division G4 determines logisitics needs based on the forces employed, the environment, and the type of LIC. The G3 provides the mission and the projected intensity of the conflict to the G4. The G4 develops the amount of supplies required. He also computes the stockage levels to support the operation. If the division is the highest headquarters involved, the division plans to interface directly with the CONUS wholesale logistics system. Direct dealings with the wholesale system are not a normal function of the division. Therefore, it requires additional equipment and personnel.

The G4 examines transportation. He considers departure and arrival facilities, in-country transportation networks, and HNS available, Planners also consider the availability of finance support to assist in payments for HNS.

The G1/AG estimates casualties. **He** establishes replacement requirements and procedures based on the commander's operational guidance. The G1/AG and G4 determine if the force structure requires provision for any EAD functions. These may include water terminal operations, reinforcing maintenance, GS supply, and finance.

Support operations contribute to the prevention and resolution of conflict. They help indigenous forces execute military operations with the aim of making the host country self-sufficient in dealing with the problem, They also assist in the prevention of conditions which contribute to conflict.

DISCOM operations support four broad categories of LIC operations. These are support for insurgency and counterinsurgency, combatting terrorism, peacekeeping operations, and contingency operations. DISCOM support may consist of small teams providing supply, maintenance, ammunition, medical, and transportation support to indigenous force tactical operations. Their long-term objective is to develop a local capability to perform these tasks. However, if local forces are unsuccessful,

the preparation of the conflict area supports contingency plans for the employment of combat forces.

The DISCOM can also provide help as part of a military assistance and counterinsurgency program. If the force has the mission of humanitarian assistance, planners consider several factors:

- Size of the supported population.
- Deployment and redeployment plans.
- Command and control.
- Communications requirements and capabilities.
- Coordinated embassy/military public affairs plan.
- Local population customs and traditions to include dietary habits.

As part of the planning process for humanitarian assistance in a counterinsurgency program, commanders analyze the area, the population, and the insurgency. They determine-

- What programs would generate favorable support for the host nation government.
- What programs are appropriate for the environment.
- What grievances voiced by the insurgent leadership concern conditions that can be addressed by programs of humanitarian assistance conducted by DISCOM elements,
- What DISCOM elements can do to improve these conditions and thus defuse insurgent claims.
- How this assistance can bc conducted consistently with local customs, religious values, and host-nation policy.

In some situations, DISCOM elements help in the maintenance of essential services. These include water, sewage, and sanitation. This is especially true if [here is a danger to public health. In the worst case, this involves direct control and operation. However, the early return of responsibilities to the civil authorities is desirable. This requires special training for some soldiers, preferably before their employment.

DISCOM support operates on two levels. First, there is a small requirement for support to advisory teams. Secondly, there is a requirement for supply of materiel to the host country. This is used in improving military and civil organizations. The GI/AG and the G4 coordinate with the G5. They determine the requirements that local resources can meet. They usc local support to the maximum extent possible. If the US presence increases beyond small teams, the size of the support element increases.

Major roles, however, in humanitarian assistance and civic action projects require corps/EAC elements. Movement of cargo for civic action projects requires additional transport, In countries where there is no well-developed road net, planners consider inland and coastal waterways for transportation. If this is the case, Army watercraft plays a role in the support of operations.

During peacekeeping operations, the peacekeeping force remains neutral. This prevents or limits the usc of HNS and contracting. The DISCOM conducts normal support operations as much as possible. An austere base development and a mixed military/civilian contractor support structure often characterize the support. In a multinational force and observer-type mission, civilian contractors provide custodial support at bases, They also provide maintenance of vehicles and other supply and service functions. HNS, however, is not a significant support factor. This is due to political considerations of the PKO itself. Also, clue to the multinational and noncombat orientation of PKO, LOGCAP operations are used more than in other types of actions. Details on LOG CAP operations are in AR 700-137.

In PKO planning, the G3, with input from the G1/AG and the G4, identifies division units which require reinforcing support. He requests the necessary support packages. For example, he plans for enough transportation assets to provide for the rapid movement of peacekeeping forces. If the division needs transportation beyond the organic assets of the peacekeeping force, he plans the required augmentation well in advance.

Upon notification, DISCOM units in support of the peacekeeping force establish liaison with the task force commander and staff. Timely guidance allows the unit to begin the detailed preparation for the execution of assigned tasks. EAD support units provide CSS directly to peacekeeping forces. The initial logistics agreement includes supplies and services and use of indigenous personnel. It also covers use of roads, post facilities, airfields, and railways. Planning considerations include –

- Trek-organizing a special CSS unit.
- Using selected DISCOM elements to support the deployed force.

- Using intermediate support bases near the deployed force.

Supply support for a deployed peacekeeping force requires longer order-ship times for surface shipments. Planners plan support well in advance. The objective is to increase stockage of repair parts and other supplies to a level that supports a deployed force for an extended period. Plans include unit requirements for self-service supply items. They also include their reliance on contractors for fresh food as well as dining facility operations. Prior planning and coordination are essential to arrange for supplemental rations. Planners provide veterinary inspection support to monitor local purchase activities. They also consider MREs for members of the force on remote patrols. If DISCOM elements have the mission of supporting all members of the PKO force, planners consider the type/content of the certain foods for religious and cultural reasons.

Overall custodial contracts may include water supply. The water supply comes from local sources or from water units. Preventive medicine personnel test and approve all water from both local and US military systems before distribution.

Some general custodial contracts include services at the base camp for PKO personnel. The extent to which DISCOM elements provide such services on a permanent basis depends on the duration of the mission. Mortuary affairs support is often reserved for US force operations. Planners make arrangements for CEB and laundry in advance. They are either contracted or included as part of the force.

When the neutrality of the PKO is not in question, host nation contractors perform maintenance for military and commercial equipment. Use of host nation contractors assists in the growth of the host nation's economic base. This enhances relations, As host nation contractor's involvement increases, the requirement for language-qualified personnel also increases. Finance support provides prompt payment of the contractor and other civilian labor.

The division may require corps assets to assure a dedicated transportation capability. They may also provide the flexibility and mobility to the supported force. Personnel use host nation or third party contract assets as much as possible to meet transportation needs. If US vehicles are used, personnel determine the requirements for vehicle operators to have local or international driver's licenses. Likewise, they examine the road network before arrival in country. Up-to-date information on all roads, especially the MSRs, and bridges is essential. Information on restrictions to vehicles is also essential. Restrictions include convoy size, weight of vehicle, and times that roads are available.

The DMOC plans HSS for the division. This includes alternative sources of HSS including, but not limited, to embassy and HNS. The HSS package for PKO is tailored to meet the needs of and to be compatible with the forces supported. Due to the inherent neutrality of a peacekeeping force, the medical element of the peacekeeping force does not implement independent and unplanned medical civic assistance programs. FM 8-42 has additional information on medical operations in LIC.

The DISCOM mission in combatting terrorism is a twofold mission. The DISCOM performs its technical support mission. At the same time it protects its forces from terrorist attack. In a LIC environment, this requirement to protect the force is both labor and time consuming.

Chapter 4

Command and Control

Contents

PRINCIPLES

Command and control is the system used by the DISCOM and subordinate commanders to plan, direct, and coordinate the activities used to accomplish the mission. Commanders perform C2 functions through an arrangement of organizations, processes, and facilities. They measure the efficiencyof a C2 system by the extent their intentions are carried out. They also measure the efficiency by the ability of their staff and subordinate commanders to cope with changes quickly and effectively. An effective DISCOM C2 system requires the following:

- Clearly defined functional responsibilities for all aspects of command and control.
- Sound knowledge of the tactical situation and the operational commander's intentions.
- Personal involvement and appraisal by the commander and staff of the logistics and tactical situation.
- Familiarity with the responsibilities of higher, lower, supported, and supporting units. This includes the kind of support needed and what support each level can provide.
- Close contact and exchange of information at higher, lower, adjacent, supported, and supporting levels.
- Clearly written directives, reports, orders, and studies. However, the commander does not rely strictly on written communications.
- Understanding of the organic communications of the DISCOM to include radio nets and access to the area signal system.
- Effective operational CSS communications network in particular and overall division and corps communications in general.
- Good understanding of automation and information systems. This includes the organization and operations of the logistics and HSS automated functions and the communications which support the system.

The DISCOM and subordinate commanders are responsible for the C2 of organic and attached elements. They–

- Plan and conduct the operations of organic and attached logistics and HSS units with the same care as that used in planning and conducting tactical operations.
- Consider the capabilities and limitations of the organic logistics and HSS system and its backup support. The main interest is to ensure logistics and HSS are sufficient to support and preserve the force.
- Make policies and decisions known to all organic logistics and HSS elements in time to ensure support for planned operations.
- Keep all supporting units informed on matters affecting their requirements. This information includes relocation plans and anticipated changes in strength.
- Give subordinate commanders the resources and authority to accomplish the mission.
- Ensure subordinate commanders are well trained in communications and decision making. They also ensure they understand when and in what circumstances they have the prerogative to act.

● C2 system consists of organizations, processes, and facilities. 'The organizations arc the internal and external units with which DISCOM elements interact to accomplish their missions, The processes are the techniques and procedures the commanders and their staffs use. Facilities are the CP and supporting automation and communications systems.

ORGANIZATIONAL RELATIONSHIPS

To perform their C2 functions, the DISCOM and subordinate commanders and their staffs develop and maintain a variety of relationships. They include relationships with –

- Higher organizations.
- Supported organizations.
- Supporting organizations.
- Subordinate organizations.

DISCOM HEADQUARTERS RELATIONSHIPS

DISCOM and COSCOM/EAD Support Units

There are two separate aspects of this relationship. One is the support a COSCOM or other EAD support element provides in support of the LID. The other is the issue of how EAD elements operating in the division area receive support. This section deals primarily with the first aspect. Support to EAD units in the LID area is covered later in this chapter.

When a LID deploys, a "slice" of EAD support accompanies it. When a corps support unit deploys to provide support to the LID from within the division area, its support mission statement specifies its command relationship with the DISCOM element it supports. This statement tells the unit the specific mission to perform as well as the element to which it reports. The DISCOM element determines and coordinates such items as individual jobs to perform and work load priorities. Corps logistics units supporting corps units in the division area arc typically under the C2 of the corps support battalion.

COSCOM assets are identified before they move into the MSB and FSB areas to reinforce the support mission. Liaison personnel from the corps coordinate the move with the DISCOM headquarters and the MSB and FSBs. This coordination is necessary because the DISCOM and FSB commanders are the terrain managers for the DSA and BSAs respectively. The division rear CP is also informed of the arrival and departure of all nondivision units in the division rear since the rear CP has the ultimate responsibility for terrain management, movement control, and security for all units in the division rear.

When a LID deploys to reinforce US or allied forces, it becomes part of a corps or JTF. The DISCOM sets up coordination channels with the COSCOM headquarters and CMMC. Subsequent chapters discuss the relationships between specific DISCOM and EAD support elements.

The COSCOM supports a LID with GS ammunition and bulk fuel as part of the ammunition and bulk fuel distribution systems. The corps also provides transportation, supply (to include Class VIII), mortuary affairs, and airdrop services to the division. Chapter 1 covers other EAD support to the LID.

DISCOM and Division Staff

The relationship between the DISCOM commander and the division staff is the same as that between the commanders of other major subordinate units and the division staff. The DISCOM commander, assisted by his staff, coordinates with the division staff. He furnishes information for inclusion in division plans and orders. Division general staff members are responsible for planning in their respective areas. The DISCOM commander is the principal logistics and HSS operator of the division and executes the division logistics and HSS plan. The DISCOM commander and the division staff coordinate on logistics and HSS requirements and capabilities in matters of common interest. The division staff recognizes the command responsibilities of the DISCOM commander. The G4 develops division-level plans, policies, and priorities. The DISCOM commander reviews and comments on them. The division staff dots not interfere in the internal operations of the DISCOM.

The division G1 is the personnel service support planner for the division. The division G1 coordinates with the DISCOM S1 on personnel service support plans and operations and provides the S1 with needed information such as replacement projections. The G1's primary responsibilities include strength accounting, personnel replacement, and casualty reporting for the division. The G1 coordinates with the DMOC for HSS. He coordinates with the division chaplain for chaplain support. In addition, the G1 coordinates legal, financial, public affairs, and personnel and administrative support activities. He also manages the division safety program.

The G2 is the military intelligence planner for the division. His primary responsibilities include production of intelligence, counterintelligence, and intelligence training in the division. The G2 provides the DISCOM S2/S3 with necessary information and guidance to supervise the DISCOM intelligence operations.

The G3 is the operations planner for the division. This officer's primary responsibilities include operations, organization, and training for the division and establishment of

priorities for support based on the commander's intent. The G3 provides the DISCOM S2/S3 with the necessary information and guidance to supervise support operations.

The division G4 has staff responsibility for logistics. The DISCOM commander and the G4 work together to provide the best possible logistics to the division. The DISCOM commander provides information to the G4 on supply, maintenance, transportation, field service support, and food service. The division staff uses this information to develop division-level tactical and CSS plans, policies, and priorities.

The DTO coordinates with the division G3 on matters concerning tactical troop moves. The DTO keeps the G4 informed on logistics and other nontactical moves. The DISCOM MCO performs transportation functions to meet day-to-day transportation requirements in support of the division. The DTO plans and sets up priorities based on commander's guidance; the DISCOM MCO controls the employment of transport resources assigned or attached to the DISCOM for logistics. The DTO coordinates transportation communications between the division and the corps MCC. The DTO gives the DISCOM MCO broad policy guidance, basic plans and policies, and staff supervision. He aids in transportation matters concerning both air and surface transport, to include rail and inland waterways.

The G5 is the civil-military operations planner for the division. The G5 has staff responsibility for activities affecting the relationships among the military forces, the civil authorities, and the people in the area of operations. Among other logistics activities, the division G5 provides liaison with local procurement agencies. He informs the G4 and the DISCOM commander on the availability of local supplies and maintenance, transportation, services, and labor assets. The G5 also assists purchasing and contracting officers in making local purchases.

The public affairs officer serves as the commander's spokesperson and ensures aggressive command and public inform at ion programs are in place. A five-person public affairs team assigned to the division PAO assists in these missions. It provides the capability of producing field newspapers and photojournalistic and news-gathering products for internal and external audiences. The team is also responsible for escorting civilian media representatives in the AO.

DISCOM and Supported Division Units

The DISCOM staff anticipates future missions. It does this by understanding the division commander's intent and the G4's logistics plan and translating current developments into future requirements. The DISCOM commander and staff develop a close relationship with supported units to anticipate required changes to the DISCOM organization, employment, and operations. This close relationship with supported units ensures planners integrate DISCOM operations with the operations of the supported forces.

The DISCOM provides logistics and HSS to division and, if coordinated, some nondivisional units in the division area. While the DISCOM anticipates needs, the supported units submit logistics and HSS requirements to the DISCOM. They do this either through the brigade/battalion S4 to the FSB or through designated unit logistics representatives to the MSB/AMCO.

Small critical DISCOM elements first to deploy during a contingency operation, such as ammunition, missile maintenance, and POL personnel, may be attached to the brigades which they support during an assault. During the lodgment phase, C2 of these elements reverts to the DISCOM. Forward-deployed elements such as the maintenance contact teams remain under the C2 of their parent battalion, although they receive guidance on work priorities from the light infantry battalions.

The AB and DISCOM commanders work together to meet the logistics and HSS needs of the AB. The primary CSS concerns of the AB are Class III and V resupply and aircraft maintenance, recovery, and evacuation. The AB S4 is the focal point for planning and coordinating support for the AB within the AB commander's priorities. The AB S4 works closely with the division G4 to plan support. He also works with the DISCOM S2/S3 for the execution of support. The MSB, FSBs, AMCO, and the DMMC provide technical advice and assistance to the AB S4 in planning logistics and I-Es.

Unlike the infantry brigades, the operational area of the AB includes the entire division area. This means the AB employs its aviation assets throughout the entire division sector. Elements in the DSA provide logistics and HSS. However, the FSB supports AB elements in the brigade area when the AB coordinates this support with the DISCOM before required. This permits the DISCOM to transfer support assets from the DSA to the BSA. When possible, the DISCOM S2/S3 sets up an element to coordinate directly and consistently with the AB S4. This expedites logistics and HSS to the AB. In addition, the AMCO furnishes liaison to the AB through its production control section and receives AVIM priorities from the AB.

The DIVARTY commander and the DISCOM commander work together to meet the logistics and HSS needs of DIVARTY. The primary CSS concern for DIVARTY is ammunition. The DIVARTY S4 works closely with the division G3 and G4 to plan ammunition support. The DIVARTY S4 also works closely with the DISCOM S2/S3 and the DMMC on the receipt of ammunition.

FA units deploy throughout the division area. Thus, DIVARTY elements require area support for logistics and HSS functions. This requires close coordination among the G4, the DISCOM S2/S3, and the DIVARTY S4 for the support needed from the MSB and each FSB.

Direct support to other division troops in the division rear is provided by the MSB. The MSB and the DISCOM staff officers work out the day-to-day details of logistics and HSS operations for division elements in the division rear with the unit logistics representatives. These include specific requirements and time schedules. However, for routine operations, the MSB companies also develop relationships with supported unit logistics operators.

DISCOM and Corps Units in the Division Area

A number of corps elements are likely to be operating in the division area. These nondivisional units are typically supported by a corps support battalion. (LIDs are not required to provide support for special operations forces. However, in certain instances, SOF elements require limited Class I, III, V, VIII, and other items.)

Liaison personnel from the corps collocate with the support operations section of the MSB and each FSB as required. These liaison personnel and the support battalion commander determine which method of support to employ for corps units within the guidelines established by the G4 and the DISCOM commander.

If the number of corps units needing support is limited and their presence does not create a significant work load, then the MSB and FSBs provide the necessary support to these units. The corps provides additional assets to the MSB and FSBs or sets up corps support battalion supply points in the DSA when the work load generated by supporting corps units exceeds the capability of the MSB and FSBs. This ensures continued support to corps units operating in the area.

DISCOM Commander and DMMC

The DISCOM commander uses the DMMC as the primary materiel management element. The DMMC chief is directly subordinate to and receives policy and operational guidance from the DISCOM commander. The DMMC chief implements the policies of the division commander and the DISCOM commander through the actions of the center. The DMMC chief advises the DISCOM commander concerning supply and maintenance matters (less medical which is done by the DMOC). The DMMC chief also coordinates with the division G4 on all matters concerning supply and maintenance support for the division. For routine materiel management matters, the DMMC chief deals directly with the G4. Actions which have an operational impact on the DISCOM, however, are internal decisions of the DISCOM commander. The DMMC chief gives input to the division G4 and to the DISCOM S2/S3 on logistics plans and orders.

DISCOM Commander and Staff and DMOC

The chief of the DMOC keeps the DISCOM commander informed on all HSS activities. The DMOC, in consultation with the DISCOM surgeon, coordinates with the division staff sections on division HSS for the DISCOM commander. The chief of the DMOC interfaces with the DISCOM S1 on medical strength accounting, casualty reporting, replacement operations, casualty projections, and the emergency evacuation plan as they pertain to the DISCOM. He interfaces with the S2/S3 on relocation of medical elements, preventive medicine, HSS requests, medical information with potential intelligence value, corps support, and medical resupply. He interfaces with the S4 on administrative moves, highway clearances, assignment of facilities, supplies, food service, and unit maintenance. The DMOC chief also coordinates HSS activities, medical personnel replacements and assignments, and HSS requirements with the G1 and G3, as appropriate. The DISCOM commander and S2/S3 are informed and updated when the DMOC elements interface with division staff elements.

DISCOM Commander and MSB, FSB, and AMCO

The MSB, FSBs, and AMCO are organic to the DISCOM and under the C2 of the DISCOM commander. The battalion and AMCO commanders advise and assist

the DISCOM commander on all supply (less Class VIII), field service, maintenance, health service, and transportation matters for which their battalions and company are responsible. When directed or authorized, they assist the DISCOM commander in exercising technical supervision of battalion/company operations and training, Also when directed or authorized they represent the DISCOM commander in providing advice and assistance to the division commander and staff on their support operations. On routine matters, when authorized they provide advice, information, and assistance to the G4. However, the DISCOM commander retains authority for approval of actions with significant impact on the ability of the DISCOM to complete its mission. The battalion company commanders inform the DISCOM commander of all commitments made.

MSB RELATIONSHIPS

MSB and DISCOM HHC

The MSB is under the command of the DISCOM commander. The MSB commander provides technical support and advice to the DISCOM commander on matters concerning the DSA. The DISCOM commander gives the MSB commander support priorities and direction on support operations, battlefield locations, security, and movement. He also makes decisions on cross-leveling assets among the MSB and the FSBs.

MSB and DMMC

The DMMC provides supply and maintenance management for the MSB. It procures and directs the distribution of all supplies (less Class VI, VIII, and classified maps). It specifies the items and quantities of Class IX materiel physically located in the MSB. It provides guidance to the MSB on the disposition of items not reparable by DS units of the MSB. It maintains the property book and Army equipment status reporting data for the MSB. It provides day-to-day maintenance direction to the support operations office of the MSB.

MSB and AMCO

The AMCO is under the command of the DISCOM commander. The AMCO relies on the MSB for its DS ground equipment maintenance. The AMCO maintains a ground PLL and requests it through the MSB. The AMCO receives its HSS and supplemental ground transport from the MSB.

MSB and FSBs

The relationship between the MSB and FSBs is established by the DISCOM commander. The quantity and type of support provided by the MSB to the FSBs are determined by command priorities and the capabilities of the FSBs to accomplish their mission, Based on command guidance, the MSB provides supply, reinforcing DS maintenance, motor transport support, some field service functions, and limited medical reinforcement to the FSBs. The companies of the FSBs maintain technical relationships with their related companies in the MSB. These technical relationships simplify technical training and operations. However, these relationships do not take the place of command channels. Questions of who provides support and with what priorities are decided within command channels. When FSB companies need reinforcing support from the MSB, the FSB support operations section coordinates with the DISCOM S2/S3 section. For medical support, the FSB support operations section works with the DMOC.

MSB Headquarters and MSB Companies

The MSB commander maintains close contact with his subordinate company commanders. He depends on them for timely information on the status of their companies. In addition, the company commanders understand the MSB commander's intent so that they perform their company commander roles with initiative. Though the company commanders are often in the vicinity of the MSB CP to facilitate coordination, they do not tie themselves to one spot. They command their companies from the locations where they can best assess and influence support operations.

MSB and Supported Units

The DISCOM provides support to units located in the division rear through the MSB. The MSB establishes a close working relationship with the logistics planners for these units. The MSB and the plans and operations branch and MCO in the DISCOM S2/S3 section work out the details such as specific requirements and time schedules. However, for routine operations, the MSB companies develop relationships with representatives of the supported units.

FSB RELATIONSHIPS

FSB and DISCOM HHC

While the FSB supports an infantry brigade, it remains under the command of the DISCOM commander. The FSB keeps the DISCOM commander and staff aware of the support status in the brigade area and anticipated requirements beyond the capability of the FSB. The

DISCOM commander makes decisions on cross-leveling assets among the MSB and the FSBs.

FSB and DMMC

The DMMC provides the same support to the FSB as it does to the MSB. This support is discussed in the paragraph on the MSB and DMMC relationship.

FSB and MSB

The MSB provides reinforcing support to the FSBs. Their relationship is discussed in the paragraph on the MSB and FSB.

FSB Commander and Other FSB Commanders

FSBs are widely dispersed and operate independently of each other. However, the DISCOM commander may choose to cross-level assets between FSBs to most effectively support the units in each brigade area.

FSB Headquarters and FSB Companies

The relationship of the FSB commander to his subordinate company commanders is like that of the MSB commander to his subordinate company commanders. The FSB commander maintains close contact with his subordinate FSB company commanders. He depends on them to provide timely information on the status of their companies and expects them to use their initiative in the accomplishment of their mission.

FSB and Supported Units

The FSB provides direct support to a division infantry brigade. It establishes a close working relationship with the supported brigade commander and staff, as well as the subordinate battalion and other attached and assigned units.

The FSB commander and the support operations officer maintain continuous contact with the brigade S4 who assists the brigade commander in the area of logistics. The FSB commander and the support operations officer keep track of the FSB's status and capabilities and ensure they understand the brigade commander's priorities. To facilitate this relationship the FSB CP collocates with the brigade rear CP.

The FSB deals directly with the battalion S4s and other designated representatives of elements in the brigade area, Together they work out the details of logistics operations in the brigade. For routine operations, the FSB companies also develop relationships with supported unit representatives.

PROCESS

As with any other Army organization, the DISCOM commander and staff use the C2 process outlined in FM 101-5 to make decisions and supervise the execution of orders. A summary of this process appears here. The process is similar for the MSB, FSB, and AMCO commanders and their staffs.

The C2 process begins in the DISCOM when the DISCOM commander receives a mission. In some cases the DISCOM commander deduces the mission, but usually he receives planning guidance and a restated mission from the division commander. When he receives or deduces the mission, the DISCOM commander and staff begin mission analysis. The DISCOM staff identifies the tasks required to accomplish the mission. They issue a warning order to all DISCOM elements, along with the DISCOM commander's planning guidance.

Planning guidance includes the division commander's intent, a restated mission, specific courses of action to develop or eliminate from consideration, and assumptions. It also includes constraints (to include time limitations), critical information required, and specific considerations such as the probability of NBC attack, implementation of deception plans, and rear operations. The DISCOM staff uses planning guidance to prepare estimates. Therefore, the DISCOM commander ensures that the nature of his planning guidance does not bias staff estimates.

On the basis of staff estimates which analyze the support implications and the degree of risk for each course of action, the DISCOM commander determines the supportability of courses of action to accomplish the mission. The DISCOM commander provides the G4, the ADC-S, and the division surgeon with his logistics and HSS data. He identifies major problems and risks in providing required support.

Although the DISCOM commander and staff plan continuously, it is not until they receive the division commander's decision on the tactical employment of division units that they finalize the concept of operations. To do this they know–

- What each of the supported elements does.

- When they do it.
- How they do it.
- Where they do it.

The DISCOM staff then determines–

- What type of support is required.
- What quantities of support are required.
- What the priority of support is.

Working with the division G4 and the division surgeon, the DISCOM staff determines the logistics and HSS structure. They determine –

- What logistics and HSS resources are available.
- Where the logistics and HSS resources are located.
- When the logistics and HSS resources are available to supported units.

Such logistics and HSS planning is as detailed as time permits. Sound SOPS and contingency plans greatly assist in the development of specific plans. When SOPS are comprehensive, they have to change only to accommodate specific requirements or circumstances. In any case, planning concentrates on those areas most vital to successful mission accomplishment of the supported force.

Once the DISCOM staff finalizes support plans, the deputy commander gives guidance on preparation of the OPORD/OPLAN. The S2/S3 consolidates the input. He then publishes and distributes the OPORD/OPLAN after the DISCOM commander approves it.

After the S2/S3 distributes the OPORD/OPLAN, the DISCOM commander and staff supervise its execution. The primary purpose of the staff is to assist subordinate units to carry out the intent of the DISCOM commander's order. The DISCOM staff refines plans and orders as the situation changes. Information comes back to the command section through reports and personal observations of the battalion/company commanders and staff and the DMMC chief. On the basis of this information, the staff evaluates whether the mission is accomplished. It revises previous instructions as required.

FACILITIES

C2 facilities include CPs and supporting automation and communications systems. These facilities make possible processing and transmission of information and orders necessary for effective C2. A discussion of the DISCOM CPs and C2 automation is below. Chapter 5 contains information on communications.

COMMAND POSTS IN THE DISCOM

Under the Functional Command Post Program, the Level I CP for the DISCOM (Figure 4-1) includes all the personnel and equipment in the DISCOM HHC and the DMMC. Portions of the Level I CP not included in the Level II CP, such as the communications branch, DMMC, S1/UMT, S4 section, division food service, and headquarters company, set up in separate SICP tents. They are located outside the concertina wire which surrounds the Level II CP. The DISCOM Level II CP is physically made up of eight SICP tents. The MSB and FSB CPs follow this standardized configuration as closely as possible.

DISCOM Command Post

The DISCOM CP (Figure 4-2) is the nerve center for C2 of the DISCOM and attached units and for coordination of the DISCOM responsibility for defense of the DSA. The DISCOM commander identifies functions required on a routine basis to support operations and those which require command approval. He sets priorities and defines levels of authority. Appendix E is a sample SOP for the DISCOM CP.

Officers operating in the DISCOM CP include the commander, deputy commander, S2/S3 officer, medical operations officer, chemical officer, DMMO, DAO, MCO, and materiel section personnel. Personnel in subordinate elements also work in the CP to provide advice and assistance. CP personnel operate in a two-shift mode to permit continuous operations. Table 4-1 shows a sample staffing list for the LID DISCOM CP. The A or primary shift works during the busiest part of the workday. The B or secondary shift is on duty during periods of reduced activity. A problem beyond the decision-making authority of the secondary shift causes selective reinforcement from the primary shift. Also, these are only examples of minimum staffing. Intense activity requires all available personnel for short periods.

MSB Command Post

The MSB CP is the nerve center for C2 of the MSB and attached units and coordination of the MSB responsibility for defense of its units. Table 4-2 is a sample two-shift staffing list for the MSB CP.

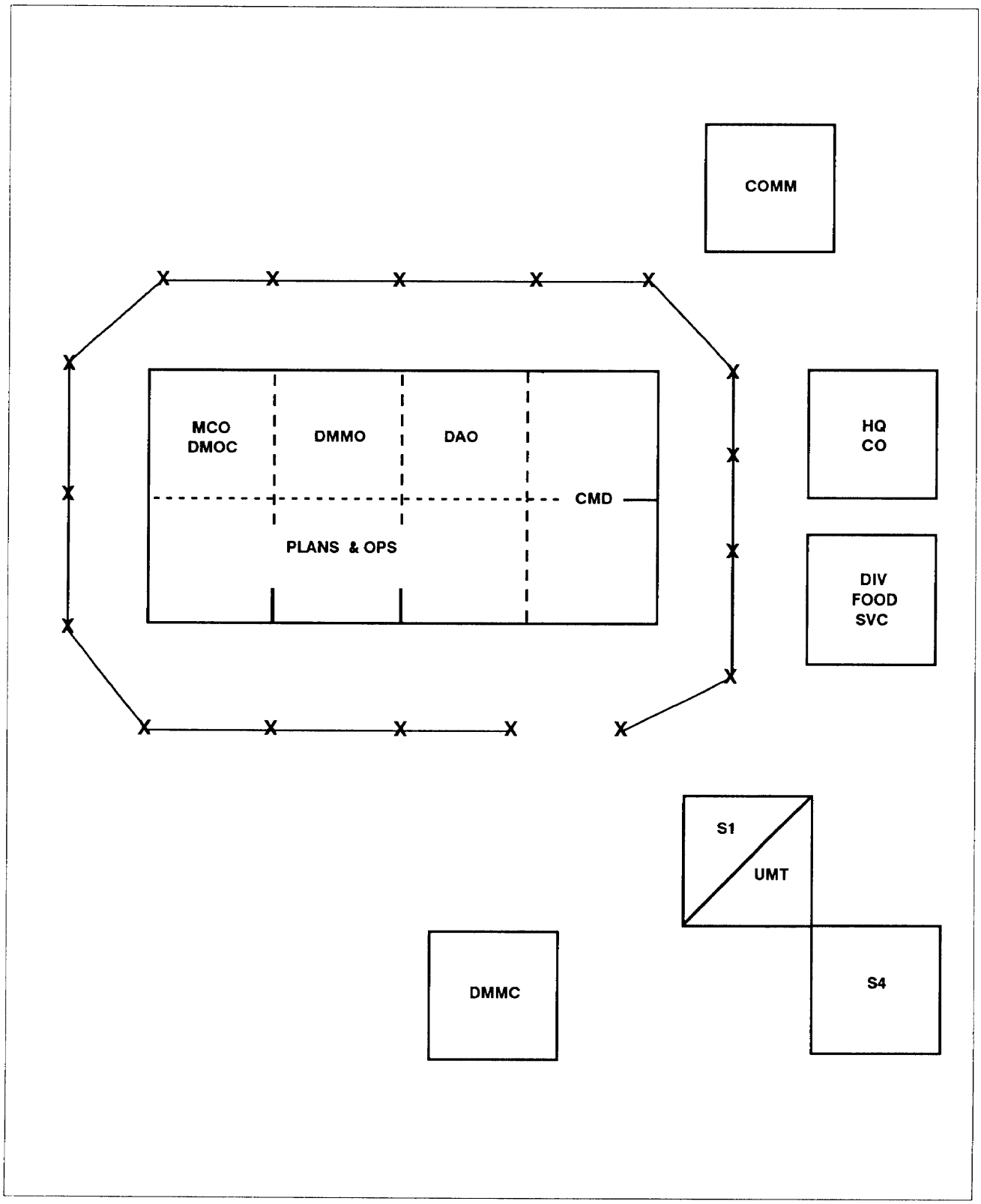


Figure 4-1. Level I CP for the DISCOM.

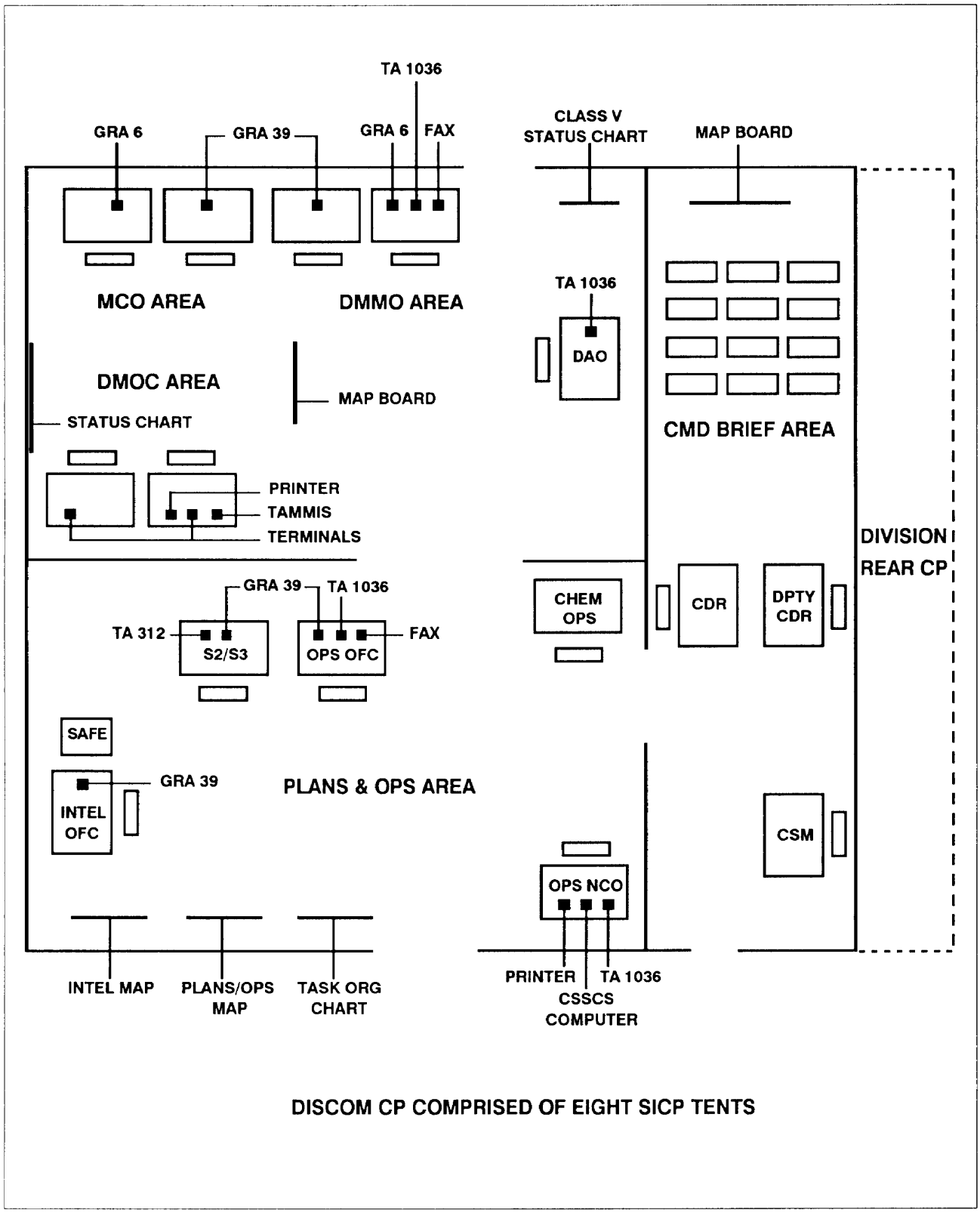


Figure 4-2. DISCOM Level II CP Layout.

Table 4-1. Sample two-shift staffing for DISCOM CP.

A Shift - Peak Activity		B Shift - Reduced Activity	
Title	Grade	Title	Grade
Commander	COL	Deputy Commander	LTC
Driver	E5	Med Ops Off	CPT
CSM	E9	Exec Admin Spec	E4
S2/S3	LTC	S2/S3 Admin Spec	E5
DMMO	LTC	Asst DMMO	MAJ
DAO	MAJ	Plans & Ops Off	CPT
MCO	MAJ	Movement Supv	E7
Movement Spec	E5	Movement Spec	E4
Chemical Off	CPT	NBC NCO	E7
Tac Intel Off	CPT	Intel Analyst	E5
Sr Intel Analyst	E6	Clerk Typist	E4
Med Ops Off	LTC		
S2/S3 Ops NCO	E8		

Table 4-2. Sample two-shift staffing for MSB CP.

A Shift - Peak Activity		B Shift - Reduced Activity	
Title	Grade	Title	Grade
Commander	LTC	XO	MAJ
Spt Ops Off	MAJ	S2/S3	CPT
CSM	E9	Spt Ops NCO	E8
Driver	E4	Mortuary Affairs NCO	E6
S2/S3 Ops NCO	E8		
NBC NCO	E7		
Intel NCO	E5		
Mat Ops NCO	E7		
Movement Spec	E5		
Reports Clerk	E3		

FSB Command Post

The FSB CP is the nerve center for C2 of the FSB and attached units and coordination of the FSB responsibility for defense of the BSA. Table 4-3 is a sample two-shift staffing list for the FSB CP.

Continuous Operations

CP personnel operate in a two-shift mode to permit continuous operations. During intense activity, all available personnel are required. The DISCOM commander and staff consider the fatigue and sleep loss that occur during such periods of increased activity. Fatigue caused by lack of sleep is a major source of battlefield stress. Leaders are particularly susceptible, Principles to minimize fatigue include the following:

- Develop specific sleep plans and enforce them.
- Allow for at least 3 to 4 hours of sleep every 24 hours. Even at this rate performance, especially decision-making skills, is degraded in several days.

Table 4-3. Sample two-shift staffing for FSB CP.

A Shift - Peak Activity		B Shift - Reduced Activity	
Title	Grade	Title	Grade
Commander	LTC	XO	MAJ
Spt Ops Off	MAJ	S2/S3	CPT
CSM	E9	Spt Ops NCO	E8
Driver	E4	Mech Maint NCO	E7
S2/S3 Ops NCO	E8	Mortuary Affairs NCO	E6
NBC NCO	E7		
Intel NCO	E5		
Health Svc Off	CPT		

- Ensure that priority of sleep goes to those whose decision making is critical to the mission.

In order for sleep plans to work, soldiers are cross-trained. One technique which helps is to use performance supports to simplify critical tasks, These include aids such as specific SOPS arid checklists. More information on soldier performance in continuous operations is in FM 22-9. More information on the management of stress is in FM 26-2.

CP Locations

The DISCOM CP and the MSB CP are located in the DSA. The FSB CP is in the BSA. Ideally, the DISCOM CP collocates with the rear CP for the division. The FSB CP collocates with the rear CP for the brigade.

A key consideration in determining the location of a CP is the ability of the site to provide communications with higher, lower, and adjacent organizations. A CP is away from probable enemy targets yet near routes which allow easy access into the area. To prevent the enemy from readily determining a CP location, a CP is not near prominent terrain features and major road junctions.

When possible a CP is located in a built-up area, Barns, garages, and warehouses eliminate the need for extensive camouflage. Basements provide added protection from enemy fires, Covering windows and using basements enhance noise and light discipline. A CP is a major source of electromagnetic and infrared energy. Use of a built-up area reduces these signatures.

When a built-up area is not available, a CP locates on a r-mm-se slope. This provides cover and concealment from both ground and air observation and fires. The area has firm ground to support vehicle traffic, good drainage, and enough space to disperse vehicles. The best tactical con figuration of the CP requires the signal personnel to remote as many radios as possible from the CP and place antennas outside the CP.

A CP travels light and moves often. If a CP does not move often, the threat can fix and target its location. When a CP moves, it displaces by echelons. Once an operational capability is established at the new location, the remainder of the CP elements move.

A standard interior arrangement of a CP is desirable. It helps visitors locate specific staff sections and simplifies displacement and reestablishment of a CP. However, if it is in a built-up area, the layout conforms to the structure of the available buildings. An orderly arrangement requires consideration of the following:

- Grouping elements frequently working together.
- Locating elements with considerable traffic near entrances.
- Centrally locating elements requiring special security precautions.
- Setting up a directory at the entrance to direct personnel to the proper element within a CP or to the location of the desired subordinate CSS unit.

C2 AUTOMATION

Automated systems throughout the DISCOM allow commanders to manage information to make the best of limited resources. The systems include the machinery, programs, specialists, and organizations which process data through the use of computers.

Command, Control, and Subordinate System Structure

CCS2 provides the means of interfacing the five battlefield control functions of maneuver, air defense, CSS, intelligence and EW, and fire support. This interface is the Army Tactical Command and Control System.

The CSSCS of the ATCCS provides the means to rapidly collect, analyze, and present accurate and timely data for decisions on the employment of limited logistics and HSS resources. It retrieves data from CSS functional systems (discussed later) and subordinate systems. One of the CSSCS devices (ATCCS common hardware) at the division level is located in the DISCOM S2/S3 section. This device provides interface between CCS2 nodes and CSSCS. Information from the CCS2 requiring dissemination is distributed through this device to its destination. In addition, the S2/S3 section distributes through this device information such as OPLANs, OPORDs, and inquiries the DISCOM commander wishes to send to subordinate organizations. The device assembles information required by the DISCOM commander from subordinate units and systems. The device also assembles information required to enter the CCS2 from the DISCOM data base, then transmits it through the system. CSS information flows directly from the DISCOM S2/S3 CSSCS device to the COSCOM G3 CSSCS device and back.

In the DMMC, the CSSCS interfaces with the supply, maintenance, transportation, and medical STAMISs discussed below. Each of the multifunctional battalions and the AMCO have a CSSCS device. These CSSCS devices interface with STAMISS and update the DISCOM data base. Figure 4-3 depicts CSSCS in support of the division.

Each brigade area has two CSSCS devices. One is in the FSB CP. This device responds to information requirements generated by the DISCOM commander and the maneuver brigade commander. The other CSSCS device is in the maneuver brigade rear CP to support the brigade S1 and S4 sections. This device enables the S1 and S4 to conduct planning for personnel and internal logistics operations. Operators also use it to feed brigade personnel and logistics data to the maneuver brigade commander. Figure 4-4 depicts CSSCS in support of the brigade.

Functional Logistics Support Systems

In addition to providing logistics C2 information via the CSSCS component of the ATCCS, CSS STAMISS within the DISCOM perform the functional operations they were originally designed to do. These software systems operate on either the TACCS or other designated hardware. Operator input transactions automatically update data within the files on magnetic media. Operators transmit transactions between systems either electronically or through the use of magnetic media. A discussion of the systems used by the DISCOM and its subordinate units is below:

Standard Installation/Division Personnel System. **SIDPERS** operates on TACCS. It automates strength accounting, assignment, organization record keeping, personnel record keeping, and labor-intensive military personnel operations within the S1 sections of the DISCOM, MSB, and FSB headquarters.

Standard Property Book System – Revised. SPBS-R automates the property accountability and reporting requirements of ARs 710-2 and 710-3. It provides the DISCOM with a state-of-the-art automated property book which improves Class VII accountability and asset visibility. The SPBS-R operates on TACCS hardware in the property book and Class VII branch in the general supply section of the DMMC in the LID. SPBS-R on TACCS interfaces with SARSS-1, the S4 module of the ULLS, and CSSCS.

Unit-Level Logistics System. ULLS operates on the ULC and provides automation of logistics functions at the unit and battalion levels. ULLS is employed throughout the division to include the DISCOM. Unit maintenance and S4 consolidated logistics applications are the two parts of the ULLS. ULLS interfaces with CSSCS, SARSS-1, SAMS-1, SPBS-R, and other applicable STAMISS.

Standard Army Retail Supply System. **SARSS** operates on TACCS in the DISCOM and consists of two parts: SARSS-1 and SARSS-2A.

SARSS-1 operates on TACCS-E hardware in supply and maintenance companies. SARSS-1 automates Class II, III (packaged), IV, VII, and IX supply actions. It performs time-sensitive functions. These include receipt, storage, issue, replenishment, inventory adjustments, supply performance reporting, and excess identification. It also maintains accountable stock record balances. During normal distribution operations, SARSS-1 interfaces directly with SARSS-2A on TACCS at the DMMC. In contingency operations, SARSS-1 operates in the autonomous mode without SARSS-2A support. It interfaces directly with the DAAS to route requisitions directly to the wholesale system. In addition to the

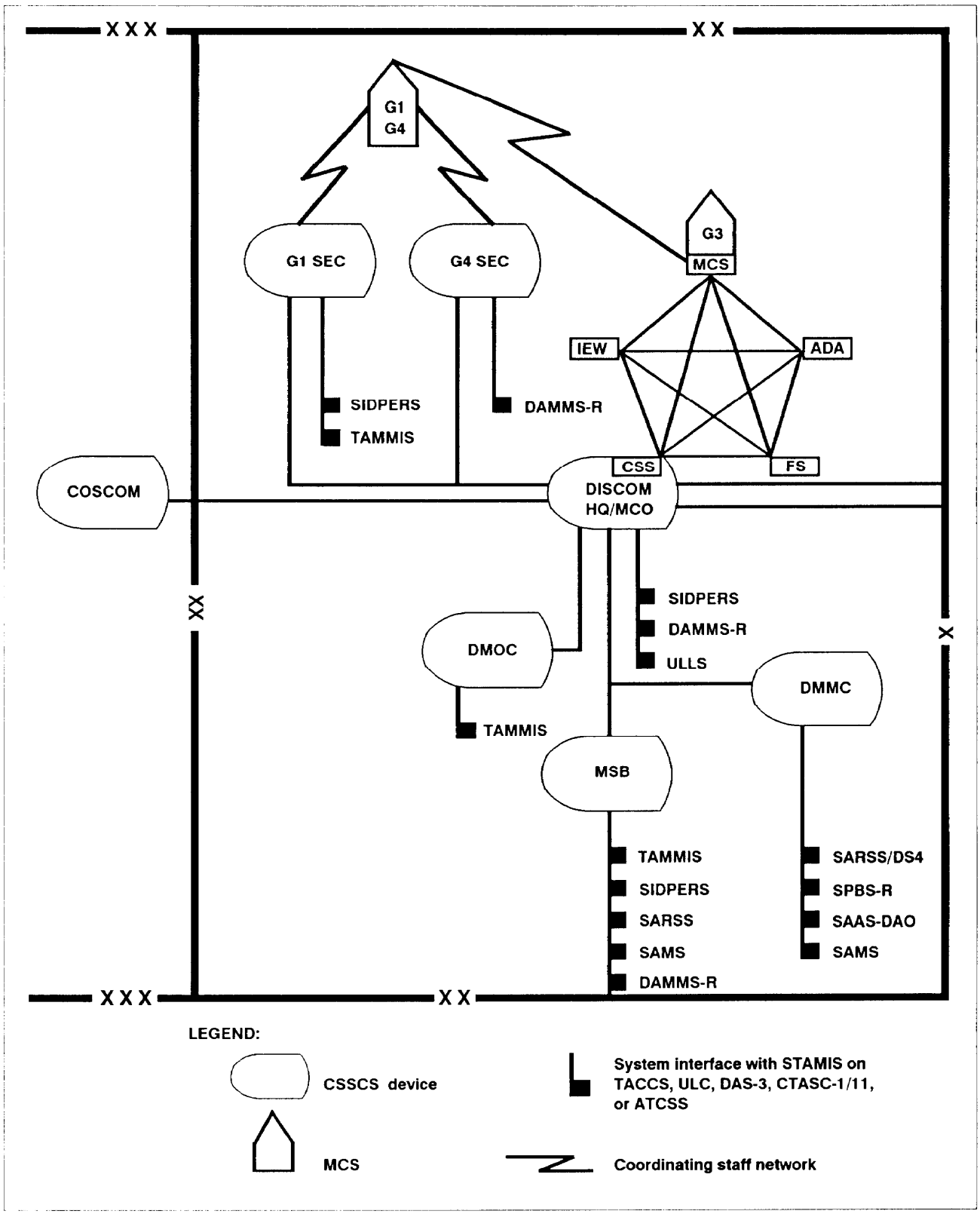


Figure 4-3. CSSCS in support of the division.

