HEADQUARTERS, DEPARTMENT OF THE ARMY

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CORPS SUPPORT GROUPS

Field Manual
No. 54-30

HEADQUARTERS
DEPARTMENT OF THE ARMY
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CORPS SUPPORT GROUPS

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Preface

This manual provides the fundamental principles and guidelines for employment of CSGs, CSBs, and subordinate elements. It includes tactics, techniques, and procedures which CSG and CSB staffs may implement in coordinating arm, fuel, fix, move, and soldier support missions within the context of a fluid, integrated battlefield. It describes forward and rear CSGs, to include their missions, organization, and employment. It also covers the missions, organization, and employment of CSBs, and describes their HHD in detail. Since other publications cover the rear CSG's functional battalions, only general coverage is provided on those battalions.

Though intended primarily for use by CSG and CSB command and staff, the manual should also be of value to COSCOM staff officers, commanders and staff of subordinate functional battalions, and the staff of supported units.

This manual is intended to serve as a guide. No part of the manual should be construed as limiting CSG or subordinate CSB commanders to a fixed course of action.

For additional information on how the corps fights and is supported, refer to FMs 63-3 and 100-15.

The proponent of this publication is HQ TRADOC. Send comments and recommendations on DA Form 2028 and directed 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

Battlefield Challenges

CSGs face the challenge of supporting corps forces on a modern battlefield where operations are fast paced and resource hungry. They provide the logistics resources to support corps soldiers and to arm, fuel, fix, and move the corps force. Whether CONUS based or part of a forward presence force based abroad, they must be prepared to deploy on short notice for contingency operations in support of joint or combined operations.

To provide responsive support, CSGs task organize and employ their units farther forward than ever before. This includes a task organized corps support battalion which deploys before or with a division task force and employs in the division area. To ensure that support is provided when and where needed and in the quantities needed to weight the corps battle, CSG commanders and staff employ the operational tenetsand sustainment imperatives described in this chapter.

CONTENTS

TENETS OF WARFIGHTING DOCTRINE

CSG commanders and staff must anticipate changes in support requirements as tactical plans shift. Since they work closely with tactical planners in developing contingency plans to support variations in tactical operations, they must understand the basics of combined-arms tactical operations. Their success in supporting operations on the nonlinear battlefield depends on their ability to apply the tenets of warfighting doctrine set forth in FM 100-5.

INITIATIVE

Initiative means setting or changing the terms of battle. It involves taking risks. The willingness of CSG commanders to accept risks associated with employing subordinate units as far forward as possible affects the tempo of battle. In coordination with COSCOM and DISCOM staffs, CSG support operations staffs determine whether tactical plans can be supported.

CSG support operations staffs display initiative and change the terms of battle by –

- Anticipating or forecasting requirements.
- Preplanning support alternatives.
- Tailoring or task organizing subordinate battalions.
- Pushing support forward.
- Changing customer support priorities in response to changes in tactical operations.
- Helping tactical units establish the conditions of battle.

AGILITY

Agility requires a deployable and a tailorable force. CSGs tailor subordinate CSBs and cross-level teams or elements between CSBs. This adds to the deployability of logistics support organizations.

Long lines of supply reduce agility. Moving CSG units forward shortens the distance between supporting and supported units. Enabling CSG units to be as mobile as the maneuver units they support helps to ensure shorter LOCs.

Agility also requires that our officers make decisions quicker than the enemy. Support should be proactive rather than reactive. To act within the window of decision, CSG staff officers have a wealth of current information on hand. CSG support operations staff officers continually assess logistics status reports and CSSCS data to determine trends or problems with support. The interface of CSSCS software with subordinate unit STAMIS will enable CSG S2/3 and support operations staff to make near real time decisions.

Preplanning courses of action for amber or red stock status conditions enables support operations staff to act quickly to correct support problems. The CSG support operations officer shifts support efforts

by changing customer support lists. This repositions or reorients support.

DEPTH

The concept of deep attack extends the corps' area of influence from the corps rear boundary to the enemy's second echelon. The corps may occupy an area 100 by 210 kilometers or 21,000 square kilometers. This stretches the lines of supply. To counter this, CSGs employ units farther forward than ever before. CSG units which previously employed in the forward portion of the corps rear area now employ in the division area.

Depth applies not only to space in which to maneuver but to a depth in resources. Resource depth allows CSGs to provide support when and where needed. By maintaining a portion of the corps reserves, CSGs have a depth of resources to support operations and provide reinforcing support to divisions, separate brigades, and ACRs.

SYNCHRONIZATION

Synchronization requires advance planning. For supplies to arrive when and where needed, CSG/CSB support operations staffs coordinate support to occur at the decisive time and place. This requires integration of the transportation and supply assets into responsive distribution systems.

More importantly, synchronization requires coordination between logisticians and tacticians. Logistics plans support tactical plans. The combat force can move and fight only as long as supporting forces supply fuel, ammunition, and weapon systems.

CSG support operations staffs coordinate the operations of subordinate elements based on the corps commander's intent and corps G3/G4 priorities. As necessary, CSGs synchronize and cross-level resources among their subordinate battalions to accomplish their missions.

SUSTAINMENT IMPERATIVES

The sustainment imperatives are anticipation, integration, continuity, responsiveness, and improvisation. Supporting operations on an Air Land Battlefield requires that CSG staff officers –

- Anticipate requirements and forecast future demands.
- Integrate and synchronize logistics support operations.
- Ensure continuous logistics support.
- Respond on short notice.
- Improvise to meet unanticipated emergencies.

As shown by Figure 1-1, sustainment imperatives are not substitutes for the basic tenets of AirLand Battle doctrine set forth in FM 100-5. They complement them, For more information on sustainment imperatives, refer to FMs 100-5 and 100-10.

ANTICIPATION

Rather than wait to support after receiving demands, support operations staff officers anticipate what demands might be. To ensure that support occurs when and where most needed, support needs to be proactive.

CSG support operations staff officers continuously anticipate requirements in relation to the tactical situation. They need to anticipate possible shifts in demands as operations shift from offensive to defensive or vice versa. Understanding thetactical commander's intent enables CSG support operations staff officers to more accurately anticipate demands and predict resupply requirements.

INTEGRATION

CSG support operations staff officers integrate the missions of subordinate battalions. They integrate their logistics support plans with tactical and operational plans. HNS branch staff officers plan the integration of HN units or HN resources to augment subordinate unit capability.

Integration of transportation units with conventional ammunition units and petroleum supply units ensures continuous provision of critical supplies by creating distribution systems. Habitual relationships between supply and transportation units and supporting and supported units reduce coordination requirements and increase support responsiveness.