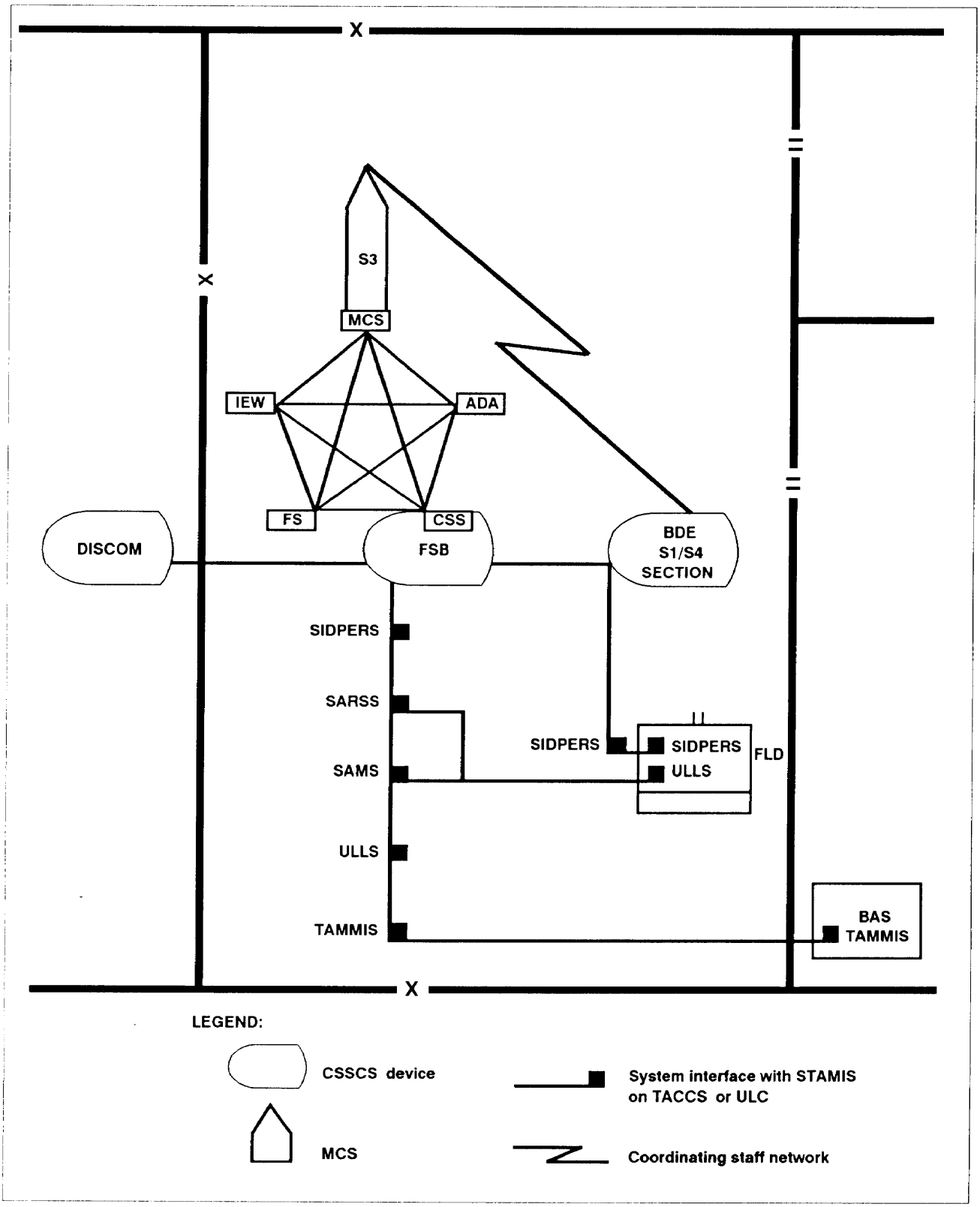


Figure 4-4. CSSCS in support of the brigade.

SARSS-1 to SARSS-2A interface, SARSS-1 interfaces with ULLS, SPBS-R, SAMS-1, DAMMS-R, and CSSCS.

The ASL management branch of the DMMC employs SARSS-2A. SARSS-2A receives asset balance reports from SARSS-1. It routes unfilled requisitions received from subordinate SARSS-1 activities to the appropriate source of supply. It also performs lateral transfers and substitute item identification and release. It submits catalog changes to SARSS-1 and maintains asset balance visibility for all SARSS-1 subordinate activities. SARSS-2A interfaces with subordinate SARSS-1 activities, CSSCS, DAMMS-R, with higher echelon SARSS-2A/2B, and other designated STAMISs. This requires special communications links.

Standard Army Ammunition System – DAO. SAAS-DAO operates on TACCS hardware employed in the division ammunition office of the DMMC. It standardizes and automates the management functions of the division's ammunition supply functions. It collects, manipulates, distributes, and processes data to improve the accuracy, timeliness, handling, processing and retrieval of Class V information. This reduces or eliminates the forms and manual operations associated with ammunition management. It maintains current status of ammunition at all ATPs. It receives, stores, and updates data to compute the division's RSR to forecast future ammunition requirements. It also maintains historical records of ammunition consumption. It manages and provides an automated tool using ammunition status data for the DAO to control the established division CSR. It provides an automated means of establishing Class V transportation requirements when the system is input with the types of vehicles to be used as a computation variable. It interfaces with other SAAS modules to coordinate division requirements and maintain data on ammunition shipped from the CSA/ASP. It also helps the DAO maintain enough ammunition of each type at ATPs to meet warfighting requirements. It enables the DAO to apprise using units of the availability of ammunition at supporting ATPs, including the ATP operated by the corps in the division rear. It processes requirements from units for issue of ammunition at the ATPs and ensures that units do not exceed their CSR. Class V support in the division requires that SAAS-DAO interface with SAAS-1/3 at CMMC. This interface is from TACCS to TACCS at the CMMC. Future interfaces are to SAAS-4, DAMMS-R, and CSSCS.

Standard Army Maintenance System. SAMS operates on TACCS hardware in the division and consists of two parts: SAMS-1 and SAMS-2. SAMS provides the ability to present the status of equipment from the unit and DS maintenance shops to the materiel management levels.

All maintenance companies including the AMCO employ SAMS-1 on TACCS. It automates maintenance production control, providing immediate job order and backlog status information. It provides, through file inquiry, repair parts and shop stock asset status. It screens production parts requirements against on-hand assets and automatically generates, edits, and passes requests to the supply system via SARSS-1.

The maintenance companies and the support operations sections in the MSB and FSBs employ SAMS-1. The DMMC materiel section employs SAMS-2. It receives SAMS-1 data and provides immediate production and supply requirements to managers. It gives daily visibility of deadlined equipment. In addition to the SAMS-1 interface, SAMS-2 interfaces with other appropriate SAMS-2 (for example, DMMC to CMMC) and other designated STAMISS.

DA Movements Management System – Redesigned. DAMMS-R operates on TACCS hardware in the MCO assigned to the S2/S3 section of the DISCOM headquarters. It provides intransit cargo movements data, mode asset status, and hold/diversion status. It also provides movements information, transportation status reports, container reports, ETA forecasts, and transportation intelligence. MCO automated mission performance requires a DAMMS-R on TACCS interface with the MSB HSC as well as the TMT company DAMMS-R operations on ULC. Other interfaces are with DAMMS-R (for example, MCO to DTO on TACCS), SARSS-1, SAAS, CSSCS, and other designated automated systems.

Theater Army Medical Management Information **System.** TAMMIS operates on ATCCS-CHS within the division and CTASCII at the supporting MEDSOM/MEDLOG battalion. TAMMIS provides timely and accurate information through the MEDPAR, MEDSUP, MEDMNT, and MEDBLD subsystems. It supports the medical information management requirements of the division. TAMMIS provides vertical integration of medical information through command and control or the MEDC2 function. TAMMIS provides a data rollup capability which contains the status of medical units, evacuation work load and critical resources. TAMMIS is a vital link in the HSS chain in that timely and accurate information are critical to the provision of quality HSS.

MEDPAR-D provides automated capabilities in treatment and disposition data, unit medical administration,

ICRs, medical C2, and system setup/maintenance. It supports medical unit commanders and their staff in the management and accountability of patients. It gathers individual patient data and medical information to monitor the status of troop health and medical resource usage. MEDPAR-D identifies each patient and records demographic data. It shows the patient's status, diagnosis, prognosis, and expected disposition. It also reports the availability of holding beds to respective C2 headquarters. For patients being either returned to duty or transferred, the subsystem interfaces with SIDPERS for accounting and casualty reporting. MEDPAR-D provides the user with automated capabilities in the following areas:

- Treatment and Disposition Log. It maintains pertinent patient and demographic data on each patient seen at the MTFs. It produces data concerning patient statistics, diagnoses, and holding-bed availability.
- Unit Medical Administration. It initiates updates, maintains individual soldier personnel medical files, and produces individual medical readiness and health records.
- Individually Carried Record. It interfaces with the ICR through a reader/writer device at all levels of medical care. It archives the data and allows the creation and maintenance of data within the administrative data, medically significant, medical readiness, and combat treatment files of the ICR.
- Medical Command and Control. It initiates updates. It maintains additional supporting medical treatment unit data on medical personnel resources, patient evacuation assets, blood assets, and other medical unit capabilities and constraints. The C2 element consists of two separate and independent modules designed to operate below brigade and at brigade levels and above. Units operating at lower levels send consolidated data to units operating at higher levels. The system produces patient status reports to help medical, logistics, and tactical commanders plan operations. The system generates data to account for patients, patient work load statistics, patient disposition data, and the availability of holding beds. The data also serves as a basis for initiating patient evacuation requests and special patient reporting requirements as well as completion of certain medical records.
- Algorithm-Directed Troop Medical Care. The ADTMC module allows the user to determine patient disposition by screening the patient through the use of algorithms. The system provides information about the levels of disposition and a medication listing for reference by the screener. It also provides a written record of the patient/screener encounter.

MEDSUP and MEDMNT provide automated support to the division medical supply office in the areas of medical materiel management and medical equipment maintenance and repair. The DMSO uses these subsystems to manage Class VIII supply transactions, inventory, quality control information, medical equipment maintenance programs and to provide accurate and timely command information. The system maintains data on supply and equipment items critical to mission accomplishment. It sends this information through command channels on an as-required basis via modem, land line, floppy diskette, or hard copy paper reports.

MEDBLD provides automated support to the division in the area of blood management, It records blood donor information and the results of blood processing tests. The system provides the ability to monitor blood product inventories at all levels in the blood distribution system. Each echelon within the blood distribution chain maintains current inventories for its own location and for all locations to which it supplies blood. Blood usage information is transmitted up the distribution and management hierarchy so that every echelon is aware of blood product usage, overages, and shortages.

Chapter 5

Communications

PRINCIPLES AND DEVELOPMENTS IN COMMUNICATIONS SYSTEMS

Communications systems are essential for gathering and disseminating data. Personnel need them to plan and execute operations. Commanders use them to perform C2 functions and to supervise performance. Effective management of DISCOM functions depends on adequate communications to keep abreast of changing situations and requirements.

The DISCOM relies on both its organic communications assets and the support of the division signal battalion. Communications equipment and systems in the division and corps are changing. The MSE system replaces the area communications system (Figure 5-1) described below. SINCGARS and IHFR replace the FM-VHF (AN/VRC-12) series radios and AM-SSB (AN/GRC-106) radios.

These changes affect how the DISCOM units connect to the area system. Under the old area system, the DISCOM extension platoon in the area signal company provides signal facilities to the DISCOM. Services include –

- Automatic telephone central office and switching facilities for trunk and local telephone circuits. The area telephone system is common user. It is automatically switched and designed as transparent to the users. Dial-up services include not only voice service but also data transfer, facsimile, and other forms of electronically formatted information. Cable/wire installation teams install the internal cables and local telephone circuits. They lay cable/wire to tagged junction boxes. Subscribers install local telephone circuits to the junction boxes. If time permits, the cable/wire teams help install wire in the DISCOM CP.
- Secure multichannel LOS communications terminals for access to the automatic switched network. The LOS multichannel is the most common and most frequently used system in the division. The BSA and the DSA are normally in the division multichannel system in the initial deployment of the multichannel system. However, this depends on the timing of the DSA or BSA moves through the operational area and their locations relative to the threat force.
- Net-radio interface facility for secure single-channel FM radio access into the division automatic switched network. The basic single-channel radio net which passes personnel and supply information is the administrative and logistics net.
- Secure single-channel HF RATT terminals for entry into the GP RATT net. The GP RATT net provides hard-copy communications traffic between the DSA and the BSAs and extended distance communications.
- Secure multichannel TACSAT terminal at the DISCOM for access to the automatic switched network over extended distances. TACSAT assets supplement existing LOS multichannel systems. When tactical situations disperse the division beyond any service by LOS, the TACSAT communications network is essential. It maybe the primary means of connection between the forward elements of the division and the various support bases.

DISCOM units' switchboards tie into the area system based on their location in the division. With the MSE area system, personnel are not able to enter the 4-wire digital system using the organic 2-wire switchboards and telephones. The DISCOM retains its organic 2-wire switchboards for local security purposes and internal operations.

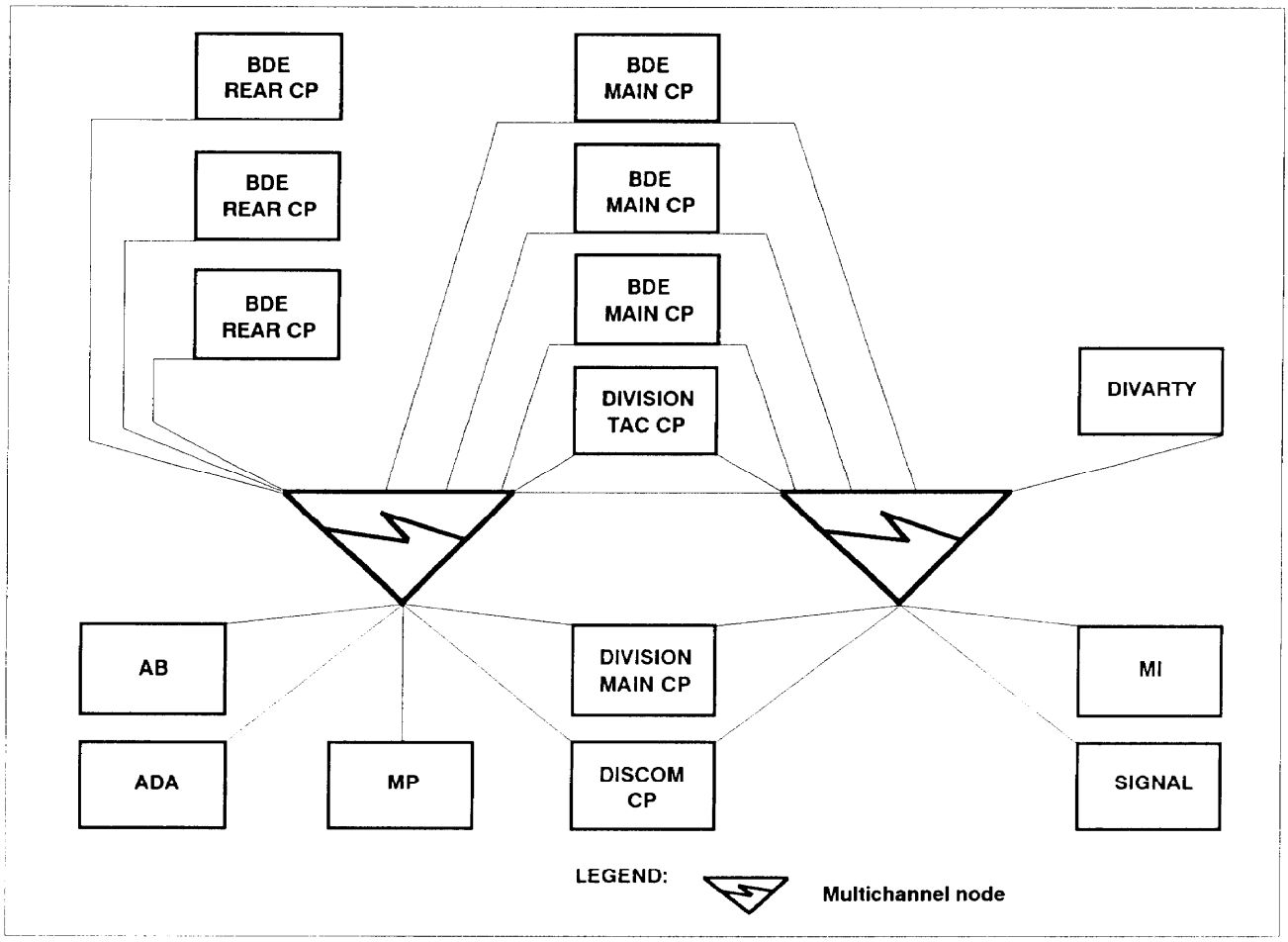


Figure 5-1. Sample area communications system.

MOBILE SUBSCRIBER EQUIPMENT AREA COMMUNICATIONS SYSTEM

MSE is the area common user voice communications system within the corps. It is the backbone of the corps system and deploys from the corps rear boundary forward to the maneuver battalion main CP. The MSE system is comprised of four functional areas:

- Area coverage.
- Wire subscriber access.
- Subscriber terminals.
- Mobile subscriber access.

AREA COVERAGE

Area coverage means MSE provides common user support to a geographic area, as opposed to dedicated support to a specific unit or customer. These nodes are called node centers. They are under the control of the corps signal officer.

At division level, the signal battalion operates four of these nodes. Connected to these nodes, via LOS radios, are small extension node switchboards and large extension node switchboards. The following switchboards are organic to the division signal battalion:

- 16 SEN switchboards, 12 of which are capable of supporting 26 subscribers each and 4 of which are capable of supporting 41 subscribers each.
- 1 LEN switchboard capable of supporting 176 customers.

The G3 determines the location of switchboards based on the recommendations of the division C-E officer. The C-E officer considers the commander's intent, customer requirements, and other factors of METT-T. Switchboard locations are not consistently assigned to specific units.

WIRE SUBSCRIBER ACCESS

Wire subscriber access points provide the entry point (interface) between fixed subscriber terminal equipment owned and operated by users and the MSE area system operated by signal units. DISCOM users tie into the area system through a configuration of MSE switchboards. The interface points are —

- The signal distribution panel (junction box) J1077. Each panel can provide up to 13 subscriber access points.
- The, remote multiplexer combiners which provide **Up** to eight subscriber access points.

Beyond these two interface points the using units are responsible for the installation and operation of fixed subscriber terminal instruments as well as the installation and maintenance of the WF 16 field wire from the instruments to the interface points into the area system.

FIXED SUBSCRIBER TERMINALS

Subscriber terminals used by the DISCOM units are digital nonsecure voice telephones. These provide full duplex digital, 4-wire voice as well as a data port for interfacing the AN/UXC-7 facsimile for informal record traffic, the TACCS computers for CSS STAMISs, the AN/UGC-144 (the single subscriber terminal) for formal record traffic, the unit-level computers for the unit-level logistics STAMIS, and ATCCS for the CSSCS. Tables 5-1 through 5-4 portray the assignment of this equipment for DISCOM units.

Table 5-1. DISCOM HHC/DMMC subscriber terminal asssignment, fixed and mobile.

DISCOM HHC/DMMC	DATA TERMINAL	STAMIS
♂ ● CDR		
● DPTY CDR		
♂ ● S1	AN/UXC-7, UGC-144, TACCS	SIDPERS
● UMT		
♂ ● S2/S3		
♂ ● PLANS & OPS (2 EA)	AN/UXC-7, AN-TCP	MCS (INTERIM) CSSCS
● C-E OFF		
♂ ● MCO (2 EA)	TACCS	DAMMS-R
● S4 (2 EA)	ATCCS	ULLS-S4
● DISCOM SURG		
● MED SUP (2 EA)	ATCCS (2 EA)	MEDSUP/MEDMNT
♂ ● DMOC	ATCSS	MEDBLD, MEDPAR
● CO CP		
● DMMO (2 EA)		
♂ ● DMMO OPS	AN/UXC-7	
● GEN SUP SEC		
● DMMC CL I		
● DMMC CL III/WTR		
● DMMC CL II-IV	REMOTE	SARSS-2A
● PROP BK/CL VII BR (3 EA)	TACCS (6 EA)	SPBS-R, SPBS-R (V)
♂ ● DAO		
● DIV AMMO OFC (2 EA)	TACCS	SAAS-DAO
● MAT MGT OFC		
● MAINT BR	TACCS	SAMS-2
● ARMT TECH	REMOTE	SAMS-2
● C-E TECH	REMOTE	SAMS-2
● AVN NCO	REMOTE	SAMS-2
● MSL NCO	REMOTE	SAMS-2
● ASL MGT BR	TACCS & REMOTE	SARSS-2A
● CSS AMO	REMOTE	STAMIS SPT

LEGEND: ● DNVT ♂ MSRT

Table 5-2. MSB subscriber terminal assignment, fixed and mobile.

MSB HQ	DATA TERMINAL	STAMIS
♂ ● BN CDR		
● XO		
● S1	FAX	
● PAC	TACCS	SIDPERS
♂ ● S2/S3		
● PLANS & OPS BR	FAX	
♂ ● SPT OPS SEC	ATCCS	CSSCS
● SPT OPS SEC	TACCS (2 EA)	DAMMS-R
● S4	ULC	ULLS-S4
MAINT CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO HQ	ULC	ULLS-PLL
♂ ● MAINT CON & LT MAINT PLT HQ	TACCS	SAMS-1
● SUP PLT HQ	TACCS	SARSS-1
● BN MAINT SEC	ULC	ULLS-PLL
TMT CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO CDR/TRUCKMASTER		
● CO HQ	ULC	DAMMS-R
SUP CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO HQ		
● SUP PLT HQ	TACCS	SARSS-1
MED CO	**DATA TERMINAL**	**STAMIS**
● CO HQ	ULC	ULLS-PLL MEDSUP/MEDMNT
● DMSO	ATCCS	
● AMB PLT HQ		
LEGEND:	● **DNVT**	♂ **MSRT**

Table 5-3. AMCO subscriber terminal assignment.

AMCO	DATA TERMINAL	STAMIS
● CO HQ	TACCS	SIDPERS
● PROD CON SEC	TACCS	SAMS-1
● SUPPLY	ULC	ULLS-PLL
LEGEND:	● **DNVT**	

Table 5-4. FSB subscriber terminal asssignment, fixed and mobile.

FSB HQ	DATA TERMINAL	STAMIS
♂ ● FSB CDR		
● XO		
● S1 (2 EA)	TACCS, FAX	SIDPERS
♂ ● S2/S3	FAX	
● S2/S3 (3 EA)		
♂ ● SPT OPS SEC	TACCS, FAX	
● SPT OPS SEC	ATCCS	CSSCS
● S4	ULC	ULLS-S4
MAINT CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO HQ	ULC	ULLS-PLL
● MAINT CON & PLT HQ	TACCS	SAMS-1
● SUP SEC	TACCS	SARSS-1
● BN MAINT SEC	ULC	ULLS-PLL
MED CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO HQ	ULC	ULLS-PLL
● TRMT PLT HQ	ATCCS (2 EA)	MEDPAR-D, MEDLOG-D
● AMB PLT HQ		
SUP CO	**DATA TERMINAL**	**STAMIS**
♂ ● CO HQ		
● SUP PLT HQ	TACCS	SARSS-1
LEGEND:	● DNVT	♂ MSRT

MOBILE SUBSCRIBER TERMINAL

The MSE mobile subscriber terminal is the AN/VRC-97 mobile subscriber radiotelephone terminal. This MSRT, which consists of a very high frequency radio and a digital secure voice terminal, is a vehicle-mounted assembly. It interfaces with the MSE system through a radio access unit. The primary use of MSRT is to provide mobile subscribers access to the MSE area network. RAUs are deployed to maximize area coverage and MSRT concentrations. MSRTs also operate in CPs to allow access to staff and functional personnel. The MSRT user has a KY68 telephone connected to the radio mounted in his vehicle. As long as the radio unit has LOS contact with the RAU, it connects into the area system. The operational planning range is 15 kilometers from any RAU.

COMBAT NET RADIO SYSTEM

The combat net radio structure is designed around three separate radio systems; each has different capabilities and transmission characteristics. The three systems are –

- 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 which is transparent to the DISCOM. The other two systems, IHFR and SINCGARS, provide the primary means of voice transmission of C2 information and the secondary means for data transmission, which is required if data transfer requirements arc not met by the MSE system.

Current CNR equipment in the DISCOM consists of the AN/GRC-106 and the AN/VRC-l2 series radios.

The IHFR and SINCGARS series respectively replace these radios. For a description of the new radios, refer to FM 24-24. SINCGARS is a new family of VHF-FM radios. These radios are designed for simple, quick operation 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 also operate in a jam-resistant, frequency-hopping mode which can be changed as needed. IHFR is a family of high frequency radios consisting of the AN/PRC-104 man-pack radio and the AN/GRC-193 vehicular radio.

DISCOM RADIO NETS

DISCOM COMMAND/OPERATIONS NET (FM)

The principal radio net operated by the DISCOM headquarters is the DISCOM command/operations net (Table 5-5). This net is used to command and control elements of the DISCOM in performance of its CSS mission and its internal functions as a major subordinate command of the division. The NCS is the S2/S3 section. Stations in this net monitor the division command/operations net and the division intelligence net. This net is also used for rear operations as required.

Table 5-5. DISCOM radio nets.

Cmd/Ops	Mat Mgt	Log Ops	Med Ops
S2/S3 Sec (NCS)	DMMO (NCS)	S2/S3 Sec (NCS)	DMOC (NCS)
Cdr	CL I Off	DMMO	MSB Med Co
Dpty Cdr	DAO	MSB	FSB Med Co
DMMO	ATP Reps	FSBs	Corps Air Amb Element
S2/S3	CL V Sec		
MCO	Water Supv		
S4	CL III Off		
DMOC	MSB		
HQ Co Cdr	FSBs		
MSB	AMCO		
FSBs			
AMCO			

DISCOM MATERIEL MANAGEMENT NET (FM)

This net is used to support the technical aspects of logistics support to the division. It maintains continual communications between components of the DMMC (Class I, III, V, and maintenance management) for coordination of these critical areas. The NCS is the DISCOM materiel management office.

The Class I and III and water branch, subordinate to the general supply section, is a distinct operating entity within the DMMC. The subsistence supply supervisor has a radio for the Class I operations. The petroleum supply NCO has a radio for the Class III operations. The water supervisor has a radio for water supply operations. Each uses the mobile station in this net to coordinate with the other DISCOM elements on issue points, problems, shortages excesses trends, and requirements. They are constantly traveling within the division and brigade areas to ensure the smooth functioning of their respective supply operations.

The DAO uses the materiel management net to provide coordination and control necessary to monitor ammunition supply. The DAO uses a mobile station in this net to ascertain and solve problems while on the move, The DAO is responsible to the DMMC chief and must have the ability to communicate with the chief at all times. The DAO maintains contact with the G3 and the CMMC Class V section via the area communications system and with each subordinate battalion via the materiel management net.

Within this net, the DAO has a radio. The ammunition supply technician, the chief ammunition NCO, and the ammunition inspection NCO share a radio and function from the DMMC field location. The two radios are in separate

Table 5-6. MSB radio nets.

Cmd/Ops	Sup Co	Med Co	Maint Co	TMT Co
S2/S3 Comm Br (NCS)	Co Cdr (NCS)	Co HQ (NCS)	Maint Con Sec (NCS)	Co HQ (NCS)
MSB Cdr	Sup Plt HQ	Co Cdr	Co HQ	Co Cdr
XO	Water Sec	Trmt Sqd (2)	Maint Plt HQ	Lt Trk Plt HQ
S2/S3	Water Pts (3)	Area Spt Trmt Tm	Autmv Sec	Lt Trk Cargo Sqd (2)
Spt Ops Off	CL III Sec (3)	Amb Plt HQ	GSE Rep Sec	Lt/Mdm Trk Plt HQ
S4		Amb Sqd (4)	Bn Maint Sec	Mdm Trk Cargo Sqd
Sup Co		Pvnt Med Sec	Lt Maint Plt HQ	Lt Trk Cargo Sqd
Med Co			C-E Sec	
Maint Co			Armt Maint Sec	
TMT Co			Msl Maint Sec	
			Tech Sup Plt HQ	

trucks. These radios provide a communications link with the division and brigade ammunition NCOs located at the ATPs. Each ATP NCO has a radio and communicates with these two sources for his information and guidance.

The materiel management officer uses his mobile station in this net to provide close and constant coordination with the DMMC in the resolution of materiel problems throughout the division.

Personnel in the ASL management branch, although not assigned a radio, have access to nets assigned to other branches in the DMMC. The layout of the DMMC determines the branch radio they use.

DISCOM LOGISTICS OPERATIONS NET (AM)

This net provides a long-range command and control link for the DISCOM when the division is operating over extended distances. It also provides a long-range link with the COSCOM elements as required. The NCS for this net is the S2/S3 section in the DISCOM.

MEDICAL OPERATIONS NET (AM)

The medical operations net provides long-range voice capability to tie division medical elements into the overall corps medical treatment and evacuation system.

MSB COMMAND/OPERATIONS NET (FM) AND COMPANY COMMAND NETS

The MSB command/operations net is used to command and control the elements of the MSB both from a tactical and a CSS mission perspective. Net control is maintained by the S2/S3 section. The S2/S3 section and support operations section collocate and use a combination of remotes and installed radios to operate in the DISCOM command/operations net and the DISCOM logistics operations net. The company command nets provide C2 for the companies of the MSB. Table 5-6 depicts the nets for the MSB.

AMCO COMMAND NET

The AMCO commander uses the AMCO to command and control elements of his company. Table 5-7 shows the stations in this net.

Table 5-7. AMCO Radio Net.

Co Cdr (NCS)
Prod Con Sec
Wrecker
Hel Sys Rep Plt HQ
Util Hel Rep Sec
Atk Hel Rep Sec
Obsn/Sct Hel Rep Sec

FSB COMMAND/OPERATIONS NETS AND COMPANY COMMAND NETS

The principal radio net operated by the FSB headquarters ‘is the FSB command/operations net. This net is used to command and control the elements of the FSB. The NCS is the S2/S3 section in the CF.

Table 5-8. FSB radio nets.

Cmd/Ops	Sup Co	Med Co	Maint Co
S2/S3 Sec (NCS)	Co Cdr (NCS)	Co HQ (NCS)	Maint Con Sec (NCS)
FSB Cdr	Sup Plt HQ	Co Cdr	Maint Plt HQ
XO	ATP Sec	Trmt Sqd (2)	Elct Maint Sec
S2/S3	CL I	Area Spt Trmt Tm	Armt Sec
Spt Ops Off	CL III Sec (3)	Amb Plt HQ	Autmv & Gnd Spt Rep Sec
S4		Amb Sqd (2)	Bn Maint Sec
Sup Co			
Med Co			
Maint Co			

In addition, headquarters personnel monitor the following nets:

- FSB commander – DISCOM command/operations net.
- Support operations section – brigade administrative/logistics net.
- S2/S3 — DISCOM command/operations net.
  - brigade command net.
  - FSB command/operations net.
  - DISCOM logistics operations net.

Table 5-8 depicts the nets for the FSB.

SIGNAL SECURITY

As part of the overall operations security program, DISCOM elements consistently practice signal security. Guidelines include –

- Remoting antennas away from CP by at least 1 kilometer.
- Constructing and using directional antennas.
- Using terrain features, such as hills, vegetation, and buildings, to mask transmissions.
- Dispersing transmitters.
- Maintaining radio or radio listening silence; using radio only when absolutely necessary.
- Distributing codes on a need-to-know basis.
- Using only authorized call signs and brevity codes.
- Using wire and messengers whenever possible.
- Using available secure voice/RATT devices.
- Maintaining net discipline and control.
- Using authentication and encryption codes specified in the current SOI.
- Keeping transmission short (less than 20 seconds).
- Reporting all COMSEC discrepancies to the NCS.
- Using lowest transmitter power output consistent with good communications.
- Avoiding significant surges in traffic on single-channel radio nets.

COURIERS

Courier service, although slow, is a reliable means of exchanging information. In the LID, courier service is the norm rather than a backup means. A DISCOM element performs this service for the DISCOM, not a signal unit. With the high density of elements in the DSA and BSA, use of couriers and wire lessens the risk of substantial radio use.

Chapter 6

Security and Terrain Management

Contents

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 closeoperations.

The division commander is responsible for rear operations within the division boundaries. The keys to rear operations are sound planning, early warning, continuous OPSEC, and the rapid deployment of sufficient forces and resources to counter the threat. Rear operations are a part of the division's overall operations, mission analysis, threat assessment, IPB, resource allocation, and base assessment process, The division commander ensures battle planning includes consideration for deep, close, and rear operations. The G3 includes detailed planning for the entire rear area as part of operational planning for offensive and defensive missions. The division commander typically designates the ADC-S as the division rear operations commander.

The ROC exercises his rear operations responsibilities through the division rear CP. This CP collocates with the DISCOM CP for limited support. This support is field feeding for up to 50 personnel and HSS. Collocation also facilitates local security and support coordination. From the rear CR the ROC coordinates support of current operations. He also plans and prepares for future operations. He manages terrain for all units currently residing or moving into the division rear area. He also coordinates security plans and movements within the division. The division rear CP is manned for continuous operations. It monitors the battle. 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 three cells. These are the headquarters, operations, and CSS cells. The ROC is in the headquarters cell. The operations cell plans and controls terrain management, security, and ADC in the division rear. Goals in these areas include the following:

- Secure the rear areas and facilities.
- Prevent or minimize enemy interference with command, control, and communications.
- Prevent or minimize disruption of CS and CSS forward.
- Provide for unimpeded movement of friendly units throughout the rear.
- Provide for continuous, unimpeded support to deep, close, and rear operations.
- Find, fix, and destroy enemy incursions in the rear area.
- Provide area damage control 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, who have the primary responsibility for logistics operations. 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 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 collocated with the DISCOM CP. They coordinate routes, terrain, communications, and CSS. The division rear CP contacts the main CP to confirm the operational aspects of the coordination.

The infantry brigade commander is responsible for rear operations throughout the brigade area. He assigns tasks to subordinate and supporting commanders to accomplish all brigade missions. 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 allocates additional resources to the FSB. All ground units entering the BSA report to the brigade rear CP collocated with the FSB CP. They coordinate routes, terrain, communications, and CSS. The brigade rear CP contacts the brigade main CP to confirm the 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 the medical companies assist in the security of the DSA or BSA. The DISCOM, MSB, FSB, and AMCO commanders ensure that their units are proficient in basic tactical skills. (Security during deployment is discussed in Appendix D.)

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 receives help from the operations and CSS cells in the division rear CP and the DISCOM staff. They consider many factors in deciding how to group elements and where to locate them. Factors discussed later in this chapter under terrain management apply here. In addition, 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, and relative target value. The ROC allocates resources in order to protect the most critical and vulnerable 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. Selection of the base commander takes into consideration not only rank but also branch and experience. The medical company commander does not command a base or a base cluster with nonmedical units.

The base commander establishes a BDOC to operate 24 hours a day. The BDOC is formed from the staff of the base commander. If the units occupying the base arc less than battalion-size, the base commander draws personnel and equipment from his own and 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 area to defend varies from high ground with good observation and fields of fire to a highly congested area with buildings or vegetation obscuring observation and limited fields of fire. Where to position the base involves support mission and security considerations. In addition to terrain factors discussed above, considerations include the following:

- Dispersion,
- Cover and concealment.
- Internal accessibility,
- Proximity to supported units.
- Security and defense capabilities.
- Communications.
- Enemy avenues of approach.
- Possible LZ/DZs.

The base commander determines tentative locations of base elements. The base commander prepares sketches of the area. These include the traffic circulation plan, OPs and LPs, motor pools, and physical details of

the base defense plan. Sketches also show the 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

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 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 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 provides the C2 to plan, coordinate, and supervise base cluster operations. The DSA BCOC interfaces with the division rear CP on terrain management, movements requirements, and security operations. Each base sends a representative to staff meetings. In addition, the BCOC issues a situation report on a regular basis, twice daily. 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 arc 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 arc 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 signals that are easy to initiate. 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 only passed via command channels.

INTELLIGENCE

Though the division rear CP coordinates rear operations in the division, the DISCOM, MSB, and FSB headquarters are involved in IPB for two reasons. The information is valuable in support planning. Also, 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. Additional information on deception for DISCOM elements is in Appendix F of this manual.

Terrain

The DISCOM and subordinate commanders know what possibilities the terrain offers to both friendly and enemy forces. This analysis is vital to DISCOM units in view of the limited weapons available and numerous personnel and equipment in the area. The 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 the DISCOM headquarters. After review and modification for level of detail, the DISCOM headquarters passes it to the MSB and FSBs.

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

Radios, ground, air observers' vision, and air defense target acquisition require line of sight. DISCOM direct-fire weapons require fields of fire.

Concealment is protection from air and ground observation. Cover is protection from effects of fire. In built-up areas, DISCOM elements occupy buildings. This maximizes cover and concealment, Buildings also reduce heat signature. However, planners also

consider the surrounding road net 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 in the rear, DISCOM planners know all existing obstacles. They also consider the effects of removing, overcoming, or bypassing them. Weather effects 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 arc 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 the performance of personnel. Planners consider terrain and weather concurrently. Again, DISCOM planners depend on the division rear CP for weather analysis. The five aspects of weather affecting planning are temperature and humidity, precipitation, wind, clouds, and visibility.

Very high temperatures cause heat injuries. They also increase engine wear and failure. Very low temperatures increase cold weather injuries, damage engines and cooling systems, lubrication problems, and fuel requirements. Cooler temperatures and humidity cause fog.

Precipitation affects mobility, visibility, and effectiveness of personnel and equipment. It also affects the quality of some stored materiel. Snow, even in small amounts, reduces the effectiveness of mines. 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 have severe effects on 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. They also include our own close air support, as well as the enemy's ability to conduct airborne or air assault operations.

Poor visibility limits employment of airborne forces. However, agents and 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 the 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 the 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 within 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 in the DSA and BSA.
- 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 keeps in mind DISCOM units are neither staffed nor equipped to continue support operations at normal levels while responding to increased levels of threat. How much support is degraded 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 projection 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.
- Special or unconventional wartime missions.

The base cluster commander likely 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.
- Ground force deliberate operations, An example is operational maneuver groups with linkup of smaller airborne and assault units.
- Infiltration operations.

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

DEFENSE OPERATIONS

DISCOM units defend themselves against attempts to disrupt their operations. As discussed later, 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 reaction and rapid deployment of sufficient combat power and ADC resources to destroy the enemy and minimize damage.

Responsiveness is achieved through –

- Effective command relationships and command supervision.
- Reliable communications.
- Accurate intelligence.
- Centralized planning by BCOC but decentralized execution.
- Organic mobility of response force. (This is a special challenge in the LID with its limited transportation assets.)
- Training and rehearsals.
- Prior assessment of the capabilities of DSA and BSA bases and facilities to withstand enemy attack. This assessment is based on their degree of exposure and their importance to the division's ability to 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 troops engaging each other. If a problem exists, the base commander notifies the base cluster commander.
- Ensuring each individual is assigned a fighting position. Personnel construct positions to provide overhead cover. They configure positions to provide for interlocking sectors of fire.
- Ensuring proper individual fighting positions are prepared. Soldiers use all available cover. Positions provide frontal protection from direct fire. They also allow fire to the front and oblique. Protection from indirect fire requires a depression or hole at least 1 1/2 feet deep with overhead cover. Details on fighting positions are in FM 5-103.
- Deploying crew-served weapons in fighting positions with primary and secondary sectors of fire. Instructions for preparing positions for each type of crew-served weapon are also in FM 5-103. The base commander ensures each weapon has two adequate range cards. He submits one 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. However, weapons that can be dismounted from a vehicle are usually of more value to the defense dismounted and positioned for firing from a dug-in fighting position or OP.
- Ensuring vehicles are properly positioned. Natural cover and concealment are used.
- Setting up OPs and LPs. OPs are provided a good view of the sector. The sector ideally overlaps with the adjacent OP sectors. Both the OPs and routes to them provide cover and concealment. They are not in positions that attract attention. These include isolated groups of trees. They are also not on the very peaks of hills where positions are silhouetted. Further guidance on OPs is in FMs 19-4 and 17-98.
- Establishing patrols.
- Enforcing noise and light discipline.
- Ensuring camouflage is used properly. Guidance is in FMs 5-20 and 8-10.
- Planning and establishing hasty obstacles.
- Creating a base reaction force to respond immediately against a threat within 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 positions.
- Coordinating with the division rear CP to determine what fire support is available for the division rear area. (The commander determines the availability of fire support based on the anticipated threat. The FSO at the rear CP establishes what type of fire support is available. He also specifies communications means.)

An effective base defense system accomplishes the following four tasks:

- Security of the base, The base and base cluster commanders establish the defensive measures to ensure the security of their units. Each commander applies METT-T analysis to determine requirements. If an attack is unlikely, defense operations involve few people. However, personnel man LPs, OPs, and access points. If a threat is probable, defense requirements disrupt support operations. DISCOM units place machine guns and lightweight antiarmor weapons to cover obstacles and avenues of approaches. Grenade launchers mounted on vehicles are effective fire suppression systems. They can be quickly dispatched to threatened areas.
- Detection. Detection includes the use of day and night observation devices. It involves communications, intelligence, radar, chemical and radiological monitoring, and sensor equipment to provide early warning of enemy infiltration attempts. All personnel understand warning systems and procedures. Alarms notify personnel of alert postures. Warning devices include sirens, pyrotechnics, and horns.
- Delay. The defense system hinders the threat's progress in order to permit defense 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. However, he coordinates a proposed mine field with adjacent, higher, and subordinate units. He also ensures 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 is initiated without any direct physical threat by 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 used to support the rear operation effort degrade their ability to perform their primary mission. Natural berms, deep-cut protective positions, natural terrain concealment, and camouflage nets protect fuel tanks. Personnel protect Class I, II, and IV items in deep-cut trenches if time allows, Traffic control includes measures to conceal 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 in the base defense plan.

Clearing Station Bases

Medical personnel require shelters with adequate overhead cover. This allows treatment to continue during hostilities. A direct attack on HSS assets is not likely. However, the commander does not rule out this action, More realistically, enemy actions disrupt HSS operations by interdicting evacuation routes, destroying bridges, and sabotaging supplies. Also, the enemy damages or destroys 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. In the event of an attack, HSS personnel dispatch treatment and evacuation assets to the damaged area.

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

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

Dispersion of vehicles is essential. A 50-foot dispersion between vehicles and facilities offers protection against loss resulting from hostile ground action including mortar and artillery fire. A dispersion of 150 feet between vehicles and facilities is a protection against hostile air attack and nuclear conditions. Alternate exits are selected and marked. They provide emergency exit if the main exit is blocked. 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 lightweight 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 personnel to man the perimeter decrease.

BASE CLUSTER OPERATIONS

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

The base cluster commander assigns a defensive position and a sector to each base. He gives bases on likely

enemy avenues of approach a smaller sector. The base cluster commander also ensures each base's sector of fire overlaps the adjacent base's sector. He does this by checking sector sketches provided by bases. Sometimes interlocking fires are not possible between bases. In such cases, he plans other defensive measures. He covers gaps by planning for fires, obstacles, patrols, OPs, and sensors. He coordinates this planning with each base to avoid troops engaging friendly forces.

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 automatic and antiarmor weapons. These weapons include those in the DSA or BSA for repair. If the firing system is operable, the defense scheme includes these weapons, and mechanics work on them in their fighting positions.

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. Night vision devices are likely to be scarce. Therefore, the overall security plan includes an illumination plan. Details on sector defense planning are in FM 19-4.

In addition, the base cluster commander plans for a reaction force from assets in the cluster. This force is called when a base's defenses maybe overwhelmed by a superior threat and combat forces are not available. The reaction force includes personnel, vehicles, machine guns, grenade launchers, rifles, and FM radios. It is well-rehearsed and reacts precisely and immediately. It plans and practices rally points and detailed procedures in advance, such as lanes of movement to various points on the perimeter. The DISCOM commander submits copies of the base cluster defense plan as well as proposed obstacles and indirect fire support plans to the division rear CP for review and approval.

The base cluster commander determines the level of threat and issues prearranged alerts to all bases. The base cluster commander determines the probability of an air attack and issues air defense warnings. The base cluster commander also plans emergency move procedures. If the DSA/BSA is under imminent danger from a Level II or III threat, the base cluster commander calls for an emergency move. The base cluster commander designates key elements in advance. He ensures they are prepared to move to a predesignated site with minimum notice. These 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. Additional information on moves is in Chapter 11.

Other duties of the base cluster commander are to identify primary and secondary entry points into the DSA or BSA and to designate preplanned 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.

FMs 25-100 and 25-101 provide more information.

Individual Training

All personnel have a 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 mine fields.
- 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 EPWs.
- 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 required 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 adjacent to established air, road, rail, and often, water LOCs. 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 if located in a forest with soft soil. The DISCOM S2/S3, in conjunction with the planners in the rear CP CSS cell, ensures the terrain managers in the operations cell know the terrain needs of DISCOM units. The terrain managers integrate DISCOM mission considerations with security and movements considerations.

The DISCOM establishes a DSA as a base of logistics and HSS operations for the division. The DSA (Figure 6-1) 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 MSRs. It is normally 50 to 60 kilometers from the FLOT. The DISCOM commander in coordination with the ADC-S, G3, and G4 determines the specific location. They consider —

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

Logistics and HSS augmentation forces also operate in the DSA. Regardless of whether the division deploys into a low-, mid-, or high-intensity conflict,

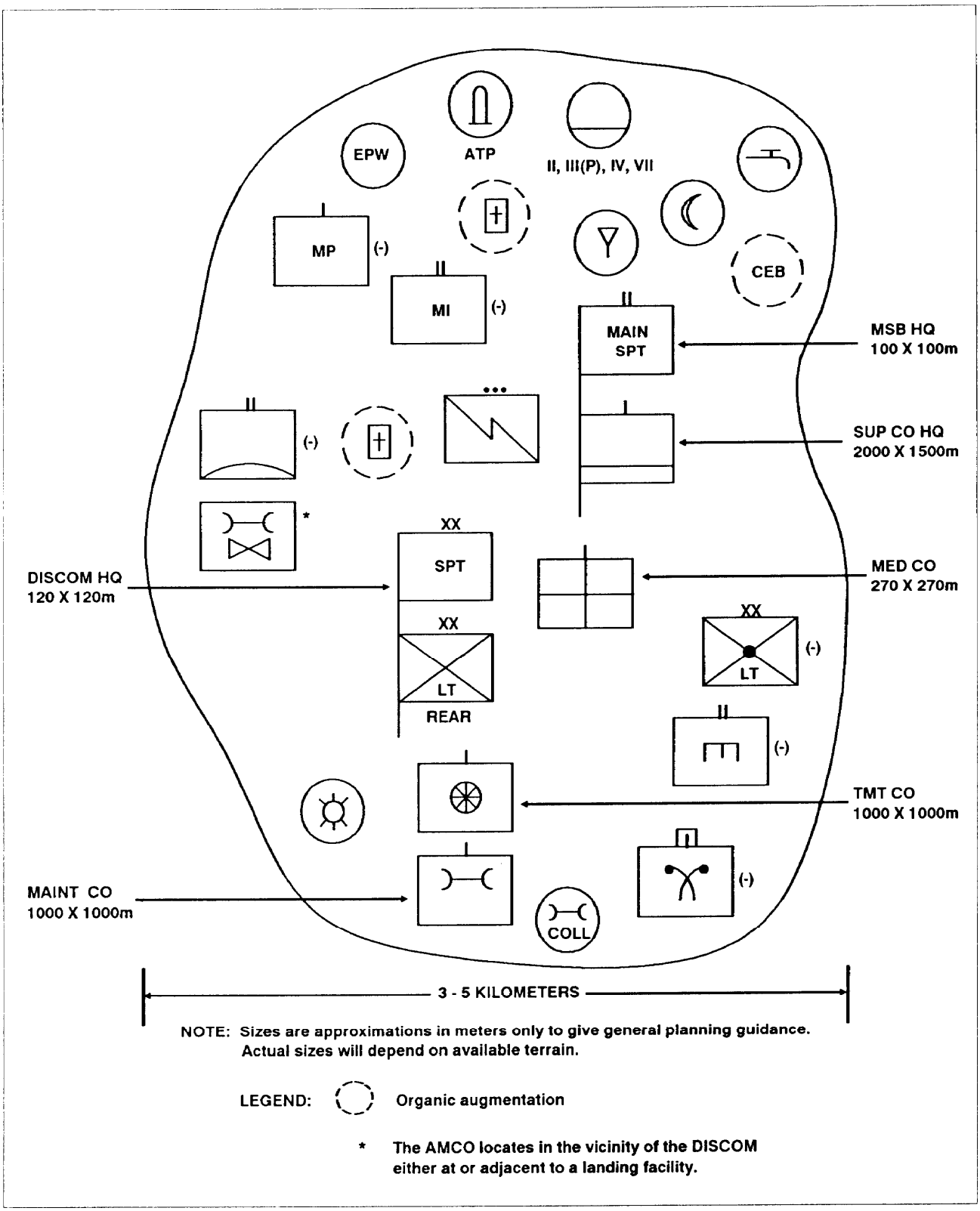


Figure 6-1. Sample deployment of elements in the DSA.

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 DSA tenants are expected to 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 infantry brigade is the BSA. Figure 6-2 shows a typical layout. 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 LOCs 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. A typical distance from FLOT to BSA is about 25 to 30 kilometers. However, this distance will vary with METT-T.

The elements identified in Chapter 2 make up an FSB. However, the DISCOM commander may choose to cross-level assets between FSBs or send additional assets from the DSA forward. In addition, although the FSB is based in the BSA, commanders position elements on the battlefield to maximize support. For example, some ambulances forward deploy at AXPs, ambulance shuttle relay points, or BASS.

Elements in the BSA vary with a number of factors. The brigade troop list identifies the division units in the brigade area. An analysis of the list allows the FSB commander to determine who is in the BSA. The following list is a 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 nondivisional chemical engineer units. COSCOM elements may augment the FSB to support these units. Some BSA tenants are always located 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 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). In general, though specific situations may dictate

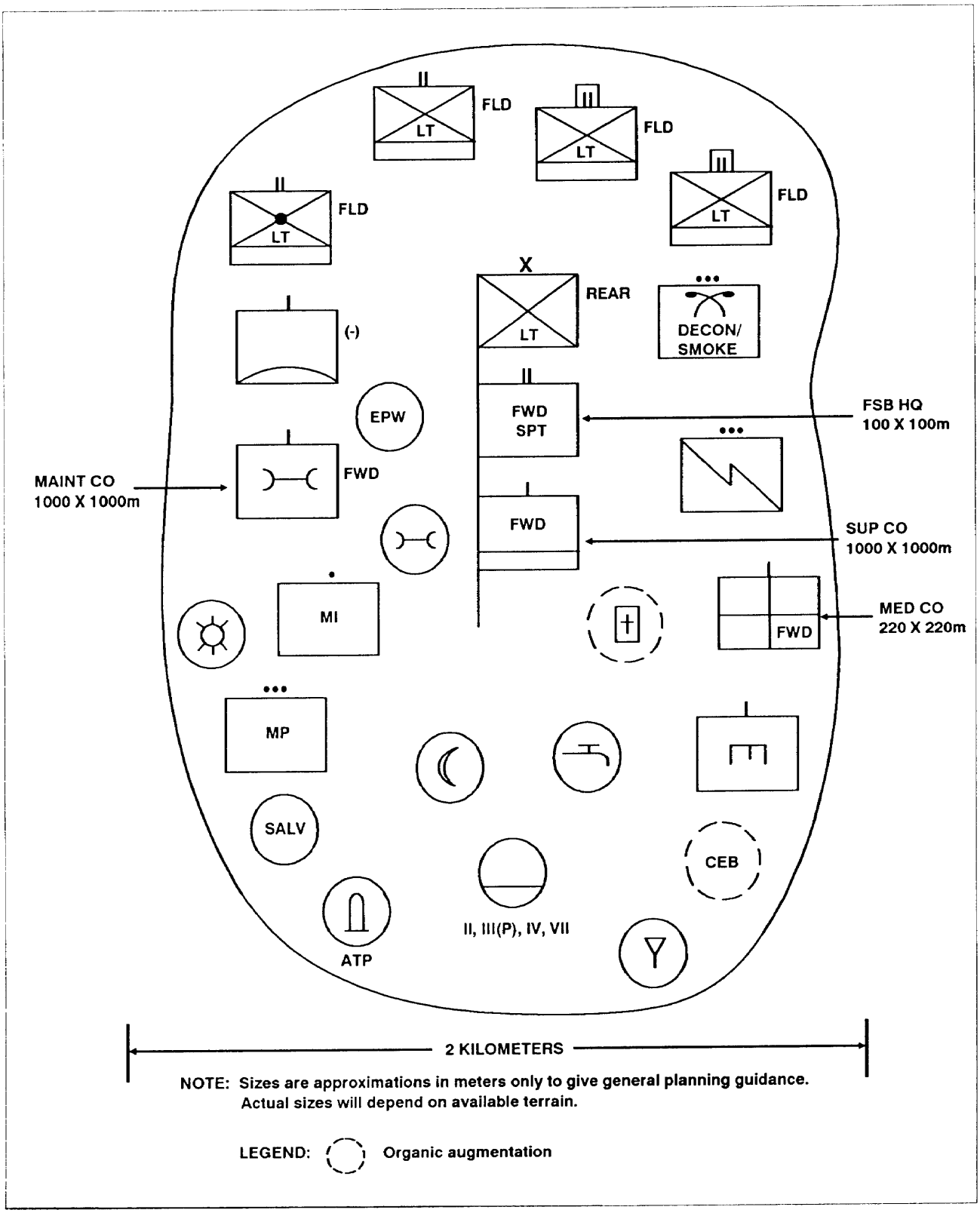


Figure 6-2. Sample deployment of elements in the BSA.

otherwise, 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.
- 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.
- Locate the Class I point near the water point whenever water points are established in the DSA or BSA and water sources allow. If the water point and the Class I point are not collocated, post water point grid coordinates in the Class I area.
- Locate medical clearing stations away from likely target areas (ATP, Class III point, bridges, road junctions). However, they are near evacuation routes and near 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.
- Position units with heaviest firepower along the most threatening avenues of approach.

In all cases, the elements in the DSA and BSA do not remain static. The DISCOM tracks and controls changes. All ground units entering the division rear area send a representative to report to the division rear CP collocated with the DISCOM CP. All ground units entering the brigade rear area send a representative to report to the brigade rear CP collocated with the FSB CP. They coordinate movement routes, positioning for units located in the DSA or BSA, communications support requirements and procedures, and security responsibilities and arrangements. Guards at points of entry into the DSA and BSA direct representatives of entering units to the division rear CP and the DISCOM CP or the brigade rear CP and the FSB CP. Also, base commanders notify the BCOC of all support vehicle arrivals and departures. Movement of displaced civilians and local civilians is also controlled.

Not only are changes in the elements located in the DSA and BSA occurring, but also changes are constantly taking place within the elements. MSTs and contact teams provide forward support. Medical evacuation elements move in and out of the DSA and BSA. Supply and transportation elements are involved in resupply efforts. Personnel available for defense actions are extremely limited within certain bases. Base commanders keep the BCOC informed of their situations.

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 to provide area support to units in the division area and the constant coordination required with DISCOM elements, this option is not usually feasible. Regardless of the option chosen, security plans do not require them to take offensive action against the enemy. The Geneva Convention of Care of the Sick and Wounded is clear. It says 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 where the intent is to deny 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 maybe 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 with respect to 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 MTFs and use camouflage concurrently. FM 8-10 has a detailed discussion of camouflaging medical facilities, vehicles, and aircraft on the ground.

In some cases, the DISCOM/MSB or FSB echelons its assets. This technique involves MSB or FSB elements operating from both the support area and a forward logistics base. The DISCOM/MSB or FSB commander task organizes a multifunctional forward logistics element from support battalion assets to operate from a forward logistics base. The technique may be appropriate to support –

- Fast-moving offensive operations over significant distances.
- Early phases of contingency operations.
- Units geographically separated from the other units supported by the support battalion.

The FLE can get critical support assets closer to the supported units without taking the time it requires to move the entire support area. This allows units to get key support without having to go all the way back to the support area. The FLE can also function as the lead element of a support area move. In this role, the element provides continuous support while the rest of the support battalion moves. The forward element prepares (within its capabilities) the FLB to become the new support area. Once the rest of the support battalion closes on the base, the FLE may then move forward again. This allows the battalion to provide uninterrupted forward support as the force continues to advance.

The composition of the FLE varies with a number of factors. DISCOM planners consider including at least bulk fuel, ammunition, maintenance, and medical treatment and evacuation assets. The FLE also includes a member of the support battalion's support operations or S2/S3 staff to coordinate operations. He needs the capability (communications equipment and SOI) to communicate with both the supported units and the support area operated by the support battalion. Supported units have to know where the FLB is, what support is available there, and when the base is operational. The DISCOM/MSB/FSB staff ensures the OPORD or logistics overlay is available to supported units and includes these details. Support battalion planners also plan for and coordinate the security of the FLB. They request MP or ADA support as required.

AREA DAMAGE CONTROL

The division commander provides guidance to planners on support requirements. This includes area damage control. Area damage control within the rear area is a responsibility of the ROC. He is responsible for the 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. He prepares to usc all available resources to prevent interruption of logistics and HSS.

Planners in the G4 shop and DISCOM ensure logistics and HSS are available to support the division. 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 use of all available assets to conduct ADC help restore operations and provide continuous support. ADC assets are limited. In emergencies, assets 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 review and identify all assets available within the base. They also assess the base's capability to conduct ADC operations. Assets include medical evacuation and treatment elements. They also include equipment evacuation and repair, critical supply, and EOD assets. DSA and BSA base commanders and the DISCOM commander identify critical support points. These include points that are the sole local sources of supplies. They examine innovative ideas and initiatives to minimize damage. The commanders

assess the base and base cluster capabilities to conduct ADC operations. They 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.

The division rear CR with DISCOM assistance, reviews all division rear base cluster defense plans. It ensures ADC plans are adequate and compatible. It also identifies HNS available and performs the required coordination to implement plans. The DISCOM S2/S3 helps the division rear CP identify emergency food, clothing, water, and fuel sources, and available distribution assets.

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

- Designate specific individuals and units to perform ADC operations.
- Attempt to disperse and harden units and facilities to minimize damage; when practical, usc existing structures.
- Establish priorities within the area of operations. Identify those critical facilities requiring protection. Prioritize the responsibilities based on the commander's directives. Report critical facilities not provided necessary ADC support immediately.
- Prepare, coordinate, and rehearse ADC plans and SOPS.
- Organize, equip, and train personnel and units for ADC operations.
- Designate alternate operational sites or alert areas; ensure a distribution of support exists in the rear area when possible. Report facilities or supply points that are sole source facilities.

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

- Conduct an immediate assessment of the damage. Ensure the information is reported to the ROC. Simultaneously, initiate actions to isolate the danger areas and to prevent extension or continuation of the damage (for example, fight fires, stop gas leaks, minimize flooding).
- Where feasible, prevent fires by bunkering and isolating flammables and explosives. Fight existing fires with stored water or identified water sources. Extensive fire fighting is primarily a unit responsibility with support from engineer fire-fighter teams where available. However, due to the extended distances involved and the current technology that produces widespread devastation, alternate means may have to be used. Local fire-fighting capabilities such as HNS or the acquisition of commercial material to support ad hoc fire-fighting teams are options.
- Perform self-, buddy-, and first aid for casualties, and transport casualties. If possible, medical personnel and vehicles are used to evacuate patients. However, the timely transportation of casualties is important. The use of nonmedical vehicles is required in mass casualty situations. If possible, medical personnel accompany those patients being transported in nonmedical vehicles. They provide en route patient care.
- Coordinate with the MPs to provide traffic control. Ensure 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.
- Coordinate 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.
- Coordinate EOD support to area damage control operations with the 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.
- Coordinate for decontamination support. The 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 7

Sustaining the Soldier

Contents

SOLDIER SUPPLY SUPPORT

The companies in the multifunctional battalions and the AMCO of the DISCOM provide supply support to the LID. The supply companies provide Class I through VII. The medical companies provide Class VIII. The maintenance companies provide Class IX. This chapter addresses Class I, II, and VI and water. Chapter 8 discusses Class IV and V as part of arming the force. Chapter 9 discusses Class III as part of fueling the force. Chapter 10 discusses Class VII and IX supply as part of fixing the force.

CONCEPTS

Due to mobility requirements and austere storage and transportation assets, the DISCOM has on hand only a limited quantity and variety of supplies at any given time. As a result, the DISCOM puts several supply principles to work to cut down on the response time between initial request and later issue of an item. Many of these supply support concepts also apply to arming and fueling the force.

Push System

A push system is the initial go-to-war supply system in an undeveloped theater. Supply elements send preplanned packages of selected supplies forward to replenish expended supplies in anticipation of requirements of supported units. They base initial quantities on strength data and historical demand. When the theater stabilizes, the supply system in some cases becomes a pull system based on actual demand. However, as discussed in Chapter 1, supporters anticipate requirements whenever possible, rather than react to requests. This is especially true for heavily engaged units during high-intensity operations. Such units may not ask for supplies because of gaps in the chain of command or intensive jamming on the battlefield. In such cases, the appropriate DISCOM commander coordinates with the DMMC to generate requisitions to support units with standard packages. He adjusts these packages for changes in personnel and equipment and the tactical situation. Supply elements also push supplies to support a deep operation.

Throughput

Throughput distribution is the main distribution method used in the LID. Throughput distribution is a method of shipment that bypasses one or more echelons in the supply system to lessen handling and speed delivery forward. Supplies are primarily throughput to the FSBs from the corps. Whenever possible, Class IV barrier materials and some Class VII major end items go directly to the user in the brigade area. When most of the load is for a specific unit and the situation allows, the transporter delivers other classes of supply directly to the requesting unit.

Supply Point and Unit Distribution

To tailor supply distribution, the DISCOM uses a combination of supply point and unit distribution to support the division. With supply point distribution, unit representatives come to the supply points in the DSA and the BSA to pick up their supplies. To provide a quick turnaround for the using units, the supply points stagger the unit pickup times. They also set up to provide a smooth traffic flow through the supply areas. With unit distribution, organic or corps assets deliver supplies to the using units. Personnel use unit distribution to deliver fuel and water to light infantry battalions in the brigade area. Corps personnel also use unit distribution to deliver Class IV barrier materials as discussed in the paragraph on throughput. They deliver other classes of supply using unit distribution when the tactical situation permits and transportation assets are available. They accomplish emergency resupply using unit distribution via motor or air transport.

Reconfigured Unit Loads

The PUL concept provides streamlined supply support to the LID with its austere logistics structure. A PUL

is a predetermined quantity of selected supplies configured for a specific number of troops for a specific period, such as chemical protective clothing. It is also configured for a specific purpose, such as 100 meters of barrier material. Supply personnel pack it in a disposable container or on a standard pallet with defined cube limits to ease transfer from aircraft to vehicles and PLS. It is airlift and airdrop capable. Supply personnel assemble and store it at CONUS depots with limited stockage at the corps. Units request it by single-line requisition through normal supply channels. Each PUL configuration has its own NSN which simplifies requests at the unit level. It is throughput as far forward as possible to limit the burden on division units.

There are now three types of PULs. The Class IV barrier PUL consists of all the supplies necessary to employ 100 meters of hasty barrier material. The administrative PUL consists of all the administrative and housekeeping supplies designed to support a battalion-sized element for 15 days. The chemical defense equipment PUL contains MOPP gear and selected chemical-related Class IX items for 25 soldiers.

Unit Configured Loads

Another method of resupply is the UCL. The UCL concept is a refinement of the throughput process. COSCOM supply personnel configure the UCL. It consists of an assortment of supply items and, unlike the PUL, units request it using multiple NSNs. Supply personnel assemble it for a specific unit and throughput it to the requester by air or ground delivery. Commanders determine UCL contents in coordination with the S4 in advance whenever possible.

SUPPLY OPERATIONS

Class I

The DISCOM provides subsistence through the HSCs in the DSA and the BSAs. Figure 7-1 shows the flow of supplies. The Army field feeding concept calls for three quality meals per day. This includes individual MREs and group rations (T, B, and A). Introduction of any rations other than MREs, unitized B Rations, and T Rations requires augmentation of the Class I distribution system. The augmentation consists of a perishable subsistence team from the corps perishable subsistence platoon.

The DMMC manages Class I supplies. Personnel provide Class I supplies based on personnel strength reports from units. The supply is preplanned. This eliminates the requirement for complicated ration requests from units. Initially, units subsist on the MREs in their basic load, and Class I supplies are pushed into the theater. Supply units replenish their basic load as soon as supply lines are established. As soon as possible, the theater commander directs the introduction of first group meal. The division Class I points issue sufficient rations to feed three quality meals to a given unit based on the prescribed menu. If there is a change in the type of rations for a certain period, the unit receiving the rations indicates the type of ration needed. For example, an infantry brigade wants individual meals on certain days because a tactical maneuver prohibits the preparation of a group meal. To get the individual meal, the brigade S4 notifies the FSB HSC. If possible, the brigade S4 forwards the change in the type of rations at least 24 to 48 hours in advance of the required delivery date. This facilitates the change in corps throughput deliveries. If 24-hour notice is not possible, corps deliveries may have to go to the HSC in the DSA. In such cases, personnel issue the required rations from division reserve stocks.

The Class I manager, located in the DMMC, is responsible for —

- Coordinating issue/delivery frequency and turn-in procedures. He also publishes the delivery schedule by message.
- Determining the type rations the division is issued. He bases this on commander's input through the G4, strength reports, authorized reserves, ration change requests, and special requirements.
- Submitting a consolidated division ration request to the CMMC 24 to 72 hours before required delivery. (The length of time depends on the tactical situation and the COSCOM SOP.) As a minimum, the request shows the type and quantity of rations for each of the four Class I points (one operated in each BSA and one in the DSA).
- Submitting a subsistence status report to the CMMC to help in planning. This shows the type and quantities of subsistence on hand in the division. The DMMC determines stock requirements based on several factors. These factors include the tactical situation, mobility requirements, availability of storage assets, lengths of LOCs, and dependability of resupply channels.
- Directing issue from the division reserve or placing special demands on the CMMC in emergencies.

The division receives rations from the COSCOM. Personnel at the Class I points in the DSA and BSA unload

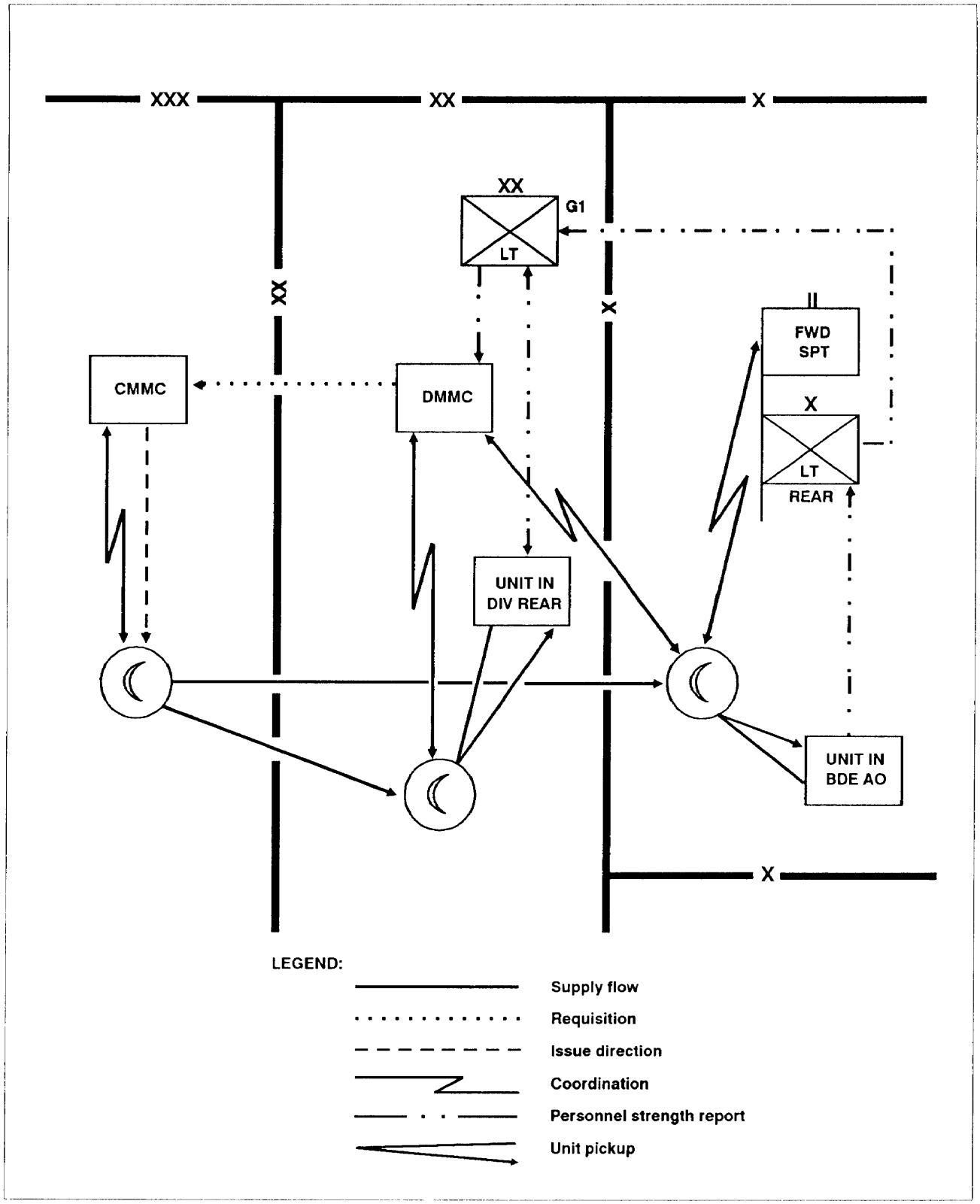


Figure 7-1. Class I flow (initial push system).

the shipment. They inspect it for type, number, and condition before signing for it. They break down the rations into unit or item piles depending on the type of ration and time and equipment available. Supported units pick up Class I supplies at the division main or forward Class I points using organic transportation. DISCOM accountability ends when the user completes the receipt at the Class I point. FM 10-23 discusses the receipt, storage, and issue of rations. As soon as the tactical situation permits and logistics capabilities exist, the LID uses the pull system as prescribed in AR 30-21.

Class II

Supply doctrine limits Class II stockage in the LID to essential items only since clothing and individual equipment are bulky and impede mobility. Units request items on a line-item basis, as required. Supply personnel provide selected items, such as NBC overgarments, as PULs.

The HSCs maintain a limited amount of Class II items on hand for issue to supported units. This small ASL consists of mission-essential, expendable items required to support combat operations such as protective masks. **Supply** personnel determine levels of stockage within the division according to AR 710-2. Supply points stock durable Class II items such as tools only on an exception basis when authorized to support a specific operation.

Units in the forward areas submit requests to the appropriate HSC in the BSA. Units in the division rear submit them to the HSC in the DSA. The property book teams process requests for nonexpendable items.

If the item is on hand in the DSA or BSA, supply personnel issue it. If the item is not on hand in the division, the Class II manager in the DMMC sends a requisition to the CMMC. If the item is available in the corps, the CMMC sends an MRO to a GS supply company. The GS supply company arranges for corps transportation of the item to the appropriate HSC. The requecsting unit picks the item up there. If required, and the situation permits, a high-priority item is throughput by division or corps transport to the requesting unit. Figure 7-2 shows the flow of Class II items.

Intense combat and sustained operations in an NBC environment increase the demand for Class II items. As soon as they know tactical intentions, supply personnel make arrangements for scheduled resupply of required protective overgarments and other Class II NBC-related items and equipment.

The HSCs or, if appropriate, the gaining unit's supply element, reequip soldiers returning to duty from MTFs in the division area. If the gaining unit has support elements operating in the vicinity of the MTF (for example, a field train in the BSA with the clearing station), the SOP may require the unit bring personal equipment when it picks up personnel returning to duty. If the gaining unit does not have elements operating near the MTF the SOP may require medical personnel to pick up clothing and essential protective gear at the supply point to provide minimum protection before the soldier returns to duty. The MTF does not issue individual weapons.

Class VI

The supply system furnishes Class VI items without cost to the soldier. This occurs after units operate under combat conditions for more than 15 days without AAFES support or access to civilian markets. In early, highly mobile, or intense conflicts Class VI is limited to items required for the minimum personal hygiene, comfort, and welfare of the soldier. Items, such as essential toilet articles and confections, are issued in a sundry pack through Class I channels. The Class I manager in the DMMC coordinates the issue of these sundry packs, when available, as directed by the division G4. More information on Class VI items is FM 10-27.

Maps

Forward units get unclassified maps through the HSC in the BSA based on requirements set by the brigade S2/S3. Units in the division rear get them through the Class II, III (packaged), IV and VII distribution point. The ASL management branch of the DMMC sends requests for unclassified maps to the CMMC. Units submit classified map requirements through command channels to the intelligence staff officer.

Water Purification and Distribution

The DISCOM plans, directs, and supervises the division's water purification and water distribution support. The DISCOM commander gives guidance to the DMMC on handling water functions for the division. The Class I and III and water branch in the DMMC prepares detailed plans and policies on the operation of water production and distribution points. Responsibilities of the Class I and III and water branch are detailed in Chapter 2.

Division units submit water requirements, usually consolidated at battalion level, to the water section. The water section of the HSC uses standard computations to determine the total daily requirement for water and

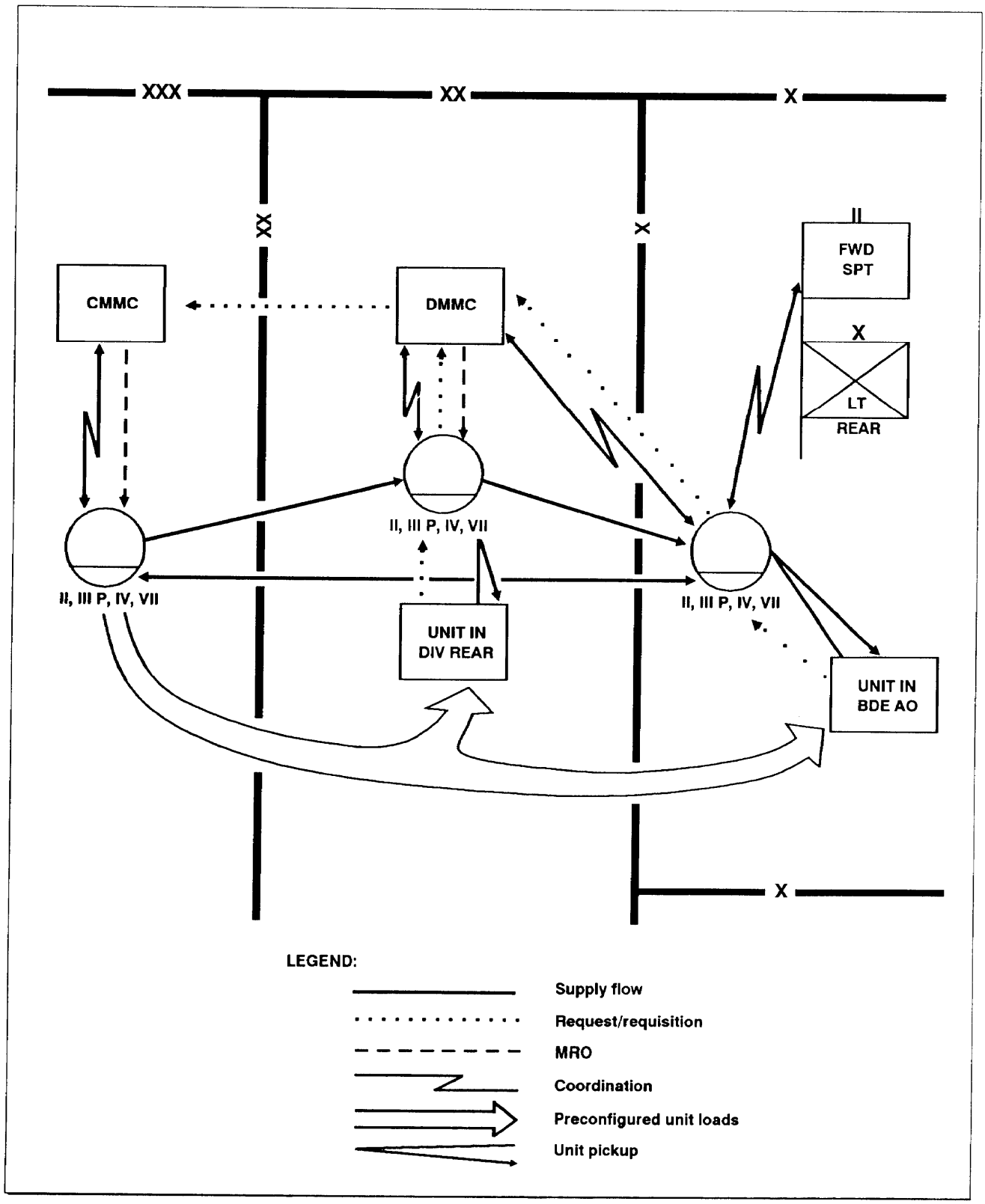


Figure 7-2. Class II, III P, IV, VII flow.

forwards the total daily requirement to the DMMC. The Class I and III and water branch checks purification and storage capabilities of each point and diverts supplies if necessary. It consolidates and submits the total daily water requirements to the CMMC.

The water section of the MSB HSC provides potable water to the division. This section is responsible for purification, storage, issue, and limited distribution. The water section operates up to three water points in the DSA or in or near each BSA. It provides water using both unit and supply point distribution. It delivers water to the infantry battalion field trains in the BSA. It supplies all other units by supply point distribution except in cases of emergency resupply. Units operating in the division rear go to the nearest water point for water.

In arid environments, augmentation is necessary. The augmentation consists of a 120,000-gallon distribution system for the DSA, a 40,000-gallon system for each BSA, six truck drivers, and three FAWPSSs to increase distribution capabilities. More information on water purification and distribution operations is in FM 10-52.

HEALTH SERVICE SUPPORT

HSS plays a fundamental role in developing and maintaining combat power. Supporting the health of fighting forces is a critical factor in the success of the LID.

HSS CONCEPTS

Levels of Care

HSS is arranged in levels of care. Each level reflects an increase in capability, yet includes the capabilities found in lower levels. Within the LID, there are two levels of HSS: Echelons I and II, or unit and division level.

Echelon I or Unit Level. Unit-level HSS consists of disease prevention, patient collection and evacuation, emergency medical care, and routine sick call support to return to duty those personnel not requiring higher level care. Care and treatment are provided by individual soldiers, combat lifesavers, combat medics, and the treatment squad. Major emphasis is placed on those measures, such as maintaining an airway and preventing shock, necessary to resuscitate, stabilize, and allow for evacuation to the next level of care. Unit-level care involves the following:

- Self-aid/buddy-aid, Each individual soldier is trained to proficiency in a variety of specific first aid and emergency decontamination procedures. This training enables the soldier or a buddy to apply immediate care to alleviate a life-threatening situation.
- Combat lifesaver. This individual is a nonmedical unit member selected by the unit commander for additional training to increase medical skills beyond basic first aid procedures. This individual assists the combat medic by providing immediate care for injuries. A minimum of one individual per squad, crew, team, or equivalent-sized unit receives training. Training is provided by HSS personnel. The training program is managed by the senior medical person designated by the commander. The performance of combat lifesaver duties does not detract from the performance of the soldier's primary duties and responsibilities.
- Combat medic (aidman). This person is the first individual in the HSS chain capable of making medical-substantiated decisions based on formal training. He provides EMT and medical care based on medical MOS-specific training.
- Battalion aid stations. Treatment squads are trained and equipped to provide ATM or trauma treatment at BASS for the battlefield casualty. They also conduct sick call. Organic medical platoons/sections operating BASS provide unit medical care to combat battalions and some CS battalions. Units without organic Level I medical capability obtain support from the nearest supporting Level I or II MTF (medical platoons or medical company organic to the DISCOM). Examples of such units include elements of the combat engineer battalion and the artillery batteries. All medical units having a treatment/medical evacuation capability also have an area support responsibility to adjacent units that do not have sufficient organic medical capability.

Echelon II or Division Level. The medical companies in the DSA and BSAs provide this level of support. They duplicate unit-level resources. They also provide expanded services with the addition of dental, x-ray,

medical laboratory, and patient-holding capabilities. The medical company headquarters operating in the DSA provides additional HSS in the areas of preventive medicine, mental health, optometry, and medical logistics and maintenance. HSS at this echelon is characterized by initiating resuscitative care. The largest number of patients returning to duty within the division comes from this level of support. For those soldiers not RTD within the division, the system provides care necessary to maintain life and limb while they are awaiting evacuation to corps level hospitals.

Advanced Trauma Management

ATM is a system of managing traumatically injured patients. It is an initial emergency treatment phase where personnel apply medical skills and judgment of a higher degree in the immediate and effective management of the acutely injured or wounded (trauma) patient. Physicians, dental officers, and physician assistants receive training in ATM procedures. Personnel trained in EMT help these physicians and physician assistants, EMT characteristics are —

- Rapid and accurate assessment of the patient's condition.
- Provision for resuscitation and stabilization on a priority basis.
- Arrangement for evacuation to the appropriate MTF.
- Assurance optimum care is provided.

Treatment procedures include the usc of intravenous fluids and antibiotics and the preservation of the patient's airway by mechanical or surgical insertion of a breathing tube (intubation). They also include control of bleeding and the application of more secure splints and bandages. This comprehensive care is most effective when personnel provide it within 30 minutes of wounding or injuring. Unit-and division-level treatment squads provide ATM.

The supported force needs HSS during and immediately after combat engagements. HSS has equal communications capability and equal or greater mobility than the supported unit.

During those times when the division is not in battle, HSS works to maintain combat power by treating and returning to duty soldiers suffering from minor illnesses or injuries. Also during this period, HSS efforts help commanders in applying preventive medicine measures to reduce the incidence of DNBI.

Modular Medical Support System

All division medical units and resources are organized by function into modules. This enables the commander to task organize his medical assets to meet varied medical mission requirements. The modules are duplicated throughout the division. This eases rapid reinforcement at both the unit and division level of HSS. There are five basic modules. They are —

- Combat medic. This module consists of one combat medic and his medical basic load. He is part of the medical platoon/section in combat and CS battalions and is attached to platoons/companies of maneuver and support elements.
- Treatment squad. This squad consists of one physician, one physician's assistant, two EMT NCOs, and four medical specialists. The physician and physician's assistant are trained to provide ATM to the battlefield casualty. The squad operates out of two HMMWVs (or vehicles configured for trauma treatment). It has the ability to deploy as two treatment teams as the tactical situation requires. The physician and one EMT NCO and two medical specialists make up one team. The physician's assistant and one EMT NCO and two medical specialists make up the other team. Treatment squads are expansion elements of the division clearing station. The MSB treatment squads are the same as those in the forward support medical company and the infantry battalion's medical platoon. These squads reinforce other division medical elements. They directly support rear area task force operations, inclusive of area damage control and mass casualty operations.
- Ambulance squad. An ambulance squad consists of two ambulance teams. Each team consists of one aide/evacuation NCO or specialist, one medical specialist/ambulance driver, and one HMMWV ambulance. The teams evacuate patients throughout the division and provide for their continued care en route.
- Area support squad. This squad consists of a dentist who is ATM trained, a dental specialist, an x-ray specialist, and a medical laboratory specialist. The squad offers emergency dental service and provides x-ray and laboratory support to the treatment squads at the division level of HSS.
- Patient-holding squad. This squad consists of two practical nurses and two medical specialists. The squad is capable of providing minimal care for 40 patients who will return to duty within 72 hours.

When a treatment squad, an area support squad, and a patient-holding squad collocate, they form an area support section which provides HSS on an area basis. The section operates in the DSA or BSA at a division clearing station. The area support and patient-holding squads are not staffed or equipped to conduct independent operations.

Forward Medical Support

Medical treatment elements locate as far forward as possible to provide HSS without interfering with combat operations or subjecting the MTF to undue risk. Early acquisition, sorting, and evaluation of patients is necessary to reduce morbidity and mortality, Personnel perform four phases of medical treatment in the brigade area. They are –

- Self- and buddy-aid. This is the lifesaving care given to an ill, injured, or wounded person by himself or by another nonmedical trained soldier. All soldiers should know the lifesaving measures in FM 21-11.
- Combat lifesaver. The combat lifesaver who is a member of a combat, CS, or CSS unit performs advanced first aid. The combat lifesaver is not a medic but has received medical training beyond basic first aid. This function is an additional duty for the soldier. It is an extension of the combat medic.
- Emergency medical treatment. This involves medically substantiated decisions based on medical MOS-specific training. The combat medic, aide/evacuation team, or EMT NCO provides EMT. It includes emergency lifesaving measures, management of the airway, control of bleeding and administration of intravenous fluids and medicinal drugs.
- Advanced trauma management. ATM requires a higher degree of medical skill and judgment. Physicians helped by physician assistants and EMT NCOs, perform it at both the unit and division level. At Echelon II MTFs, this phase includes the administrate ion of blood (packed red blood cells) and emergency dental procedures; limited x-ray and laboratory procedures; a wide range of drugs, medical equipment, and supplies and also a patient-holding capability.

Patient Evacuation

The best patient care and treatment in the combat zone depend on a dedicated evacuation system which can provide efficient and continuous movement of patients. Medical evacuation is the process of moving patients while providing en route care. Evacuation occurs from the point of injury or illness through successive MTFs. Medical personnel provide appropriate medical treatment to enhance the patient's early return to duty or facilitate stabilization for further evacuation.

The responsibility for patient evacuation rests with the level of HSS to which the patient is to be evacuated. Ambulances from supporting units go forward to supported units, acquire patients, and bring them back to the supporting MTF. When necessary, personnel set up an ambulance shuttle system or set up AXPs between the supporting and supported medical units. This allows ambulances to move forward as others move rearward setting up a continuous evacuation flow. The system evacuates patients no further to the rear than their conditions require.

Ambulance teams of the combat or CS unit's medical platoon evacuate patients from the site of injury or collection point to the location of the platoon's treatment squad or team operating the BAS. Movement of patients to the initial patient collection point is the responsibility of the tactical commander. Ambulance squads of the forward support medical company evacuate patients from the combat or CS unit's treatment squads or teams to the division clearing station located in the BSA. Ambulance squads of the MSB medical company have the primary mission of providing evacuation support on an area basis to the division rear. They have the secondary mission of reinforcing the ambulance squads of the FSB medical company. Patients are evacuated from division clearing stations in the BSAs to the division clearing station in the DSA only on an exception basis or if they are in need of psychiatric or optometric services. Evacuation of patients in the BSA clearing station is accomplished by corps evacuation assets to corps MTFs.

Aeromedical evacuation resources are allocated to the LID from corps assets. They are essential in clearing seriously injured patients from forward areas and in providing rapid transportation of critical medical supplies, equipment, and personnel. Air ambulances operate as far forward as is tactically possible. Figure 7-3 depicts patient evacuation.

HSS OPERATIONS

Planning

The DMOC and the support operations sections of the MSB and FSBs plan for medical operations within the division area. The basic considerations

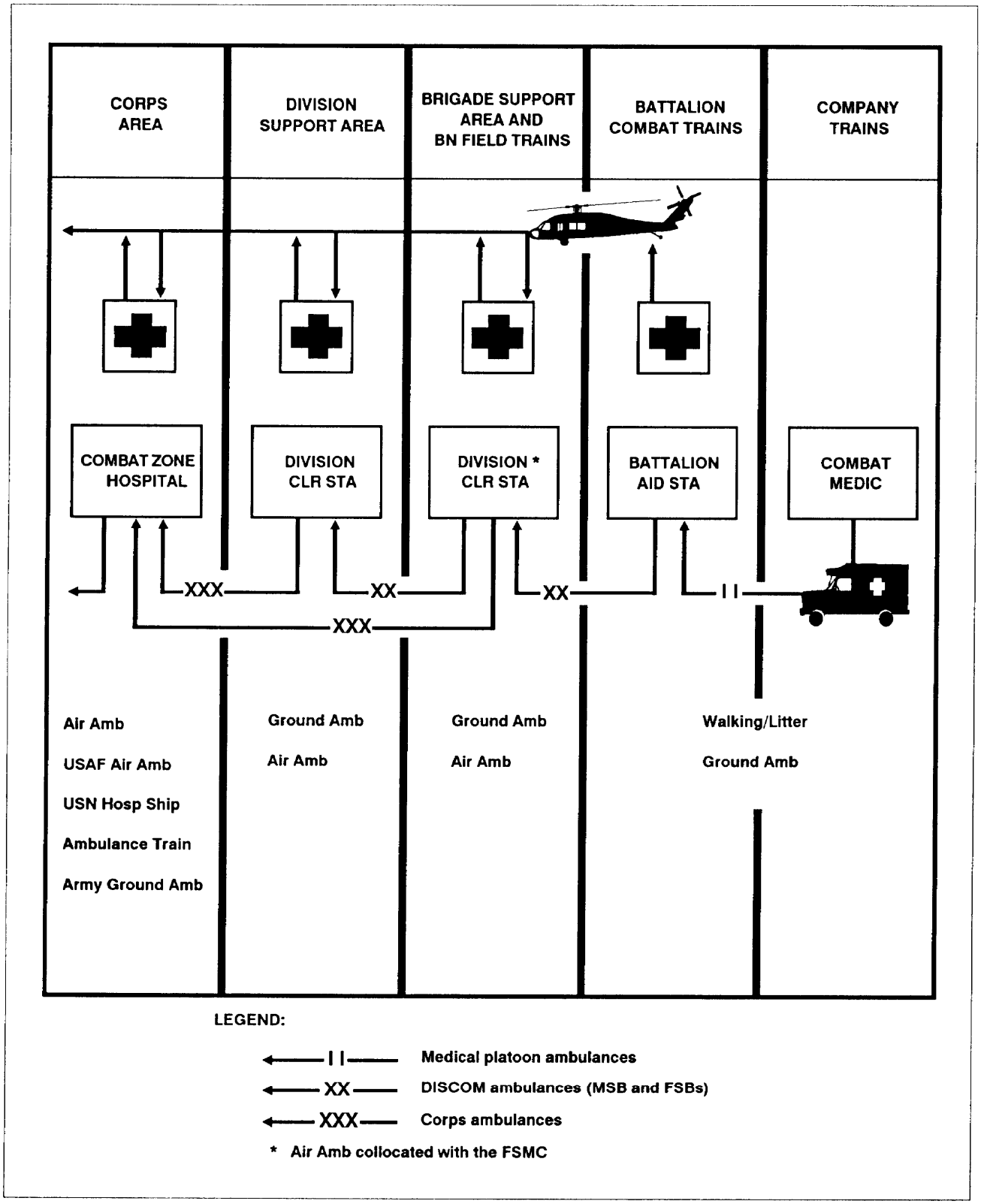


Figure 7-3. Patient evacuation flow.

which influence the employment of medical assets within the division are—

- Division commander's plan.
- Anticipated patient load.
- Expected areas of casualty density.
- Available medical treatment and evacuation resources.

On the basis of these factors, planners determine how the companies are organized for support operations. They also determine the location of each clearing station and identify the possible evacuation routes. The chief of the DMOC prepares to reinforce HSS forward and to request augmentation through the S2/S3 section. The company commanders also ensure the SOP specifies methods for handling chemical casualties, moving the clearing stations, providing Class VIII supply, and coordinating air evacuation.

Planners determine how to manage mass casualties conditions. Such situations severely tax the division HSS system. The key to handling mass casualties is the use of on-site treatment learns, effective communications, and skillful employment of air and ground ambulances. The prompt movement of patients to all available treatment facilities helps. If medical evacuation assets arc overwhelmed in a mass casualty situation, nonmedical vehicles are used and medical personnel accompany the patients (o provide en route medical care. If additional assets are required, the DMOC coordinates augmentation.