CONTINUITY

CSGs provide continuous support. They ensure that support exists when and where the maneuvering commander needs it. By dispersing logistics units across the AO to minimize the impact of enemy incursions, CSGs ensure logistics survivability and continuity of support.

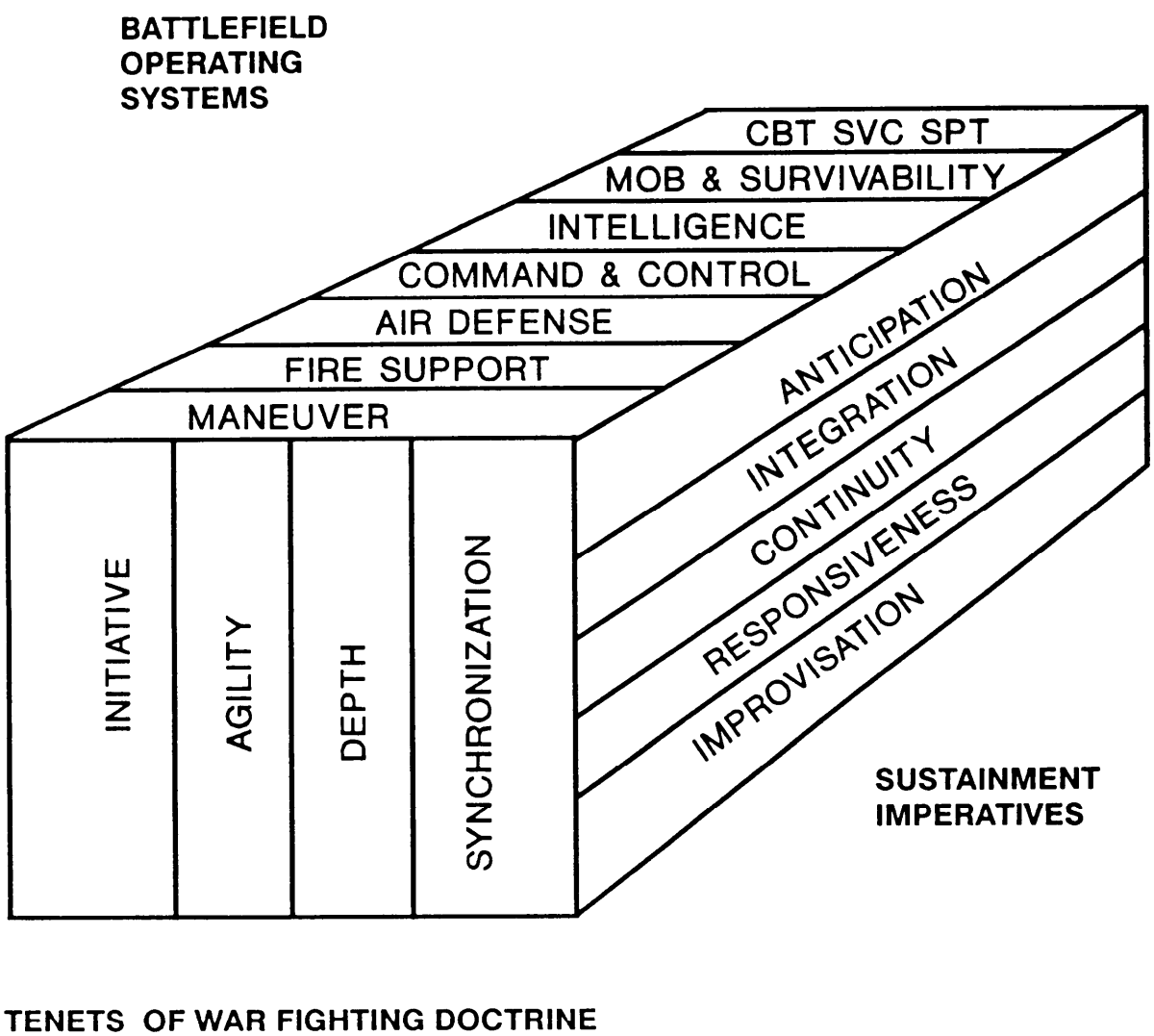


Figure 1-1. Sustainment imperatives supporting the tenents of warfighting doctrine and battlefield operating systems.

Support Base

As supported units reposition forward, CSG units move the support base forward, shortening ground LOCs. Unless redirected, rear CSG units push bulk fuel, ammunition, and barrier material to the division area. This constant flow of critical supplies helps support divisions in contact. The corps commander can weight the battle by directing that CSGs preposition or rechannel critical supplies to support tactical operations in another sector.

Night Operations

The principles of CSS in night operations remain the same as those used during the day. However, CSG units need to employ the following practices to offset the effects of darkness and ensure continuity of support:

- Prepare and load supplies on trucks during the day for night delivery to forward supply points.
- Perform maintenance in permanent or temporary shelters or in darkness using night vision devices.
- Plan resupply activities in relation to the kind of illumination that can be used.
- Anticipate increased demand for shelters, batteries, and replacement night vision devices.
- Practice supporting during hours of darkness.

RESPONSIVENESS

CSGs anticipate and respond to increased demands on short notice, giving priority of support to critical operations. The ability to task organize subordinate battalions enables CSGs to more easily transition to support contingencies. This also allows CSGs to adapt to changing requirements and tactics with a minimum of turbulence.

The CSG support operations officer serves as the single point of coordination for customer units. Instead of coordinating with four to six separate functional battalions, supported units resolve support problems with the CSG support operations officer.

For responsive support, CSGs accept the risk of employing subordinate units farther forward than in the past. Maintenance teams repair as close to the breakdown site as possible. Employing a CSB and subordinate units in the division area reduces transportation turnaround time for corps units in the division rear which do not have to go back to the corps rear area for support. Forward employment increases the responsiveness of support to corps elements in the division area. PLS and ammunition packaging further decrease terminal transfer time.

To provide responsive support, CSG support operations staff officers need to challenge routine support methods and relationships. For example, why should a nondivision unit employed near a division DS supply point send a supply truck miles back into the corps rear area to obtain support from a corps supply point? Responsiveness can be improved by arranging for the MSB or FSBs to provide support to nondivison units, such as corps artillery and engineer battalions, operating in division and brigade AOs.

IMPROVISATION

CSG support operations staff officers capitalize on resources in the area, exploiting unusual sources of supplies and transportation. Civilian vehicles, buses, or tactical vehicles may be used to transport supplies. Battle damaged equipment in uncommitted units provides critically needed parts. For unexpected surges in demands, COSCOM/CSG support operations officers can suspend normal operating procedures and reduce reporting channels,

CORPS SUPPORT GROUPS

CSGs are the primary source for logistics support for corps forces. They may serve as part of the forward presence of forces, or they may form part of those forces deployed from a CONUS base. Their units provide rations, clothing, and organizational equipment as well as the field services necessary to support soldier morale. They arm the soldier and his weapon systems; fuel tanks, aircraft, and vehicles; evacuate and repair or exchange damaged items; and transport supplies, equipment, and soldiers across the battlefield. Chapters 6 through 10 describe the soldier sustainment, arm, fuel, fix, and move mission support provided by CSGs.