Clearing Station operations

"Division clearing station" is the generic term used in designating the division-level MTFs in both the DSA and BSA. They locate away from likely target areas but near evacuation routes and near an open area for landing air ambulances. The Geneva Conventions protect medical personnel, facilities, and vehicles from deliberate attack by the enemy. Chapter 6 discusses security and positioning considerations.

Treatment platoons operate the division clearing stations. In addition, teams from the MSB preventive medicine section behavioral science NCOS from the mental health section and the brigade UMT may operate from the clearing stations in the BSAs and the DSA. Also operating at the clearing stations in the BSAs are any elements of the forward support medical company treatment platoon not deployed forward. During static situations, ambulance teams also station themselves at the clearing stations in the BSA. They provide routine sick call runs and emergency standby support to units operating in and around the BSA. The clearing stations maintain their integrity at all times except when locating to a new site. Figure 7-4 shows a sample clearing station layout in a field environment.

Medical personnel give necessary treatment to seriously ill or wounded patients arriving at an MTF and stabilize them for movement. They hold these patients for continued treatment or observation for up to 72 hours if the patients can RTD in that time frame. If not, personnel evacuate the patients to the appropriate MTF for further treatment, evaluation, or disposition. Other functions of the clearing station include —

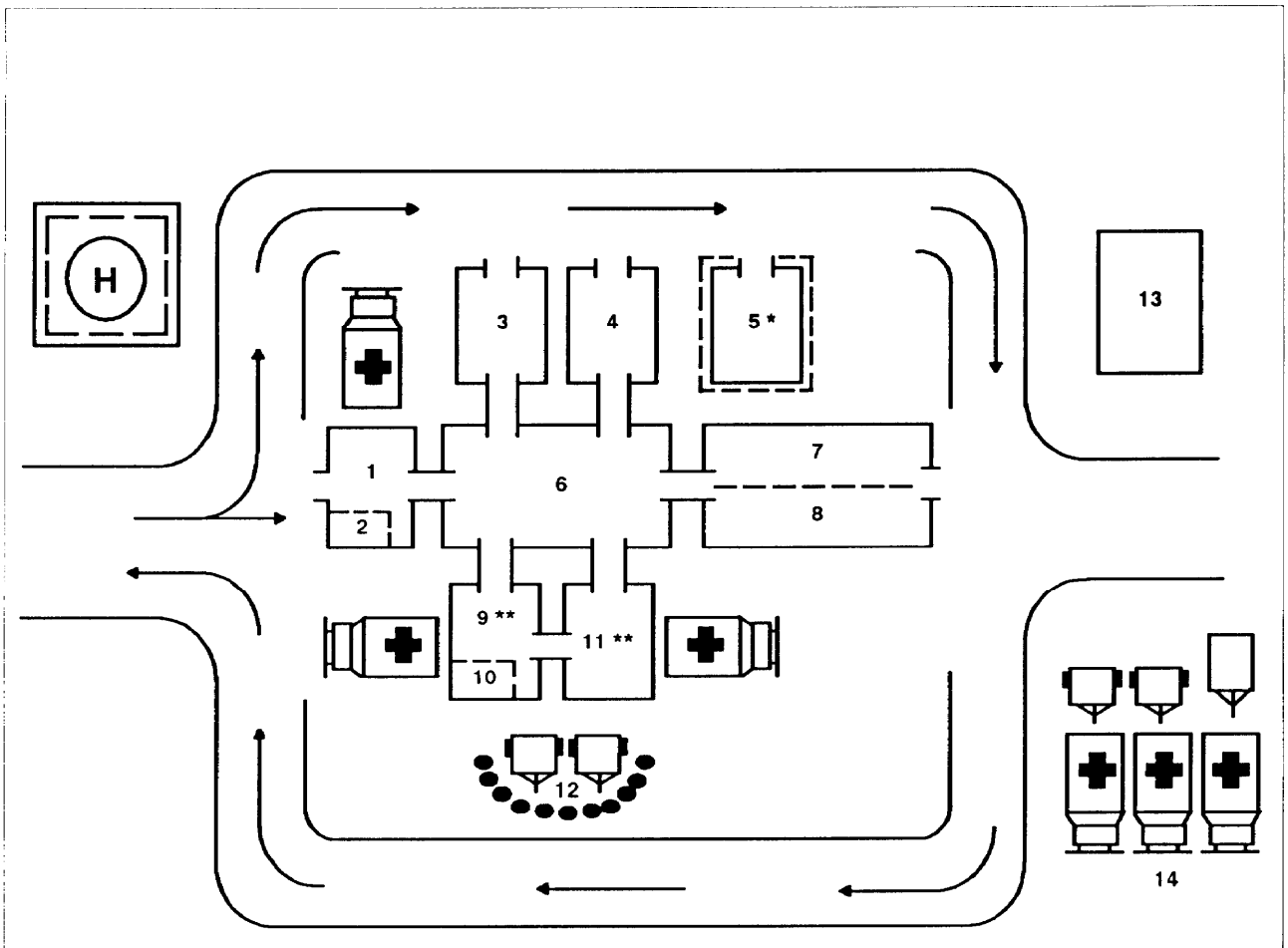
- Providing consultation and limited clinical laboratory and x-ray diagnostics for unit physicians and physician assistants.
- Recording all patients seen or treated at the clearing station. It also notifies the brigade S1 or first sergeant of supported CS and CSS units.
- Monitoring patients for decontamination before treatment.

The preventive medicine teams ensure units carry out preventive medicine measures. These measures protect against food-, water-, and arthropod-borne diseases and environmental injuries such as heat and cold injuries. Specifically the team —

- Performs environmental health surveys and inspections.
- Checks water production and distribution within the division area.
- Investigates incidents of food-borne, waterborne, arthropod-borne, zoonotic, and other communicable diseases.
- Helps train unit field sanitation teams.

The teams emphasize preemptive action. In past conflicts, more soldiers were ineffective from DNBI than combat. The teams are proactive. They do not wait until problems appear to act.

The representatives from the mental health section function as the combat stress control coordinators. They advise the division surgeon and the brigade surgeons on mental health considerations. They keep abreast of the tactical situation and plan for BF/NP care when maneuver units pull back for rest and recuperation. At the clearing stations, they help inpatient triage and ensure



LEGEND:

1. Emergency medical service area
2. Medical laboratory area
3. Dental care area
4. Neuropsychiatric service area
5. Optometry service area
6. Common area
7. Holding ward
8. Postoperative care area (staffed by surgical detachment personnel)
9. Preoperative care area
10. X-ray area
11. Operating room
12. Power generators
13. Treatment platoon CP
14. Treatment section

* Located in DSA only

** Augmentation from surgical detachment (includes personnel and equipment)

H Helipad

Figure 7-4. Sample clearing station.

personnel handle BF/NP patients properly. Medical personnel follow these treatment guidelines:

- They give mild cases a brief respite of one to six hours of comfort and reassurance, Then they return them to their units.
- They send moderate cases to a CSS unit for one or two days for rest and recuperation. They continue to watch the individuals, and the medical unit feeds and clothes them. The CSS unit gives them tasks to perform. Medical personnel also hold moderate cases at the medical holding facility if space is available and no suitable nonmedical CSS quartering facility is available.
- They hold severe cases in the clearing station holding facility for up to 48 hours if behavior is not too disruptive. Treatment consists of sleep, hydration, quality food, hygiene, general health measures, and restoration of confidence. It also includes soldierly work details and individual counseling. The attending physician prescribes medication only to aid briefly in sleep or to control disruptive behavior.
- At the BSA clearing stations, they arrange evacuation of severe cases to the DSA clearing station as conditions permit. The physician decides to evacuate the patient directly to a corps facility if diagnosis indicates the patient requires treatment at that level.

Evacuation Operations

The forward support medical company ambulance platoon and a forward air ambulance team of the supporting corps air ambulance company provide evacuation from the BASS if the tactical situation permits. These assets also support other units in the brigade area on an area basis. Typically, one team from the forward support medical company ambulance platoon field sites at each BAS. The other ambulances of the platoon locate at the AXPs, shuttle points, designated patient-collecting points, or at the clearing station.

Air and ground ambulance elements of the corps medical evacuation battalion have a field site in the DSA and BSA. The leaders of these elements establish liaison with the DMOC and plan the employment of corps assets. The DMOC helps the reporting air ambulance liaison officer/flight leader in getting the required air space management information. The DISCOM S2/S3 section also helps the ground evacuation liaison officer in getting information on MSRs and in getting road clearances. Corps air and ground ambulances evacuate patients from clearing stations in the BSA and DSA directly to hospitals in the corps rear. Air ambulances evacuate patients from BASS to division clearing stations as the tactical situation permits and from the clearing stations to corps hospitals. Corps medical regulating officers regulate patients evacuated out of the division. The DMOC regulates patients evacuated within the division from BASS to clearing stations and from clearing stations to clearing stations. It also informally tracks patients evacuated to the mobile army surgical hospital located in the division rear.

When division medical evacuation assets become overwhelmed, the DMOC requests reinforcements from the corps through command channels. Another alternative to lessen intradivision evacuation backlogs is to use division nonmedical air and transportation assets. Commanders set up these procedures in command logistics SOPS and carry them out when required.

When necessary, to ensure timely ground ambulance support to maneuver battalions BASS, the forward support medical company sets up AXPs or shuttle points between clearing stations and maneuver battalions, terrain permitting. AXPs are loading points where ambulances are stationed to receive patients. They facilitate transfer of patients between division ground ambulances, division and corps ground ambulances, or between division ground ambulances and air ambulances. AXPs allow ambulances to return to their supporting positions more rapidly, This is desirable since aide/evacuation teams are more familiar with the roads and tactical situation near their base of operations.

Another evacuation system tool involves an ambulance shuttle system. The shuttle system uses relay points. Ambulances station themselves at relay points to replace ambulances leaving loading points to evacuate patients. This requires control points at crossroads or junctions to direct empty ambulances from relay points to loading points. After delivering patients to the MTF, the empty ambulances return to the relay point to await further employment.

Class VIII Supply Operations

Personnel obtain medical supplies, equipment, and repair parts through medical channels. Unit-and division-level medical elements carry a five-day stockage of medical supplies with an additional day of expendable. During combat operations, the forward support

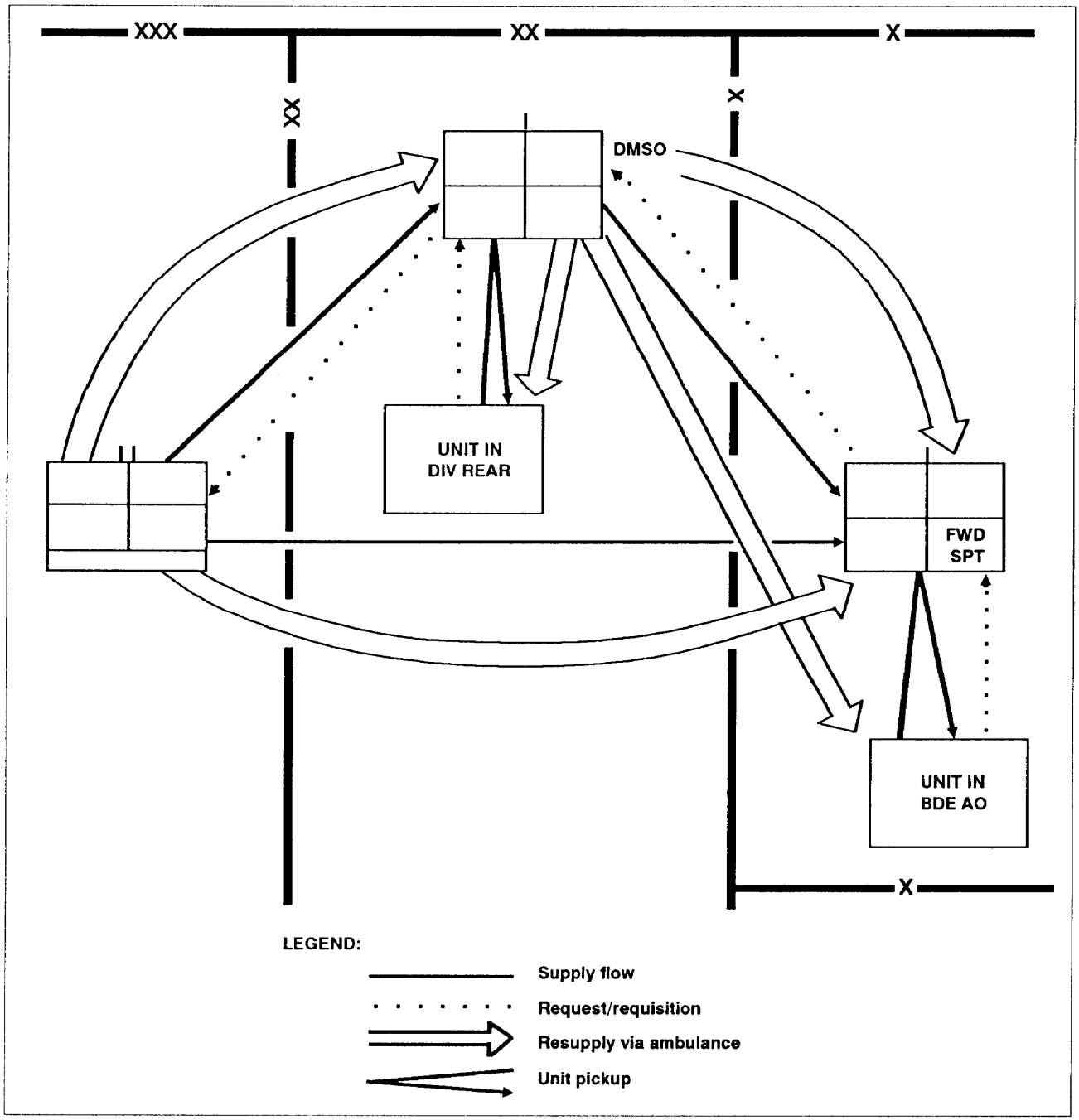


Figure 7-5. Class VIII flow.

medical company receives preconfigured medical supply packages from the DMSO. As medical units consume their initial issue, they request resupply from the next higher level of HSS. The DMSO provides routine medical resupply of division units. The forward support medical company receives its supplies from the DMSO in the DSA or throughput from MEDLOG forward. The DMSO coordinates shipment through the MCO. Ambulances transport medical supplies using the backhaul method. However, in emergencies medical elements request and receive medical supplies as quickly as possible. Figure 7-5 depicts the flow of Class VIII supplies.

FIELD SERVICES SUPPORT

Field services include CEB, mortuary affairs, salvage, laundry, textile renovation, and airdrop. When personnel are not available in the division or in an augmentation to the division to perform these services. a COSCOM service element provides the services. Salvage operations are addressed in Chapter 10. Chapter 11 discusses airdrop.

Field services support requires close coordination with the DISCOM S2/S3, DMMC, the S2/S3 and support operations section of the MSB battalion, the FSB commanders, and the commanders/leaders of the augmentation units involved. Commanders of augmentation units assume the operating responsibilities and help the MSB S2/S3 in planning field services support.

CLOTHING EXCHANGE AND BATH

Before arrival of CEB augmentation, soldiers use available water or indigenous facilities for bathing and washing clothes. Personnel use supply actions to replace unserviceable clothing.

Augmentation in the form of a CEB platoon attached to the HSC of the MSB provides CEB services. The platoon consists of eight teams. Upon arrival they set up a maximum of eight CEB points in the DSA and BSAs. In the future, CEB augmentation elements will be replaced by the corps field services company (DS).

The teams provide support on an area basis with a capability to provide one clothing exchange and bath per soldier every seven days. If the commander reduces the seven-day period, the teams may require additional augmentation or they may reduce individual bathing time. Laundry support to the CEB platoon is provided by COSCOM elements. The supported unit provides labor details to help set up the bath unit, safeguard valuables, and receive and issue clothing. FM 10-280 covers general operations of CEB teams.

In an NBC environment, CEB teams help in decontaminating personnel contaminated with radioactive dust or biological agents. (Showers are not considered essential in decontaminating personnel contaminated by chemical agents.) The teams check water used during bath operations to ensure it is not contaminated. During bath operations, they check all personnel to detect contamination. They segregate contaminated personnel from noncontaminated personnel. Contaminated personnel decontaminate themselves and receive bath service first.

MORTUARY AFFAIRS

A well-organized mortuary affairs system in the division helps to ensure —

- Prompt recovery of all remains from the division area of responsibility.
- Prompt and accurate identification of remains.
- Prompt recovery, inventory, and security of the personal effects found on the remains.
- Prompt evacuation of remains with their personal effects out of the division area to the COSCOM collection points/cemetery or mortuary.
- Prompt, accurate, and complete administrative recording and reporting.
- Prompt and adequate care for deceased allied and threat personnel according to the current United Nations agreements.
- Reverent handling of the remains and adequate ceremonies and services for deceased persons performed according to current doctrine.
- Emergency burial, when required.

Company commanders arc responsible for the search, recovery, tentative identification, and evacuation of deceased personnel from their areas of responsibility. Deceascd personnel include members of the company, other Services, and other remains found in the area. Company personnel serve on mortuary affairs teams to clear operational areas and perform search and recovery and to make the initial identification of the remains before evacuation to a collection point. Company commanders are also responsible for the evacuation of these remains to a collection point.

Team members perform necessary emergency burials when higher headquarters grants permission and the tactical situation prevents the evacuation of the remains and their personal effects. The commander permits burial of remains during NBC warfare or when the number of remains recovered and decontaminated is greater than the capacity of the resources to evacuate the remains. This is done only when it is authorized according to the conditions in ARs 638-30, 600-8-1, and FM 10-63. Mortuary affairs teams also complete records and reports of these emergency burials and forward them through mortuary affairs channels to the theater joint mortuary affairs office.

The LID has one mortuary affairs NCO in the support operations section of the MSB battalion and one in each FSB. These NCOs are a planning, coordinating, and training base for the unit's mortuary affairs functions, They plan for and coordinate augmentation for the division. They train division personnel to serve on mortuary affairs teams until the augmentations arrive. They provide staff supervision over mortuary affairs operations and serve as chiefs of the collection points staffed by unit personnel until the teams arrive.

Organic augmentation provides services on or after deployment. This augmentation consists of a GRREG platoon assigned to the HSC of the MSB. Support is limited to minimum essential capabilities required to collect, initially identify, and evacuate or hastily bury remains. If the division needs more support, the DISCOM S2/S3 requests it from the COSCOM services branch. Handling of contaminated remains requires additional augmentation from EAD. In the future, augmentation elements will be replaced by a corps mortuary affairs company.

When the GRREG platoon arrives, they setup four collection points (one in the DSA and one in each BSA). Collection points locate a short distance from the MSR. It is the commander's responsibility to select the sites of these points.

Collection and evacuation teams set up collection points in the BSAs to receive deceased personnel from supported units. They tentatively identify the remains and arrange for evacuation to the division collection point. They provide technical advice and training to unit personnel in their areas of responsibility. They tentatively identify deceased personnel as early, as completely, and as accurately as possible. Units evacuate deceased personnel with their effects from forward areas to the DSA collection point as a backhaul mission. They use vehicles which brought supplies (except Class I and VIII) to the BSA.

Personnel perform emergency burials (isolated burials, sea burials and mass burials) in other than established cemeteries for the sake of expediency. They resort to these burials only in extreme emergencies and when authorized by the theater commander and in accordance with AR 638-30 and FM 10-63. They document these burials fully and report them promptly through mortuary affairs channels to the theater joint mortuary affairs office. If they lose contact with higher headquarters, the senior officer in the stricken area is responsible for determining burial procedures.

LAUNDRY AND RENOVATION

Corps field services companies provide division troops laundry and renovation in coordination with CEB efforts. This support requires close coordination between the S2/S3 section of the DISCOM, the FSB commanders, the supported unit, the support operations section of the MSB, and the corps field services companies involved. FMs 10-280 and 29-114 describe day-to-day laundry and renovation operations.

Chapter 8

Arming the Force

Contents

CLASS V SUPPORT

Providing the required quantity and type of ammunition to the combat user at the time and place it is needed requires a responsive and flexible ammunition supply system. The supply concepts addressed in Chapter 7 apply to Class V. Before a corps ASP is established, the division ATP sections initially work together at an airhead or port facility. They receive ammunition in the same manner as a corps ASP. units pick up all ammunition from this consolidated ATP (Figure 8-1).

After the corps establishes an ASP, the ATP section of an FSB moves with each maneuver brigade as it deploys. Units operating in each brigade area draw 100 percent of their Class V supplies (including Class V

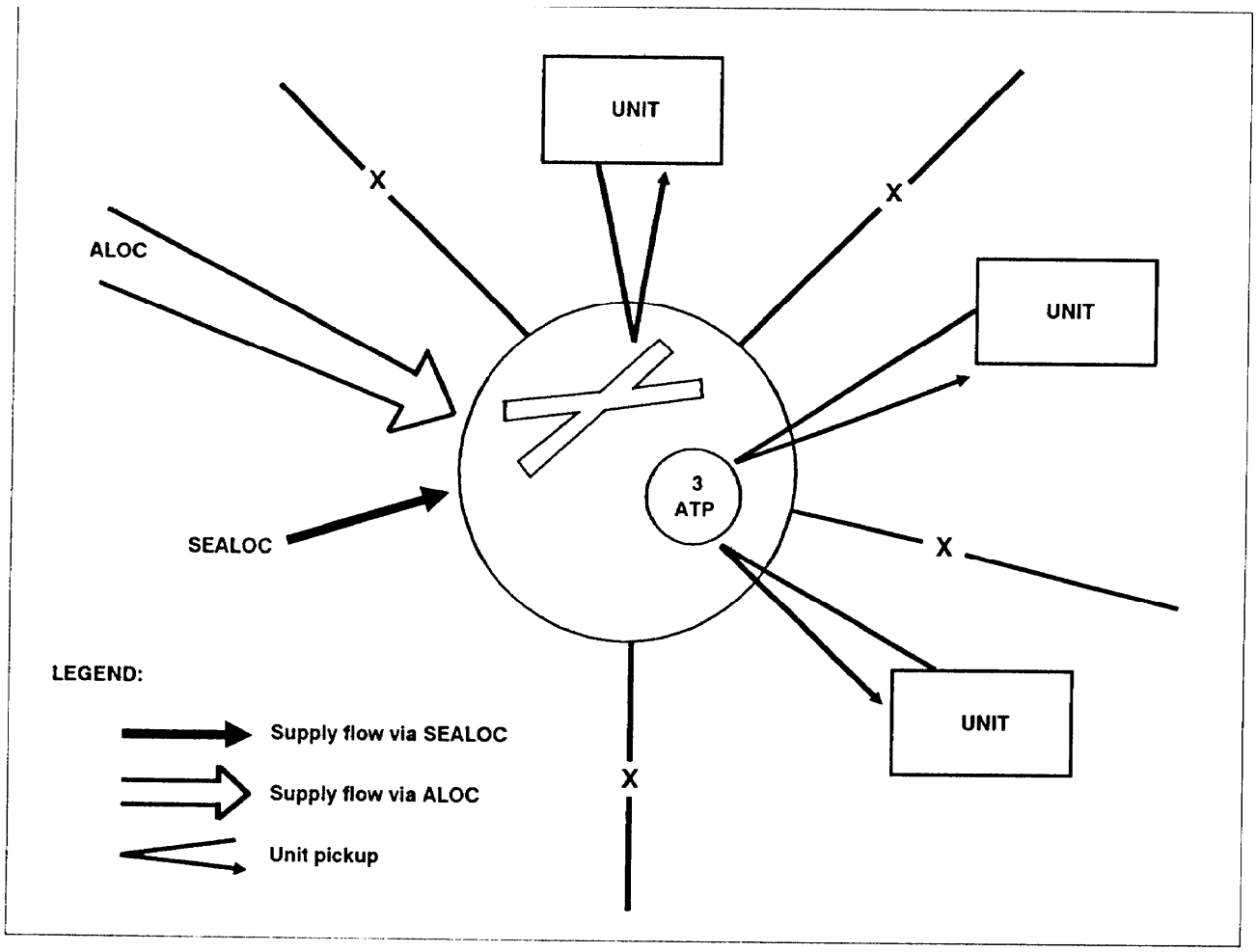


Figure 8-1. Class V flow at consolidated ATP.

barrier materials such as mines) from the ATP. Under MOADS, division and corps slice combat units operating in the division rear draw their ammunition from a fourth ATP operated by the corps DS ammunition company. (FM 9-6 has details.) The division commander, through the DAO, determines where all other units draw their ammunition. He allows units in the vicinity of an ATP to draw from that ATP, or he directs them to a corps ASP.

As much as possible, ammunition transloaded at the ATP is in combat configured loads. CCLs are predetermined ammunition packs based on mission requirements. Battalion/brigade S4s submit proposed CCL configurations to the DAO. The DAO reviews CCL submissions and submits a consolidated CCL request to the corps. The corps establishes a set of standard CCLs. CCLs make up 90 to 95 percent of user requirements. Units express requirements in the type and number of CCLs and any additional single-line items. The DAO forwards the quantity required of each type of CCL and single-line item requisitions through the CMMC to the CSA or the ASP. The CSA reconfigures containerized and break-bulk ammunition into CCLs and ships them to the ATP. The CSA ships single DODIC items and non-CCL items to the ASP. All ammunition is shipped on corps ground and air transportation assets. More information on CCLs is in FM 9-6.

The DAO is in charge of ammunition distribution in the division. He is in the DMMC where he has an overall picture of the division's Class V assets. The DAO performs ammunition management for the division by establishing procedures for authenticating requests and managing CSRs. The DAO maintains records of ammunition issued to each unit and controls the issue of intensively managed ammunition items. The DAO also coordinates turn-ins of excess issued ammunition and redistribution of issued stocks among division elements. The DAO maintains constant communications with the users, the command staffs, the CMMC, and the ATPs, while coordinating ATP operations and resupply with corps and division units. This communications network and knowledge of planned and current operations enable the DAO to support the division units within the constraints of the CSR passed to him by the G4. The DAO submits requirements for Class V items to the G4 and CMMC and provides the DAO representatives at the ATPs with information cm expected arrival times of ammunition.

There is one ATP established in each brigade support area. Supply point distribution is the primary method of distributing ammunition. The ammunition vehicles of the using units return to the ATP for ammunition resupply. In emergencies, the TMT company of the MSB battalion provides limited distribution of Class V items.

The DAO assigns a representative to each ATP in the BSA and the fourth ATP under MOADS to coordinate between the DAO and the ATP. The DAO representative and the ATP NCOIC have the communications capability to report, via SAAS-DAO, daily receipts, issues, and transactions and to maintain contact with the DAO and the NCOIC'S respective command. The DAO or DAO representative checks all ammunition requirements before units present them to the COSCOM ASP or to an ATP to keep the issues of ammunition within the announced CSR. The normal basis for approval of the requirement is the replacement of expenditure or support of anticipated operations within the limits of the CSR. (Units cannot exceed the CSR without prior approval as stated in FM 9-6.)

On their first trip to a newly established ATP, corps drivers unhook and leave loaded semitrailers. When they replenish the ATP they leave loaded semitrailers and take empty ones back to the corps. The ATP is typically resupplied by corps transportation assets four times a day.

When Class V supplies arrive at the ATP, the DAO representative inspects and inventories the shipment. The DAO representative signs for the shipment. He assigns a location in the ATP to station the trailer to await the arrival of the receiving units. Trailers are 50 to 100 feet apart depending on the terrain. The DAO representative ensures a copy of the receipt documents are forwarded to the DAO in the DMMC. If a discrepancy exists on a document, the DAO representative adjusts the document and informs the DAO. The ammunition inspector in the DMMC is responsible for quality control. He also classifies turn-ins and writes reports on ammunition accidents.

The brigade S4 coordinates with the FSB and supply company commanders to establish a schedule for issue of Class V supplies. When supported units show up at the ATP, they submit requests for ammunition completed and validated by the brigade S4. The DAO representative at the ATP authenticates all requirements before the requests are filled. Personnel use ATP MHE to transload the ammunition from the corps transportation

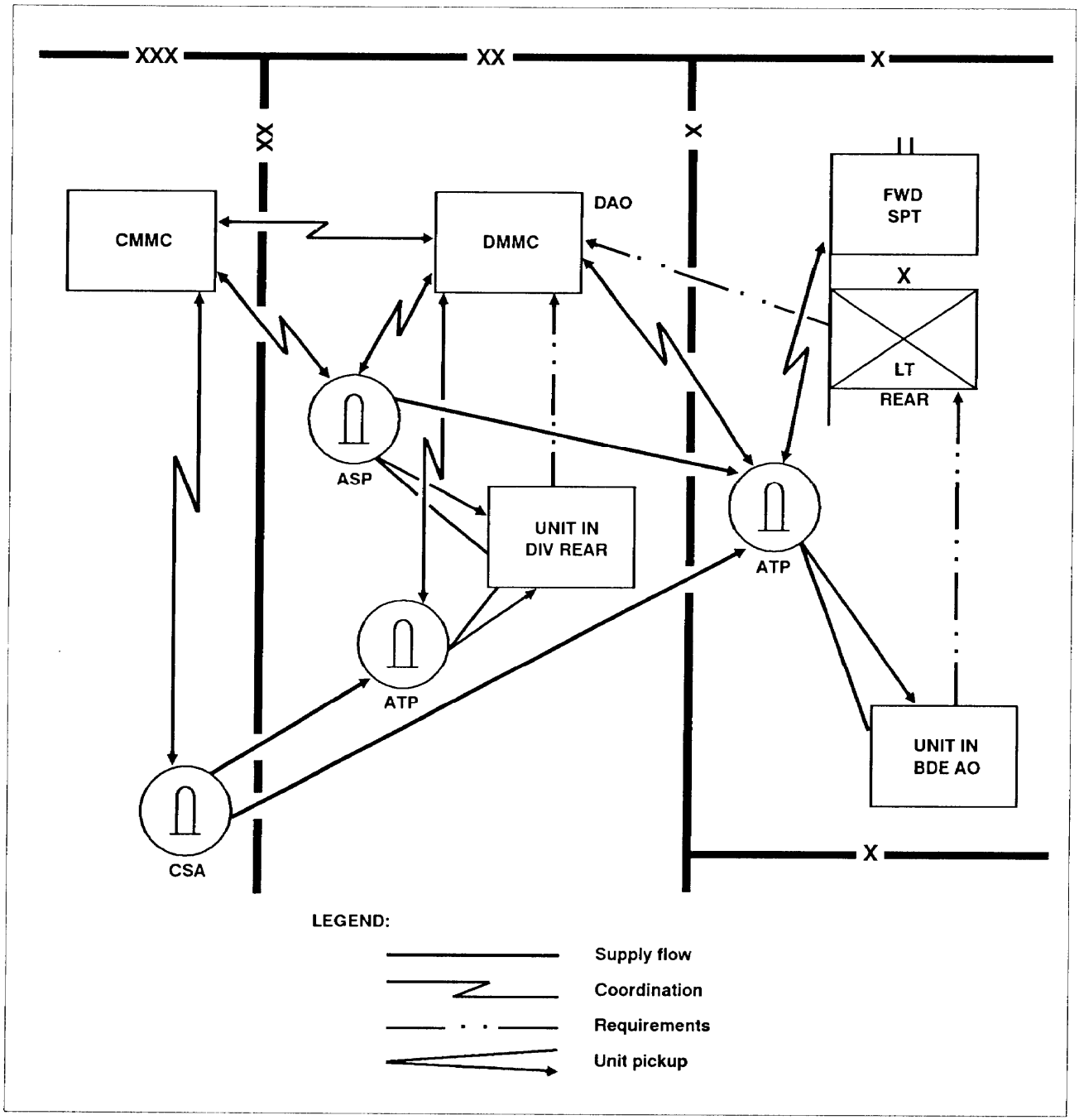


Figure 8-2. Class V flow after ASP is established.

assets to unit vehicles. Supported units reorganize or, if necessary, reconfigure the ammunition they pick up at the ATP for further delivery forward to rearm points.

The DAO representative forwards information pertaining to the issue to the DAO. The DAO monitors these daily transactions to ensure they are in accordance with the CSR. He then forwards item summary data to the CMMC so the appropriate CSA or AS-P can replenish the issues and maintain authorized levels of ammunition. Figure 8-2 shows the Class V supply flow after an ASP is established. FMs 9-6 and 9-38 contain details on the receipt, storage, and issue of ammunition.

CLASS IV SUPPORT

Class IV supplies consist of construction and barrier materials. The division commander determines the Class IV stockage in the division. The DMMC manages the Class IV stockage. There is no specified division-level reserve for Class IV supplies. Because of the bulk of these materials and the limited transportation assets and mobility requirements of the light divisions, Class IV supply stockage is extremely limited. Supply points in the DSA stock them only when required to support a specific operation. Class IV supplies consist primarily of PULs of hasty fortification and barrier materials palletized in 100-meter increments to simplify handling and requisitioning.

Units submit requests for Class IV supplies to the HSCs in the BSA or the DSA. The HSCs pass these requests to the DMMC which passes them to the CMMC. EAD units stock the majority of Class IV supplies and throughput directly to using units for specific engineer projects or plans. This requires the using unit to provide grid coordinates, unit designations, and POCs with the supply request. In addition, the convoy commander or airdrop coordinator coordinates with the receiving unit's field trains before moving to the emplacement site. This ensures the situation and requirements have not changed since the request was made. The receiving unit is responsible for off-loading corps transportation assets. In some cases, when the tactical situation permits and transload or emplacement sites are near the BSA, ATP MHE is used to assist in handling Class IV supplies. Engineers identify requirements as far in advance as possible to allow time for packaging, delivery, and emplacement. Whenever possible, a basic load of barrier material for a standard defense is developed before operations begin.

The supply companies handle limited quantities of survivability, Class IV (A), items, Any unit can emplace these items. They include such common items as sandbags and concertina wire. Personnel process requests for survivability items the same way as Class II items. Engineers consolidate requirements for countermobility, Class IV (E), items and pass them to the brigade S4. The brigade S4 passes them to the HSC to enter into the supply system. Figure 7-2 shows Class IV supply flows.

Chapter 9

Fueling the Force

Contents

FUEL FORECASTING

Planners base the supply of bulk fuel in the division area on forecasted requirements genecrated by customers. The division G4 establishes the frequency of the forecasts, the period covered, and how far in advance units submit them.

Based on these guidelines, the brigade S4, in coordination with the FSB commander, is responsible for totaling forecasts from customers in the brigade area. The brigade S4 provides the FSB commander a copy of his forecast. The brigade S4 also provides his forecast to the division G4 who acts on it if fuel allocations arc in effect.

Units operating in the division rear report their requirements through their S4 channels to the G4 for his use if allocations are in effect. The G4 passes the consolidated forecast to the DMMC which passes it to the CMMC. The CMMC coordinates the delivery of bulk fuel to the division according to the Class III distribution plan. If METT-T prohibits forecasting, standard prearranged shipments are sent on a regular basis to the HSCs and AB. These continue until the users request a change.

In some cases, planners allocate fuel to meet tactical requirements. The G4 recommends allocation of fuel based on guidance from the G3. When the Class III officer in the DMMC gets instructions on the allocation, he passes the allocation to the MSB, the FSBs, and the AB so that issues are made according to the allocation.

BULK FUEL SUPPORT

Bulk fuels include MOGAS, diesel fuel, and aviation fuels such as JP-4 and JP-8. The theater petroleum distribution system handles bulk fuels. EAD units deliver Class III bulk products to the division based on forecasted requirements. On-ground storage within the division is limited; throughput from EAD to the Class III supply points in the BSA and to the AB is the normal method of resupply. Figure 9-1 shows the flow of Class III bulk supplies.

EAD units deliver bulk fuels daily to the DISCOM. The DISCOM handles all bulk fuel designated for use in ground equipment. (Aviation fuel comes directly to the AB from EAD. The DISCOM does not stock aviation fuel. All division reserves are stored in the AB.) Bulk fuel is throughput to the BSAs from the corps because there are no organic distribution assets to move bulk fuel from the DSA to the BSA routinely. The DMMC coordinates the deliveries. When throughput is not possible, supply personnel use organic TPUs and 500-gallon drums either mounted on cargo trucks or sling loaded by helicopter to distribute emergency supplies.

Upon delivery, personnel transfer the fuel from the corps tankers into the HSC's assets. FM 10-71 describes fuel transfer operations in detail. Personnel sign receipt documents for the amount and type of fuel received and post the stockage record.

The HSCs of the FSBs distribute fuel to light infantry battalions using TPUs. Fuel is provided to other users for the most part using supply point distribution. A schedule for issue of bulk fuel to units in the brigade area at the FSB Class III point is coordinated between the supported units, the FSB commander, and the supply company commander. A similar schedule is developed for the Class III point in the DSA. Supported units pick up fuel in their organic refueling vehicles and authorized representatives sign for quantities received.

The MSB and FSB supply companies also operate a mobile filling station to provide retail service in the DSA

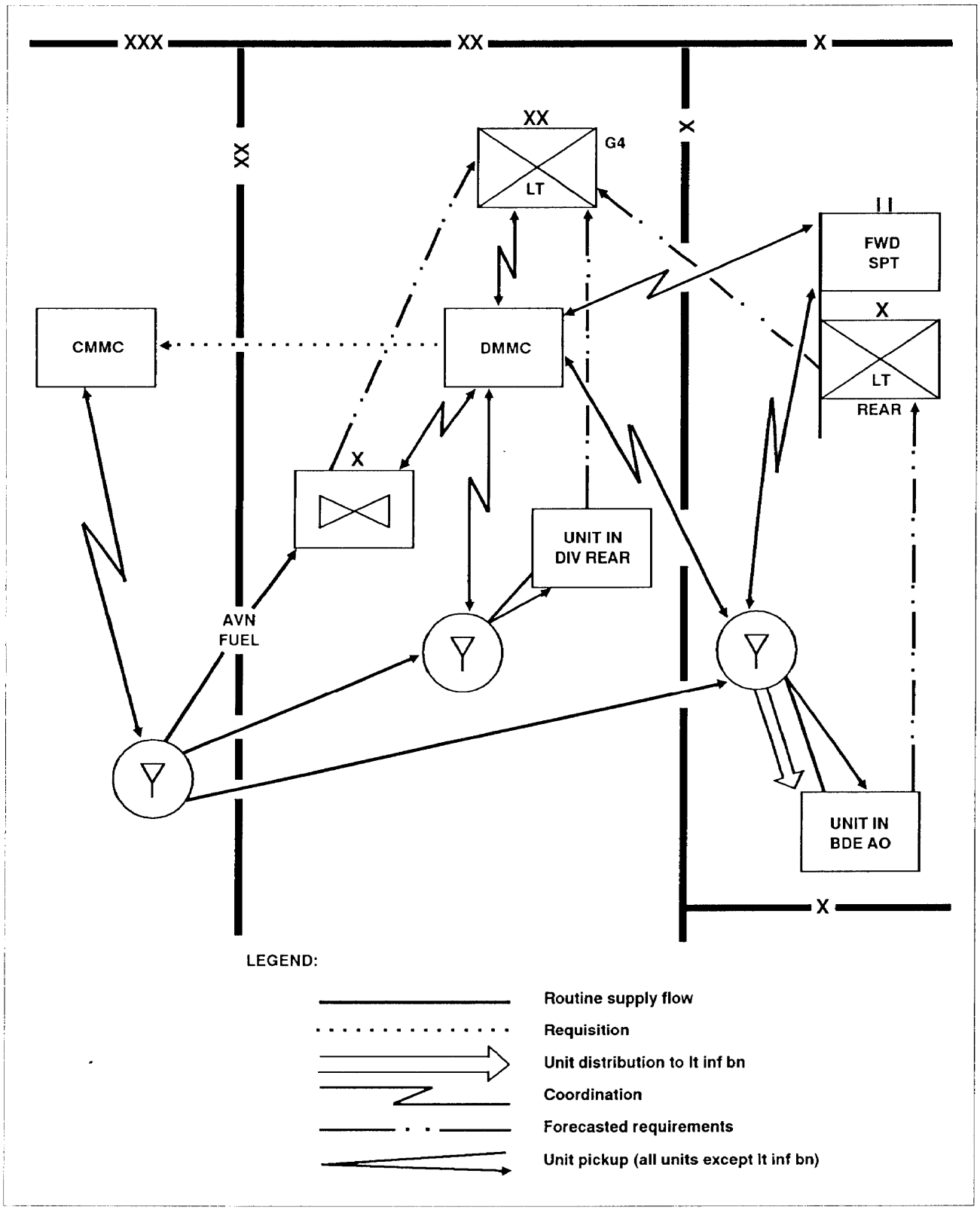


Figure 9-1. Class III (bulk) flow.

and BSA. They dispense fuel directly to vehicles. Local units can also fill up their gas cans. The receiver signs for these small, direct issues on a form used to keep track of daily issues.

Each Class III issue point in the DSA and BSAs and the AB fuel point consolidate daily issues and forward daily status reports on quantities received, issued, and on hand to the DMMC. Class III personnel abstract issues daily to the monthly abstract of issues.

If the FSB supply company cannot meet storage requirements with its assets which consist primarily of 3,000-gallon collapsible tanks, a request is made through the DISCOM S2/S3 for corps support. Corps elements set up, maintain, and issue from collapsible tanks in the BSA. Such an arrangement is most feasible in the offense. Not only are fuel requirements highest in the offense, but also there is not as much danger the BSA has to move quickly rearward, which is difficult with large filled bags on the ground. FMs 10-69 and 10-71 describe the receipt, storage, and issue of bulk fuel.

Units use captured fuel in emergency situations as soon as it is field checked for quality. Two pieces of equipment enhance the capability to use captured fuel. They are a captured fuels test kit which determines whether fuel can be used and a lightweight, electric pump which accompanies tactical vehicles.

Units deploying to overseas theaters where either JP-5 or JP-8 is used as the single fuel on the battlefield can use either fuel. No special changeover procedures are required as the fuel can be commingled.

PACKAGED PRODUCTS SUPPORT

Packaged Class III supplies are requested and distributed like Class II and IV items. They include lubricants, greases, hydraulic fluids; solvents in containers of 55 gallons or less; and cylinders of liquid and compressed gases.

To maintain mobility, supply points in the DSA and BSA maintain limited stockage of high demand Class III packaged products. Establishment of packaged Class III usage rate estimates and subsequent reviews are necessary to ensure requirements are met without overextending the storage capacity of the brigades and distribution points. In terms of volume, fog oil requirements are the highest use of Class III packaged products. Smoke operations require large quantities of fog oil. The duration of smoke operations, weather conditions, terrain and environment, and time available affect fog oil requirements. Fog oil or other large quantities of packaged POL products are throughput from EAD as required.

When possible, FSBs deliver packaged POL products to light infantry battalions on vehicles delivering bulk fuel. In all other cases, supply personnel use supply point distribution. FM 10-69 describes the receipt, storage, and issue of packaged POL products. Figure 7-2 shows the flow of Class III (packaged) products.

Chapter 10

Fixing the Force

Contents

ORGANIZATIONS

Support functions for fixing the force include –

- Maintenance.
- Provision of Class IX.
- Recovery and evacuation.
- Major end item replacement.
- Salvage.

The maintenance companies provide all except major end item replacement, salvage, and recovery. End item replacement and salvage are done through the supply companies. Recovery is a unit responsibility.

The maintenance companies provide limited DS maintenance on all authorized equipment except—

- Medical equipment (medical company mission).
- Airdrop equipment, light textiles, metalworking or fabrication items, ammunition, and ADP equipment (corps missions).
- Classified COMSEC equipment (signal battalion and corps mission).
- CCI organic to the signal battalion (signal battalion and corps mission).

The companies provide common and missile repair parts supply support to supported units in the division area. They also inspect or diagnose vehicles and weapon systems for repair within the division or evacuation to corps.

The forward support maintenance companies provide DS maintenance to each infantry brigade and to divisional units operating in the brigade sector. They repair small arms, fire control instruments, artillery, automotive, power generation, and electronics items. They troubleshoot and diagnose equipment problems to verify unserviceability. An AMCO provides AVIM support and aircraft maintenance parts supply support.

MAINTENANCE SUPPORT CONCEPTS

In the LID, limited DS maintenance is available in the BSA. The bulk of the maintenance capability operates out of the DSA. The division maintenance system relies heavily on —

- Consolidation of unit maintenance and collocated PLL support for the most part at either battalion or brigade level.
- Use of forward support to return combat systems to the fight as soon as possible.
- Use of battle damage assessment and repair procedures at all levels within the division.
- Use of replacement versus repair method of operation. This centers around increased stockage of LRUs and quick change assemblies.
- Maintenance work load passback to corps maintenance units.
- Use of ORF when personnel cannot repair equipment quickly.

- Commonality of vehicles, weapon systems, and equipment. This streamlines maintenance operations and simplifies repair parts management.

MAINTENANCE CONSOLIDATION

Consolidation of unit maintenance at brigade level relies on the operator for routine PMCS and actual repairs. In addition, the maintenance company in the DSA provides unit maintenance to elements of the MSB; the forward support maintenance company provides unit maintenance to elements of the FSB.

FORWARD MAINTENANCE SUPPORT

Forward maintenance support provides exchange services in support of unit and DS maintenance in the division. Repairing equipment forward reduces transportation requirements and time. It increases the availability of equipment to the user. Maintenance personnel base the decision to repair or pass back on repair time guidelines. If the time it takes to repair an item once all repairers, tools, and repair parts are on hand exceeds the specified time, they consider evacuation. They adjust guidelines based on –

- Backlog.
- Urgency of repair.
- Criticality of unserviceable equipment.
- Availability of ORF.
- The maintenance concept.
- The factors of METT-T.

REPLACEMENT VERSUS REPAIR

The LID relies on replacement more than any other division. Changes to the structure of the DISCOM and to equipment in the supported units increased the repair capability of the LID over the original design. However, the LID still depends on replacement and exchange of reparable components. This minimizes the number of maintenance personnel required to support the division DS maintenance needs. This austerity requires some adjustments to the total system to pick up the shortfalls. The maintenance system relies on a rapid and responsive supply system for Class IX. This includes reparables (missile and limited C-E). The stockage of these items within the division differs from heavy divisions due to the quantities of components versus repair parts. Levels within the division are limited to what is movable. The corps stocks and maintains the ORF. It also provides rapid delivery by air or ground resources.

INCREASED PASSBACK

In the LID, an important characteristic of the maintenance system is the evacuation or increased shift back of work load to corps units. DS maintenance management capabilities for the division are centralized in the DMMC. The materiel section of the DMMC intensively manages the maintenance backlog in the division. It ensures the backlog is at a controllable level. Personnel evacuate work load exceeding the LID maintenance companies' capacity to the corps maintenance unit.

Like all other divisions, the LID relies on reinforcing support from nondivisional maintenance units to overcome shortfalls in maintenance capability. However, the LID's austere assets require greater reliance on such support than other divisions. A dedicated nondivisional maintenance company with a LID maintenance support team provides reinforcing ground maintenance support. This unit locates in the division area. The LID maintenance support team is assigned to the supporting nondivisional maintenance company. It may be attached to the LID MSB maintenance company. A missile maintenance team designed for the LID also augments the EAD missile maintenance unit. The corps AVIM battalion provides reinforcing AVIM support. These units provide reinforcing support on equipment for which no repair capability exists in the division. They also work on equipment exceeding the division's capability to repair.

Increased passback has an impact on recovery and evacuation. Due to the limited number of recovery vehicles in the LID, emphasis is on self-recovery and like-vehicle recovery. This is especially true in the infantry brigades. Units are responsible for getting their disabled vehicles from their breakdown sites to the maintenance collection points. Units coordinate recovery missions beyond their capability with the maintenance company. This company has a limited number of wreckers.

BATTLE DAMAGE ASSESSMENT AND REPAIR

The purpose of BDAR is to rapidly return disabled equipment to combat or to enable the equipment to self-recover. BDAR is the unit commander's responsibility. It is performed by operator/crew and unit maintenance teams. Personnel use battle damage assessment to determine the extent of damage to equipment. They classify equipment according to the type of repair required. They also make plans to repair the item. Classifications for repair of battle damaged items are —

- Most essential to immediate mission.
- Reparable in the least time.

- Reparable but not in time for immediate mission.

Battle damage repair involves use of expedient repair techniques to return a system to a full or partial mission capability. The commander directs the use of BDR. It includes –

- Using shortcuts in parts removal or installation.
- Modifying components for 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.
- Using cannibalization (when directed by corps).
- Making parts from kits or available materials.
- Using substitute fuels, fluids, or lubricants.

When the mission is over, mechanics use standard maintenance procedures to repair the item.

GROUND MAINTENANCE OPERATIONS

PLANNING

Maintenance planners anticipate personnel, equipment, and repair parts requirements. They match them against available resources. The goal is to manage limited resources to return the maximum number of critical items to the battle. Planning considerations include —

- Tactical situation.
- Time and distance factors.
- Reinforcing support responsibilities.
- Command support priorities.
- Critical weapon systems and repair parts.
- Proposed MCP locations.
- Maintenance time guidelines.
- Controlled substitution and controlled exchange policies.
- Work load across the division area.

The DISCOM S2/S3 and the maintenance control officer help the MSB commander, support operations section, and maintenance company commander plan DSA support and on-site operations. They also help the FSB commander, support operations section, and maintenance company commander plan BSA support and on-site operations. The DISCOM S2/S3 and DMMC are involved in cross-leveling assets, This is a continuing process, not a one-time decision. Task organizing of tactical units and changes in the location of CS and CSS units in the division area require changes in the maintenance configuration.

MAINTENANCE SHOP OPERATIONS

The maintenance shops in the DSA and in the BSAs consist of all maintenance company elements not employed at MCPs or as contact teams. A shop is responsible for receipt, inspection, control, repair, and coordination of evacuation of all equipment received from supported units.

Personnel lay out a shop to allow free flow of work and to lessen the required movement of repair parts, tools, and equipment. They lay out the shop so –

- Trucks have access to supply storage areas.
- Access is easy from all shop locations.
- Repairers perform electronics and instrument repair in a dust-free area.
- Vehicles are dispersed near maintenance areas but located to facilitate control and security.
- Control and inspection elements are near the area entrance.
- Supply storage areas are near the entrance to keep traffic out of the work area.

Figure 10-1 shows a sample shop layout in a field environment. The same principles apply to shops in a built-up area. For example, company elements locate the control, inspection, and supply activities near the entrance to the shop area. They locate elements with related or complementary functions near each other. In many areas of the world, where buildings are sound and road systems adequate, the use of buildings is preferred. They provide better work areas and concealment.

The maintenance internal SOP outlines the shop procedures. Guidance from DA Pamphlet 738-750 forms the basis of the SOP. An external SOP is for use by supported units.

The flow of operations through the shop follows these steps:

- Supported unit recovers the item to the shop. It initiates a request for maintenance support.
- Maintenance control clement checks the request and registers the job order.

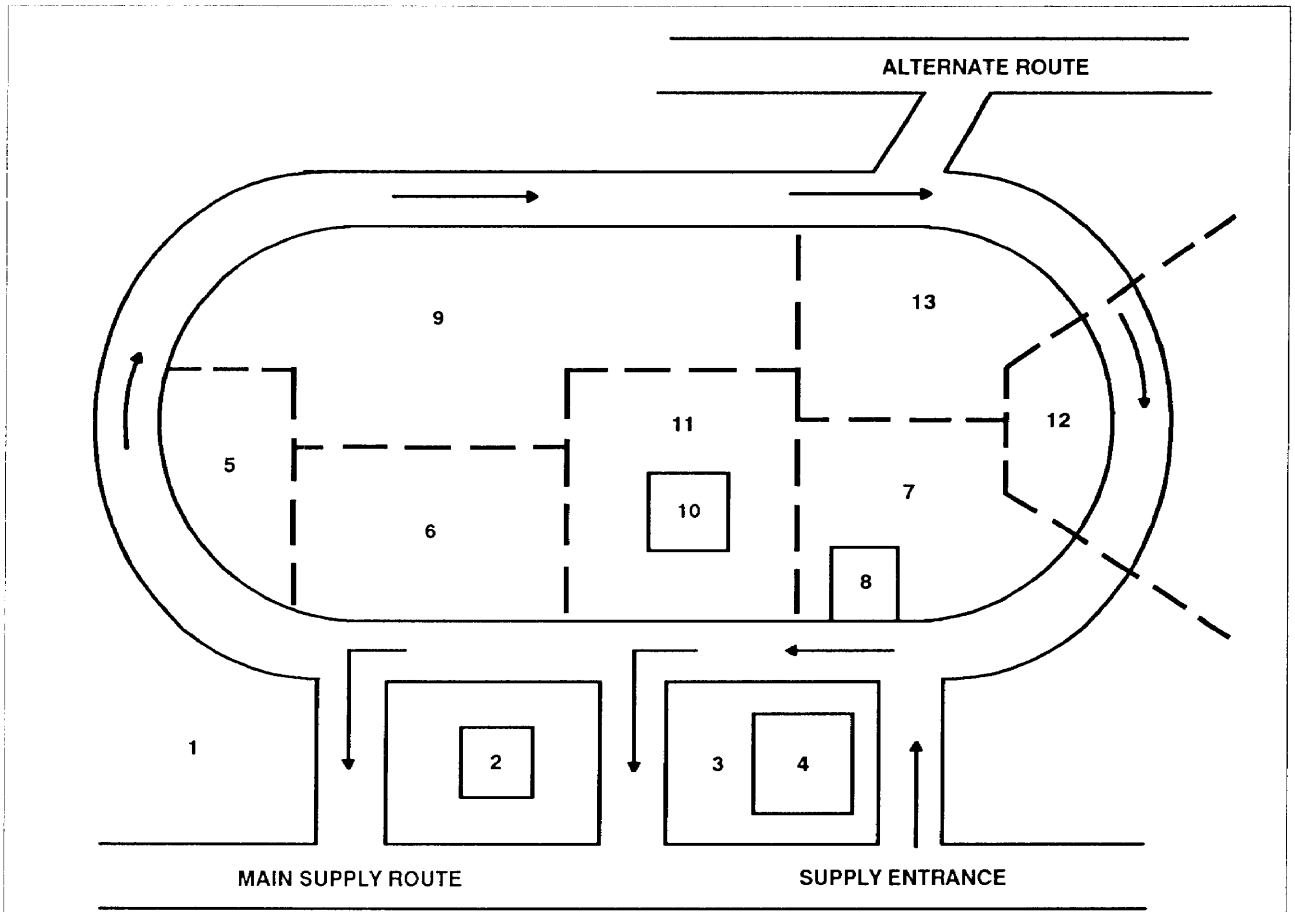


Figure 10-1. Sample base shop layout.

- Inspection element conducts an initial inspection. Inspectors determine equipment faults and the extent of work required. They also determine if the repair is economical, what parts are required, and whether all equipment is present. They determine whether units have fulfilled unit maintenance responsibilities. They may recommend evacuation or reports of survey.
- Class IX support element issues required parts if available. If parts are not on hand the platoon initiates a request for parts.
- Supervisor of the repair section receiving the equipment assigns a repairer the job. He considers availability of repairers and priority of the job.
- Item goes to the final inspection station once the mechanic has performed the work and the section supervisor has checked it. This inspection determines the adequacy of the repair. It requires an operability

test for serviceability and safety.

- Maintenance control element completes the management requirements. It releases the item to the using unit.

The management activities vary depending on the system available in the division. TAMMS is a manual system described in DA Pamphlet 738-750. SAMS-1 automates maintenance management functions. It also provides a daily interface with SAMS-2 at the DMMC and with SARSS-1. SAMS-1 is described in DA Pamphlet 738-750. Definitive procedures are in AISM 18-L21-AHN-BUR-EM.

MAINTENANCE COLLECTION POINT OPERATIONS

MCPs operated by the maintenance companies receive unserviceable equipment. One MCP is at the base shop. A forward moving tactical situation makes another point forward of the BSA advisable to reduce recovery distances. At the MCPs, maintenance company personnel assigned by the maintenance control officer perform large-scale BDA. Mechanics use controlled exchange and directed cannibalization. When supported units cannot recover equipment to an MCP, they recover items as close as possible to an MSR. The unit provides or arranges for security. It also provides accurate location information to the MCS.

Units turn in US equipment found in the division area to an MCP. There, maintenance personnel inspect it. They decide whether to repair or evacuate it. The DMMC provides the disposition instructions. It directs placing the item in the ORF system, turning it in to a supply point, or evacuating it to a corps facility.

CONTACT TEAMS

When unit maintenance resources are inadequate, contact teams from a maintenance company perform on-site repairs. Commanders use contact teams sparingly. Sending teams forward may eliminate a capability to repair certain items in the DSA or BSA due to MOS and equipment limitations. SOPS are distributed to all units supported by the maintenance company. They spell out the procedures for requesting contact team support. Requests include the following:

- Identification of the unit and equipment,
- Location in grid coordinates.
- Nature and extent of the damage.
- Repair parts required.
- Security and NBC considerations.
- Recommended route of approach.
- Pickup points for unit guides, if required.

Contact team operations present the battalion commanders, the maintenance company commanders, the maintenance control officer, and the contact team leader and members with the same challenges faced by any other small unit in a tactical environment. The team needs mobility to get to the repair site. It receives protection on the way to and from the site and while at the repair site. The team uses self-protection techniques during a move. All elements involved in the operation need to know the team is a group of repairers. It has limited self-defense assets. Time spent in defense activities reduces the maintenance mission time.

The maintenance company commander maintains C2 of the teams. However, changes in the tactical or maintenance situation or communications limitations threaten control. Therefore, contact teams prepare to conduct independent operations.

Contact teams carry a limited amount of repair parts. The parts they carry are based on experience and work load identified by the maintenance control office. The maintenance company SOP spells out contact [earn procedures in detail. This precludes having to develop them for each mission. SOPS cover —

- Organizations of teams for recurring situations.
- Assignment of the work order numbers.
- Hand-receipting and repair parts procedures.
- Recovery and evacuation guidelines.

Once the team arrives at the site, the team chief makes a BDA. He decides whether to repair on site or recover to an MCP. Maintenance time guidelines and the tactical situation are primary determinants. If on-site repair is possible, the team repairs the item and returns it to the user. If recovery is required, it considers expedient self-recovery and like-vehicle recovery before it commits a recovery vehicle.

MISSILE MAINTENANCE OPERATIONS

The maintenance company in the MSB provides missile peculiar repair for land combat and light air defense systems. It also provides MSTs to support missile systerns users. A base shop operation locates in the DSA. The missile maintenance section locates at the DSA base shop. It can dispatch two land combat MSTs in support of the three brigades; the FSB does not provide missile maintenance support. The need for on-site repair is not enough to justify a separate MST for each brigade.

The missile systems have a built-in test capability. It allows users to isolate the faulty LRUs more than 90 percent of the time. Users remove, transport, and exchange identified nonoperational LRUs at the nearest Class IX missile supply point. They return, install the replacements, and recheck the system for operational capability within 24 hours. The DS unit verifies the malfunction. It evacuates all malfunctioning LRUs to the corps missile maintenance company within 48 hours of receipt.

Units call MSTs for technical help for the 10 percent of the malfunctions which are unidentified. MSTs arrive at the users' location within four hours of the request. However, the time varies with METT-T.

AVIATION MAINTENANCE OPERATIONS

The AMCO provides AVIM support for the division's aviation assets. It gives priority to AVIM required by the AB. In this role, the AMCO furnishes liaison through its production control section. It responds directly to AB AVIM work load requirements. It repairs aircraft, aircraft armament, and avionics for return to the user or the supply system. It provides component repair capability, technical help and quality assurance, reparable management for selected items. It also provides reinforcing AVUM support. It provides Class IX (air) supplies to supported units. It controls and monitors cannibalization.

The company locates in the division rear, either at or adjacent to the airfield supporting the division. There it performs on-aircraft systems maintenance. The company provides one-stop AVIM and supply support from its base location. It also provides maintenance support forward. Limited repair capabilities are available, Emphasis is on component replacement rather than repair. Such replacement requires increased stockages of LRUs and QCAs. The limited amount of personnel available in the AMCO causes evacuation of repairs requiring more than 48 hours to the corps AVIM unit. Mobility requirements and physical storage assets available dictate that the corps store and maintain the majority of QCAs and LRUs.

Maintenance contact teams go forward to support the AB on a mission basis. When requests are made, the AMCO dispatches contact teams forward. They help users with AVUM overload situations, BDAR actions, and aircraft recoveries. The members of the AVIM contact team diagnose aircraft damage or serviceability rapidly and accurately. Contact team operations follow the principles that –

- Teams are used as sparingly as possible.
- Teams are used for aircraft, components, avionics, or armament repair.
- When the time and situation allow, the aircraft are repaired by the teams rather than evacuated for maintenance.
- Teams move by the fastest organic means available (normally aircraft).

Figure 10-2 shows a sample layout for an aviation maintenance base shop. When required, three forward support helicopter repair and recovery teams provide support forward. Aircraft mechanics staff these teams. The teams provide personnel on a mission basis. Additional aircraft component mechanics from company resources are attached to complete a specific mission.

Repair of equipment for return to the user dictates the maintenance practices and policies of the AMCO. The maintenance allocation charts balanced against the time and resources available govern maintenance accomplished by the AMCO. Authorized maintenance includes repair and replacement of modules/components and end items made efficiently with available skills, tools, and equipment. The AMCO also inspects, troubleshoots, tests, diagnoses, repairs, adjusts, calibrates, and aligns aircraft system modules and components. It determines serviceability of specified components removed before expiration of the time between overhaul or of finite life. A limited module/component repair service supports division aircraft maintenance reparable.

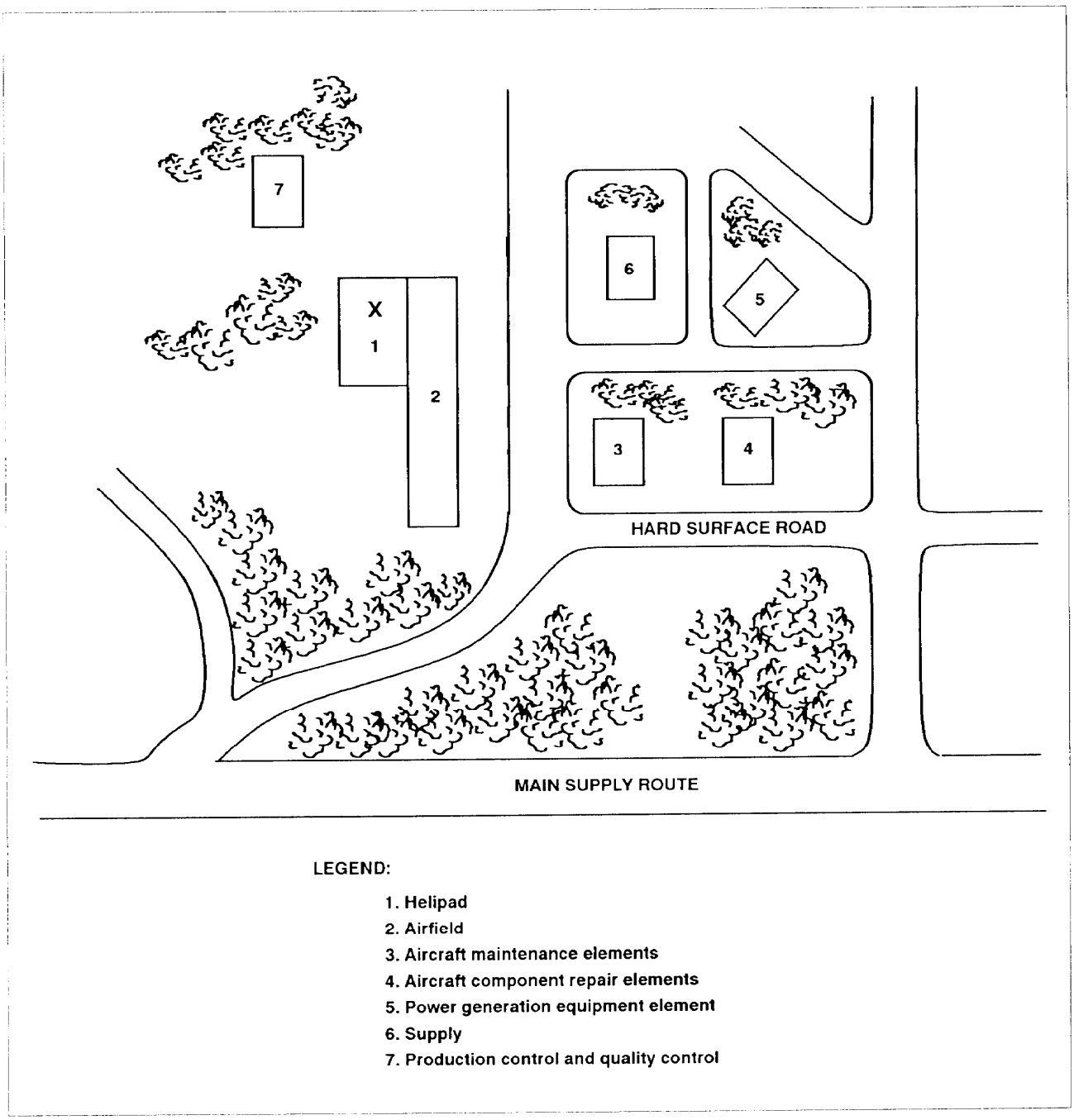


Figure 10-2. Sample layout of aviation maintenance base shop.

However, it is generally restricted to functions not overly time-consuming. Personnel perform airframe repair and fabrication of parts with available tools. The AMCO performs aircraft weight and balance inspections and other special inspections which exceed AVUM capability. The production control element performs many analytical actions. These include planning, reporting, compiling, and interpreting data as a basis for management decisions. It provides the planning level interface with the DMMC. The AMCO coordinates routine daily supply and maintenance actions directly with the DMMC.

Aircraft recovery operations result in movement of inoperative aircraft systems or components from the

battlefield to a maintenance facility. Aircraft recovery is the responsibility of the AB. It uses its AVUM platoon within the limits of the unit's organic lift capability. A successful recovery operation is a highly coordinated effort among the AB, its AVIM support, the ground element where the operation is to take place, and any organization providing aircraft or vehicle assets to complete recovery. The AVUM element has organic rigging equipment for the recovery. It is trained in rigging a damaged aircraft and in conducting recovery operations. If the recovery is beyond the AVUM element's capability, it requests AVIM support. Division and nondivisional AVIM units have organic rigging equipment for supported aircraft. The AB S4 coordinates with the AMCO to effect recovery. Recovery may require the on-site repair of an aircraft for a one-time flight. It may also involve preparation of an aircraft for movement directly to the maintenance activity using another aircraft or surface vehicle, Recovery aircraft come from the organic aircraft, the supporting AVIM, or higher headquarters. These aircraft have rigging equipment for each type aircraft in the AB. They also have quick-fix battle damage repair kits. Kits include tools, hardware, POL products, repair parts as required, and technical manuals. Crash rescue equipment, including such items as a chain saw and a metal cutting saw, are on board the recovery aircraft.

The recovery team considers several factors to select the best course of action. The team considers the –

- Location of downed aircraft.
- Amount of damage to aircraft.
- Tactical situation and proximity to the enemy.
- Time available (planning time for AVUM preparation and rigging is 30 to 60 minutes).
- Weather.
- Assets available.

After evaluating the above factors, the team determines a proper course of action. The team may decide to —

- Make combat repairs, defer further maintenance, or return aircraft to service.
- Make repairs for one-time flight and fly the aircraft to a maintenance area,
- Rig the aircraft for recovery.
- Arrange for motor transport.
- Cannibalize, destroy, or abandon the aircraft according to SOP.

In extreme circumstances, personnel recover only portions of inoperative aircraft. They cannibalize an aircraft at a field site only when the combat situation and aircraft condition would cause the aircraft to be lost to approaching enemy forces.

Details on aircraft maintenance operations are in FM 1-500. The AMCO deploys with the AB and aligns with a nondivisional AVIM company for reinforcing support. This nondivisional AVIM provides support on equipment and reparable the AMCO cannot repair. It also handles the passback from the AMCO. The AMCO is only capable of performing 54 percent of the required DS maintenance for the AB. The remaining 46 percent is passed back to the corps. An AVIM augmentation team may be attached to the AMCO if the LID deploys with supporting corps AVIM assets. It may also be attached to a corps AVIM unit deployed in support of the LID.

OPERATIONAL READINESS FLOAT

ORF is a quantity of selected Class II and VII items authorized for use by DS maintenance units in exchange with supported units if a like item cannot be repaired in a timely manner. It is a means of maintaining the readiness posture of units during peacetime. However, the maintenance capability in the LID is so austere that ORF is also used in wartime. Due to mobility constraints, however, the wartime ORF is limited primarily to small items. Examples are M16 rifles and radios.

Initial stockage and designation of items are recommended by the division and its MACOM. They are approved at DA level. ORF in the LID is accounted for on the division-level property book. It is hand-receipted to the nondivisional maintenance units responsible for the maintenance and storage of these items. However, the ownership and issuing authority remains in the division. Transfer of ORF among property books in the division is done using lateral transfer procedures. The ORF is stocked in the LID regardless of the capability to perform DS maintenance on that item.

A decision to float or not float an item is made each time an ORF candidate is job-ordered for repair. The decision to issue an ORF asset is routinely made by the maintenance management officer or production control officer. More information on ORF is in AR 750-1.

CLASS IX SUPPLY OPERATIONS

The Class IX supply elements of the maintenance companies provide repair parts support. The MSB maintenance company maintains the main Class IX ASL. The FSBs maintain small, 100 percent mobile ASLs. They are tailored to support an infantry brigade and its habitual slice elements. The AMCO provides repair parts supply for all division aircraft, avionics equipment, and aircraft armament systems. It also maintains the division ASL for Class IX air.

The Class IX supply element maintains a QSS for customers. This lets them get low-dollar, high-demand nonessential parts (light bulbs, wiper blades, common bolts) without formal requests. The purpose of QSS is to simplify accounting, eliminate paperwork, and reduce the work load of supply personnel. Items are selected for QSS based on certain criteria. Once an item is selected for QSS stockage, it is no longer available from other sources. Demand-supported ASL items are reviewed every six months to determine if they qualify for QSS stockage. Items must meet all stockage criteria to remain in QSS. They are requested at least three times during a 12-month period to qualify for retention. Using units receive a QSS listing periodically.

The Class IX supply element handles selected reparables as an exchange of an unserviceable for an serviceable item. DISCOM supply and maintenance select items. Users do not have to prepare a job order for items on the list and await repair. They submit two DA Forms 2765-1 instead. One is a turn-in document. The other is a request. They hand carry the item to the reparable management activity. There a like item is issued. The Class IX supply element passes back the unserviceable to a maintenance activity for repair. The actual or anticipated repair frequency necessary to place an item on the list is at least nine times per year. The Class IX supply element packs and crates returns.

The Class IX supply elements fill all requests when parts are available. They also notify the DMMC of the issue. If the part is not available, they pass the requisition to the DMMC. The DMMC updates required records, cross-levels stocks, and passes requisitions to the CMMC. The DMMC also specifies the items and quantities of Class IX items located in each brigade area. The DMMC bases this decision on PLLs of supported units and the mobility requirements of forward maintenance units. The MSB maintenance company and the AMCO maintain the remaining ASL stocks. Air assets transport critical items forward when possible.

Figure 10-3 shows the flow of Class IX requests and stocks. Aerial resupply discussed in Chapter 11 also applies to Class IX.

CLASS VII SUPPLY OPERATIONS

Stockage of Class VII items in the division is limited to combat-essential critical items to support the combat readiness of systems selected by the division commander. The division commander determines the types and quantities of items stocked with approval at corps.

Supply personnel intensely manage critical Class VII items based on combat loss reports and intensive coordination among the G3, G4, and the DMMC. Such management permits the division commander to remain apprised of the status of subordinate commands. He directs the distribution of items to tactical units most critical to the success of his mission.

Class VII supplies follow the same flow as Class II, III (packaged), and IV supplies. Figure 7-2 shows the flow. EAD throughputs major end items, such as vehicles and generators, to the using unit in a ready-to-use condition when possible. At times, battlefield events dictate rapid changes in priority of support to brigades. In such cases, the division coordinates with the COSCOM to route command-controlled Class VII items through the DSA. The DISCOM contacts the G4 to verify priorities of issue. It either routes the items to their original destination or reroutes them as new priorities dictate. The HSCs maintain a temporary storage area. There they place or park Class VII items which are not throughput until the designated units pick them up.

Replacement of weapon systems identified by the division commander marries the crew with the weapon system. This ensures the unit has a ready-to-fight replacement system. The corps notifies the DMMC that a particular system is being delivered to the division. The WSM in the DMMC is usually the materiel management officer. He alerts the MSB support operations section and the division G1 that a weapon system is inbound. He also provides this information to the FSB supporting the receiving unit. The MSB support operations section

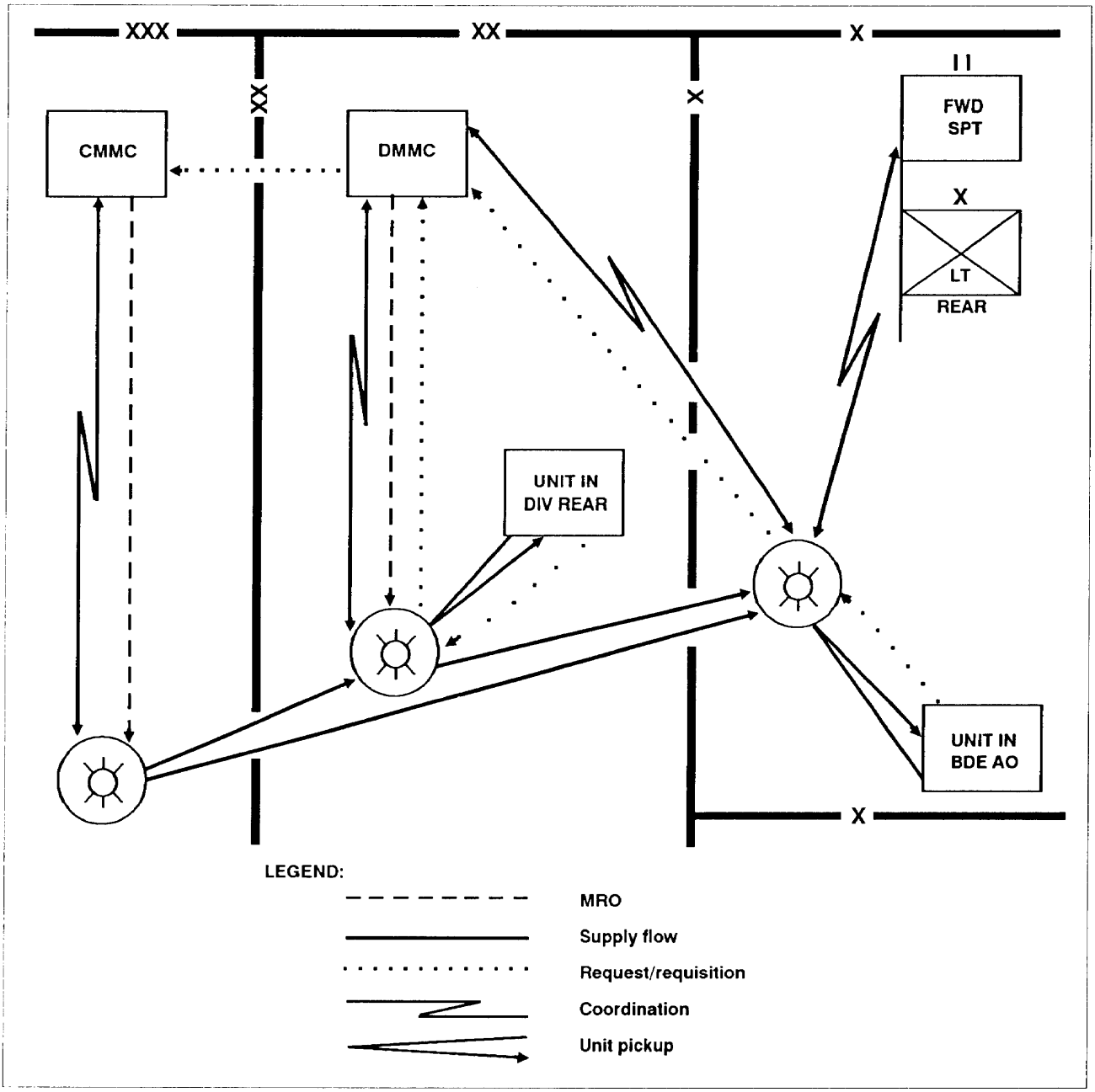


Figure 10-3. Class IX flow.

notifies the supply and maintenance companies. The WSM assigns the crew in coordination with the supporting replacement element.

When the equipment arrives at the MSB supply company, the support operations section notifies the –

- MMC for coordination and property book action.
- Replacement element for final coordination of crew linkup with equipment.
- Maintenance company to provide personnel for system checks.
- Movement control office to be prepared to provide transportation forward if necessary.

The MSB/FSB commander notifies the receiving unit to report to the Class VII yard or to the appropriate field trains area to pick up their weapon system.

SALVAGE

On the battlefield, LID personnel take advantage of every supply source available. This includes salvage. Salvage is materiel classified by maintenance or supply personnel to have some value greater than its basic materiel content. However, it is in such condition that it has no reasonable prospect for use as originally intended.

Salvage includes unserviceable and uneconomically reparable items. Salvage does not include —

- Excess or abandoned items (in serviceable and unserviceable, economically reparable condition).
- Toxic agents.
- COMSEC equipment.
- Medical materiel. FM 8-10 discusses captured medical materiel.
- Explosives.
- Ammunition.
- Aircraft.
- Captured enemy materiel.

Using units bring potential salvage to supporting supply activities for evacuation to the corps salvage collection points. Salvage elements of corps supply companies operate these supporting salvage collection points. They provide limited classification capabilities.

General guidelines for salvage operations include the following:

- Units are responsible for turn-in to supporting supply activities. This includes materiel found on the battlefield.
- Personnel initiate and continue salvage operations as the tactical situation permits.
- Personnel simplify salvage transportation and classification. They do this by collocating maintenance collection points and salvage collection points.
- Personnel use procedures in DA Pamphlets 710-2-1 and 710-2-2 and FM 10-15 as accountability and storage guidance.
- Nearest intelligence officer provides instructions for disposing of foreign materiel.
- Nearest supporting veterinary element provides instructions for ration disposition.
- Nearest POL laboratory provides Class III disposition instructions.

The salvage element has the added mission of receiving and returning serviceable and unserviceable airdrop and air delivery equipment.

Chapter 11

Moving the Force

Contents

RESPONSIBILITIES AND COORDINATION

The support efforts of the division are made possible through movement. Supplies and personnel replacements move from the support bases a tcorps and EAC into the division rear and forward to support the main battle. Personnel evacuate casualties and damaged equipment from the forward area for prompt treatment or repair and return. Movements take place among the forward brigade areas, the division rear, and the corps rear area, and laterally within the division.

Light forces accomplish initial deployment by air using Air Force aircraft. Appendix D discusses deployment by air.

The MCO in conjunction with the DTO coordinates the movement of supplies and materiel from the DSA to the BSAs and return. He also coordinates CSS movements between the corps rear and the DSA, or, in the case of throughput, directly to the BSAs. The division rear CP operations cell assists in obtaining CS resources such as engineer support, NBC reconnaissance and chemical decontamination support, MP support, and fire support for CSS convoys moving into the division rear.

The DTO is responsible for developing and implementing the division traffic circulation plan for both tactical and nontactical movements. He is assisted by the DISCOM MCO and the division main CP operations cell. Based on guidance from the G3, the DTO reserves routes for tactical movements, identifies primary and alternate MSRs, and institutes traffic control measures. Traffic control measures include restricting certain types of movements to specified routes during specified times, designating certain routes as one-way or two-way traffic, and coordinating the establishment of permanent or temporary traffic control posts. If centralized control is implemented, the DTO requires units and the MCO to request movement clearance. He may also institute a movements credit system to control movements exceeding a certain number of vehicles coming from a base or base cluster or entering the division rear from the brigade or corps sectors. The MPs are responsible for MSR regulation enforcement.

To control movements in the division rear the division rear CP designates a movements control FM net, requires units report convoy start and end times by VHF, or relies on information from MP traffic control points or patrols. The division rear CP is able to stop or shift traffic between routes, gather information on enemy and route conditions, and respond to requests for help from convoys encountering enemy activity.

The TMT company and corps transportation assets provide transportation support within a theater of operations to the LID. The AB does so on a mission basis. In addition, the LID uses supplemental Army or Air Force airlift for resupply and displacement of personnel because it has the capability to move only one battalion by its organic helicopters. Coordination for the use of assets to provide aerial delivery of supplies and to move troops is made through the DISCOM MCO to the DTO.

Host-nation support is provided through preexisting intergovernment agreement or obtained through local contract. HNS can take the form of military or civilian support.

TRANSPORTATION SUPPORT CONCEPTS

In order to use the division transportation capability to the maximum, planners employ the transportation concepts discussed below as a basis for all transportation operations. These basic principles of transportation preclude the attachment of TMT assets on a regular or recurring basis to brigades. Such a practice is generally counterproductive and planners avoid it.

CENTRALIZED CONTROL OF ASSETS

The successful operation of an efficient, fully integrated transportation system requires centralized control. The DISCOM MCO performs this function for the DISCOM as a member of the DISCOM commander's staff.

FLUID AND FLEXIBLE MOVEMENTS

One of the key LID support principles is maximum throughput of supplies to reduce time lost through rehandling cargo. Implementation of this principle and effective use of all transport assets is impossible unless the capability exists to divert, reroute, or ensure continuous movement of supplies to assigned units. The MCO maintains constant contact with the DTO, the MSB support operations section, and the TMT company commander to make adjustments when the situation changes in order to maintain an uninterrupted flow of supplies.

REGULATED MOVEMENTS

Maintaining and supporting highly mobile forces greatly increases the requirement to regulate movements as the volume of logistics and tactical traffic increases. Regulation and coordination prevent congestion and conflict of movements. This is especially true when light forces share available airspace and roads with other US and allied forces. The DTO and the DISCOM MCO perform movement control management in the LID. The DTO prepares a highway regulation plan and a traffic circulation plan and schedules the use of the road net by the division. The DTO accomplishes this through informal meetings with representatives from the G3, provost marshal, engineers, DISCOM MCO, corps MCC, and applicable host-nation authorities. The MCO, as an agent of the DISCOM commander, controls the employment of motor transportation assets for logistics and HSS within the division. The MCO coordinates priorities with the DTO.

MAXIMUM USE OF CARRYING CAPACITY

This involves more than just loading each transport vehicle to its maximum carrying capacity. Transport capability not used one day is not storable to provide an increase in capability for subsequent days. Similarly, fully loaded transport equipment sitting idle is just as much a loss of carrying capacity as is a partially loaded vehicle moving through the system. The DISCOM uses backhaul transportation assets to the maximum. This is essential to support the evacuation of unserviceable that is necessary in the LID with its increased reliance on exchange and passback. The normal procedure is to evacuate items as a backhaul mission. The MCO processes requests for evacuation of unserviceable not transported as a backhaul mission as a normal transportation requirement. Drivers use backhaul to evacuate patients not requiring en route medical care.

MOTOR TRANSPORT OPERATIONS

All transportation users forward transportation requirements within the division to the MCO. When division elements in the brigade AC) exceed their organic transport capability, the brigade S4 contacts the FSB which forwards a request to the DISCOM MCO. Division units in the division rear contact the MCO directly. The MCO then balances the motor transport capabilities against the requirements and division-level priorities and commits DISCOM transport assets. The MCO tasks the MSB which is responsible for TMT company operations. The TMT company then furnishes assets to meet requirements.

When division requirements for transport exceed the available capability, the DISCOM MCO coordinates with the DTO to rearrange division movement priorities. If they cannot be rearranged, the DTO contacts the corps MCC or MCT for additional transport to support the division. The DTO forwards routine requests to the supporting MCT and special interest requests to the MCC. Corps motor transport augmentation is provided for sustaining support of the division during extended operations. Figure 11-1 shows the flow of ground transportation operations.

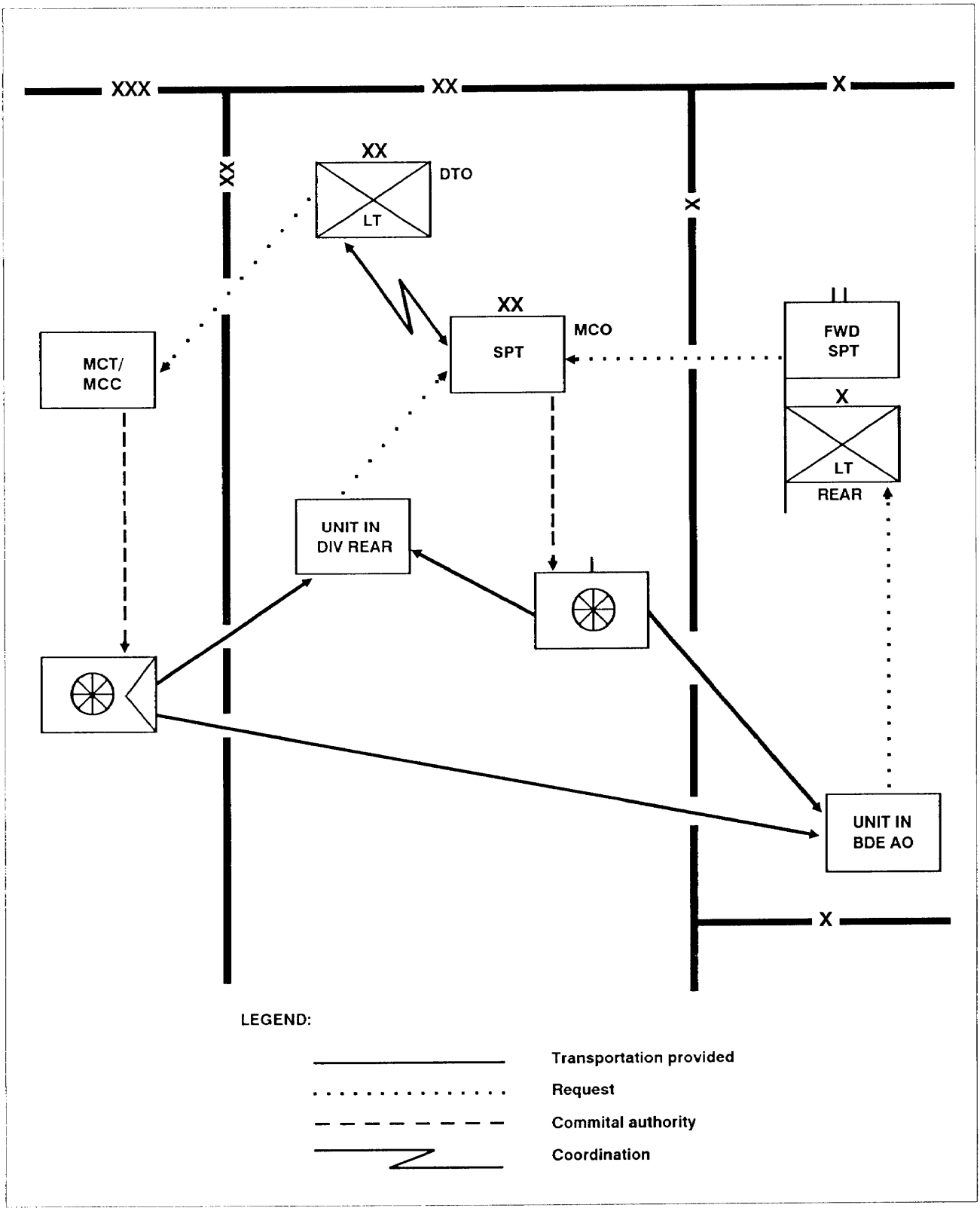


Figure 11-1. Ground transportation operations.

ARMY AIRLIFT SUPPORT

The LID is a tactical force with strategic responsiveness and flexibility. As such, its effectiveness depends on the responsive and flexible movement of supplies. To provide this flexibility, the LID requires the use of division helicopters for resupply. The lightness of the LID was achieved, in part, by greatly limiting the ground transportation capability of the division. The TMT company has 33 5-ton dropside cargo trucks and 8 tractor/semitrailer combinations. Two assault helicopter companies of the AB provide aerial resupply support in the division.

Planners categorize logistics and HSS air movements as preplanned or immediate. Units submit preplanned requests to satisfy programmed requirements and nonprogrammed requirements with 24-hour or more advance notice. They initiate immediate requests when there is less than 24-hour notice, support is absolutely essential to the survival of the unit, or when lack of support will result in complete mission failure.

Users in the brigade AO pass supply requests to the FSB supply point which passes them to the DMMC. The DMMC coordinates with the MCO on the transportation of supplies. Users in the brigade pass requests for transportation of personnel and equipment through the FSB support operations section to the MCO. The division uses organic aviation assets only when ground transport is deemed inappropriate or inadequate. If the MCO determines use of aviation assets is appropriate, the MCO passes the request through the DTO to the G3.

The G3 allocates helicopters on the basis of all aviation tasks by balancing combat, CS, and CSS requirements. The G3 coordinates with the G4 on setting priorities. In doing so, the G3 considers a number of factors. One factor is the small tonnages moved by helicopter compared to the tonnages moved by motor transport. In addition, environmental considerations may limit helicopter cargo-carrying capability or range of operations. On the other hand, helicopters bring speed and timely response to transportation needs. Also, helicopters are not restricted by terrain and can reach forces in areas not accessible by other modes of transportation. The G3 also considers the need to allocate air assets to move critical Class IX supplies and serviceable replacements forward and to evacuate unserviceable reparable to include electronic components and assemblies.

When the G3 commits division helicopters for a logistics mission, the AB sends a liaison officer to the MCO. When part of the AB assets are committed to support the MCO for a certain period of time, the AB receives missions directly from the MCO through this liaison officer. This liaison officer advises the MCO on capabilities and limitations of the aircraft, particularly the lift capability for current environmental conditions. The MCO provides movement requirements including size of the load, pickup and delivery times, location of the pickup and landing zones, and any special handling requirements pertinent to aircraft operations.

If a mission is not supported by the AB, the MCO contacts the DTO. The DTO coordinates with the G3 for additional organic support. If organic support is not available, the DTO passes the requirement to the corps MCC.

Units pass immediate requests for resupply and transportation through logistics channels just like preplanned requests. However, they pass the request simultaneously through command channels from the user to the G3. The G3 approves immediate requests and tasks the AB to perform the mission. At the same time, the G4 coordinates for immediate resupply with the DMMC to task the appropriate supply company to prepare the emergency shipment. If organic support is not available, the requirement is passed to the CMMC and MCC. Figure 11-2 depicts the flow of requests and the supply and transportation support provided when Army aircraft is used.

AIR FORCE AIRLIFT SUPPORT

Preplanned airlift support is available to the LID from the Air Force in accordance with the apportionment provided by the JFC. Preplanned requests are processed through logistics channels. Procedures for processing preplanned Air Force airlift requests are the same as those described for preplanned Army transport requests. A TALO is assigned to the maneuver brigades. The TALO assists the units in developing, coordinating, and submitting airlift requests. Each echelon of command validates the requests.

An immediate Air Force airlift request is processed through command channels in the same manner as an

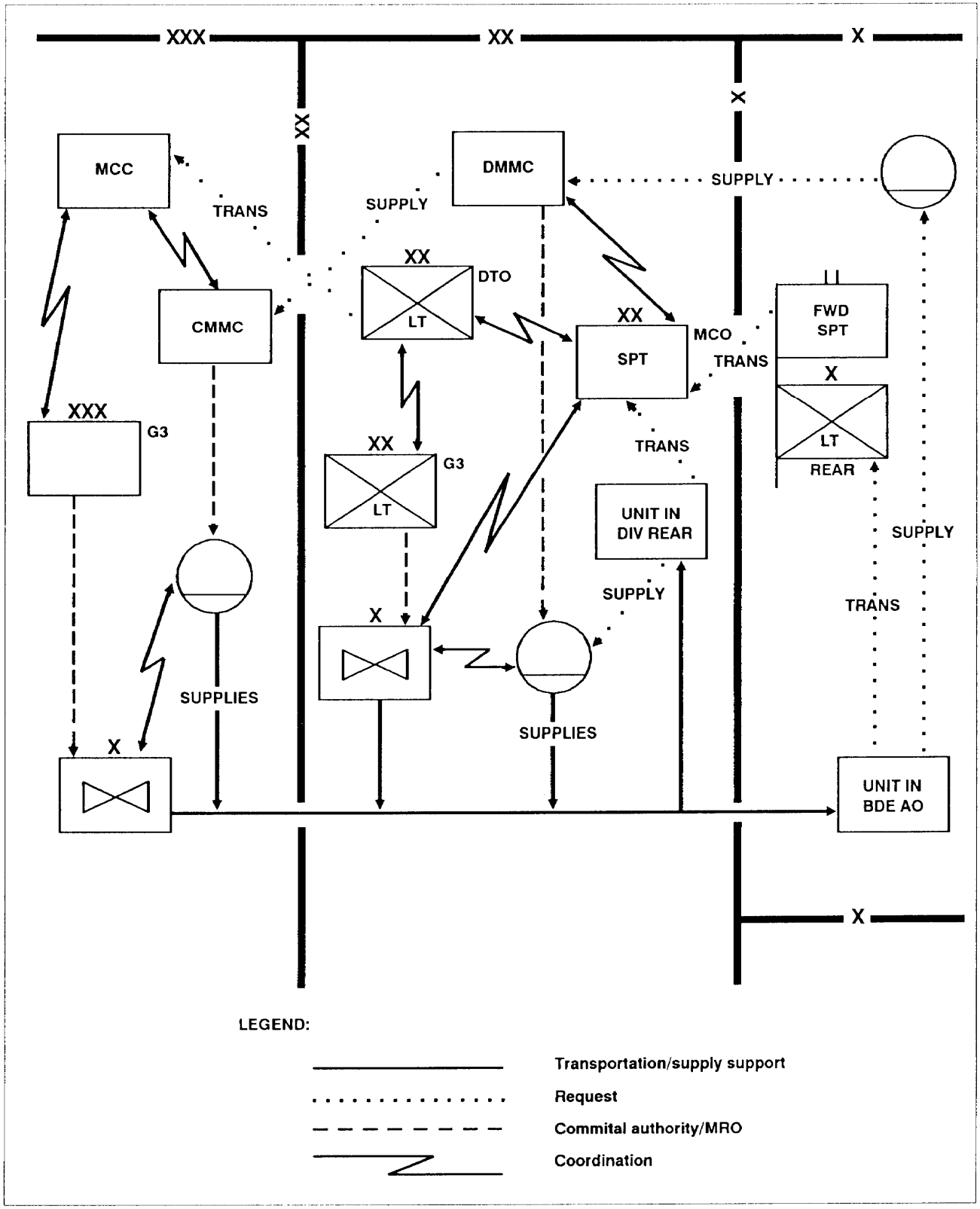


Figure 11-2. Army aircraft transportation and supply operations.

immediate Army transport request. As the request is passed through Army command channels, the TALO notifies the ALCC of the impending request through the advance notification net. Each echelon of command validates immediate requests.