CSG MISSIONS

The COSCOM OPORD lists specific CSG missions. In general, CSGs provide command, control, staff planning, and supervision for three to seven subordinate battalions. Basic missions vary depending on whether the CSG employs in the forward or rear portion of the corps rear area.

Forward CSG Mission

Forward CSGs serve as the source of logistics (less medical) for all corps organizations in their area of operations. This includes corps forces in the division forward area and the ACR area during covering force operations. Figure 1-2 depicts forward CSG mission areas. Forward CSGs provide –

- Support to nondivision forces operating in a division area. Support is provided on an area basis. However, with prior arrangement, corps artillery, air defense, engineer, MP, signal, and chemical units may receive support from FSB/MSB units reinforced by CSB units to enable them to support corps forces.
- Corps assets to augment or reinforce the FSBs providing support to nondivision units, such as corps FA, ADA, and engineer battalions, operating in the brigade area of operations. The CSG LO in the DISCOM headquarters coordinates support for corps units operating in the division area. The CSG LO uses CSB LOs in the FSBs to assist in coordinating support to corps elements in the brigade AO.
- GS supply to the division, separate brigades, or ACR. Depending upon the task organization of the CSG and subordinate CSBs, this may include GS level ammunition, petroleum, and general supplies.

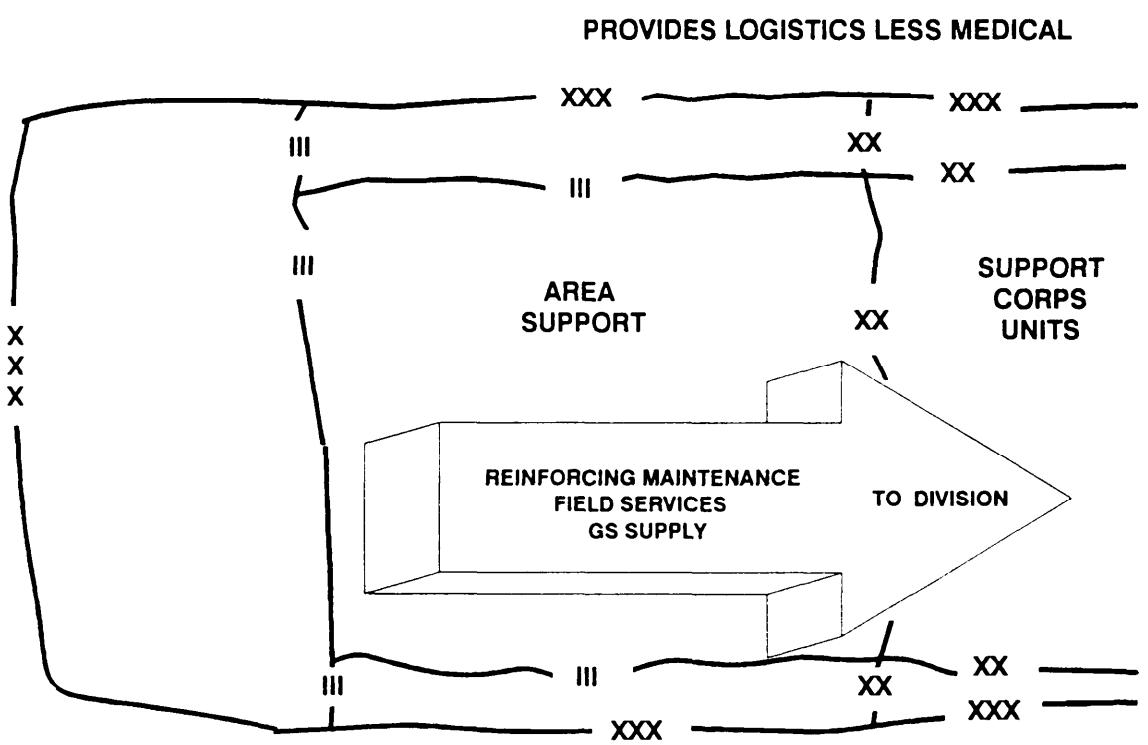


Figure 1-2. Foward CSG mission.

- Area support to units in the CSG's area of responsibility behind the division's rear boundary. Area support requirements will vary as units move into and out of the CSG's area.
- Reinforcing DS maintenance and field services support to the division, separate brigades and ACRs. The amount of reinforcing support required varies depending on the type of division, with the greatest amount required by light infantry divisions.

Rear CSG Mission

Figure 1-3 depicts t-he rear CSG's mission. The rear CSG provides –

- Area support to units employed in or passing through its AO. This includes divisions, separate brigades, and ACRs held in reserve. For example, the rear CSG would provide support to the support squadron of an ACR operating out of an assembly area. The rear CSG would also support hospitals and replacement units which normally operate in the rear of the combat zone.
- Reinforcing support to the forward CSGs. The rear CSG's subordinate units maintain the bulk of the corps' GS supply base from which to resupply forward CSG GS and DS units.
- Corpswide support of petroleum, ammunition, transportation, AVIM, airdrop, and mortuary affairs. GS supply units assigned to the rear CSG's