Immediate airlift is the highest priority available. Personnel use it only when it is critical to the survival of a unit or to the accomplishment of the overall ground tactical plan. When possible, airland is the preferred method of resupply because this method of delivery does not require special airdrop equipment or rigging. Figure 11-3 shows the flow of requests and supply and transportation support provided by Air Force airlift support. Additional information on airlift operations is in FM 100-27.

AIRDROP SUPPORT

Airdrop is a mode of delivering supplies and equipment from aircraft to ground elements. Airdrop resupply is used to deliver supplies and equipment to combat, CS, and CSS units when no other delivery method is feasible. While airdrop is classified as a service, it provides a critical link in the transportation system. Airdrop resupply operations are used to extend all LOCs. They are extremely important during the early stages of hostilities since ground LOCs and forward supply points are priority threat targets. Later, airdrop becomes more important as the combat intensity increases and the depth of the battle is extended.

Airdrop may offer several advantages over other methods of delivering supplies and equipment. The primary advantage is that it can be used when no other means is available for transporting needed supplies and equipment. It results in less handling and shorter shipping times. Supplies are delivered in one lift directly from the corps area or the COMMZ to the requesting unit near the FLOT. In contingencies, where stocks have been prerigged, supplies can be throughput directly from CONUS. Flying time and aircraft exposure are reduced in comparison to airland operations. The need for forward airfields is also reduced.

As a rule the airdrop of supplies and equipment is a joint effort of the Army and Air Force. Army elements are responsible for providing the required supplies and equipment as well as the rigging equipment to include parachutes, platforms, and containers. The Army is responsible for rigging the supplies for airdrop and delivering them to the departure airfield. The Air Force is responsible for loading the rigged supplies onto the airdrop aircraft, although Army personnel routinely assist the Air Force in loading the aircraft. The Air Force is responsible for flying the mission, Army personnel control the drop zone. However, if Air Force combat control team personnel are available, they provide navigational assistance to the aircraft.

Airdrop resupply missions, whether they are freedrops, high-velocity drops, low-velocity drops, or low-altitude parachute extractions, are either preplanned or immediate. Preplanned missions are routine type requirements while immediate missions are emergency in nature. Preplanned requests are also used to support contingency operations during the initial insertion of a combat unit. This is especially true when the LID is sent into an area with an undeveloped logistics base. Preplanned operations are also used to support a deep attack or any other operation in which LOCs are stretched. Immediate requests result from unanticipated, urgent, or priority requirements. Requests are validated. The ALCC then finds aircraft by diverting or canceling preplanned missions or by generating a standby sortie. These missions are critical to the tactical mission or the survival of a unit. They are completed at the required time and date if at all possible.

Personnel process preplanned airdrop missions through G4/S4 channels in coordination with the DTO since the missions are based on known or projected requirements and programmed in advance. They process immediate airdrop missions through G3/S3 channels since the missions result from unanticipated, urgent, or priority requirements and time is the critical factor. The only other major difference is that immediate requests are also forwarded through the Air Force airlift advance notification/coordination net to allow the ALCC to identify the aircraft to use for the immediate mission early. In either case, when the requirement is passed to the corps, it is considered validated by the division. Personnel coordinate with logistics elements at each echelon if time permits.

Normally an airdrop request originates at the company or battalion level. The battalion passes the request to the brigade. The brigade quickly checks with the FSB to see if an alternative to the airdrop resupply mission is available. If an alternative is not available, the request is

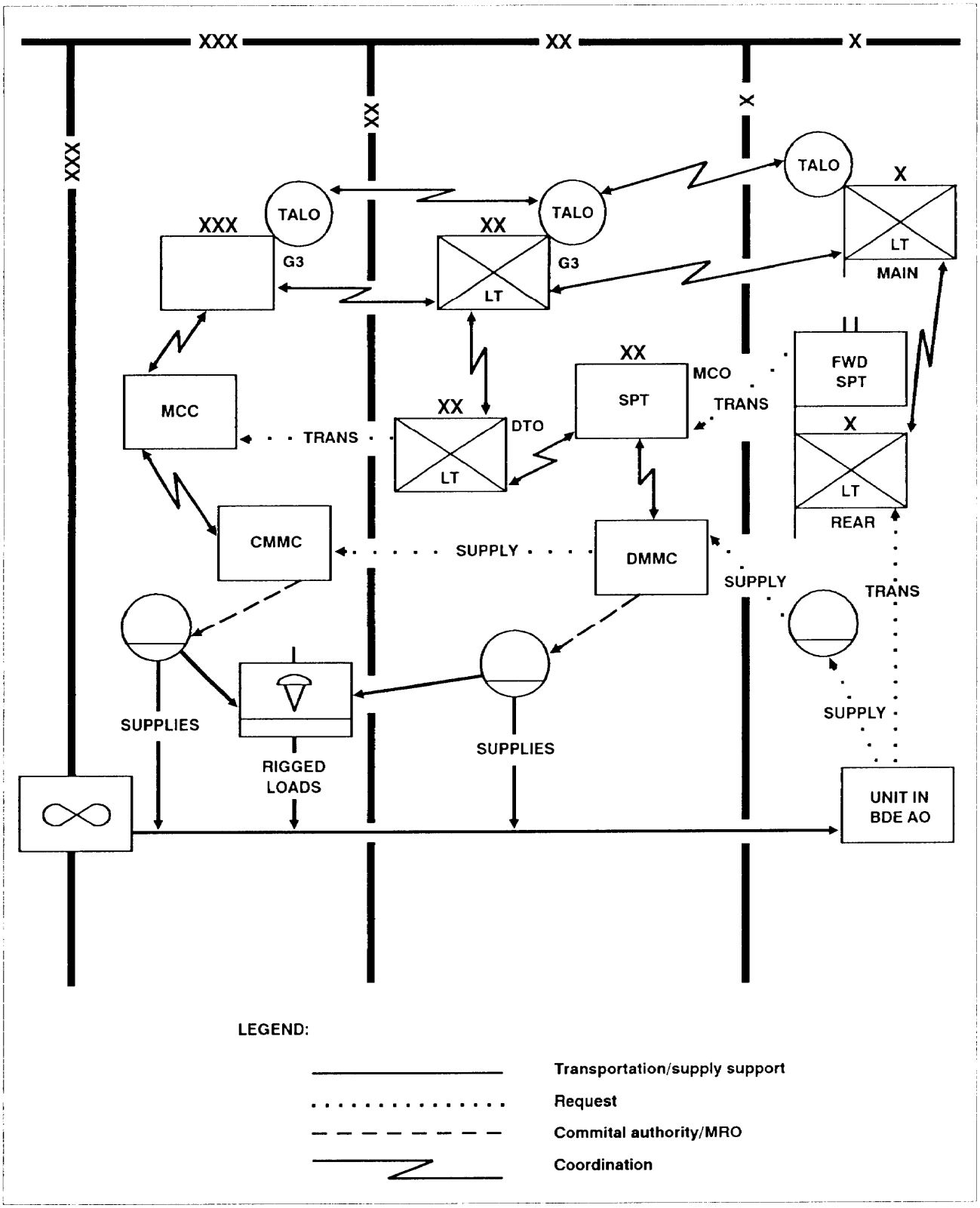


Figure 11-3. Air Force airlift and airdrop support.

passed to the division. The G3/G4, DMMC, DTO, and MCO determine if an alternative to airdrop exists. If not, the request is passed to the corps. Figure 11-3 depicts the airdrop request flow.

The unit receiving airdrop resupply support is responsible for —

- Determining the supplies and equipment needed. The hazards involved in conducting the airdrop resupply mission influence the quantities requested. For instance, the immediate need is often ammunition. However, the unit may also need water, rations, or medical supplies. All these supplies are requested at the same time. It is better to deliver more supplies than are actually needed than to make a second airdrop within a few days.
- Determining the desired time and date of airdrop. When setting the time and date, units keep in mind that the request is passed through channels to the corps. At the corps level, supplies are identified, delivered to the airdrop support unit, rigged for airdrop, delivered to the departure airfield, loaded aboard delivery aircraft, and flown to the drop area. Unless the supplies are on a preplanned request, it usually takes more than eight hours to receive the resupply by airdrop.
- Selecting, securing, preparing, and marking the drop zone. See FM 10-27 for additional information on drop zone criteria.
- Controlling the drop zone. Most airdrop resupply operations are conducted without an Air Force combat control team. Therefore, the receiving unit operates the drop zone. The receiving unit appoints a drop zone support team with a C2 cell, a recovery clement, a transportation element, and a security element. The leader is a graduate from a drop zone support team leader training program. The team is responsible for all operations at the drop zone to include communications with the Air Force crew flying the mission. Drop zone support team equipment should include vehicles, radios, MHE, an anemometer for ground winds, lights and beacons, smoke-generating equipment, night observation devices, and tools to destroy or bury the airdrop equipment if necessary.
- Recovering the supplies and equipment provided by airdrop. The recovery element retrieves the supplies and a transportation element gets them to the required locations quickly.
- Recovering, retrograding, or destroying airdrop equipment used in the airdrop. Airdrop equipment is expensive and in short supply. Therefore, the drop zone support team makes every reasonable effort to recover, protect, and return the airdrop equipment to the FSB supply company. TM 10-500-7 has additional information on airdrop equipment recovery. If the situation prevents recovery, efforts are made to destroy or bury the equipment to prevent its use by enemy forces.

When the delivery arrives in the BSA, the FSB reports the items to the DMMC and retrogrades airdrop equipment to the salvage collection point operated by the MSB in the DSA. The DMMC coordinates with the corps to move the airdrop equipment to a collection and classification point in the corps where it is repaired and returned to the supply system.

FM 100-27 contains multiservice doctrine on airdrop. Airdrop planning factors are in FM 101-10-1/2. FM 57-230 has more information on drop zone operations.

DISCOM MOVEMENTS

Providing continuous and responsive support represents a significant challenge to the DISCOM commander. DISCOM units located in the DSA are prepared to move once every three days or less. The AMCO is prepared to move once every three to seven days. DISCOM units located in the DSA have the capability of moving 50 percent of their organic equipment and supplies (excluding reserve stocks) in a single lift. DISCOM units in the BSA are 100 percent mobile and prepared to move once a day. Some of the elements of the DISCOM are almost always involved in some stage of movement from planning the next move to completing the last one. FSB elements are especially proficient at movement techniques.

Frequent moves are required for two reasons. First, the DISCOM elements remain close enough to supported units to maintain responsive support. In addition, for security purposes the DISCOM relies on frequent moves. The FSB, for example, maintains an adequate distance from the FLOT – 25 to 30 kilometers – and does not provide a stationary target for the enemy. How often it moves depends on a variety of factors including the type of tactical operations, enemy activity or capabilities, the rate of movement of the FLOT, and the terrain.

However, BSA units are prepared to move every 24 hours if required. The actual determination of when to move is made by the brigade commander with the FSB commander providing advice.

Moves are not conducted just for the sake of moving. Support operations are disrupted by moves. This disruption is only justified by security considerations and maintenance of proximity to supported units. Short moves (about 5 kilometers or less) which are considered to stay close to supported units, as opposed to security reasons, are avoided in most cases. The benefit of shorter support distances is weighed against the cost of disrupted support operations. All movements are cleared through the DTO.

The DISCOM S2/S3 develops the movement annex to the OPLAN/OPORD in accordance with FM 101-5 and the tactical SOP. The S2/S3s of the subordinate battalions and the maneuver brigades also develop the movement annexes to their OPLAN/OPORDs. The FSB commander ensures that a BSA move is coordinated with subordinate elements and the DISCOM. All supported elements are aware of when support operations cease at an old BSA, where the new site is located, and when operations begin there. Supported units recognize that support operations are degraded while elements move. To minimize support disruption, however, DISCOM elements move in echelons. Operations at the new site begin before the old site is completely closed out.

Downloaded supplies at supply points and disabled equipment at maintenance sites cause mobility problems. Personnel evacuate disabled equipment not reparable before the move. In the offense, an alternative is to leave it (after proper coordination is effected) for advancing maintenance elements to repair. As much as possible, supplies are uploaded, especially in the BSA. For all transportation requirements beyond the DISCOM's capability, the DISCOM S2/S3 requests additional support through the MCO. The FSB commander also requests additional support through the MCO when the BSA moves.

When the DSA moves, the DISCOM S2/S3 selects the type of motor march used in coordination with the division rear CP. When the BSA moves, the FSB S2/S3 selects the type of motor march. A close column is one in which elements are formed as compactly as possible, usually 67 vehicles per mile. This reduces time and allows better control with fewer guides, escorts, and markers. However, it is easier to detect, causes traffic congestion, and makes quick dispersion difficult. It is normally not used during daylight. Then, an open column with more widely spaced elements, usually up to 20 vehicles per mile, is used. However, this technique makes control more difficult. The third type of march is infiltration. With this type, vehicles are dispatched individual1y, in small groups, or at irregular intervals for maximum security. Usually ten or less vehicles are dispatched per hour. This type takes more time and is harder to control. However, it is also the best way to move when the enemy has air superiority.

The DISCOM/FSB S2/S3 coordinates with the division/brigade rear CP to determine just where the DSA/BSA elements fall in with the division/brigade rear CP elements. Each subordinate company commander in the DISCOM acts as a march column commander. Each march commander in turn organizes his march column according to certain guidelines:

- Each march column is a mixture of the various elements in the DISCOM.
- Slower, heavier vehicles are assigned positions in front.
- Control vehicles are not placed according to a set pattern.
- Recovery vehicles are placed in the rear.
- Gun vehicles are normally placed near the front and near the rear.
- All air approaches are covered.

Each march commander is responsible for providing strip maps to all drivers and briefing all convoy personnel on the –

- Convoy chain of command.
- Convoy route.
- Rate of march.
- Vehicle intervals.
- Accident and breakdown procedures.
- Immediate action security procedures.
- Blackout condition procedures.
- Location of HSS.
- Location and identification of destination.
- Time schedules.
- Arm and hand signals.
- Radio frequencies and call signs for control personnel, security force commander, fire support elements, reserve security elements, and medical evacuation support.

For convoy control, the DISCOM/FSB S2/S3 establishes a convoy command net including the security force commander, march commanders, serial commanders, recovery vehicles, and trail party commander.

A complete DSA/BSA movement SOP makes planning quicker. A sample SOP is included at Appendix L of FM 55-30. Items in the SOP include –

- Duties of the convoy commander and control personnel.
- Convoy organization.
- Weapons and ammunition to be carried.
- Hardening of vehicles and protective equipment for personnel.
- Preparation of vehicles.
- Counterambush techniques.
- OPSEC measures.
- Procedures for halts.
- Maintenance and recovery procedures.
- Actions at release points.

CONDUCT

A move is usually initiated by a FRAGO issued by the supported division/brigade headquarters. The DISCOM/FSB S2/S3 issues a warning order to all DSA/BSA units. Each unit reports its vehicle, supply, and maintenance work load status to the DISCOM/FSB S2/S3 and division/brigade rear CP who use the information to finalize the convoy organization, compute additional transportation requirements, and perform required march computations (Appendix F, FM 55-30). They ensure load plans are changed to accommodate current operational status.

The division/brigade headquarters normally prescribes the route. It uses a map reconnaissance in such cases to confirm checkpoints, identify problem areas, and begin planning positioning of elements in the new DSA/BSA. If the route is not prescribed the DISCOM/FSB S2/S3 briefs the reconnaissance team on the displacement plan and provides the team with a strip map and designated MOPP level and notifies headquarters of the route selected.

If the enemy has an NBC capability, the reconnaissance party wears the designated MOPP gear and monitors all radiological and chemical detection devices. It performs duties to —

- Verify map information.
- Note capabilities of bridges.
- List significant terrain features and possible ambush sites.
- Compute travel times and distances.
- Perform the route and ground reconnaissance of new site.
- Produce a strip map.

When they receive the warning order, DSA/BSA units begin to break down tentage, heaters, and sleeping areas. They load equipment according to the individual unit loading plans. They also begin taking up wire and policing the area. The medical company increases evacuation to reduce the patients in the holding area requiring movement. Maintenance companies also increase evacuation if possible. Customers top off Class I, III, V, and IX levels before supply points close out. All units begin uploading supplies and equipment as much as possible.

The quartering party moves before the main body. It consists of representatives from each unit and subelement. If time is available, advance elements arrive at the new site shortly before the rest of the quartering party to do a quick security check. Duties of this element include the following:

- Conduct a security sweep of the new site to ensure the area is free of enemy forces.
- Conduct an NBC survey to ensure the area is free of contamination.
- Establish LPs, OPs, and dismount points.
- Establish communications with the old location and notify the command of the results of the sweep.
- Select individual and crew-served weapon fighting positions.
- Facilitate arrival of the rest of the quartering party.

The quartering party prepares the new DSA/BSA for arrival of the main body. It has enough assets to –

- Increase security by manning key points along the perimeter.
- Establish communications with parent and higher headquarters.
- Establish a jump CP.
- Select locations for unit vehicles, work sites, and tentage.
- Establish land-line communications among the BCOC, unit CPs, dismount points, LPs and OPs, and other critical sites.

- Position personnel to guide arriving units from the main body from the RP to preselected locations.
- Position chemical alarms.
- Ensure personnel follow dispersion and other countersurveillance measures.

Representatives of other units in the DSA or BSA are required in the quartering party to reconnoiter new sites and begin preparations for occupancy. They notify the jump CP of problems with the new positions. The jump CP reports to the DISCOM/FSB S2/S3 when it is prepared to begin operations. It also relays any information the commander needs to change movement plans.

The main body begins the move in accordance with the OPORD issued by the division/brigade rear CP. The serials plan to move by echelon. The DSA cannot displace in a single lift. Planners never include an entire DISCOM company in a single serial. Otherwise, loss of a serial eliminates all of the capability in a functional area. In addition, if the whole company is moving at the same time, continuity of support is not achieved. However, planners do not fragment individual elements too much due to austerity of communication assets. The first serial or serials include elements of critical support points. These consist of–

- Class III, V, and IX elements.
- Maintenance elements to set up a new MCP.
- Medical treatment assets to provide EMT and ATM at the new site.

The DISCOM/FSB S2./S3 is responsible for ensuring the shift to the new support base is thoroughly coordinated with all supporting and supported units. Deliveries are directed to the new site at the right time, and units should know where the new sites are and when to begin using them.

Typically, for BSA moves, trains are likely to move next. The remaining elements of the DSA/BSA cease operations not already stopped. They upload the rest of their materiel, disconnect and pick up the rest of their wit-c, break down their camouflage, and move out with permission of the CP. The DISCOM/FSB CP and the division/brigade rear CP then transfer control to the jump CP break down their equipment, and move out.

The trail party closes out any remaining operations, ensures the old site is clear of evidence of intelligence value to the enemy, and moves to the new site. This party includes maintenance elements to deal with disabled vehicles from the rest of the convoy. It also picks up guides and markers along the route. Personnel complete all actions within the parameters in the tactical SOP.

When the main body closes, ideally during the hours of darkness, the quartering party meets it and guides elements to their designated positions. Work then follows the priorities set by the commander in the movement and occupation order. Establishment of hasty defense has priority over the CSS mission. A suggested sequence of tasks for the main body is to –

- Position crew-served weapons.
- Prepare primary fighting positions.
- Clear fields of fire and prepare range cards.
- Emplace wire, mines, and other obstacles, and cover them by fire.
- Select composition of and position for reaction force.
- Select and prepare alternate and supplementary positions.
- Finalize base defense plan depicting base layout, sectors, fields of fire of crew-served weapons, obstacles, and fire support plans.
- Implement reconnaissance and surveillance plan.
- Emplace sensors and early-warning devices.
- Prepare protective positions adjacent to work areas.
- Prepare and rehearse reaction force.
- Submit base defense, obstacle, and proposed fire support plan to BCOC or, if an independent base, to the division/brigade rear CP.
- Coordinate with adjacent bases.
- Plan deceptive measures. (See Appendix F.)
- Make the new support points fully operational.
- Take control from the jump CP.
- Ensure base commanders report to the BCOC on readiness and provide the BCOC with a base sketch.
- Finalize communications among units.
- Erect work areas.
- Camouflage vehicles and installations. (FMs 5-20 and 8-10 have information.)

The division/brigade rear CP reports to the division/brigade main CP that the move is complete.

CONVOY TECHNIQUES

The DISCOM commander is responsible for ensuring all DISCOM elements practice good convoy techniques. All practice good march discipline. This includes following traffic regulations, responding to all

signals, keeping proper distances, and practicing good security measures. Drivers also know what to do in case of mechanical failure. Drivers move the disabled vehicle off the road and notify the march element commander. They perform unit maintenance operations within their capability. Maintenance beyond the driver's capability is performed by mechanics in the trail party. FMs 55-30 and 55-15 have more details.

DISCOM elements frequently move at night. Therefore, DISCOM personnel need knowledge of night convoy techniques. The DISCOM/FSB commander decides whether or not to move under blackout conditions. Blackout moves reduce the probability of enemy observation but make the convoy more vulnerable to ambush and sniper fire. They also contribute to driver fatigue. In any case, night moves require greater coordination and additional radios. More information is in Chapter 5 of FM 55-30. In addition, if the convoy crosses a contaminated area, it follows the procedures prescribed in FM 3-3.

CONVOY DEFENSE

A key consideration in movement is security. The DISCOM's limited self-defense assets make convoy defense a challenge. The division/brigade rear CP coordinates closely with the supporting MP unit to provide convoy security whenever possible. However, DISCOM elements take proper measures throughout the move, including during halts. The division/brigade rear CP also coordinates fire support in advance with the fire support officer to get a priority of support for the convoy. The fire support officer is informed of start and release points, time schedules, checkpoints, and convoy size. He sets call signs, frequencies, and other required signal information. Convoy commanders use information from the reconnaissance to plan fires. They coordinate and rehearse actual call for fire and adjustment to fires. FM 55-30 has details.

Movement on an open road makes a convoy very susceptible to air attack. Since the DISCOM lacks significant firepower, passive defensive techniques are critical. Personnel do not use closed columns during daylight. They use tarps and bows to disguise the shape of lucrative targets. Personnel cover portions of vehicles that reflect light. Drivers scan the surrounding areas for objects to use for cover and concealment if ordered to disperse. In addition, soldiers scan for aircraft. (Search and scan procedures are in FM 44-3.) Personnel use radios minimally.

If attacking aircraft are spotted, the convoy commander chooses to halt the convoy, continue to move, or disperse. A halt makes the convoy harder to spot, but if spotted, it becomes easier to hit. If the move continues, vehicles are easier to spot but harder to hit. Also, fewer soldiers are available to provide small arms fire. Proper dispersion makes it harder for pilots to make multiple hits. However, it is easier for the pilots to spot targets as vehicles move to dispersion positions, and it is more difficult to continue the move after the attack.

Though the DISCOM has limited firepower, small arms defense can be effective against low-flying aircraft. The key is to put up as much volume of fire as possible; all available weapons are concentrated on the aircraft.

Passive defense against artillery or indirect fire is similar to that discussed above. Active defense consists of coordinating air or artillery fires or directing fires against the enemy forward observer if located. Immediate reporting of incoming artillery is critical, so counterbattery radars can be activated.

Commanders have a plan to avoid ambushes whenever possible and minimize the effects by protecting vehiclws and personnel. If the convoy is ambushed, vehicles in the kill zone drive out if possible. Personnel abandon disabled vehicles in the kill zone or move them if they are blocking the road. Vehicles not in the kill zone do not attempt to pass through it. Personnel dismount and take up defensive positions. If support is available, calls are made for artillery or air fire on enemy positions or for reaction forces to counter the attack. Details on all aspects of convoy security are in FM 55-30.

EMERGENCY MOVES

In addition to conducting routine moves as described above, the DISCOM has an SOP coordinated with the division/brigade rear CP for conducting emergency moves. Personnel use these procedures when the DSA/BSA is directly confronted with a Level III threat.

Each DSA/BSA identifies personnel, vehicles, and equipment to immediately move out to a predesignated rally point. These elements are capable of providing limited support in critical support areas – Class III, V, and IX; maintenance; and medical treatment. Included is a small CP element to assume immediate command of these critical elements at the rally point.

The move is initiated by a transmission over all available nets as well as a prearranged visual signal or sound. At the signal, all elements come up on the command net. Elements not designated for immediate movement load up essential items (such as weapons, maps, and communication assets). They leave tentage, camouflage nets, and supplies on the ground. Nonmedical supplies and equipment are destroyed to prevent enemy capture when ordered.

In order for such moves to prevent destruction of the division's support base, the SOP thoroughly spells out responsibilities and actions taken and is coordinated with all DISCOM elements. Training is also required to make the plan work. In addition, the BCOC designates and makes known to all DSA/BSA elements alternate rally points every time the DSA/BSA moves.

Appendix A

DISCOM Support to Light-Heavy/Heavy-Light Mixes

Contents

LIGHT AND HEAVY FORCES

Effective integration of light and heavy forces maximizes the capabilities of each type of force. It uses the advantages of one type to offset the limitations of the other. Not all situations are suitable for such mixes. In considering integration of light and heavy forces, planners match the force to the mission, enemy, and terrain.

The Army categorizes forces as heavy on the basis of their ground mobility. Heavy forces include mechanized infantry, armored, and cavalry forces. Heavy forces are most effective where battles are fought over wide areas of relatively unrestricted terrain. They seek to engage targets at the maximum ranges of their weapon systems. Engagements are fast-moving and cover large areas of the battlefield.

As discussed in this manual, light forces provide versatility and strategic flexibility through their capability for rapid deployment. However, once they deploy, light forces have limited mobility and firepower. Light forces achieve maximum advantage in close terrain. There enemy forces cannot attack them beyond the range of their weapons. In such terrain, they can deny the enemy unhindered movement. Light forces are most effective when given an offensively oriented mission.

In addition, light forces can fight at night and in limited visibility. Heavy forces are most vulnerable at night. This is especially true in restricted and close terrain where enhanced optics are of limited use.

GENERAL SUPPORT CONSIDERATIONS

Planners consider the support concepts, capabilities, and limitations for both light and heavy forces to build the proper support package. They clearly spell out relationships, responsibilities, and procedures as they develop the force. As they build a support concept, they designate command relationships for support units that facilitate the support concept. They do not necessarily y have to designate command relationships for DISCOM elements based on the maneuver task force relationships.

Regardless of the C2 relationship, coordination and communication are critical. Support operations personnel accompany a light unit cross-attached to a heavy unit or vice versa. They are responsible for ensuring that the supporting DISCOM or FSB understands the support needs of that unit. Units also exchange SOIs to allow information to flow from the deployed unit to the controlling headquarters. This information includes –

- Critical fuel and ammunition requirements.
- Status of each class of supply to include water.
- Maintenance requirements and backlog.
- Class IV, V, and IX requirements and availability.
- Movement needs and available transportation assets. These may include aircraft.
- Availability of medical treatment and evacuation assets.
- Locations of support elements.
- Status of support personnel.
- Anticipated support problems.
- Compatibility of automated equipment.
- Unique equipment.

SUSTAIN THE SOLDIER

Sustaining the soldier involves providing HSS, food, water, clothing and field service support. The systems for sustaining the soldier are similar among divisions.

HSS systems in particular are adaptable to mixes of heavy and light forces. The modular support concept

facilitates cross-attachments. The modules are identical, However, types and quantities of modules vary among divisions. The DMOC performs medical management in all divisions. Differences include the absence of tracked ambulances and the lack of surgical capability in the LID.

Subsistence support is also similar. EAD units push Class I to the division on the basis of present-for-duty reports and the command menu. The LID, unlike the other divisions, depends on throughput of subsistence from EAD to the Class I points in the BSAs. Its TMT company is not structured to transport subsistence from the DSA to the BSA. The light FSB Class I point may require extra capability depending principally on the exact composition of the light-heavy mix. If so, Class I assets from the heavy FSB are cross-leveled.

Water distribution is also similar among divisions. Water assets are centralized in all DISCOMs in the MSB. These companies, depending on availability of water sources and water requirements, operate a water point in or near each BSA. The point is near the Class I point. The COSCOM provides additional purification and storage assets as required. One difference among divisions is that in the LID the water section delivers water whenever required to the trains of the light infantry battalions. All other customers pick up water in organic assets and deliver to their units. If a light infantry battalion is task-organized to a heavy unit, planners include assets to deliver water or they arrange to give the battalion assets to pick up its water.

The LID DISCOM stockage of Class II items is restricted to limited essential items. Selected items, such as NBC overgarments, are provided as PULs. Heavy forces supporting LID elements should understand this fact. A heavy battalion supported by a light FSB should recognize the light FSB has virtually no stockage unless augmented.

Another consideration involved in Class 11 resupply for light-heavy forces is provision of items peculiar to heavy forces. An example is protective masks for tankers. Heavy units bring enough mission-essential items to support short-duration operations. The LID supply system provides such items for extended operations. This involves planning to deliver them to the Class II point operated by the HSC in the light FSB. If it needs more assets, supply personnel and forklifts are cross-attached from the heavy FSB supply company. Customers request items through the supply point. They pick them up with organic transportation assets.

CEB is provided by augmentation to the MSB in all divisions. Prior to the arrival of CEB augmentation section, soldiers use any available water or indigenous facilities.

Unit commanders are responsible for unit-level mortuary affairs. This includes initial search, recovery, initial identification, and evacuation of their deceased personnel to the nearest mortuary affairs point. This point is operated by a team from a GRREG augmentation section in the LID and by the GRREG platoon of the S&S company of the MSB in the heavy divisions. They receive deceased personnel from supported units, tentatively identify the remains, and arrange for evacuation.

Light-heavy/heavy-light forces receive laundry and renovation services from corps field services companies as soon as the tactical situation permits. Units coordinate support with the MSB/FSB.

ARM

Under MOADS, the system for distributing ammunition as described in Chapter 8 is the same for the heavy and light divisions. The types of weapon systems differ significantly among divisions. However, the process of managing and replacing them is essentially the same.

There are major differences in the weapon systems and the resultant consumption factors among divisions. Planners at the unit level as well as within the DISCOM consider the magnitude of the differences. FM 101-10-1/2 details the consumption factors for each type of force. Planners compute anticipated consumption and cross-attach ATP assets. Once that is done, the request and distribution procedures are similar for light and heavy divisions. However, as noted in Chapter 11, the ground transportation assets available for emergency distribution of ammunition in the LID are much more austere.

Class IV supplies are not stocked by the LID DISCOM. It relies on PULs of hasty fortification and barrier materials. DISCOM elements coordinate delivery using EAD assets as close to the emplacement site as possible. The heavy DISCOM should be aware that light infantry battalions do not have the assets to move barrier materials without downloading the bulk of their limited transportation assets.

FUEL

With all divisions, EAD units push bulk fuel to the division Class III points. Amounts are based on fuel forecasts and status reports. Each division operates Class III points in the DSA and each BSA. The Class III

section of the DMMC manages Class III supply. In addition, aviation fuel in each division comes directly from EAD to the division AB.

The different types and quantities of equipment drive the major fueling differences among divisions. Again, the factors in FM 101-10-1/2 reveal tremendous differences in consumption between the light and heavy divisions. As a result, assets available for storage and distribution of bulk fuels vary widely. All divisions rely to some extent on throughput of fuel to BSA Class III points. However, the LID is the only division with no assets to habitually provide additional resupply of forward Class III points from the main Class III point in the DSA.

Variations also exist in distribution techniques. However, supply point distribution is the primary method used in most situations. In heavy divisions, FSBs use their 5,000-gallon tankers to provide forward refueling. LID FSBs, on the other hand, deliver fuel to light infantry battalion trains.

In all divisions, the Class II, IV and VII point handles packaged petroleum products. Customers submit requests for products to their supporting supply point. Again, the principal difference is in consumption rates.

FIX

All DISCOMs perform DS maintenance, reinforcing unit maintenance, and Class IX supply operations. The DMMC manages Class IX and DS maintenance operations. Beyond these similarities, however, the organizations and concepts for fixng the force vary widely among divisions.

The concept for the LID, described in Chapter 10, is unique. All divisions require DS maintenance reinforcement from nondivisional units. However, the LID's reliance is greater than that of other divisions. The LID's reliance on replacement or exchange over repair is also unique. So too is the LID maintenance concept of consolidated unit maintenance. Planners take this into account. They ensure unit maintenance assets accompany light infantry forces less than brigade size when they are cross-attached to a heavy force.

The LID DISCOM does not have the repairers, tools, or repair parts to diagnose malfunctions and repair much of the equipment the heavy unit brings to a light-heavy mix. As an example, the LID forward maintenance company has no capability to perform repairs on missiles, fire control systems, tank turrets, or tracked vehicles. In the LID, even the capabilities the company does possess for C-E equipment are limited. The maintenance concept for the LID relies on replacements in forward areas and increased passback to EAD. Even short duration light-heavy mixes require significant maintenance assets accompany the heavy unit. These include the maintenance support team associated with the battalion. They also include heavy FSB maintenance company assets to augment the light FSB maintenance company. The maintenance support team continues to work out of the heavy battalion unit maintenance collection point. It maybe attached to the battalion. The LID DISCOM also lacks the capability to provide recovery support and evacuation of heavy equipment. To provide recovery assistance, tracked vehicle recovery assets accompany the heavy unit. Whether the heavy DISCOM TMT company provides HETs depends on several factors. These include the ability of the terrain to support HET movements and the enemy's capability to disable heavy weapon systems.

The key Class IX challenge in a light-heavy mix is to have enough of the right items to support a heavy unit. The light maintenance companies do not stock many of the items required to maintain heavy force equipment. Also, they have austere assets with which to receive, store, issue, and move Class IX items. The heavy ASL slice to accompany a cross-attached heavy unit also includes the assets to move the items. The slice varies depending on METT-T. Key factors are the anticipated duration of the cross-attachment and the enemy's ability to inflict damage on heavy weapon systems.

Replacement of weapon systems and major assemblies for a heavy unit supported by a light DISCOM presents the same type of challenge as Class IX supply. The light division has no assets to provide support to heavy forces. Exceptions are items common to both forces. These include items such as HMMWVs or generators. If replacement becomes feasible in a specific scenario, it requires intensive coordination among the G3, G4, the division Class VII manager, and the CMMC. Items are throughput from EAD to the using unit in a ready-to-use condition. In both heavy and light forces, replacements are based on combat loss reports, Therefore, planners ensure the heavy unit's losses are included in the LID reporting system.

MOVE

As noted before, the characteristic which distinguishes heavy forces from light forces is ground mobility. Dismounted infantry elements in the LID have extremely limited ground mobility, However, all infantry

forces are designed to be employed in situations that do not require substantial ground mobility. If the light element of a light-heavy mix requires significant ground mobility to keep pace with the heavy element, then additional transportation assets are necessary. However, tactical planners ensure the light element is employed in situations that take advantage of its specific capabilities. No DISCOM transportation organization can habitually provide assets for tactical moves while performing its logistics and HSS mission.

Movement is inherent in all logistics and HSS functions. In that sense, this appendix has addressed several logistics and HSS movement considerations for light-heavy/heavy-light mixes already. Examples include differences in bulk fuel and emergency ammunition distribution.

Some aspects of logistics and HSS movements are the same in all DISCOMs. Every DISCOM has an MCO in its headquarters. The MCO controls employment of the DISCOM's motor transport assets for logistics and HSS. This manual previously addressed specific responsibilities and functions of the MCO. These apply to all divisions. Similarly, the primary transportation asset of all DISCOMs is the TMT company. Trucks are used to move general supplies from the DSA to the BSA and transport reserve supplies. They also assist in displacing division units less than 100 percent mobile. However, the assets vary widely among divisions. The austerity of assets in the LID is significant. The support concept for the LID is based on prepackaged loads being throughput to forward areas. Heavy forces supporting light elements require COSCOM support in packaging loads and moving them directly to forward areas. The LID also relies more on aerial delivery. In addition, the LID relies on extensive backhaul of unserviceable components and end items.

Another important difference between heavy and light TMT companies is heavy DISCOMs have HETs to move tanks and other pieces of heavy equipment around the battlefield and to evacuate them when required. Planners ensure HETs accompany any heavy force task-organized to a light unit, when METT-T permits.

SUPPORT TO SPECIFIC MIXES

When planners develop a specific light-heavy/heavy-light mix, the directing headquarters designates the command relationship. The planners consider the differences in support concepts and organizations. What follows here is a discussion on several types of mixes the DISCOM may support. The discussion includes command relationship recommendations. However, these are only recommendations. The commander selects the most appropriate relationship after considering the –

- Size and mission of the force.
- Distance of the deploying force from the support base of its parent unit.
- Support capability of the receiving force.
- Relationship between the deploying support elements and the receiving unit.
- Sources of support for each force.
- Self-supporting capability of the deploying force.

In the case of light force elements being task-organized to heavy forces, planners in the heavy force consider that light fighters are exactly that – light. The more they have to carry, the slower they move and the smaller the advantage of their relative mobility in restricted terrain. Heavy force support planners should recognize that providing too much support forward involves considerable risk. Light forces do not have the assets to move large quantities of supplies and equipment. This means planners arrange for rapidly supplying packages of critical supplies to light units. These packages are planned in advance.

HEAVY BRIGADE TO A LID

The preferred option for such a mix is a heavy separate brigade OPCON to the LID. In such cases, the LID commander has tactical control over the brigade. Yet, he does not have the burden of administrative support and logistics. The separate brigade support battalion ties directly into the corps support base. The brigade MMC passes requisitions to the CMMC. COSCOM elements transport supplies to support battalion supply points. The COSCOM provides reinforcing maintenance, transportation, and HSS. When OPCON to a LID, the separate brigade support battalion establishes coordination with the DMMC. This ensures the DISCOM commander knows the support status of all units in the force.

There is a difference between a division heavy brigade and a heavy separate brigade OPCON to a LID. The division brigade support channel is through the parent DISCOM; the separate brigade links directly to

the corps. The OPCON of a division heavy brigade to a LID is a viable option under the following conditions:

- The mission is relatively short (48 hours or less).
- The parent heavy DISCOM can continue to support the mission performed by the remaining heavy division elements.
- The LOC from the heavy brigade to the parent DSA is secure and not so extended that the DISCOM cannot meet the movement requirements.

The heavy brigade comes with its full complement of support assets from the heavy DISCOM. These assets typically include –

- FSB associated with the heavy brigade.
- HETs with drivers from the MSB TMT company.
- Tankers with drivers from the MSB S&S company.

The support package includes a water team from the MSB if the LID cannot support the brigade. It also has a maintenance support team with essential ASL items from the MSB maintenance companies if the heavy division MSB cannot provide responsive support. The MSB resources accompanying the brigade collocate with the FSB.

Coordination is established with the LID DISCOM to keep it informed. In addition, planners arrange to have support provided directly from the COSCOM to the supporting FSB. For instance, subsistence and bulk fuel are throughput from the corps to the heavy BSA as much as possible.

Attachment of a heavy brigade to a LID is the least preferred option for this type of mix when the attachment relationship requires the LID to support the heavy brigade. The LID DISCOM is incapable of providing support without significant augmentation. The FSB with some MSB assets still accompanies the brigade as discussed above with the OPCON brigade. However, the LID DISCOM requires additional assets to support the brigade. The heavy MSB provides repairers, tools, parts, TMs, and any other assets required to reinforce the light FSB maintenance company in the repair of–

- TOW/Dragon.
- Tracked vehicles.
- Wheeled vehicles.
- Turrets.
- Power generation equipment.
- Utility equipment.
- Quartermaster and chemical equipment.
- C-E equipment.

The LID DISCOM also requires additional bulk fuel storage and distribution assets, Class IV supply resources, ambulances, and other transportation assets. Even with these resources, throughput (especially of Class I and III) from corps to the BSA is still used whenever possible. In addition, the heavy DISCOM provides materiel managers to the LID DISCOM. With these heavy DISCOM assets augmenting the LID DISCOM, the heavy DISCOM's ability to continue to provide support to remaining elements of the heavy division is seriously jeopardized.

HEAVY BATTALION TO A LIGHT INFANTRY BRIGADE

There are two alternatives for supporting a light brigade with a heavy battalion. The battalion may continue to rely on its parent brigade for support. The other option is for a significant package of support assets to come with the battalion. As stated in FM 71-100, the preferred relationship for a heavy battalion task-organized to a light infantry brigade is OPCON. In such cases, the heavy battalion task force (with a support slice from the parent heavy DISCOM) continues to coordinate support requirements with its parent brigade S4. It receives support from the FSB of the heavy DISCOM. The distance between the heavy battalion and its parent brigade support base is a key consideration in determining whether the battalion can be supported through an OPCON relationship. Planners also consider the mission of the remaining elements of the brigade. If OPCON is used, true light-heavy support is not required. The heavy force system continues to support the heavy battalion; the light infantry force support system supports the light brigade.

The supporting heavy FSB assists whenever possible by operating a forward refueling point between the task force and the heavy brigade BSA. If distances are great, support of the task force over an extended period is a substantial challenge. This is particularly the case in maintenance and Class III and V supply.

Support assets to accompany the battalion task force include —

- Maintenance support team to support the task force from the supporting FSB. The team includes all required tools, communications equipment, and mobility assets. It also carries a slice of ASL items.
- Fuel tankers with drivers from the FSB or MSB.

- HETs with operators from the MSB.
- Forklift and operator from the FSB supply company.
- Tracked ambulances with drivers to station at the BAS.

The second alternative involves the cross-attachment of support assets from the heavy force support structure to the light. This is the least preferred option at this level. The LID DISCOM capability for supporting heavy forces is extremely limited. A LID FSB is not capable of supporting a heavy battalion. This is true even if the battalion is accompanied by the package identified above. The LID FSB maintenance company lacks the capability to reinforce the repair capability of the maintenance support team deployed with the battalion in a number of commodity areas. It also does not have the ability to assist in the recovery of task force assets. The LID does not have HETs to evacuate heavy equipment or move it around the battlefield. Equipment incompatibilities complicate Class V and VII supply. Also, the FSB HSC does not have the capability to handle the large amounts of fuel required by the heavy task force.

Despite these considerations, a LID DISCOM may have to support a heavy battalion due to extended distances from the parent heavy unit and a long duration cross-attachment. If so, extensive planning is required. Planners put together support packages using the information below. They also coordinate how the packages fit into the light support structure. This includes providing the augmentations from the heavy force with SOPS from the light unit.

When a heavy battalion goes to a light brigade, the DAO plans for Class V supplies for the different weapon systems of the heavy battalion. The key to arming the light-heavy force is ensuring the COSCOM is throughputting the right types and quantities of ammunition and the ATP has the capabilities to handle them. ATP personnel transload munitions from COSCOM assets to using unit vehicles. Receiving units help with the on-board MHE of any organic vehicles. The ability of the LID ATP to support a light-heavy force depends on a number of factors. These include the exact nature of the supported force (including any artillery accompanying the heavy battalion) and the intensity and duration of the conflict. Expected consumption of the light-heavy force may exceed the capability of the light ATP. If so, forklifts and operators from the FSB supporting the heavy battalion's parent brigade are attached to the light FSB supply company.

The key factor in fueling the light-heavy brigade is the large consumption of fuel by the heavy battalion. The LO from the FSB and the heavy battalion S4 make the battalion's anticipated consumption known when forecasted requirements for the light-heavy force go to the MMC. The Class III point in the light FSB stores bulk fuels. However, it cannot handle the quantities required if it supports a heavy battalion. The 5,000-gallon tankers from the heavy FSB (or MSB, depending on the missions of the parent brigade of the heavy battalion) are needed. The exact number required depends on the factors of METT-T. However, planners consider that the light FSB's assets are extremely limited. Also, it has no tankers backing it up in the DSA. If the COSCOM cannot provide the additional throughput to the light FSB required by the heavy battalion, the heavy MSB has to provide additional tankers to move fuel from the LID DSA to the BSA.

For a short-duration cross-attachment, a slice of the heavy FSB maintenance company and ASL is sufficient. However, if the mix is for an extended period, planners provide additional assets. The LID MSB maintenance company has no assets to provide support to heavy elements in the forward areas. In such cases, the MSB of the heavy DISCOM provides additional maintenance and Class IX resources to the light DISCOM.

Cross-attached support assets are likely to be significant. This stresses the C2 structure of the LID DISCOM. This is particularly true in the BSA. The FSB staff is extremely austere. The headquarters of the LID DISCOM may provide additional staff assistance to the FSB whose supported brigade includes a heavy battalion. In addition, the heavy FSB providing support assets to the light DISCOM sends a liaison element to work with the light FSB. Also, a materiel management element from the heavy DISCOM MMC assists the light DISCOM in managing heavy materiel. If enough support personnel and equipment are cross-attached, they in themselves generate additional support requirements. These include feeding, maintenance, and HSS.

As with the heavy brigade attached to a LID, cross-leveling enough assets from the FSB (and MSB) of the parent heavy DISCOM to support the light-heavy force jeopardizes the heavy DISCOM's ability to support remaining elements of the heavy division if it is fully committed. Therefore, a basic assumption involved in this method of supporting light-heavy forces is that not all forces are engaged at all times.

LIGHT INFANTRY BRIGADE TO A HEAVY DIVISION

LID forces are employed in sufficient strength to create a reaction or tactical pause by the enemy. This typically requires the LID to be employed in its entirety. However, to capitalize on its advantages in close terrain, a light infantry brigade maybe employed with a heavy division.

If a divisional light infantry brigade is task-organized to a heavy division, the preferred relationship is attachment. The reason for this is the LID DISCOM does not have the robustness to support a brigade over extended LOCs while continuing to support remaining LID elements. This is especially true for transportation.

The attached light infantry brigade is accompanied by assets from the light DISCOM. These assets include the–

- FSB.
- Assets (repairers, tools, parts) from the MSB maintenance company of the light DISCOM. These provide required reinforcing support in several repair areas. Areas include wheeled vehicles and power generation equipment. However, as noted above, the lack of robustness in the LID DISCOM makes it impossible to provide a repair slice for everytype of equipment without impairing the light DISCOM's ability to support remaining elements.
- Ambulances from the MSB medical company of the LID DISCOM.
- Water team (if the heavy DISCOM cannot provide water support.)
- Trucks from the TMT company or EAD elements.

Even with these assets, the heavy division cannot support the light infantry brigade without the additional support from nondivisional elements. These include additional trucks to provide required mobility and maintenance assets to handle increased passback. In particular, the heavy DISCOM does not have the required Class IX to support equipment unique to or in such high density in light forces. Examples are 105-mm howitzers and 60-mm and 81-mm mortars.