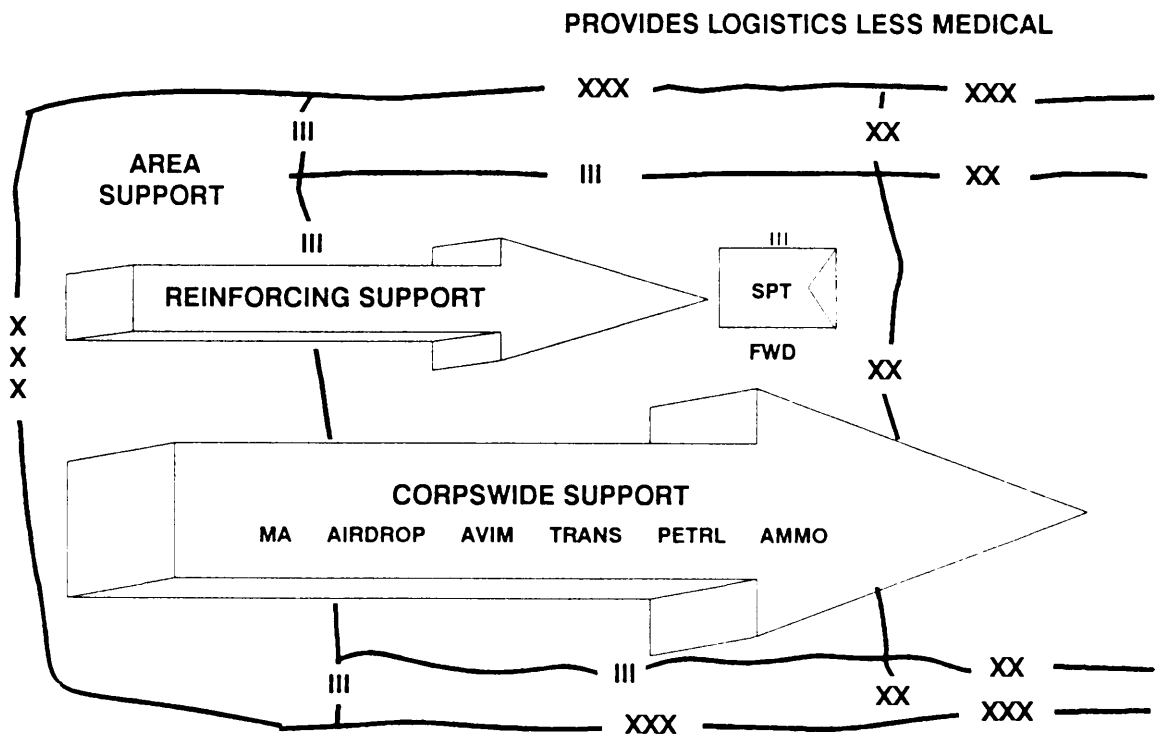


Figure 1-3. Rear CSG mission.

functional battalions provide supplies to DS supply units. Trucks may throughput bulk Class III, Class IV, and Class V from the corps rear area to the DSA. Water may also be pushed forward to support chemical unit requirements in the division AO.

SUPPORTED CUSTOMERS

The CSG's support operations officer provides supported customers with a single point of coordination. This reduces their communications span and increases responsiveness to supported customers. Since CSGs support primarily on an area basis, supported customers consist of units employed in or passing through the CSGs area of responsibility. The CSG's support operations section develops and updates the customer list.

TASK ORGANIZATION

There is no standard CSG organizational structure. The COSCOM tailors CSGs to meet the needs of supported forces. The number, type, and mix of subordinate battalions, companies, teams, and detachments vary depending on the –

- Type and number of units requiring support.
- Tactical support situation.
- Requirement to provide support to other Services or allied forces.
- Extent of HNS available or required.
- Factors of METT-T.

The COSCOM commander task organizes CSGsd based on support requirements and the scheme of maneuver established by the corps G3. Through continuing coordination with the corps staff, the COSCOM maintains a sensitivity to changing requirements of divisions and other corps forces and is able to proactively plan to satisfy all requirements. Figure 1-4 depicts a sample organization for forward CSGs and a rear CSG. As the number and type of supported units change, CSGs change the way in which their subordinate battalions organize to provide support. Thus, the organization of a forward CSG supporting corps units operating in a heavy division AO differs from that of a CSG supporting corps units in a committed air assault division sector.

AREA SUPPORT

Area support is the most efficient and affordable way to provide support. CSGs provide area support to all customers located in or transiting their area of responsibility. Their capability to provide area support must grow commensurate with growth of the supported force. When EAC forces are assigned, attached, or placed OPCON to the corps, they will be supported on an area support basis.

Area support options to corps forces employed in the division sector include –

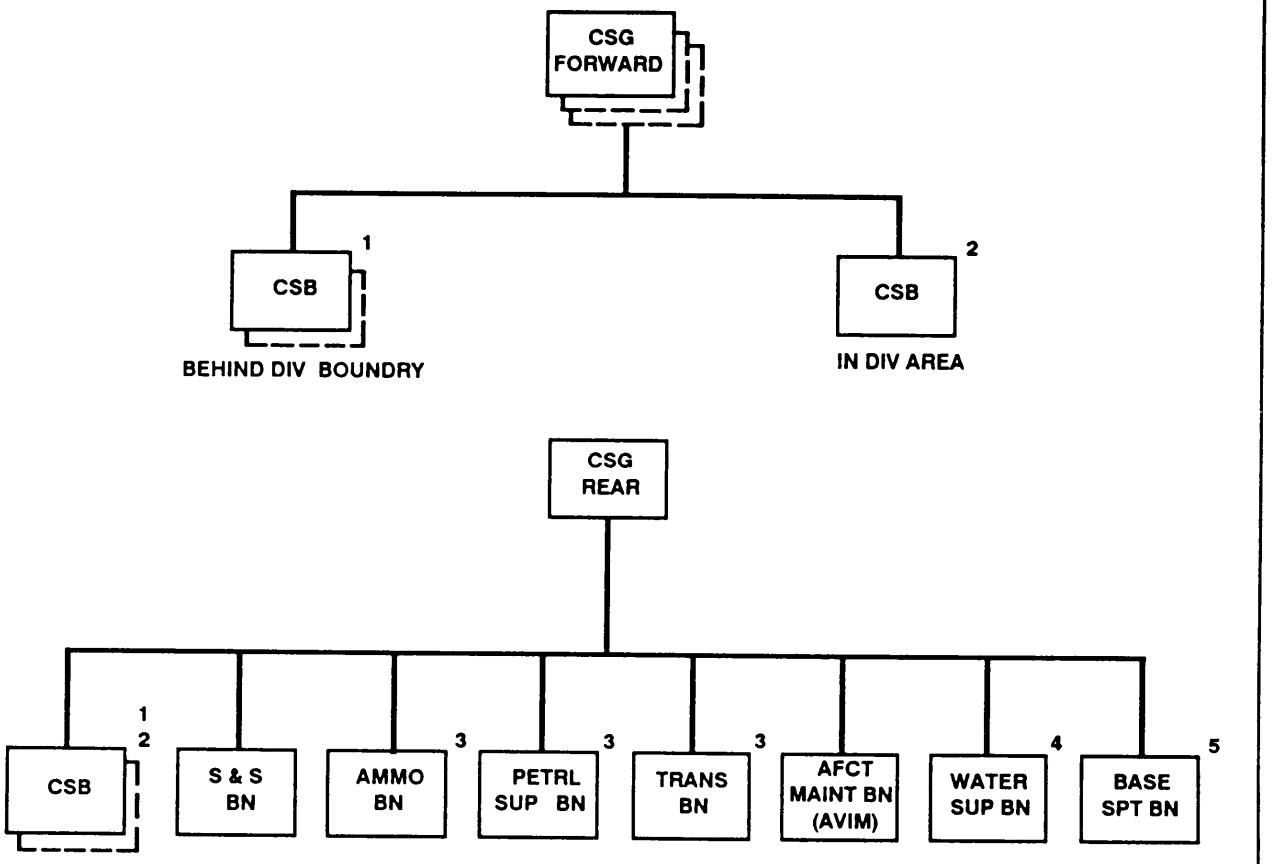
- Establishing forward logistics elements to operate forward logistics bases, normally in a maneuver brigade AO.
- Coordinating support to corps forces from FSBs and MSBs. FSBs and MSBs are the CSS operators in the brigade and division area. They support within their capability and then must be augmented by the CSB. With this support directed in the corps administrative logistics order, the source of support should be transparent to the supported unit.
- Augmenting FSBs and MSBs with corps assets when logistics work loads generated by corps unit requirements exceeds FSB/MSB capabilities.