The heavy DAO also has to arrange for a different mix of Class V to be throughput to the ATP in the light infantry BSA. He coordinates with the DAO representative from the light DISCOM to manage Class V supply.

Assets from the maintenance company normally located in the DSA and TMT company (as well as the additional nondivisional trucks) are attached to the appropriate company of the heavy division MSB.

LIGHT INFANTRY BATTALION TO A HEAVY BRIGADE

The preferred relationship for such a mix is attachment. Challenges are similar to those discussed above. The supporting heavy FSB (with reinforcement from its MSB) is stressed if it has to provide the required mobility, repair capability (including Class IX) for LID equipment, Class V for LID weapon systems, and fuel and water distribution to the light infantry battalion. Mobility is critical. To enable a light infantry battalion to move rapidly over long distances as maybe required in heavy-light operations, the battalion requires additional vehicles or aviation assets.

Resources accompanying the battalion should include —

- A liaison element from the support operations section of the light FSB to work with the support operations section of the heavy FSB. This element enables the FSB to anticipate support requirements of the light battalion. It is also valuable in coordinating support activities between the battalion and the BSA and DSA.
- A battalion share of both the light brigade's consolidated unit maintenance section (including a tailored PLL) and the light FSB maintenance company assets. (Again, this is complicated by the austerity of the light division's assets. The capability in certain repair areas cannot be divided up to support battalion-sized task forces.)
- Ambulances from the forward support medical company to position at the light BAS. (The heavy FSB maybe able to provide ambulance support if the composition of the brigade, mission, terrain, and distances allow. Planners from the two forces also consider air casualty evacuation support.)
- Trucks with drivers from the light DISCOM TMT company or available EAD assets.
- Additional maintenance and transportation assets from the COSCOM to support the battalion.

OPCON of the battalion to the heavy brigade is the least preferred option. The LID lacks movement assets to provide support over long distances,

Regardless of the command relationship, support planners take into account the fact that much unit-level support in a LID has been moved from the battalion to

the brigade level. The heavy brigade (and supporting DISCOM elements) cannot expect the light battalion to plan and coordinate support to the extent a heavy battalion does. The brigade, and as much as possible the FSB, prepare to help the battalion plan and provide unit-level support.

This is where the liaison element from the light FSB plays a vital role. It ensures the heavy FSB commander and staff understand exactly what types and quantities of support the battalion requires. The liaison team also ensures the correct coordination takes place between the unit-level supporters and the FSB. The unit-level CSS assets of the light battalion need to know where, when, and how to receive support. The brigade order should include planned sites and operational times for AXPs and the BSA, as well as any elements of the FSB operating forward or logistics release points coordinated by the FSB.

However, coordination does not end with publication of the order. To ensure continuous support, units coordinate with supporting FSB elements throughout operations. For example, the light battalion aid station needs to be able to talk to the supporting AXP. It has to know when and where the AXP is moving. This type of coordination requires effective communications. Light elements exchange call signs and frequencies with supporting FSB elements.

Coordination and communications are also important to another key to effective heavy-light support – LOGSTAT reporting. Support arrangements between the light battalion and heavy brigade clearly spell out reporting requirements, including when the LOGSTAT is due, what it includes, and how it is transmitted.

Helicopter support should also be specifically addressed in the brigade order. Air resupply and casualty evacuation are often critical to supporting the light battalion. The aviation element, brigade headquarters, FSB, and supported task forces and other elements need to understand what support the aviation element is providing, what priority CSS missions have during the various phases of the operation, and the exact procedures to use to request support.

Appendix B

NBC Operations

Contents

NBC ENVIRONMENT

Contamination avoidance, individual and collective protection, and decontamination are defenses against NBC hazards. DISCOM units train in these defensive measures to lessen the effects of NBC attacks.

The NBC environment poses a challenge to DISCOM systems. In an NBC environment, personnel casualties increase. This increases the mortuary affairs and HSS work load. Equipment and supply distribution points sustain damage from nuclear blasts and fires caused by thermal radiation. Maintenance needs increase sharply. Maintenance elements quickly deplete supplies and equipment. Demands for repair parts increase, while fewer people are available to continue the support mission. In an NBC environment, logistics and HSS personnel work in full protective equipment for extended periods. This reduces productivity. The LID needs additional assets to provide adequate decontamination support.

NBC PLANNING

DISCOM plans for NBC operations are flexible. They also receive wide dissemination. NBC operations require emphasis on —

- Vulnerability analysis.
- Contamination avoidance.
- Increased dispersion of units.
- Plans for alternate methods of supply, services, and HSS. Planners expect interruptions in the LOCs.
- Balance of the need for increased movement against the capability to perform the mission.
- Continuation of CSS with reduced resources.
- Possible changes in basic loads,
- Plans to increase the CSS capability by the addition of NBC decontamination teams as required.
- Provisions for rapid augmentation or movement of HSS units, on-site emergency treatment, and timely evacuation of large numbers of patients.
- Traffic control to prevent development of potential targets resulting from traffic congestion.
- Plans for the rehabilitation of critical routes as soon as possible after damage.
- Plans for the procurement of civilian manpower and materiel resources. Such resources supplement DISCOM capabilities.
- Plans which reflect that the tempo of all operations slow down. Plans also reflect that some activities come to a halt in an NBC environment. This occurs because individuals or units have to operate in protective clothing, equipment, or facilities. In addition, personnel change work procedures *to* lessen contamination.
- Significant increases in demand and consumption of individual and unit NBC clothing, equipment, and supplies.

COUNTERING NUCLEAR WEAPONS OR CHEMICAL/BIOLOGICAL AGENTS

Enemy use of NBC weapons places unusual demands on DISCOM activities. The following paragraphs discuss these demands and the measures to counter them.

SUSTAINING THE SOLDIER

In an active NBC environment, DISCOM units reduce division stockage to the lowest level needed for mission

accomplishment. This allows for maximum mobility, dispersion, and contamination avoidance. Forward units carry full basic loads and protect themselves from contamination. Supply personnel issue critical supply items to the division on a push basis. Emergency resupply may be by air. Supply personnel disperse and cover reserve stocks. They do this to avoid presenting lucrative targets and to lessen the risk of destruction or contamination.

In an active NBC environment, DISCOM personnel frequently test supplies and logistics assets for contamination. Continuous monitoring is desirable. Supply personnel use containers made from composite materials to package supplies. They issue the containers in protective overwrap. The overwrap limits liquid contamination of the contents. It also allows easy decontamination of the containers. Supply personnel do not issue contaminated stocks. They segregate them from clean stocks until they fully decontaminate them.

In emergencies when no other stocks arc available, they issue certain contaminated supplies. However, they issue contaminated supplies only if it would give the receiving unit a decisive tactical advantage. They issue contaminated supplies first to units similarly contaminated. Only under the most dire circumstances do they issue contaminated stocks to an uncontaminated unit. The issuing and receiving commanders jointly decide to issue contaminated items. Supply personnel try to avoid the spread of contamination. They clearly mark contaminated stocks using standard NBC markers.

Supply personnel do not provide Class I resupply to units in or near contaminated areas. Units carry enough MREs to operate without daily resupply. Units store rations under protective coverings or in containers. They limit decontamination efforts to removing the containers and carton overwrap. They do not use contaminated rations. Supporting chemical units and medical personnel provide technical help and advice on the use of rations.

Some Class II items, such as chemical defense equipment, receive priority of issue to selected units on an NBC battlefield. The commander gives highest priority to units in contaminated areas. The next priority is to units that recently left contaminated areas. The third priority is to units deployed in forward areas. Protective overgarments are available in PUL packages.

Supply points do not issue and units do not use contaminated water. Purification operations practice avoidance. If personnel suspect that a water source is contaminated, they mark it with standard NBC markers. No one uses that water source until personnel test it, treat it with a ROWPU if necessary, and determine that it is safe to use. Preventive medicine personnel advise on the safe use of water. Sometimes personnel cannot treat contaminated water for drinking purposes. In that case, they dispose of it in a manner that prevents secondary contamination. They also mark the area. They monitor all water treatment, storage, and dispensing equipment frequently.

The influx of large numbers of patients and the loss of medical facilities and personnel from NBC attacks have a heavy impact on HSS. Advanced stages of MOPP result in heat buildup and reduced mobility. They also result in degradation of speech, sight, touch, and hearing. This degrades individual and unit effectiveness. Medical units require help to continue operations in an NBC environment.

When the commander plans an operation, the division surgeon reviews current health and radiation exposure status of units. He also reviews the exposure predicted in the commander's plan. The division surgeon gives the commander general estimates of the –

- Reduction in effectiveness of personnel due to exposure to radiation.
- Number and time-phasing of casualties.
- Resulting medical work load and the requirements for medical units to perform it.

Contamination is one of the major problems in providing HSS in an NBC environment. Medical units take necessary action to avoid contamination and lessen the initial effects of nuclear weapons. They protect medical supplies and equipment from contamination with chemical agent resistant coatings or protective coverings. They disperse Class VIII stocks. They decontaminate contaminated items before issue.

Each physically capable individual carries out required decontamination of himself and his equipment as soon as possible. Personnel set up conveniently located decontamination stations at MTFs. (Figure B-1 shows an example.) Patients are decontaminated before evacuation by aircraft or ground vehicles. Medical units only decontaminate patients who have reached MTFs and are unable to perform self-aid. If MTFs have to decontaminate patients, decontamination support is essential. A significant degradation of HSS results if medical personnel operate decontamination stations. The commander forms and trains patient decontamination teams

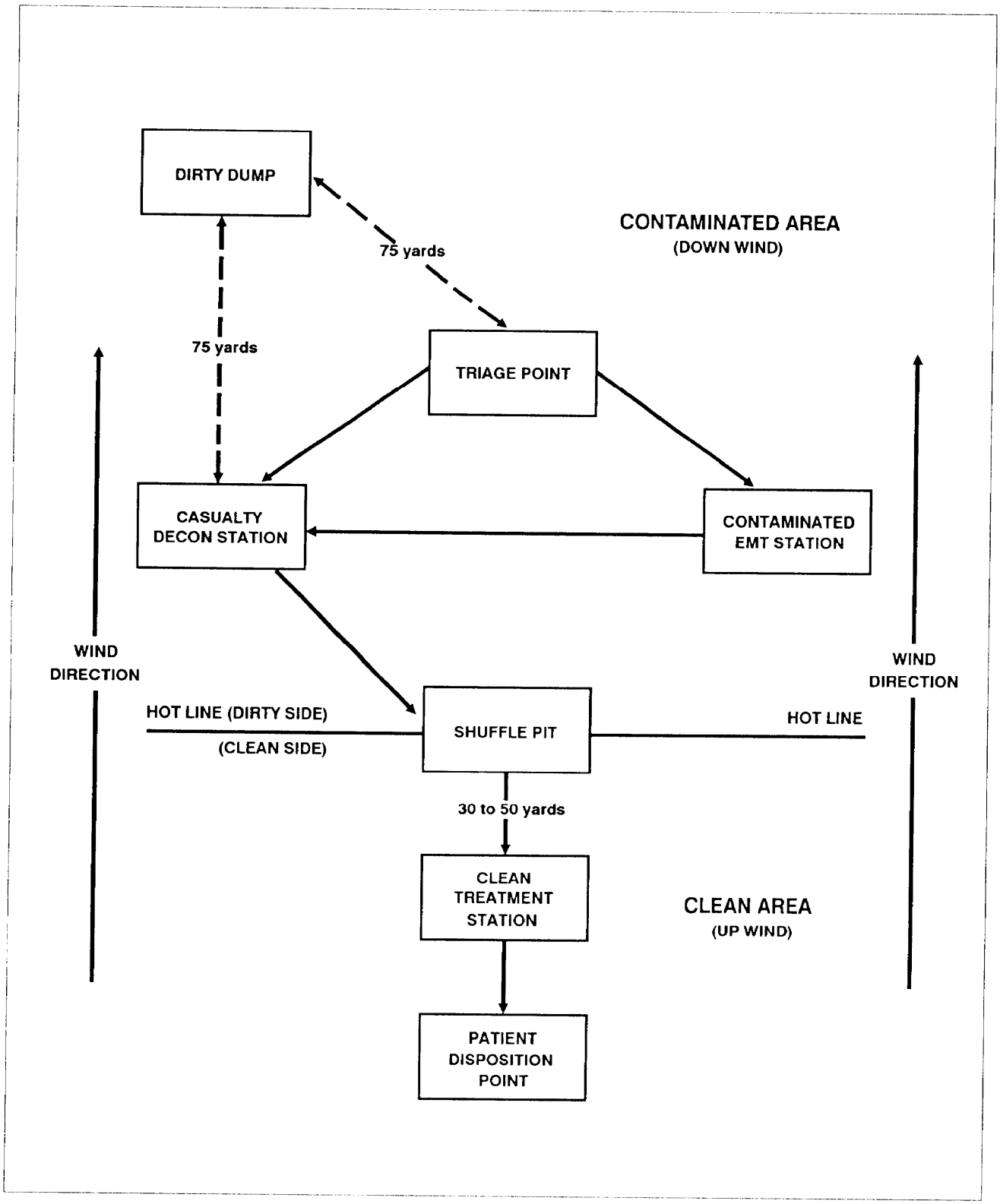


Figure B-1. Layout of a chemical agent patient decontamination station, in an uncontaminated area, without collective protective shelter.

from the unit. They help decontaminate contaminated patients. FM 8-10-4 contains instructions inpatient decontamination. Personnel do not admit patients to MTFs in contaminated clothing or blankets, Occasionally, a contaminated patient requires immediate treatment. No decontamination procedure should prevent life-saving procedures. HSS personnel treat a contaminated patient in the contaminated treatment area. FM 8-285 and TC8-12 cover treatment of chemical patients.

Personnel base treatment and evacuation of NBC patients upon manifested signs and symptoms. SOPS govern the use of prophylactic measures following known or suspected biological or chemical agent attack. Following a nuclear attack, individuals who suspect radiation injury reach the MTF seeking medical attention. Suspected nuclear radiation injury alone does not justify evacuation. Ordinarily, in nuclear and conventional warfare, burns and traumatic injury are the basis for early medical care and evacuation.

In an NBC environment, special mortuary affairs task groups are formed. They provide NBC monitoring equipment and personnel. They identify remains due to NBC warfare. If possible, they decontaminate remains and evacuate them to a collection point. If they cannot decontaminate the remains, they tag them with an international NBC tag. They inter them at a site within the contaminated area, They mark the site with the standard NBC marker. They record locations and site layout according to standard procedures and FM 10-63. Personnel recover and decontaminate remains for final disposition after hostilities cease or if the tactical situation, time, and other resources permit. They follow FM 10-63 and local policies.

Commanders curtail renovation operations in an NBC environment in favor of higher priority missions. They also curtail laundry service except clothing decontamination and critical functions such as hospital service.

ARMING THE FORCE

Selected high-usage Class IV items come in shipping containers. They protect against NBC effects. This reduces handling and allows for responsive support. Supply personnel may issue contaminated or partially decontaminated Class IV items when properly identified. The user decontaminates contaminated Class IV items.

In NBC conditions, supply personnel separate Class V supplies from other commodities. They keep them as mobile as possible. Protective covers lessen exposure to nuclear and chemical contamination. Ammunition support elements are responsible for decontaminating ammunition under their control. Large-scale decontamination requires additional support. If the situation requires the issue of contaminated stocks, supply personnel use the standard NBC marker. After issue, the user performs required decontamination. ATP personnel prepare to operate in contaminated areas if no uncontaminated areas are available.

FUELING THE FORCE

Class III supply is critical in an NBC environment. More frequent moves increase consumption. In emergencies, corps units deliver directly to tactical units and forward arming and refueling points. Emergency resupply to isolated units may be by air. Supply personnel disperse storage locations and activities. They protect ancillary equipment to the same extent as major items of equipment. Storage tanks and bladders protect bulk petroleum to a large degree. However, supply personnel take precautions to reduce contamination on tanks and bladders.

FIXING THE FORCE

Avoiding contamination of equipment is easier than decontaminating it. Decontamination is time-consuming. It also causes corrosion and damage to some types of equipment. Providing overhead cover for equipment and supplies reduces liquid contamination.

Using units decontaminate their own equipment. Equipment turned over to maintenance personnel is as free of contamination as the using unit can make it. When using units cannot decontaminate equipment, they mark the equipment with the type and the date/time of contamination. If possible, they mark the specific areas of equipment contamination. They also segregate contaminated material.

Sometimes using units cannot decontaminate damaged or inoperable equipment that is critical to the battle. Maintenance personnel prepare to repair it at a contaminated MCP. Use of a contaminated MCP limits contamination and combines contaminated repair assets. A contaminated MCP is similar to a hasty decontamination site. It is far enough forward to limit the spread of contamination. Yet it is far enough back to buy time for MOPP IV-clad mechanics.

Corps heavy materiel supply companies decontaminate Class VII items before issue. If supply points have

to issue contaminated items, the receiving unit is responsible for decontamination. Before issue of contaminated items, supply personnel put the standard NBC marker on the items. They make every effort to avoid abandoning Class VII items.

In NBC conditions, personnel salvage only critical items in short supply. They salvage contaminated items that are essential to return a major weapon system to operation. They do this with command approval. They mark items that they cannot decontaminate with standard NBC markers.

MOVING THE FORCE

As offensive opportunities develop, LID forces quickly assemble for attack. They conduct the operation and then disperse. This lessens risk by not presenting a large target until it is close to enemy elements. This also reduces the likelihood of NBC attack. This tactic generates a need for responsive, timely movements control.

Personnel reduce stockage levels at supply points as the threat of NBC attack increases. This reduces the risk of having materiel contaminated. It presents less lucrative targets. These lower stockage levels cause increased dependence on a continuous, reliable transportation service.

Nuclear attack presents a variety of problems to the MCO. Blown-down trees block routes. Radiation makes areas impassible. EMP generation disrupts communications.

Chemical attack causes unique problems as well. The corrosive nature of some chemical agents destroys or makes inoperative some types of equipment. The efficiency of mechanics, equipment operators, and support personnel decreases as they work in MOPP gear. The forward delivery concept places large numbers of vehicles in the division rear and brigade areas. Chemical contamination of these assets drastically reduces transportation capabilities. The time required to decontaminate, coupled with probable shortages of decontamination supplies and equipment, causes spot shortages of vehicles.

Personnel deliver contaminated cargo only to similarly contaminated units. If cargo becomes contaminated in transit, drivers immediately contact the TMT commander or the MCO for disposition instructions. They contact the DMMC to determine if they should deliver the cargo to the original consignee. However, if the cargo is in the area of the receiver, and the receiver is contaminated, the DMMC contacts the receiver. They decide if the cargo is essential and whether drivers should deliver it immediately, as is. It is the receiving unit's responsibility to decontaminate "dirty" cargo.

Drivers do not move contaminated cargo over "clean" routes unless combat need dictates otherwise. Planners route movement of "clean" cargo to bypass contaminated areas. If bypass is not possible, or practical, personnel airlift materiel if time permits. Personnel set up transfer points on the fringes of contaminated areas. There they transload "clean" cargo onto "dirty" equipment.

In short, time is lost. The MCO constantly plans for the worst. Alternative routes should always be available. Backup modes are identified for critical supplies. Personnel maintain cargo visibility constantly. The MCO is able to identify and divert critical materiel at any time. Plans and supplies for decontamination are available. FMs 3-5 and 3-100 provide further information.

Requirements for airdrop increase on a nuclear or chemical battlefield. Air delivery hurries resupply. It also provides a swift means to bypass contaminated areas. Personnel check all airdropped supplies and equipment for contamination. If contaminated, they decontaminate them before further processing. They mark items which remain contaminated with a standard NBC marker. Whenever rigging takes place in a contaminated area, they mark all supplies and airdrop equipment with standard NBC markers. They also advise air crews. FM 100-27 contains more information on airdrop. Airdrop planning factors are in FM 101-10-1/2.

Appendix C

Night Operations

Contents

GENERAL CONSIDERATIONS

The DISCOM commander anticipates that DISCOM units do a substantial amount of their work at night or in limited visibility. He plans for the equipment needed and the precautions necessary to perform the mission in such conditions. For these types of operations, he considers —

- Appropriating civilian buildings to reduce thermal signatures.
- Lightproofing shelters.
- Using filtered lights.
- Using night vision devices.
- Eliminating all but essential noise.

In addition, the DSA and BSA are susceptible to a night attack. This further slows down logistics and HSS activities.

Use of chemical lights maybe applicable. However, overuse of chemical lights degrades light discipline and security. Chemical lights are visible from a distance of a kilometer or more. Possible techniques include theme of–

- Chemical lights to light CP areas, eliminating generator noise and thermal signature.
- Chemical trip flares which create no fire hazard but illuminate targets, mark target reference points, or mark ranges,
- Magnetic holders to allow placement of colored chemical lights on vehicles.
- Chemical lights to illuminate areas of vehicle engine compartments for night repair.
- Chemical light holders to regulate the amount and direction of light.

SUSTAINING THE SOLDIER AND ARMING AND FUELING THE FORCE

Supply planners anticipate high consumption of batteries, flashlights, and illumination rounds during night operations by their supported units. Also units use additional fuel to run vehicle-mounted night sights.

Use of prestocked supplies requires careful coordination. Personnel should be able to find locations in limited visibility. Personnel also take care to ensure that propositioning does not signal the attack.

Use of MHE is more dangerous at night. Therefore, whenever possible during the day, personnel load supplies to be delivered at night. External SOPs require supported units to provide additional walking guides or personnel to load supplies onto trucks.

Light discipline requirements affect medical operations much as they do supply and maintenance operations, Extensive treatment operations require lightproof shelters. Patient acquisition is more difficult. Units employ some sort of casualty-marking system such as luminous tape.

Limited visibility slows evacuation. This requires additional ground ambulances to compensate. In the offense, ambulances move forward with BASS. However, personnel have to accomplish this movement carefully to avoid signaling the enemy. Personnel use predesignated AXPs and patient-collecting points. Air evacuation is difficult. It requires precise grid coordinates as well as prearranged signals and frequencies.

FIXING THE FORCE

Unless prohibited by the tactical commander, maintenance company elements work in lightproof shelters with subdued visible light. Personnel drop tarps and tentage over weapons and vehicles to provide expedient shelters. When available, they use night visions devices to repair critical items that cannot be fixed in shelters. They preposition equipment, tools, and repair parts and mark them for easy use.

BDA is difficult. Therefore, personnel place recovery vehicles forward during night attacks. They move equipment to a location where they can perform assessment more easily. Recovery personnel reconnoiter routes during daylight so they can rapidly recover vehicles to the MCP.

MOVING THE FORCE

When DISCOM units conduct night operations, each vehicle has a detailed strip map and an assistant driver. They use available night vision devices. Personnel mark MSRs clearly. Use of chemical lights is one possibility, but enemy scouts can easily move them. Using engineer tape on stakes is more secure.

Aerial resupply requires a directional light source to guide helicopters. Personnel use directional strobe lights or bean-bag lights (and in emergencies, chemical lights).

Appendix D

Deployment by Air

Contents

GENERAL CONSIDERATIONS

Air movement operations involve the air transportation of units, personnel, supplies, and equipment. They include—

- Airland operations.
- Airborne operations.
- Air assaults.
- Airdrop.

Air movements also cover related tactical and administrativw movements. A movement by other modes of transportation may precede or follow air movement.

An air movement operation requires that planners integrate forces properly. Any combination of forces conduct air movements. The operations may include a unified command, a subordinate unified command, a joint task force, or a uniservice commitment. Planning includes providing forces to support the staging and outloading of the airlifted force. Continuous coordination among the transported units, the transporting units, and supporting activities is necessary.

A unit air movement requires careful planning. Plans cover loads, selection of equipment, and processing of personnel. They detail –

- Marshaling of transported units.
- Airfield reception.
- Outloading procedures.
- Reception and disposition of forces at the off-load airfield.

These tasks arc the responsibility of several elements. They include the transported unit, its parent organization or installation or base, the DACG, the AACG, and the Air Force airlift control element.

The home station installation coordinates with the installation transportation officer or traffic management office. They plan the physical movement of the units. They ensure that each element sets up a unit assembly or mobility processing area. Each element also provides liaison to the DACG/AACG well before the unit arrives. FM 55-12 details unit moves.

DEPARTURE AIRFIELD CONTROL GROUP

The major command of the LID scheduled for movement by Air Force aircraft is responsible for providing the DACG. The unit's parent organization or home station installation or base commander provides the personnel and equipment for the DACG. Details on DACG operations are in FM 55-12. Briefly, however, the DACG –

- Receives, inventories, and controls aircraft loads as they arrive at the alert holding area.
- Conducts initial inspection of loads.
- Ensures orderly move of load to call forward area.
- Establishes communications with deploying unit and ALCE.
- Conducts joint inspection with ALCE.
- Ensures that personnel correct discrepancies.
- Ensures that passenger/cargo manifests are correct.
- Compiles statistical data.
- Transfers control of load to ALCE at loading ramp area.

ARRIVAL AIRFIELD CONTROL GROUP

The force commander involved in the air movement provides the AACG if assets for the function are not available at the arrival airfield. In such cases, the AACG is in the lead elements of the deploying units. The LID has only limited capability to perform a AACG mission. It requires EAD support. An airfield movement control team arrives early. It controls clearance. It maintains contact with units for pickup of equipment. It coordinates movements to storage sites with DISCOM transportation assets. Elements of a cargo transfer company also arrive early. They move supplies on the airhead and process cargo.

When the assets arrive depends on the security of the airfield. For an unsecured airfield. The first planeload carry troops and rolling stocks. Troops conduct combat off-loads. With a more secure airfield, forklifts are on the back (nearest the ramp) of one of the first planeloads. They assist in off-loading planes and moving assets around the airfield.

Details on AACG operations are in FM 55-12. Major AACG responsibilities include the following:

- Coordinate with the ALCE and deploying unit.
- Accept control of load from ALCE at established release point.
- Assemble load and check for completeness,
- Provide fuel, oil, and minor maintenance for transport vehicles.
- Develop statistical data.
- Establish temporary storage area.
- Transfer control of load to deployed unit.

AIRLIFT CONTROL ELEMENT

An ALCE supports an airlift operation. The Air Force is responsible for the airlift operation at airfields where military forces assemble for deployment or redeployment. When there is no ALCE, an equivalent military airlift command unit or mission support team is responsible. The ALCE has responsibility at the both the departure and arrival airfields.

Departure airfield duties include the following:

- Provide technical assistance for loading.
- Provide departure time to DACG.
- Conduct joint inspection and coordinate required changes with DACG.
- Provide passenger briefing guide, loading team chief, and passenger escort to the aircraft.
- Accept load from DACG at ready line.
- Maintain liaison with aircraft and DACG.
- Ensure that personnel properly place load aboard the aircraft.

Arrival airfield duties include the following:

- Receive manifests from the loadmaster.
- Provide load team chief.
- Coordinate removal of load.
- Maintain statistical data.
- Release load to AACG.

SECURITY AT LODGMENT

Upon arrival at the airhead, the organization of the lodgment begins. Critical problems arise at this point. Movement control of follow-on echelons into the lodgment overpower the MCO at the arrival airfield. Coordination of convoy movement within the lodgment security line is the responsibility of the brigade defending the security line. The MCO augments the brigade to coordinate convoy movements on the MSRs. Local security works when the DISCOM is operational. Until that time, the brigade provides security inside the security line. The key to controlling risk at this vulnerable phase of deployment is the close coordination among the DISCOM, the brigade controlling the lodgment, and the division G4. Together they work out the traffic flow from the airfield through lodgment to the security line forward to the brigade AOs.

Appendix E

Sample Tactical SOP

This appendix contains a sample annex to a DISCOM SOP. The purpose of this appendix is to provide a guide for a format and level of detail. It is not intended to be prescriptive.

ANNEX to CP Ops, Tactical SOP___DISCOM (LT)

1. Purpose: To prescribe the tactical standing operating procedures of the LID DISCOM CP.

2. Scope: Applicable to the HHC/DMMC, DISCOM.

3. Responsibility: DISCOM S2/S3 Section.

4. Organization:

a. The CP operates in two 12-hour shifts to provide 24 hour-a-day operations.

b. The CP consists of the personnel and equipment assets organic to the command section (less the S1, S4, and the chaplain); the S2/S3 office; the plans and operations branch; the movement control office; the division ammunition officer; and the division materiel management office.

c. The CP uses eight SICP tents with accessories. The division rear CP collocates with the DISCOM CP and uses two to four adjoining SICP tents.

5. Duties:

a. Commander and Deputy Commander:

(1) Provide command and control of the DISCOM CP and subordinate units.
(2) Supervise activities of subordinate units.
(3) Coordinate division logistics and HSS operations.
(4) Coordinate staff operations.
(5) Provide staff liaison.
(6) Provide guidance to the staff on OPLAN/OPORD preparation.
(7) Coordinate rear operations.

b. Division Medical Operations Center:

(1) Plans, coordinates, and synchronizes HSS for the division.
(2) Prepares medical estimates and reports.
(3) Prepares input to OPLAN/OPORD.
(4) Maintains DMOC staff journal.
(5) Monitors the location and movement of HSS units.
(6) Plans, coordinates, and prioritizes medical logistics and maintenance.

c. S1:

(1) Coordinates administrative, postal, finance, legal, religious, medical, public affairs, and morale, welfare, and recreation support.
(2) Receives and consolidates hasty and deliberate strength information from subordinate units.
(3) Recommends replacement priorities.
(4) Advises the commander on the personnel status of the DISCOM.
(5) Prepares and manages the personnel estimate.
(6) Prepares input to OPLAN/OPORD.
(7) Maintains daily log of significant events.
(8) Manages the EPW, straggler, and civilian refugee activities.
(9) Manages DISCOM safety program.

d. S2/S3 Office:

(1) Prepares staff estimates.
(2) Prepares input to OPLAN/OPORD.
(3) Prepares OPLAN/OPORD.
(4) Monitors the location and movement of subordinate units.
(5) Establishes CP security.
(6) Maintains daily log of significant events.

e. Plans/Operations Branch:

(1) Determines DISCOM tactical support requirements.
(2) Prepares operation estimate.
(3) Directs reconnaissance and movement activities.
(4) Coordinates tactical support with division rear CP.

(5) Prepares road movement order.
(6) Organizes and briefs quartering party and coordinates requirements/activities.
(7) Briefs march column commander.
(8) Coordinates subordinate units movements under all circumstances.
(9) Selects AO at each new or proposed location to include tentative layout plan.
(10) Operates the CP.
(11) Monitors establishment of DISCOM subordinate/attached units.
(12) Coordinates establishment of the defense.
(13) Provides intelligence support.
(14) Plans and implements OPSEC program for current and future operations.
(15) Determines status of OPSEC program.
(16) Develops NBC defense plan and directs preparation for NBC defense.
(17) Directs all NBC operations to include preparations for a friendly NBC strike, radiological/chemical surveys, and decontamination.
(18) Develops base cluster fire plan, fire support plan, mobility and countermobility plan, air defense plan, and base cluster reaction force plan.
(19) Prepares rear operations plan and required rear operations support.
(20) Analyzes spot reports.
(21) Maintains a daily log of all significant activities.

f. MCO:

(1) Determines external movement support requirements.
(2) Coordinates transportation support with customers, MSB, and the DTO.
(3) Prepares movement planning data.
(4) Maintains a daily log of all significant activities.

g. DMMO:

(1) Coordinates supply operations (less Class VIII).
(2) Monitors division supply management functions.
(3) Coordinates maintenance operations.

(4) Manages Class I, II, III, IV, VII, and IX supplies and water.

(5) Maintains property book accountability for division units.

h. DAO:

(1) Serves as division manager for Class V supplies.
(2) Monitors RSR and enforces CSR.
(3) Authenticates ammunition requests.
(4) Maintains liaison with supporting ASPs and the CSA.

6. Internal CP Procedures:

a. Plans and orders:

(1) The DISCOM staff prepares all DISCOM plans and orders; the S2/S3 section publishes the plans and orders.

(2) The S2/S3 section publishes OPLANs/OPORDs, FRAGOs, and warning orders in hard copy and distributes them as follows:

1 - Cdr, DISCOM.
1 - HHC.
1 - DMMO.
1 - DISCOM S2/S3.
1 - MSB.
1 - AMCO.
1 - lst FSB.
1 - 2d FSB.
1 - 3d FSB.
1 - G3.
1 - G4.
1 - Base cluster operations center
1 - Spare.
As needed - Attached and OPCON units.

(3) The DISCOM staff prepares FRAGOs in written format and issues them (in priority of methods) by messenger, facsimile, FM, and RATT.

(4) The commander issues a warning order as soon as a divisional order is received and analyzed.

(5) Personnel number plans and orders sequentially by fiscal year.

b. Maps and overlays:

(1) Maps:

(a) The S2/S3 orders and stocks a basic load of five sets of contingency maps.

(b) The CP operates with a minimum of four sets of maps, each mounted on a map board. One set is for operations, one for intelligence data, one for the DMMO, and one for briefings. Personnel assemble the fifth set for use on jumps.

(c) Personnel highlight vertical and horizontal grid numbers in yellow.

(d) All drops display three grid reference crosses: one in the upper left, one in the lower center, and one in the upper right. All drops use the same locations. Personnel prepare the following drops for each operation:

1. Operations. Includes tactical boundaries and locations of all battalions, separate companies, and command posts. Personnel post the date/time group of the most recent update in the top middle of the drop. The S2/S3 section maintains the drop which hangs at all times on the operations map.

2. Support operations. Includes the MSRs and the current and projected locations of all logistics and HSS units down to company level and all logistics facilities. Personnel label logistics facilities with the date/time group of the opening and projected closing (if appropriate) above the symbol. They use 0/0 to indicate an on-order opening or closing. The S2/S3 section maintains the drop with input from the DMMO. It hangs at all times over the operations drop on the operations map. Personnel roll it above the operations drop.

3. Intelligence. Includes all significant intelligence data to include all identified and suspected locations of enemy units. Personnel outline all enemy positions with a red border. The S2/S3 section maintains it and hangs it at all times on the intelligence map.

4. Rear operations. Includes all rear operations boundaries, base clusters, and the locations of all units down to company size within the DSA. It also includes planned targets and fire support coordination measures. The base cluster operations center maintains it with the same procedures used for the operations drops. When required for operational planning, base cluster operations center provides drop to the S2/S3.

(2) Overlays:

(a) Personnel prepare overlays for OPORDs/OPLANs on opaque overlay paper or, if necessary, on a drop.

(b) All overlays have the standard OPORD/OPLAN heading in the upper right corner.

c. Charts:

(1) At a minimum, personnel maintain the following charts:

(a) Significant activities. Maintained by the on-duty S2/S3 personnel. It shows critical, tactical, and logistics events.

(b) Enemy order of battle. Maintained by the S2/S3. It indicates in list form the identified opposing enemy units and their estimated strength in percentages.

(c) Intelligence incidents. Maintained by the plans and operations branch. It is number coded to the location of incidents posted on the intelligence drop and provides a one-line description of each incident.

(d) CP security sketch. Maintained by the S2/S3. This chart shows the setup and security plan for the DISCOM CP base.

(e) CP shift duty. Maintained by the duty NCO and posted in the vicinity of the entrance to the CP. It identifies the on-duty shift by position and name.

(2) The S2/S3 ensures that these charts are maintained in the CP at all times. Additionally, there are five blank acetate covered charts for use as needed.

d. Warnings:

(1) All warnings are by secure land line or RATT and passed with flash precedence.

(2) Immediate dissemination of STRIKEWARN or CHEMWARN with or without encoded desired ground zero coordinates, may be required, depending on the time sensitivity for safety to US forces.

e. Briefings:

(1) Daily update briefing for the DISCOM commander:

(a) It is held at 1700 or as the commander determines.

(b) The deputy commander controls the briefing.

(c) The sequence is as follows: deputy commander, S2/S3, S1, S4, DMOC, DMMO, other issues or unit representatives.

(2) Operations order briefing:

(a) Each new OPORD or admin/log order is briefed to the DISCOM commander and the subordinate commanders as soon as possible after completion.

(b) The S2/S3 initiates the briefing using the following sequence: analysis of the AO, enemy situation and capabilities, weather, friendly situation, mission, and execution.

(3) Situation update:

(a) When the DISCOM commander enters the CP, the duty officer updates him on the current friendly situation, the current logistics capabilities, and the current enemy situation to include a summary of recent intelligence incidents.

(b) The duty officer provides the same briefing to the S2/S3 and deputy commander after returning from a long absence and to subordinate LOs.

f. Operations:

(1) Shift Changes:

(a) Personnel man shifts in accordance with the schedule published by the S2/S3.

(b) Outgoing duty personnel thoroughly brief incoming replacements to completely familiarize them with all activities within their area during the last shift. This briefing includes a physical review of the log, the log file, and the current operations and intelligence drops.

(c) The on-duty shift is responsible for awakening the replacement shift. The replacement shift is responsible for being present in the CP no later than 30 minutes prior to the start of their shift.

(d) The current shift duty officer releases outgoing personnel when he is satisfied that the incoming personnel are properly briefed.

(2) Communications:

(a) The CP is the NCS for the DISCOM command net.

(b) The CP duty officer/NCO monitors the division command/operations net and maintains a log.

(c) The S2/S3 section monitors the division I&O net and maintains a log.

(d) The CP duty officer/NCO ensures that the DISCOM command net is monitored in the CP and that designated personnel maintain a log.

(e) Designated personnel log incoming and outgoing messages, mark them with the date/time group and log entry number, and file them in the log support file.

(3) Guidance for the CP duty officer:

(a) Keep the maps current and accurate.

(b) Be prepared to brief the commander or visitors on current tactical operations and the logistics situation.

(c) Maintain all communications systems.

(d) Ensure all required reports are timely.

(e) Pursue subordinate units' reports.

(f) Keep the duty log updated.

(4) Security:

(a) The HHC commander is responsible for the security of the CP.

(b) Three rolls of concertina wire surround the CP if available. If not, no less than one roll is used.

(c) An armed guard equipped with an access roster mans the entrance through the wire.

(d) All personnel entering receive a permanent or temporary CP pass.

(e) The guard does not admit anyone to the CP unless his name is on the access roster.

(5) Uniform:

(a) The commander determines the uniform for all personnel in the DISCOM CP area. Protective mask and appropriate MOPP gear may be required.

(b) Personnel wear or carry the protective mask at all times.

(c) All soldiers have their individual weapon with them at all times.

(6) Administration:

(a) CP duty NCO conducts a sensitive items check at the beginning and end of each shift. They check weapons physically by serial number.

(b) Personnel tactically park all vehicles when not in use.

(c) Personnel strictly maintain noise and light discipline.

(d) All personnel maintain appropriate daily hygiene and appearance.

7. CP Establishment and Layout:

a. The S2/S3 selects the general location of the CP based on guidance from the DISCOM commander. The S2/S3 selects the specific location and plan the internal arrangements of the CP in coordination with the HHC commander under the supervision of the deputy commander and the division rear CP.

b. The CP SICP tents and vehicles take maximum advantage of natural cover and concealment. Personnel continually improve concealment by camouflage with natural material and nets.

c. The HHC commander provides traffic control in and around the CP.

d. Sequence of movement is:

(1) Phase I - An element of the CP conducts a survey of the proposed CP site. The deputy commander controls the element which consists of: the deputy commander, communications officer, S2/S3 NCO, MCO specialist, S1 representative, HHC representative, three personnel from the HHC (NBC team), and three DMMC representatives. The duties of the element in order of priority are--

(a) Secure the area.
(b) Establish communications with the CP.
(c) Establish jump CP.
(d) Designate sites for the elements of the DISCOM headquarters.
(e) Serve as guides upon arrival of main body.

(2) Phase II - Once control has passed to the jump CP, the CP prepares for and conducts convoy movement to the new CP location. The quartering party arrives approximately two hours before the main body. The quartering party includes all equipment and personnel required to erect the CP complex.

(3) Phase III - When the CP has completed its reestablishment, control passes back to it from the jump CP.

Appendix (Field Preparation Checklist) to Annex

	YES	NO
1. Personal gear packed.		
2. All camouflage with poles loaded for all equipment.		
3. All tents with poles and pins loaded.		
4. OPORDs and overlays loaded (secured by S2/S3 personnel).		
5. Field filing cabinets and safe loaded.		
6. All appropriate FMs, TMs, and SOPs loaded.		
7. All cots loaded with end boards.		
8. All tools loaded (axes, shovels, mallets, picks).		
9. Engineer tape, acetate, tracing paper, gloves for concertina wire, clipboards, trash bags, and in and out boxes loaded.		
10. All briefing charts, along with easel and butcher paper, and mapboard loaded.		
11. Computer equipment and typewriter with ample supplies loaded.		
12. All pallets (10), plywood (6), landing pallets (2), chock blocks (4) loaded; water can filled and loaded.		
13. Lantern with fuel and extra mantles loaded.		
14. M11 decon units drawn by drivers.		
15. Load plans checked for proper loading of trucks.		

Appendix F

Deception

Contents

DECEPTION ON THE BATTLEFIELD

Battlefield deception enhances a LID's ability to fight. For example, deception allows the commander to mass forces without the enemy noticing. He can then take the initiative by acting in a manner unexpectedly the enemy. The key is to synchronize operations with the overall combat mission.

Commanders conduct deception operations to mislead or confuse enemy decision makers. They seek to distort, conceal, or falsify friendly intentions or capabilities. Successful deception causes the enemy to act favorably to friendly plans.

Deception depends on denying true dispositions and intentions to the enemy. This involves effective OPSEC. In the planning stage, personnel identify friendly profiles. They use them to advantage. OPSEC is also essential during the execution and evaluation phases. Personnel also require intelligence on enemy collection capabilities and decision making. Planners also understand enemy deception doctrine.

LOGISTICS AND HSS PLANNING

Planners integrate logistics and HSS elements info deception plans. They consider whether the resources to exceute a deception story arc available. They also consider the risks involved in committing limited resources to the deception story. This is especially true in the LID. Commanders determine whether the potential gain of a deception is worth the resources required.

A division battlefield deception cell is under the staff supervision of the G3. It plans the division's role in a corps deception. It also plans independent division deception operations. The G4 prepares logistics estimates. He dots this by analyzing logistics factors affecting deception operations. He advises the deception cell on the supportability of various courses of action. The G1 advises the cell on personnel available for deception operations. The G4 coordinates with the G3 and his deception element. Together they integrate deception tasks into the logistics annex to the OPLAN.

DECEPTION MEANS FOR DISCOM ELEMENTS

Deception plans may require DISCOM elements to employ deception means. Deception means are methods, resources, and techniques used to convey or deny information to the enemy. There are four kinds of deception means. These are visual, olfactory, sonic, and electronic. DISCOM units use any combination of the four to meet two deception goals. These goals are to hide the real and display the false.

HIDE THE REAL

Concealing logistics activities tics in with overall OPSEC measures. The following are specific deception means:

- Using civilian vehicles for support operations.
- Storing supplies in train cars, houses, factories, subway tunnels, caves, or bunkers. DISCOM personnel also conduct maintenance and medical operations in such areas.
- Setting up activities in partially destroyed installations.
- Disguising packages and containers to look like ones used by local civilians.

- Sending DISCOM personnel forward with deploying forms. They find and camouflage suitable locations before supplies arrive.
- Setting up in unusual positions.
- Using secondary supply routes.
- Moving vehicles randomly, rather than in convoys. They also move in reduced visibility.
- Screening activity with smoke.
- Changing movement patterns and moving at irregular intervals.

DISPLAY THE FALSE

DISCOM units use deception means to lead the enemy to believe activities exist where there are none. These activities include logistics installations, supply points, motor pools, and airfields. DISCOM units play a role in such specific deception means as –

- Spraying surplus oil or tar on the ground. This creates false runways.
- Arranging empty ammunition containers and fuel drums to portray logistics bases.
- Using smoke to simulate activity or obscure a dummy base.
- Setting up fake supply routes to a dummy base.
- Portraying all indicators associated with base activity. These include latrines, trash, concertina wire, buried cable, and foot and vehicle tracks,
- Using any available logistics base decoy packages. Several devices are under development.

DISCOM units use means other than visual deception. The smell of sprayed surplus POL products enhances the idea that there are vehicles or fuel supply points in the area. (Note: Spraying POL products can create health and fire hazards for friendly troops, Spray high flash products if this deception is used.) Similarly, cooking odors lead an enemy to believe a large unit large is near. Noises, either real or simulated, convince the enemy that logistics activities are near. Finally, DISCOM elements send false reports and orders on radio nets. They coordinate this with the C-E and electronic warfare staff officer.

SAMPLE TECHNIQUES IN TACTICAL OPERATIONS

The following are examples of how DISCOM elements can use deception measures. They support various tactical situations. These are only examples; there are many others. The deception means to use depends on METT-T. DISCOM techniques are integrated into the overall deception and operations plans. FM 90-2 gives deception tactics, tools, and techniques.

OFFENSE

If the deception story is that the 1st Brigade will conduct the main attack, when in reality 2d Brigade will, DISCOM units have a role. They help stimulate noise and light patterns in 1st Brigade's notional assembly area. They also appear to close logistics activities in the old area. DISCOM units in support of 2d Brigade move vehicles at the last possible moment. Even then they restrict movement to that which appears normal for a defensive or supporting attack.

DEFENSE

In the defense, deception leads the enemy to believe the division is withdrawing. DISCOM elements conduct rearward movement of convoys with dummy loads. Units also simulate evacuation, abandonment, or destruction of assets.

RETROGRADE

The DISCOM uses several techniques to make the enemy believe the LID is defending its present position when it is withdrawing. Personnel show stockpiles of supplies in the present position. They continue normal patterns of activity in the current location. They conceal movement of DISCOM elements to the rear. They use infiltration and night movement.

**Appendix G*

Division Support Command, Airborne Division

Contents

ROLE AND ORGANIZATION OF THE AIRBORNE DIVISION

The role of the airborne division is to plan, coordinate, and execute a rapid, combined arms, and forced entry operation employed alone or as part of a joint task force across the depth and width of the battlefield. The airborne division is unique in its ability to be deployed by parachute to achieve objectives. The airborne force commander task organizes Army elements within an airborne force into the following three echelons.

ASSAULT ECHELON

The assault echelon comprises those forces required to seize the assault objective and the initial airhead, plus their immediate reserves and essential logistics forces. The division readiness force and the division readiness brigade, unique to the airborne division, are quick reactionary forces designed for airborne operations. These forces are tailored based on all of the factors of METT-T and typically include elements from the FSB as discussed later in this appendix. A detachment of the quartermaster airdrop equipment support company enters the objective area in the assault echelon to advise the units in the recovery and evacuation of airdrop equipment from the drop zone.

FOLLOW-ON ECHELON

The airborne forces do not need the follow-on echelon in the objective area during the initial assault but do need it for subsequent operations. When needed, the follow-on echelon enters the objective area as soon as possible by air, surface movement, or a combination of the two. It includes additional vehicles and equipment from assault echelon units, plus more combat, combat support, and combat service support units. The means of transportation used influences the composition of the follow-on echelon.

REAR ECHELON

The rear echelon includes part of the DISCOM force left in the departure area that is not considered essential for initial combat operations. It has administrative and service elements not immediately needed in the objective area that can function more efficiently in the departure area. In long duration operations, the rear echelon can be brought into the airhead to support subsequent operations.