Supply point distribution is the norm. As appropriate, supported units travel to their supporting DS supply unit to load up rations, sundry packs, water, Class II items, packaged III products, bulk fuel, and Class IV, V and VII items. Supported units also travel back to a supporting DS maintenance unit to obtain repair parts and have DS level maintenance performed. They travel to a prearranged CEB point or MA collection point to receive field services support.

FORWARD LOGISTICS ELEMENT

Forward logistics elements provide a responsive means to get critical support to corps forces. They may be used to help shape the battle as corps forces employ forward of the division. Establishing forward logistics elements in a staging area supports pursuit and onward movement. Forward logistics elements can also form the basic core of a task force tailored to accompany corps forces, such as a corps FA brigade, operating in a non-US Army corps or supporting an ally or sister Service.

After coordinating with the division, forward CSGs may task the CSB in the division area to send a forward logistics element to setup a forward logistics base. This lead element allows the CSG to echelon support assets. During the first stages of an operation, the forward logistics element can prepare the forward logistics base to become the CSB support area. The forward logistics



LEGEND:

Variable number

1 Number of battalions dependent upon force structure, geography, and span of control.

2 DS units only.

3 May be host-nation support.

4 Attached to support corps requirements in arid environment.

5 As required.

Figure 1-4. Forward and rear corps support group organizations.

element could then move forward in support of fast-moving offensive operations.

Composition

The composition of the forward logistics elements varies based on METT-T and requirements of supported forces. The CSG or CSB staff coordinates reinforcing requirements with the DISCOM and supporting FSB.

Forward logistics elements may issue MREs, water, bulk fuel, and repair parts. The COSCOM surgeon may also arrange inclusion of medical treatment and evacuation assets.

Based on personnel and equipment density lists provided by supported units, the CSG support operations officer recommends changes in the strength, composition, and location of forward logistics elements. A CSB support operations staff officer should accompany the forward logistics element to coordinate support operations and communicate changing requirements to the CSB.

Coordination

Forward CSG/CSB areas of concern that affect synchronized support and movement of nondivision elements supporting in the division sector include terrain positioning, MSR use and priorities, and rear area security. The CSG/CSB support operations officer coordinates the positioning and security of the forward logistics base with the FSB S3 and further with the maneuver brigade S3/S4. Forward logistics elements must be integrated into the defense plan for the BSA. Their internal security plans include responsibilities for perimeter defense.

The CSG/CSB support operations officer coordinates the number and location of forward logistics element bases with the S3/S4 of supported corps organizations. He keeps their staffs informed of actions being taken by the forward CSB, DTO/CTO, DISCOM, and COSCOM to resolve logistics support problems.

FSB/MSB REINFORCEMENT

Though CSBs have the ultimate responsibility for supporting corps units, FSBs and MSBs will provide support to nondivison units, such as corps FA, ADA and engineer battalions, located in their AO. When the number of personnel and items of equipment to be supported is small enough and their presence does not create a significant work load, FSBs and MSBs support corps forces on an area basis. However, if the numbers are substantial or dispersion taxes the FSB or MSB assets, as in the case of supporting corps FA, ADA, and engineer battalions, forward CSGs augment or reinforce FSBs and the MSB, normally from the CSB in the division area. Refer to Figure 1-5.

The administrative logistics order directs that the DISCOM's FSBs and MSB provide support to designated corps organizations providing support in the brigade AO and division rear area. It directs that the forward CSG provides reinforcing or augmenting personnel, equipment, and supplies (less Class VIII and mission oriented Class IX provided by accompanying MSTs) to the FSBs or MSB. The CSG/CSB LO at the DISCOM/FSB determines initial augmentation/reinforcing requirements in coordination with DISCOM, MSB, and FSB support operations staff.

With publication of the corps administrative logistics order, the support provided to corps units in brigade and division rear areas should be transparent to them. That support maybe provided solely by FSB, MSB, or CSB elements or by a combination of any or all. What is important is that the corps forces in the division sector be provided a single point of coordination, the FSB support operations section in the brigade AO, or DISCOM support operations staff in the division rear area, which can direct them to the source of support.

Command Relationship

Under the reinforcing support option, the forward CSB places supply personnel and assets in the brigade area with the applicable forward supply point. Teams or reinforcing personnel and equipment from CSB units enable FSBS to provide support to corps forces. While in the brigade AO, reinforcing personnel or teams from a CSB are attached to the FSB and placed under the command and control of the supporting company,

When large corps organizations move to another area, these teams and personnel, with the exception of MSTS which habitually support FA organizations, usually return to their parent CSB.

Support in the New AO

Before the FA organization leaves the sector they are in, they coordinate with the supporting FSB, MSB, or CSB to either take the currently assigned MST or to contact the supporting maintenance unit in the newly assigned sector for maintenance support.

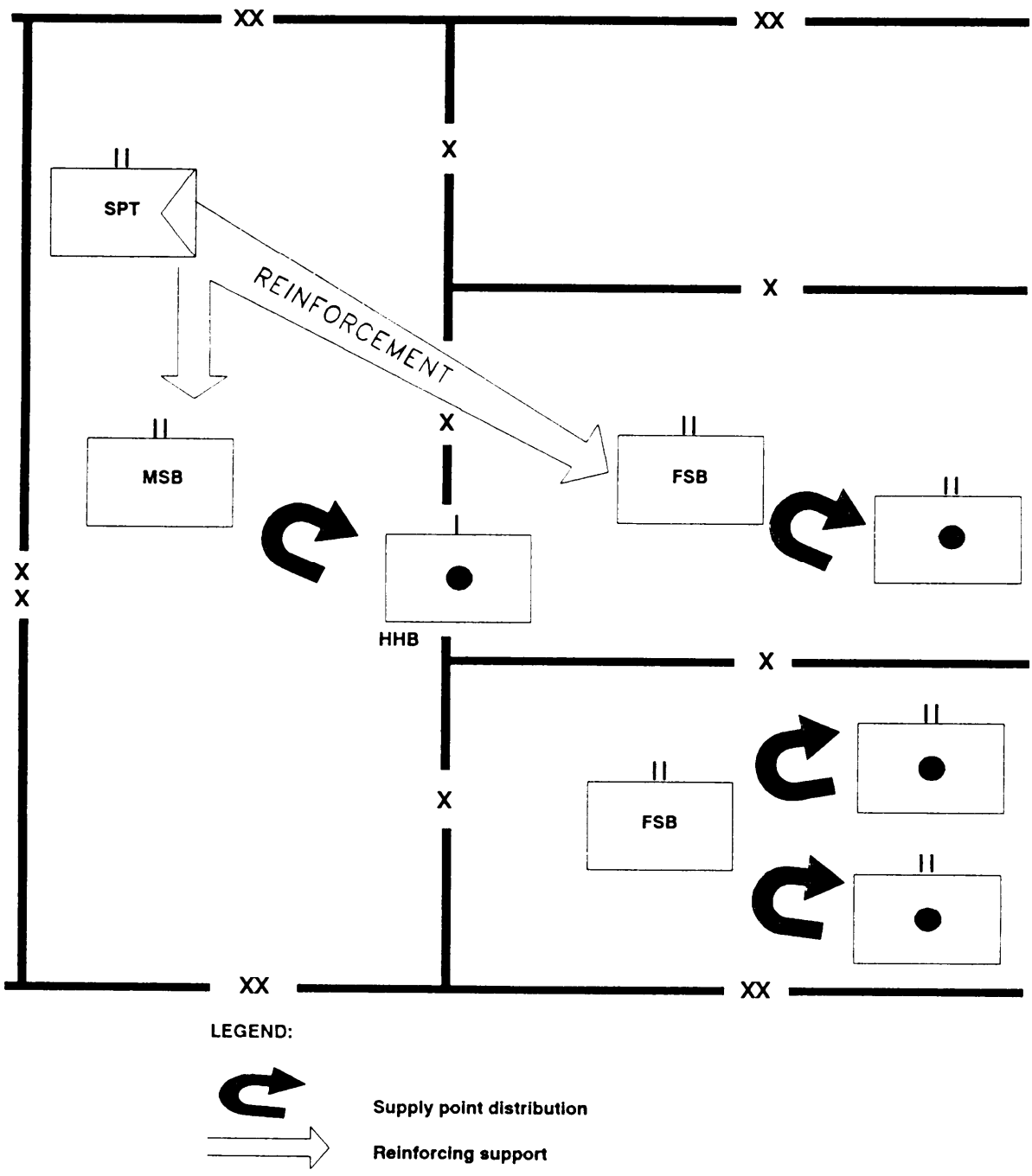


Figure 1-5. CSB reinforcement of FSBs and MSB.

The CMMC is responsible for integrating maintenance and supply support actions. It shifts maintenance work loads among nondivision maintenance units and issues materiel release orders for repair parts to cover increased maintenance and shifts in repair parts requirements and reinforces the capability of FSBs and MSB to support corps forces in the new AO.

LO Coordination

The CSG LO at the DISCOM coordinates with the DISCOM support operations staff on reinforcement to MSB units to enable the MSB to support corps forces in the DSA. CSG LOS gather and pass information to CSB LOS in FSBs. The CSB LO at each FSB coordinates logistics support to nondivision units in the brigade AO. The CSG/CSB LO, DISCOM support operations officer, and FSB support operations officer determine the most effective way to support corps units in the division area. The CSG/CSB LO –

- Coordinates logistics support missions between the corps organizations, DISCOM/FSB support operations staff, and supporting CSG/CSB units.
- Coordinates with CSB/CSG support operations staff on logistics support of supported corps forces.
- Provides advice on site requirements within the BSA/DSA.
- Coordinates with the FSB S2/3 on security arrangements of CSB forward logistics elements.
- Maintains contact with corps brigade S4s on support requirements and concerns.
- Receives supported units' personnel and equipment density and location reports and forwards this information to the CSG support operations officer for planning.
- Keeps the CSG support operations officer informed on corps brigade tactical plans.

SUPPORT TO CORPS FORCES IN A NEW DIVISION AREA

When corps forces move to a new division within the same corps, the CSB in the new division's area assumes the support mission. COSCOM and forward CSG support operations staff officers cross-level assets among the losing and gaining CSBs to best accommodate the requirements of corps nondivision customers.

The FSBs in the new division area will provide support within their capability. Corps forces in the brigade AO coordinate logistics support with FSB support operations staff. In their role of providing support to nondivision units, the FSBs and MSB of the new division will be augmented by the CSB in the new division sector. Refer to Figure 1-6.

Depending upon support assets within the new division area, assets from the previously supporting CSB may move with corps forces. COSCOM and CSG support operations staf officers determine which assets from the losing CSB or CSG will accompany corps forces. Artillery oriented MSTs for example, will accompany a nondivision FA battalion moving from one division area to another. The NCOIC of the MST continues to track the status of work orders in conjunction with the maintenance unit shop officer. If required, the job order will be closed out and reopened with the new supporting maintenance unit.

The CMMC diverts parts due in to the new supporting maintenance unit. As necessary, the COSCOM cross-levels maintenance resources and repair parts among its subordinate CSGs.

The COSCOM may also redirect the flow of MLRS or 155 munitions to compensate for changes in armament densities. It may make other adjustments based on density of weapon systems in the new division AO.

OUT-OF-SECTOR-SUPPORT

In a multicorps theater, when the Army commander cross attaches corps brigades among corps, area support continues to be the prevailing method of support. The OPORD or FRAGO which directs the detachment and consequent attachment of corps forces alerts the COSCOMs of both corps of changing support requirements. Based on support coordination, assets may be moved between corps.

When a nondivisional corps organization moves to a new corps area, a new FSB and supporting CSB assume the support mission. As required some assets from a CSB may accompany the brigade. Refer to Figure 1-7.

The brigade S4 identifies support requirements to the CSG/CSB support operations officer. The CSB LO at the FSB which picked up the support mission phones requirements to the support operations officer of the forward CSG supporting the new corps area.

The brigade S4 also coordinates with the DISCOM or supporting CSG to ensure that FSBs/CSBs along the route of march provide support en route. Support may include refuel-on-the-move and maintenance and recovery assistance. See Figure 1-7.