ORGANIZATION AND OPERATIONS OF DISCOM

The basic organization of the airborne DISCOM is the same as the DISCOM organization discussed in Chapter 2. However, the airborne DISCOM has a quartermaster airdrop equipment support company and a light and a heavy maintenance company in the MSB versus a single maintenance company in the light infantry division. The organization is shown at Figure G-1.

The DISCOM commander of the airborne division also divides his elements into the three echelons for support (assault, follow-on, and rear). He tailors support for each echelon based on the factors of METT-T; such as personnel and equipment to be supported, number of airframes available, and size of operation. Just as the airborne force is tailored for airdrop or

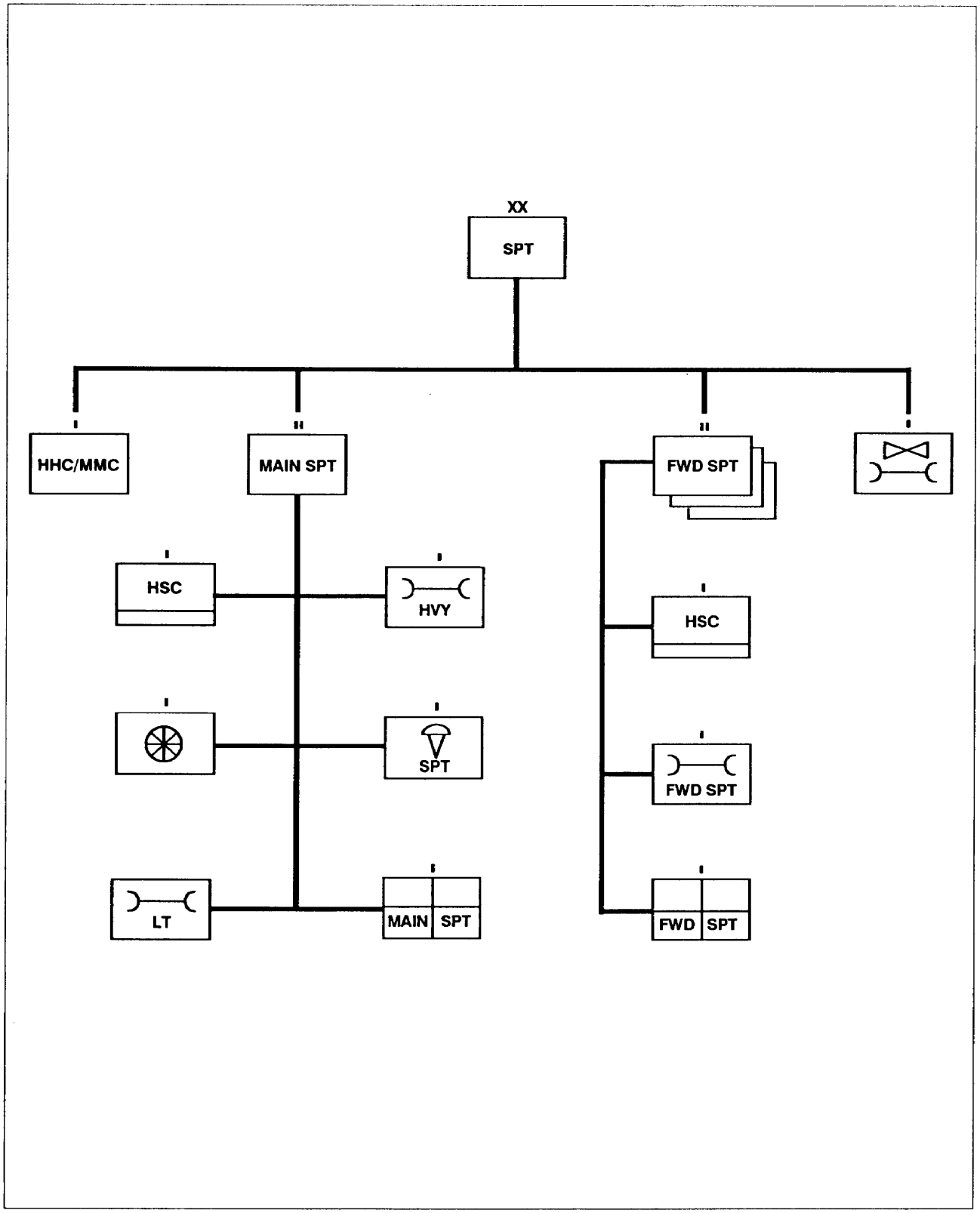


Figure G-1. Airborne DISCOM.

airland combat operations, logistics is tailored to support the airhead or lodgment by airdrop, airland, overland, or sea. Critical support elements from the FSB such as Class III, V, VIII, and IX supply elements are typically in the assault echelon, and the remaining FSB assets enter during the follow-on echelon. In the case of a full-division deployment, key elements from the MSB and aviation maintenance company are in the follow-on echelon, and the remaining MSB and AMCO elements remain with the rear echelon. Planners must also ensure adequate command and control assets are included with each echelon to control logistics elements on the ground and coordinate all logistics activities. In the assault phase and early in the follow-on phase, elements of the FSB HSC may be sufficient to perform these roles. However, in some cases, personnel from the DISCOM headquarters may have to deploy in these early echelons to perform functions for which the FSB headquarters has no expertise. If host-nation support is a major factor, DISCOM personnel are likely to have more expertise to coordinate the effort.

In any case, the logistics C2 element expands as the size of logistics force on the ground grows. At all times the deployed logistics force must maintain contact with its supporting element whether that element is the rear echelon of the DISCOM or, in the case of a fully deployed division, the sustainment base of the next higher echelon, whatever that may beat the time. The critical component in maintaining this constant link is assured communications.

ARMING

CLASS V

When the division is fully deployed, a nondivision ordnance company establishes an ATP in the division rear to support any division elements operating in the rear. The FSB headquarters and supply companies have assets to establish an ATP in each BSA. Even in operations involving less than a fully deployed division, the FSB would establish an ATP in the BSA to transload ammunition arriving from EAD. In the assault phase or early in the follow-on phase, the DISCOM may pool assets from more than one FSB ATP section to establish **an** ad hoc ammunition supply point. An ATP does not store ammunition but in the early stages of an airborne operation storage may be required until a transload system can be established.

CLASS IV

Units carry a limited amount of Class IV into the objective area. Careful choice of drop and assault landing zones reduces the amount of Class IV necessary to support the operation by minimizing the requirement for construction equipment and material. The division commander determines the Class IV stockage in the division and the DMMC manages Class IV stockage. There is no specified division-level reserve for Class IV supplies. Class IV stockage capabilities are extremely limited, and DSA supply points stock them only when required to support a specific operation. Units use local resources for Class IV whenever possible.

FIXING

Maintenance problems are magnified in the airborne division by the scarcity of maintenance personnel in the objective area during the assault phase and by the possible damage to equipment during air drop operations.

GROUND MAINTENANCE

Maintenance personnel organic to the airborne battalions and separate companies along with limited critical elements from the FSB perform maintenance during the initial assault. The remainder of the FSB maintenance company plus other designated individuals and equipment from the MSB maintenance companies enter the objective area in the follow-on echelon. These maintenance personnel provide direct support of primary weapons systems and communications equipment. They carry fast-moving Class IX items and use maintenance support teams extensively to perform on-site repairs.

After the build-up of the airhead (assault phase), the remaining direct support maintenance elements are deployed. Once the division is fully deployed, the FSB maintenance company performs direct support maintenance for division units in the brigade area and

the MSB maintenance company provides direct support maintenance for division units in the division rear as discussed in Chapter 10. The MSB maintenance companies provide reinforcing DS to the forward support maintenance company. Nondivisional maintenance assets provide reinforcing DS to the division.

AVIATION MAINTENANCE

Extensive maintenance is performed prior to the start of the operation and only operator/crew maintenance is performed by the crews during the assault phase. The AVUM company from the aviation brigade provides support during the follow-on phase. Critical AVIM elements arrive during this phase and provide reinforcing AVUM and limited AVIM during this stage. As the lodgment expands, corps slices are tailored into the force for support.

CLASS VII

Operations are the same as discussed in Chapter 10 with the exception that while an operational readiness float exists in peacetime, only the LID maintains an ORF in wartime.

CLASS IX

The MSB light maintenance company receives and issues common and missile repair parts required by its maintenance activities. It receives, stores, maintains, and manages reparable. The FSB maintenance company maintains a stock of repair parts and maintenance-related supplies to support its own maintenance activities. It also carries a stock of demand supported and combat critical Class IX items for issue to supported units.

FUELING

CLASS III (BULK)

Vehicles are filled to USAF specifications (usually one-half to three-quarters of a full tank) prior to loading on the aircraft. Inspected fuel cans filled with fuel can also be loaded on the aircraft. Bulk fuel in "bladder birds" can be loaded on aircraft if desired by the commander. Once the follow-on echelon forces arrive, fuel and lubricant supplies arrive as packaged products. As the operation matures, fuel is usually delivered in bulk. Throughput distribution and supply point distribution are performed as described in Chapter 9.

Upon delivery of fuel from EAD, DISCOM personnel transfer the fuel from the EAD assets into HSC tanks. Supply personnel from the FSB HSC use organic transportation and 500-gallon drums either mounted on cargo trucks or sling loaded by helicopter to distribute emergency supplies. Supported units in the division rear pick up fuel in their organic refueling vehicles from the MSB HSC.

CLASS III (PACKAGED)

See Chapter 9.

MOVING

AIR

The DISCOM staff makes extensive plans for resupply of airborne forces using airdrop, airland, and helicopter operations. The US Air Force transports most personnel, supplies, and equipment in all three echelons during an airborne operation. The airborne division relies on its organic quartermaster airdrop equipment support company for rigging support. The G4 coordinates for aircraft for routine resupply missions. Aircraft for emergency resupply missions are coordinated through the G3. The division aviation brigade also provides some aircraft support to include limited transportation for personnel, supplies, and equipment. Corps aircraft deliver in theater any emergency resupply to the lowest possible support element in the division. CSS personnel should cross-load follow-on supplies to offset loss of one type of item if aircraft are lost.

GROUND

Once on the ground, the airborne form has limited tactical ground mobility for both personnel and equipment Mobility depends on the numbers and types of ground vehicles that can be brought into or seized within the objective area. Captured enemy vehicles are used to supplement limited transportation resources. Efficient use of organic transportation is essential. Ground transportation is the same as described in Chapter 11.

SUSTAINING SOLDIERS AND THEIR SYSTEMS

HEALTH SERVICE SUPPORT

Health service support conserves the fighting strength (trained manpower) of the airborne force allowing the commander to maintain maximum combat power. The DMOC and the support operations sections of the MSB and the FSBs plan for medical operations before insertion of the division into an area of operation. Anticipated casualty rates and disease threats dictate the extent of initial and subsequent HSS required by the division. During the planning process, HSS planners also consider the limited number of tactical/strategic airframes, the limited duration of the operation and the special nature of the mission; such as hostage rescue and withdrawal operations. HSS personnel and equipment can be deployed into the operational area by parachute or by air landing.

CLASS VIII

HSS personnel rely upon palletized or containerized air delivery of supplies and equipment, both for initial deployment and subsequent resupply. The division and unit medical treatment elements stock a limited amount of Class VIII, with the DMSO maintaining a larger amount of Class VIII. Resupply is first made by push packages while the follow-on echelon is deploying. Door bundles are prepared for packaged Class VIII supplies, including IV solutions and bandages. These bundles are distributed among aircraft to prevent destruction by a single incident. Once the rear echelon is in place, normal supply procedures are followed. HSS personnel may use evacuation aircraft returning from EAD to provide urgently required Class VIII.

FOOD

Airborne units carry MREs when entering the objective area. Requests and supply flows are like those for the LID described in Chapter 7.

WATER

Airborne forces carry filled canteens, water purification tablets, and filters. Normally, they carry enough full organic water containers for travel to the airhead. CSS planners determine the location of possible water points. Water purification and storage assets are in the MSB HSC.

**Appendix H*

Division Support Command, Air Assault Division

Contents

ROLE AND ORGANIZATION OF THE AIR ASSAULT DIVISION

The role of the air assault division is to plan, coordinate, and execute highly maneuverable aviation and combined arms operations employed alone or as part of a joint task force across the depth and width of the battlefield. The air assault division is unique in its ability to move rapidly over long distances to achieve objectives.

The air assault division maybe employed as an infantry division and conducts operations like other infantry divisions with a division rear and maneuver brigade area. However, this is not the normal mode of operations and is likely only a temporary condition until air assault conditions are set.

For air assault operations deep into enemy territory, the division uses brigade task forces. The air assault task force is a tailored combination of combat, combat support, and combat service support designed to accomplish a specific mission. Air assaults occur when the situation offers opportunities to go deep to defeat the enemy. Air assaults involve holding terrain, either for its intrinsic value in view of the overall campaign or to bring about the defeat of an enemy formation. The task force establishes and operates from a brigade assault base.

The division commander may also establish operating bases to support the main attack. The operating base is established by a brigade task force, but the logistics element located in the base is a division-level element. The operating base may be the jump element for a DSA move. The division may establish several configurations of operating bases simultaneously depending upon the situation.

ORGANIZATION OF DISCOM

The basic organization of the air assault DISCOM is the same as the DISCOM organization discussed in Chapter 2 except that the air assault DISCOM has a light and a heavy maintenance company in the MSB versus a single maintenance company. An air ambulance company is a separate company located in the DISCOM, and the AVIM unit is a battalion rather than a company. The organization is shown at Figure H-1. The aviation maintenance battalion is a separate battalion under the DISCOM. The battalion is located in the DSA and maintains aircraft, aircraft armament, avionics equipment, and issues Class IX (air) repair parts.

When the air assault division is temporarily employed as an infantry division, the DISCOM employs its elements much the same as described in the text – in the BSAs and a DSA. Also, although requirements differ, the support flows are similar. However, when the division is conducting air assault operations, DISCOM employment adjusts to meet the needs of the division. DISCOM elements may operate from four different types of bases within the air assault division area:

- DSA, which is the base for the DISCOM, AVIM battalion, and MSB, described in Chapters 2, 3 and 4.

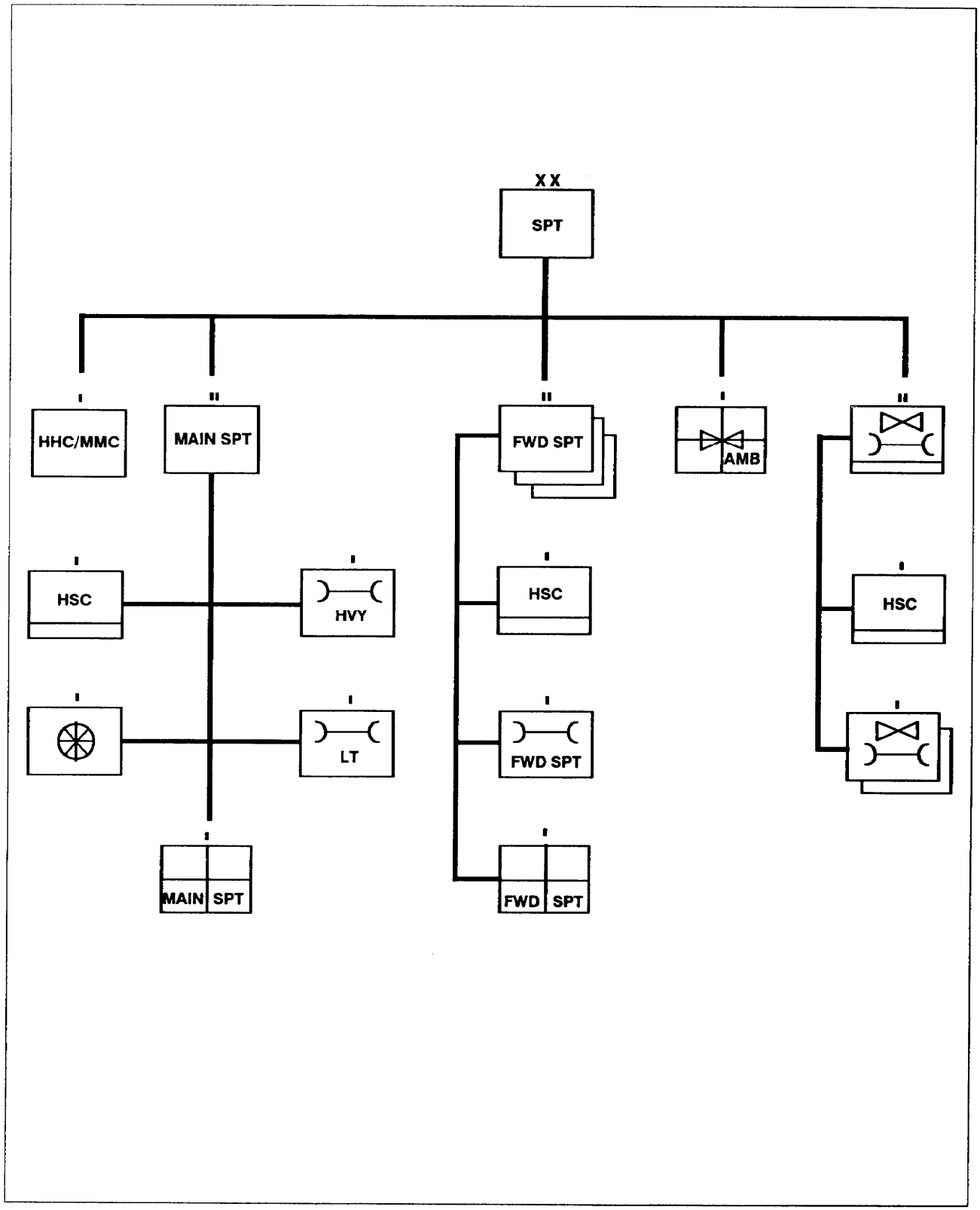


Figure H-1. Air assault division DISCOM.

- Operating base with forward elements of the DISCOM, AVIM battalion, MSB, and possibly some FSB elements.
- BSA, which is the base for the FSB, described in Chapters 2 and 3.
- Assault base with forward elements of the FSB.

FSB elements are located and operate from the assault base. They have two critical missions: refueling and rearming aviation assets and sustaining ground forces with all classes of supply. They also provide critical maintenance and HSS. Ground maneuver elements establish a ground resupply route (if available) and provide follow-on forces while the FSB elements establish control of logistics operations. The infantry brigade task force provides security for the brigade assault base and for transit of follow-on air assault forces.

The DISCOM can establish two operating bases simultaneously using assets from the MSB and FSBS. The operating base is mobile, easily tailorable, and maintains Class I, III, V, limited II and IV, water, maintenance, limited Class VIII, and medical treatment and evacuation capabllities. Figure H-2 shows one possible employment of DISCOM elements. In this case, one brigade task force is conducting an air assault operation from an assault base, and the division commander has elected to establish one operating base in support of the main effort. Here he has decided to build the operating base on a previously existing assault base established by one of the brigade task forces. This is only one possibility. Each brigade task force may establish an assault base, and the division may use up to two operating bases.

ARMING

CLASS V

Arming follows the same procedure as discussed in Chapter 8, when the division operates as an infantry division. During air assault operations, critical ammunition assets from the FSB ATP are in the assault and operating bases.

CLASS IV

Units carry a limited amount of Class IV into the objective area. Careful choice of assault landing zones reduces the amount of Class IV necessary to support the operation by minimizing the requirement for construction equipment and material. The division commander determines the Class IV stockage in the division and the DMMC manages Class IV stockage. There is no specified division-level reserve for Class IV supplies. Class IV stockage capabilities are extremely limited, and DSA supply points stock them only when required to support specific operations. Units use local resources for Class IV whenever possible.

FIXING

Maintenance units in the air assault division are organized, equipped, and trained for responsive support of divisional units. Maximum use is made of contact teams to perform on-site maintenance to fix as far forward as possible. The contact teams from the FSB or MSB are dispatched to the site to repair, depending upon the condition of the equipment.

GROUND MAINTENANCE

In the operating base and DSA, the light maintenance and the heavy maintenance companies of the MSB provide direct support maintenance. The heavy maintenance company provides the support because the air assault division has more equipment than the LID. Limited evacuation services for forward maintenance companies and for maintenance collection points are located in the BSA/DSA. In the brigade assault base and the BSA, the maintenance company of the FSB provides direct support maintenance for any ground equipment.

AVIATION MAINTENANCE

The aviation maintenance battalion, based in the DSA, maintains aircraft, aircraft armament, and avionics equipment, and it issues Class IX (air) repair parts. In the forward areas, contact teams from the aviation maintenance battalion make on-site repairs or, if required, evacuate the aircraft and equipment to the DSA for repair.

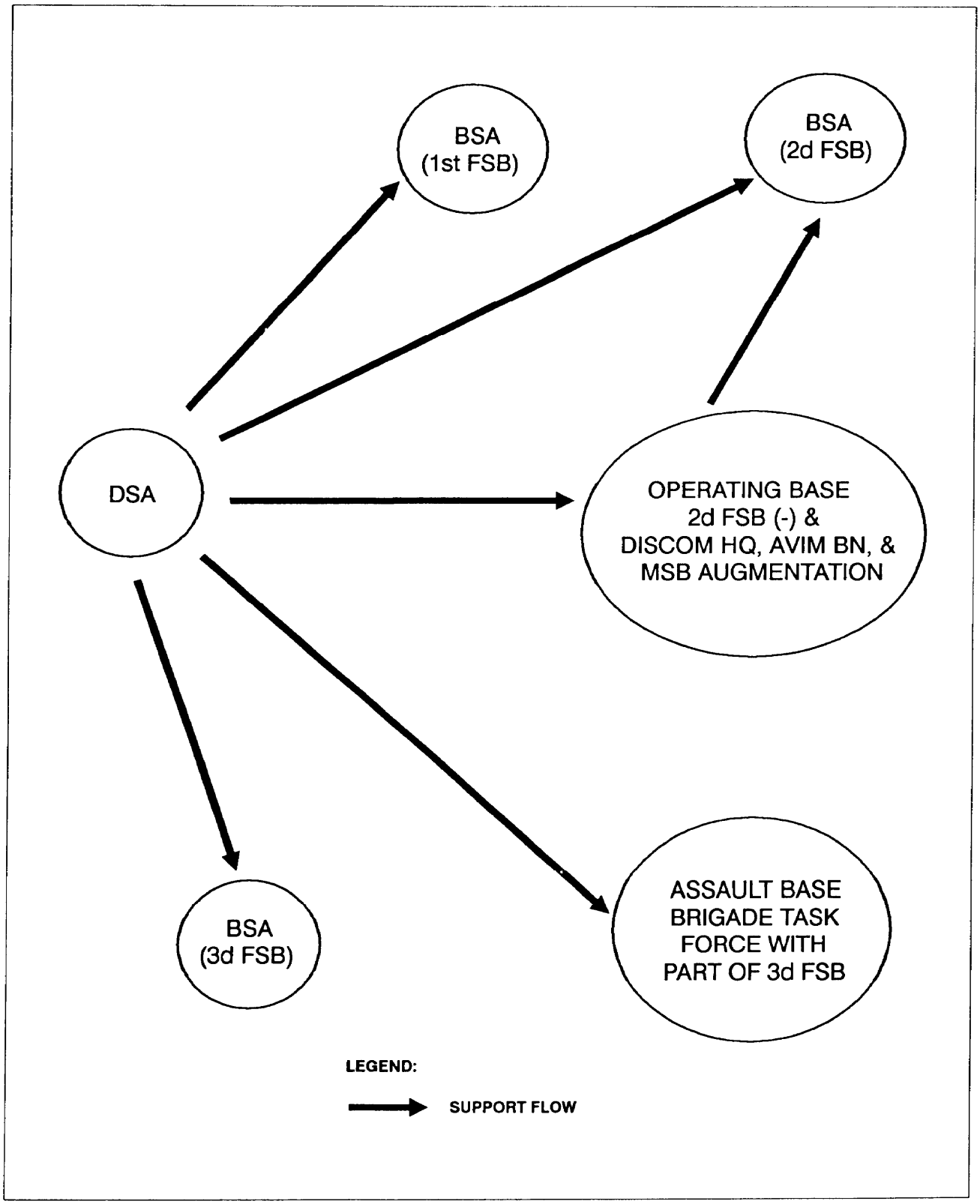


Figure H-2. Sample DISCOM employment.

MISSILE MAINTENANCE

The light maintenance company of the MSB provides missile maintenance support in the DSA operating base. The light maintenance company provides support for short range air defense and land combat systems. The missile maintenance section of the FSB maintenance company provides missile maintenance support in the assault base/BSA by repairing or replacing components.

CLASS IX

The MSB light maintenance company receives and distributes common and missile repair parts required by its maintenance activities. It receives, stores, maintains, and manages reparable. It also issues Class IX items to supported units. The FSB maintenance company maintains a stock of repair parts and maintenance related supplies to support its own maintenance activities and carries a stock of demand supported and combat critical Class IX items for issue to supported units.

FUELING

CLASS III (BULK)

Early in the operation, fuel and bulk lubricant resupply arrive as packaged products. As the operation matures, fuel is usually delivered in bulk. The use of throughput, supply point, and unit distribution are performed as described in Chapter 7. Upon delivery, personnel transfer the fuel from the EAD tank semitrailers into the HSC collapsible tanks. Supply personnel from the FSB supply company use organic collapsible fabric tanks to distribute supplies, Supported units in the division rear pickup fuel in their organic refueling vehicles from the MSB HSC.

CLASS III (PACKAGED)

To maintain mobility, supply points in the DSA and BSA maintain limited stockage of high-demand Class III packaged products. Fog oil or other large quantities of packaged POL products are throughput from EAD as the situation dictates. Fuel operations are conducted by supply point distribution.

MOVING

Normal means of transportation within the division are motor transport and aircraft. Motor transportation assets within the division are limited. Therefore, considerable reliance is placed on throughput of supplies from corps to the FSB in the BSA and to the brigade assault base. The DISCOM delivers supplies to the lowest possible support element in the division, using land or air lines of communications.

MOTOR TRANSPORT

The transportation motor transport company of the main support battalion provides truck transportation for distribution of Class I, II, III, IV, VII, and IX supplies, The company transports troops in support of division operations and furnishes vehicles to assist division elements with a requirement for supplemental transportation. Emergency distribution of water and Class V supplies are provided by the TMT company. Priorities for use of motor transport resources are established at division staff level and are provided to the DISCOM movement control office by the DTO. Capabilities are then balanced against the requirements and division priorities in order to commit available motor transport.

AIRCRAFT

The division has an organic aviation brigade that finds, frees, and destroys the enemy. In addition, it can provide CS and CSS airlift. The aviation brigade has one helicopter battalion (CH47 series) with three medium lift companies. Air is the primary means of transport for all classes of supply, except when nondivisional ground transportation is provided. Divisional aircraft distribute supplies from the point of receipt to brigade or lower echelons. Organic medium helicopters deliver large items or heavy loads to the requesting unit, Utility helicopters deliver smaller loads of supplies forward of the brigade support areas. In emergencies, supplies are delivered directly to using units. Supplemental air transport may be provided by corps upon the request of the division commander. Corps aviation units assigned a combat service support mission for a division are normally under the operational control of the

DISCOM commander. Aerial resupply is a method of delivering supplies and equipment to ground elements. Corps airdrop support units are used for airdrop resupply missions. When Air Force aircraft are used, supplies and equipment to be airdropped ground transportation to move them, parachutes and air items used, rigging of loads, and ground personnel supporting the operations are Army responsibilities. In addition, when Air Force aircraft are used in an aerial resupply mission, aerial resupply becomes a joint operation involving Army and Air Force units. All requests are validated by a joint force commander's agent and assigned a priority. They are forwarded to the airlift control center for execution.

SUSTAINING SOLDIERS AND THEIR SYSTEMS

HEALTH SERVICE SUPPORT

Health service support conserves the fighting strength (trained manpower) of the air assault force allowing the commander to maintain maximum combat power. HSS planners in the division medical operations center make an assessment of the medical support required prior to any insertion of the division into an area of operation. Anticipated casualty rates and disease threats dictate the extent of initial and subsequent HSS required by the division. During the planning process, HSS planners also give consideration to the limited number of aircraft, the limited duration of the operation and the special nature of the mission,

AIR AMBULANCE

While the air ambulance company can operate within the entire spectrum of the battlefield, the air ambulance company headquarters is normally collocated with the main support medical company in the DSA. Air ambulance teams are deployed forward with each FSB in accordance with METT-T. The DMOC will provide daily technical and operational control, while the DISCOM commander retains overall command and control of the air ambulance company.

CLASS VIII

The division medical supply office, MSB, arranges for the provision of Class VIII and for unit maintenance on biomedical equipment. The DMSO develops and maintains prescribed loads of contingency medical supplies, manages the medical quality control program, and supervises unit biomedical equipment maintenance support. Careful coordination must be made between the DMSO/medical unit and the air/ground evacuation assets to provide timely Class VIII resupply.

HSS personnel rely upon palletized/sling loaded delivery of supplies and equipment, both for initial deployment and subsequent resupply. The division and unit medical treatment elements stock a limited amount of Class VIII, with the DMSO maintaining a larger amount of Class VIII. Following deployment, resupply is made by push packages until the corps logistics system is established. HSS personnel may use medical evacuation aircraft returning from corps to provide urgently required Class VIII.

FOOD

Air assault units carry a basic load of MREs when entering the objective area. Request and supply flows are like those for the LID (Chapter 7). However, emergency rations may be pushed to the combat trains via sling loads from the FSB or MSB.

WATER

Air assault forces carry filled canteens and water purification tablets. Normally, they carry enough full organic water containers for travel to the airhead. CSS planners determine the location of possible water points. Water purification and storage assets are in the MSB HSC.

Glossary

A

A2C2 *Army airspace command and control*
AACG *arrival airfield control group*
AAFES *Army and Air Force Exchange Service*
AB *aviation brigade*
ACC *air component commander*
acft *aircraft*
ADA *air defense artillery*
ADC *area damage control*
ADC-M *assistant division commander-maneuver*
ADC-S *assistant division commander-support*
admin *administrative*
ADP *automatic data processing*
ADPE *automatic data processing equipment*
ADTMC *Algorithm-Directed Troop Medical Care*
AFFS *Army Field Feeding System*
AISM *automated information systems manual*
ALCC *airlift control center*
ALCE *airlift control element*
alft *airlift*
ALOC *air line of communications*
AM *amplitude modulated*
amb *ambulance*
AMCO *aircraft maintenance company*
ammo *ammunition*
AMO *automation management office*
AN-TCP *analyst console-transportable computer unit*
AO *area of operations*
AR *Army regulation*
armt *armament*
ASL *authorized stockage list*
ASP *ammunition supply point*
asst *assistant*
ATCCS *Army Tactical Command and Control System*
atk *attack*
ATM *advance trauma management*
ATP *ammunition transfer point*
attn *attention*
autmv *automotive*
AVIM *aviation intermediate maintenance*
avn *aviation*
AVUM *aviation unit maintenance*
AXP *ambulance exchange point*

B

BAS *battalion aid station*
BCOC *base cluster operations center*
BDA *battle damage assessment*
BDAR *battle damage assessment and repair*
bde *brigade*
BDOC *base defense operations center*
BDR *battle damage repair*
BF/NP *battle fatigue, neuropsychiatric*
bk *book*
bn *battalion*
br *branch*
BSA *brigade support area*

C

C2 *command and control*
CBS-X *Continuing Balance System-Expanded*
CCI *controlled cryptographic items*
CCL *combat-configured load*
CCS2 *Command, Control and Subordinate System Structure*
CCT *combat control team*
cdr *commander*
C-E *communications-electronics*
CEB *clothing exchange and bath*
chem *chemical*

CHEMWARN *friendly chemical attack warning*
cl *class*
clr *clearing*
cmd *command*
CMMC *corps materiel management center*
CNR *combat net radio*
co *company*
COL *colonel*
coll *collecting; collection*
comm *communications*
COMMZ *communications zone*
COMSEC *communications security*
con *control*
CONUS *continental United States*
COSCOM *corps support command*
CP *command post*
CPT *captain*
CS *combat support*
CSA *corps storage area*
CSM *command sergeant major*
CSR *controlled supply rate*
CSS *combat service support*
CSSCS *Combat Service Support Control System*
CTA *common table of allowance*
CTASC *Corps/Theater ADP Service Center*

D

DA *Department of the Army*
DAAS *Defense Automatic Addressing System*
DACG *departure airfield control group*
DAMMS-R *Department of the Army Movement Management System-Redesigned*
DAO *division ammunition officer*
DAS3 *Decentralized Automated Service Support System*
decon *decontamination*
DISCOM *division support command*
disp *disposition*
div *division*
DIVARTY *division artillery*
DMMC *division materiel management center*
DMMO *division materiel management officer*
DMOC *division medical operations center*
DMSO *division medical supply office(r)*
DNBI *disease, nonbattle injury*
DNVT *digital nonsecure voice telephone*
DODIC *Department of Defense identification code*
dpty *deputy*
DS *direct support*
DSA *division support area*
DSU *direct support unit*
DTO *division transportation officer*
DZ *drop zone*

E

E *enlisted*
ea *each*
EAC *echelons above corps*
EAD *echelons above division*
elct *electronic*
EMP *electromagnetic pulse*
EMT *emergency medical treatment*
engr *engineer*
environ *environment*
EOD *explosive ordnance disposal*
EODCT *explosive ordnance disposal control team*
EPW *enemy prisoner of war*
equip *equipment*
ETA *estimated time of arrival*
EW *electronic warfare*
exec *executive*

F

FA *field artillery*

FAAR	*forward area alerting radar*
FARE	*forward area refueling equipment*
FASCO	*forward area support coordinator*
FAWPSS	*forward area water point supply system*
fax	*facsimile*
FLB	*forward logistics base*
fld	*field*
FLE	*forward logistics element*
FLOT	*forward line of own troops*
flt	*flight*
FM	*field manual; frequency modulated*
FRAGO	*fragmentary order*
FS	*fire support*
FSB	*forward support battalion*
fwd	*forward*

G

G1	*Assistant Chief of Staff, G1 (Personnel)/Adjutant General*
G2	*Assistant Chief of Staff, G2 (Intelligence)*
G3	*Assistant Chief of Staff, G3 (Operations and Plans)*
G4	*Assistant Chief of Staff, G4 (Logistics)*
G5	*Assistant Chief of Staff, G5 (Civil/Military Operations)*
gen	*general*
gnd	*ground*
GP	*general purpose*
GRC	*ground radio communications*
GRREG	*graves registration*
GS	*general support*
GSE	*ground support equipment*

H

hel	*helicopter*
HET	*heavy equipment transporter*
HHB	*headquarters and headquarters battery*
HHC	*headquarters and headquarters company*
HMMWV	*high mobility multipurpose wheeled vehicle*
HNS	*host-nation support*
hosp	*hospital*
HSC	*headquarters and supply company*
HSS	*health service support*
HQ	*headquarters*
hvy	*heavy*

I

I&O	*intelligence and operations*
ICR	*individually carried record*
IEW	*intelligence and electronic warfare*
IHFR	*improved high frequency radio*
inf	*infantry*
intel	*intelligence*
IPB	*intelligence preparation of the battlefield*
iss	*issue*

J

JFC	*joint forces command*
JP-4	*jet propulsion fuel, type 4*
JP-5	*jet propulsion fuel, type 5*
JP-8	*jet propulsion fuel, type 8*
JTF	*joint task force*

K

km	*kilometer*

L

LEN	*large extension node*
LIC	*low intensity conflict*
LID	*light infantry division*
LO	*liaison officer*
LOC	*line of communications*
log	*logistics*
LOGCAP	*logistics civil augmentation program*
LOGPAC	*logistics package*

LOGSTAT *logistics status*
LOS *line of sight*
LP *listening post*
LRU *line replacement unit*
lt *light*
LTC *lieutenant colonel*
LZ *landing zone*

M

MACOM *major command*
maint *maintenance*
MAJ *major*
MASH *mobile army surgical hospital*
mat *materiel*
MBA *main battle area*
MCC *movement control center*
MCO *movement control office(r)*
MCP *maintenance collection point*
MCS *maintenance control supervisor; maneuver control system*
MCT *movement control team*
mdm *medium*
mech *mechanized*
med *medical*
MEDBLD *Medical Blood*
MEDC2 *medical command and control*
MEDLOG-D *Medical Logistics – Division*
MEDMNT *Medical Maintenance*
MEDPAR *Medical Patient Accounting and Reporting*
MEDPAR-D *Medical Patient Accounting and Reporting – Division*
MEDSOM *medical supply, optical, and maintenance*
MEDSUP *Medical Supply*
METT-T *mission, enemy, terrain, troops, and time available*
mgt *management*
MHE *materials-handling equipment*
MI *military intelligence*
mm *millimeter*
MMC *materiel management center*
MOADS *Maneuver Oriented Ammunition Distribution System*
MOGAS *motor gasoline*
MOPP *mission-oriented protection posture*
MOS *military occupational specialty*
MP *military police*
MRE *meal, ready-to-eat*
MRO *materiel release order*
MSB *main support battalion*
MSE *mobile subscriber equipment*
msl *missile*
MSR *main supply route*
MSRT *mobile subscriber radio telephone terminal*
MST *maintenance support team*
MTF *medical treatment facility*
MTOE *modified table of organization and equipment*
MWO *modification work order*

N

nav *navigation*
NBC *nuclear, biological, chemical*
NCO *noncommissioned officer*
NCOIC *noncommissioned officer in charge*
NCS *net control station*
NDI *nondestructive inspection*
NICP *national inventory control point*
NP *neuropsychiatric*

O

obsn *observation*
OCOKA *observation and fields of fire, concealment and cover, obstacles, key terrain, and avenues of approach*
OCONUS *outside the continental United States*

OEG	*operational exposure guidance*
ofc	*office*
off	*officer*
OIC	*officer in charge*
O/O	*on-order opening*
op	*operator*
OP	*observation post*
OPCON	*operational control*
OPLAN	*operation plan*
OPORD	*operations order*
ops	*operations*
OPSEC	*operations security*
opt	*optometry*
ORF	*operational readiness float*

P

PAC	*personnel and administration center*
PAD	*patient administration and disposition*
pam	*pamphlet*
PAO	*public affairs officer*
pat	*patient*
petrl	*petroleum*
pkg	*packaged*
PKO	*peacekeeping operation*
PLL	*prescribed load list*
PLS	*Palletized Loading System*
plt	*platoon*
PMCS	*preventive maintenance checks and services*
POC	*point of contact*
POL	*petroleum, oils, and lubricants*
PRC	*portable radio communications*
prod	*production*
prop	*property*
PSS	*personnel service support*
pts	*parts*
PUL	*preconfigured unit load*
pvnt	*preventive*
pwtn	*power train*

Q

QC	*quality control*
QCA	*quick change assembly*
QM	*quartermaster*
QSS	*quick supply store*

R

RATT	*radio teletypewriter*
RAU	*radio access unit*
rdr	*radar*
rec	*receiving*
rep	*representative; repair*
ROC	*rear operations commander*
RP	*release point*
RSR	*required supply rate*
RTD	*return to duty*
RX	*reparable exchange*

S

S1	*Adjutant (US Army)*
S2	*Intelligence Officer (US Army)*
S3	*Operations and Training Officer (US Army)*
S4	*Supply Officer (US Army)*
S&S	*supply and service*
SAAS	*Standard Army Ammunition System*
SAAS-DAO	*Standard Army Ammunition System – Division Ammunition Officer*
SALUTE	*size, activity, location, unit, time, and equipment*
salv	*salvage*
SAMS	*Standard Army Maintenance System*
SARSS	*Standard Army Retail Supply System*
SCOTT	*single-channel objective tactical terminal*
sct	*scout*
SEALOC	*sea line of communications*
sec	*section*

SEN *small extension node*
ship *shipping*
SICP *standard integrated command post*
SIDPERS *Standard Installation/Division Personnel System*
sig *signal*
SINCGARS *single-channel ground and airborne radio system*
SOF *special operations forces*
SOI *signal operation instructions*
SOP *standing operating procedure*
SPBS-R *Standard Property Book System-Revised*
spec *specialist*
spt *support*
sqd *squad*
sr *senior*
SSB *single sideband*
sta *station*
STAMIS *Standard Army Management Information System*
stk *stockage*
stor *storage*
strc *structure*
STRIKEWARN *friendly strike warning*
sup *supply*
supv *supervisor*
surg *surgical, surgeon*
svc *service*
sys *system*

T

TA *theater army*
tac *tactical*
TACC *tactical air control center*
TACCS *Tactical Army Combat Service Support Computer System*
TACSAT *tactical satellite*
TALO *tactical airlift liaison officer*
TAMMIS *Tactical Army Medical Management Information*
TAMMIS-D *Tactical Army Medical Management Information System- Division*
TAMMIS *The Army Maintenance Management System*
TC *training circular*
tech *technical; technician*
tm *team*
TM *technical manual*
TMDE *test, measurement, and diagnostic equipment*
TMT *transportation motor transport*
TOE *table of organization and equipment*
TOW *tube-launched, optically tracked, wire-guided*
TPU *tank and pump unit*
TRADOC *United States Army Training and Doctrine Command*
T Ration *tray ration*
trk *truck*
trmt *treatment*
TSOP *tactical standing operating procedure*

U

UCL *unit configured load*
ULC *unit-level computer*
ULLS *Unit Level Logistics System*
UMT *unit ministry team*
US *United States*
USAF *United States Air Force*
USN *United States Navy*
util *utility*
UXC *utility facsimile communications*

V

VA *Virginia*
veh *vehicle*
VHF *very high frequency*

vis	*visibility*
VRC	*vehicular radio communications*

W

WF	*wire, field*
wh	*wheeled*
whs	*warehouse*
WOC	*wing operations center*
wpn	*weapon*
WSM	*weapon systems manager*
wtr	*water*

X

XO	*executive officer*

*References

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AR 600-8-1	*Army Casualty and Memorial Affairs and Line of Duty Investigations*
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AR 700-137	*Logistics Civil Augmentation Program (LOGCAP)*
AR 710-2	*Supply Policy Below the Wholesale Level*
AR 710-3	*Asset Transaction Reporting System*
AR 750-1	*Army Materiel Maintenance Policy and Retail Maintenance Operations*

Automated Information Systems Manual (AISM)

AISM 18-L21-BUR-EM* *End User Manual for Standard Army Maintenance System(SAMS-l)*

Common Table of Allowances (CTA)

CTA 50-900	*Clothing and Individual Equipment*

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DA Form 2028	*Recommended Changes to Publications and Blank Forms*

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DA Pam 710-2-1	*Using Unit Supply System (Manual Procedures)*
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DD Form 250	*Materiel Inspection and Receiving Report*
DD Form 448	*Military Interdepartment Purchase Request*
DD Form 448-2	*Acceptance of Military Interdepartment Purchase Request*
DD Form 1131	*Cash Collection Voucher*
DD Form 1155	*Order for Supplies of Services*
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FM 3-3	*NBC Contamination Avoidance*
FM 3-5	*NBC Decontamination*
FM 3-100	*NBC Defense, Chemical Warfare, Smoke, and Flame Operations*
FM 5-20	*Camouflage*
FM 5-103	*Survivability*
FM 6-20-2J	*Division Artillery Field Artillery Brigade and Corps Artillery Headquarters*
FM 7-10	*The Infantry Rifle Company*
FM 7-20	*The Infantry Battalion*
FM 8-10	*Health Service Support in a Theater of Operations*
FM 8-10-3	*Division Medical Operations Center, Tactics, Techniques, and Procedures*
FM 8-10-4	*Medical Platoon Leaders' Handbook– Tactics, Techniques, and Procedures*
FM 8-42	*Medical Operations in Low Intensity Conflict*
FM 8-285	*Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries*
FM 9-6	*Munitions Support in the Theater of Operations*
FM 9-38	*Conventional Ammunition Unit Operations*
FM 10-14	*Unit Supply Operations*
FM 10-15	*Basic Doctrine Manual for Supply and Storage*
FM 10-23	*Army Food Service Operations*
FM 10-27	*General Supply in a Theater of Operations*
FM 10-27-2	*Tactics, Techniques, and Procedures for Quartermaster Direct Support Supply and Field Service Operations*
FM 10-52	*Water Supply in Theaters of Operations*
FM 10-63	*Handling of Deceased Personnel in Theaters of Operations*
FM 10-63-1	*Graves Registration Handbook*
FM 10-69	*Petroleum Supply Point Equipment and Operations*
FM 10-71	*Petroleum Tank Vehicle Operations*
FM 10-280	*Mobile Field Laundry Clothing Exchange, and Bath Operations*
FM 12-6	*Personnel Doctrine*
FM 19-4	*Military Police Team, Squad, Platoon Combat Operations*
FM 20-3	*Camouflage*
FM 21-11	*First Aid for Soldiers*
FM 22-9	*Soldier Performance in Continuous Operations*

FM 24-24	*Radio and Radar Reference Data*
FM 26-2	*Management of Stress in Army Operations*
FM 31-20	*Doctrine for Special Forces Operations*
FM 34-10	*Division Intelligence and Electronics*
FM 34-80	*Brigade and Battalion Intelligence and Electronic Warfare Operations*
FM 34-130	*Intelligence Preparation of the Battlefield Warfare Operations*
FM 43-5	*Unit Maintenance Operations*
FM 43-12	*Division Maintenance Operations*
FM 44-1	*US Army Air Defense Artillery Employment*
FM 44-3	*Air Defense Artillery Employment: Chaparral/Vulcan/Stinger*
FM 55-2	*Division Transportation Operations*
FM 55-12	*Movement of Units in Air Force Aircraft*
FM 55-15	*Transportation Reference Data*
FM 55-30	*Army Motor Transport Units and Operations*
FM 57-230	*Advanced Parachuting Techniques and Training*
FM 63-2	*Division Support Cornrnand Armored Infantry and Mechanized Divisions*
FM 63-3	*Corps Support Command*
FM 63-6	*Combat Service Support in Low-Intensity Conflict*
FM 63-20	*Forward Supporti Battalion*
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FM 100-5	*Operations*
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FM 100-27	*US Army/US Air Force Doctrine for Joint Airborne and Tactical Airlift Operations*
FM 101-5	*Staff Organization and Operations*
FM 101-10-1/2	*Staff Officers Field Manua-Organizationa, Technical, and Logistical Data (Volume 2) (NOTE: A disk with current Supply Usage Requirements Estimator data is available by writing to the Commander, U.S. Army Combined Arms Support Command and Fort Lee, ATTN: ATCL-FSP, Fort Lee, VA 23801-6000.)*

Optional Forms

Optional Form 36	*Continuation Sheet*
Optional Form 1419	*Abstract of Offers – Construction*

Standard Forms (SFs)

SF 26	*Award/Contract*
SF 30	*Amendment of Solicitation/Modi@ation of Contract*
SF 33	*Solicitation, Offer and Award*
SF 44	*Purchase Order– Invoice – Voucher*
SF 1409	*Abstract of Offers*

Training Circular (TC)

TC 8-12	*Use of the M51 Shelter System by Division Level Medical Units*

Technical Manual (TM)

TM 10-500-7	*Airdrop of Supplies and Equipment: Rigging Dry Bulk Materials and Potable Water for Free Drop*

**Source of procurement: Commander, U.S. Army Combined Arms Support Command and Fort Lee, ATTN: ATCL-SRR, Fort Lee, VA 23801-4000*

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