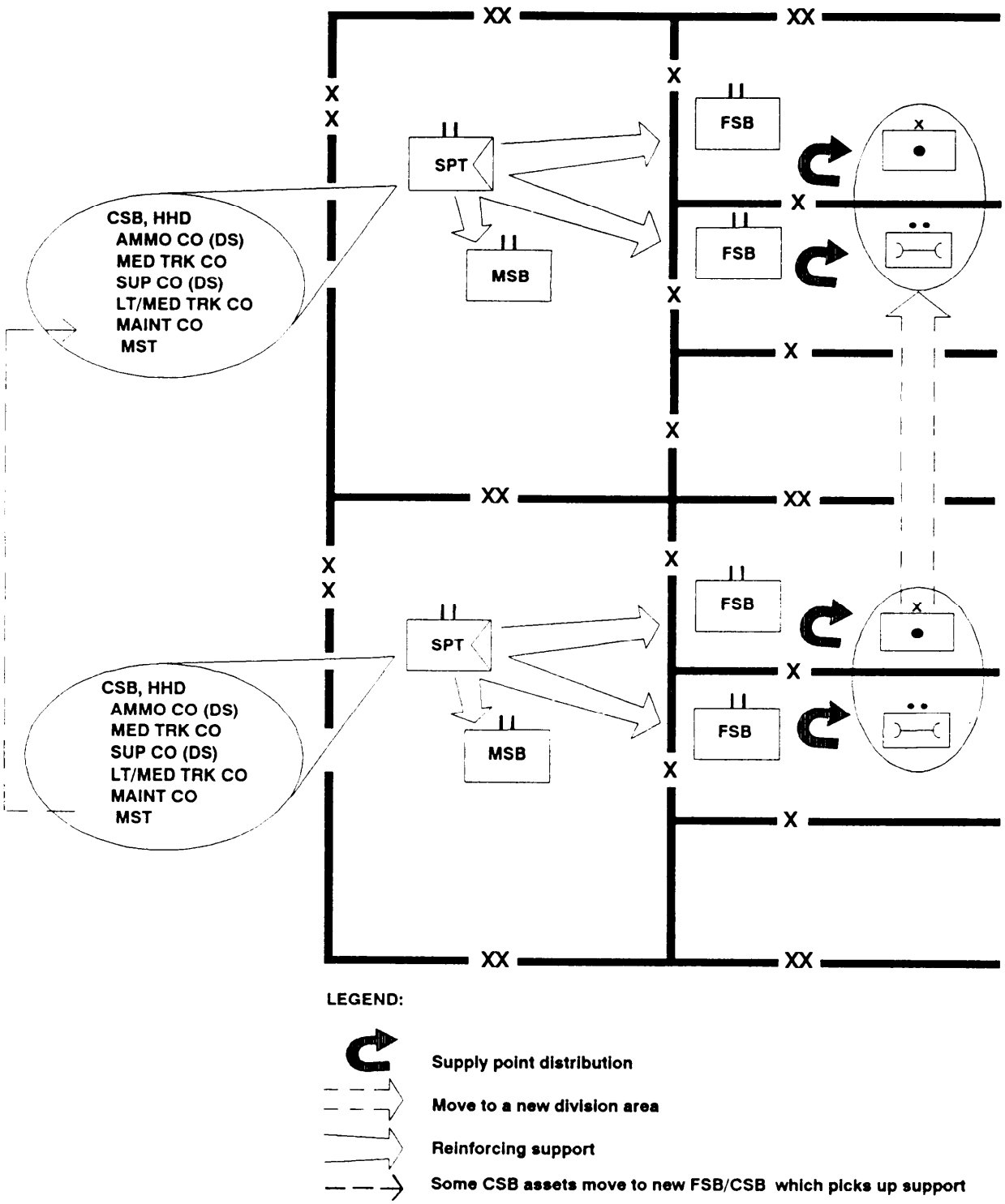


Figure 1-6. Support to corps forces in a new division area.

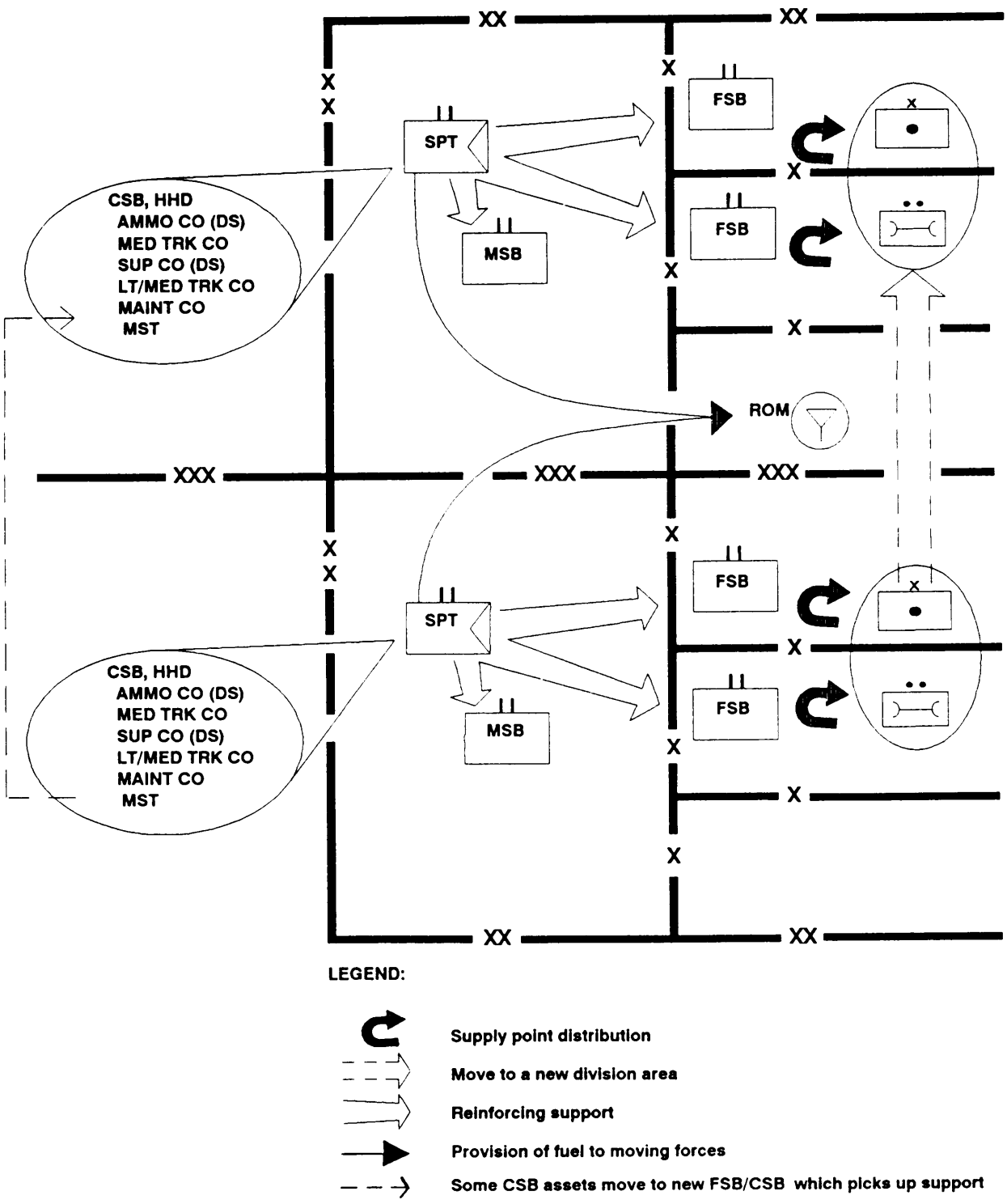


Figure 1-7. Support to corps forces which move to a new corps area.

TASK FORCE/ACCOMPANYING SUPPORT SLICE

When corps nondivisional organizations are attached to another corps or assigned to support a sister Service or ally outside of the Army's sector, a forward CSG provides, through one of its CSBs, a task force with a corps slice of support assets. Refer to Figure 1-8.

A CSB task force assigned a mission to support corps organizations, such as the corps FA brigade, can unburden the brigade of the task of coordinating support in each new area. A forward logistics element could form the core of this task force. FSBs/CSBs provide support along the route of march. The order directing the support mission must detail the command relationship, whether OPCON, attached, or direct support.

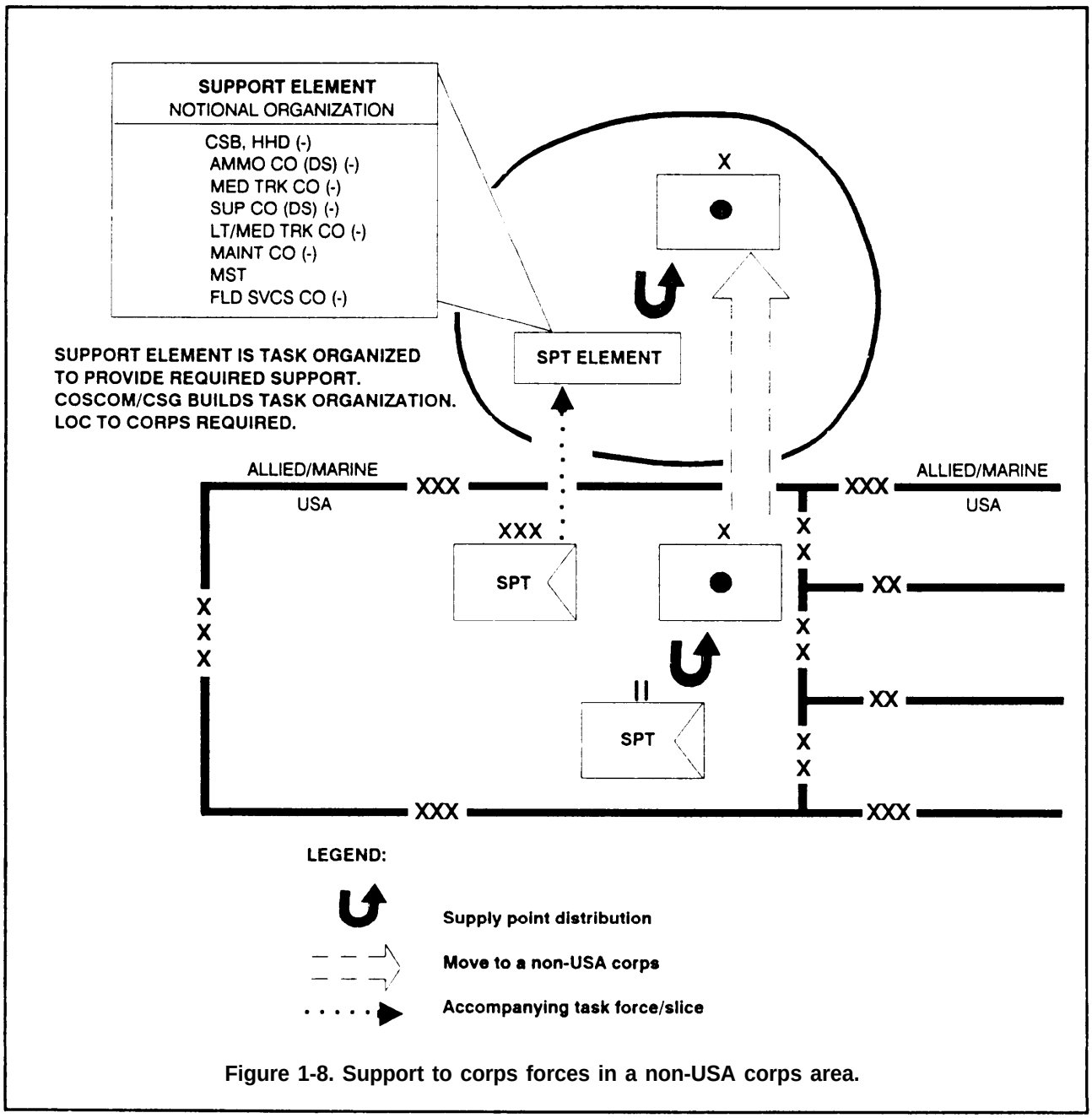


Figure 1-8. Support to corps forces in a non-USA corps area.

When Corps Forces Support a Sister Service

Operations in support of another Service will normally be in support of the Marine Corps, although support to the Air Force or Navy could be required. The Marine Corps could provide Class I, III, IV, and selected II and V However, repair parts and mechanics skilled in repairing FA weapon systems would be extremely limited. Agreement and commitment must be clear and unequivocal as to what and how much support will be provided by the host service.

In most instances, the COSCOM arranges for a slice of corps support to accompany the brigade. The composition of the accompanying support element varies with the requirements and the range and depth of support agreed upon by the host Service. MSTs with custom shop stocks form the core of the support element. The CMCC must establish a reliable LOC to ensure that supplies reach the support element.

When Corps Forces Support an Ally

Less support can be expected from an ally than from a sister Service, due to a greater dissimilarity between equipment and munitions. Therefore, the accompanying task organized support element or corps slice will probably be larger, to include medical evacuation assets. The ally could provide rations and fuel, but even this support must be carefully considered and detailed. The range and degree of coordination will be greater. The greatest challenge may be in establishing LOCs and a responsive transportation network.

ALLOCATION AND EMPLOYMENT

The basis of allocation of forward CSGs is one per division. Unusual METT-T requirements might justify additional allocation. Forward CSGs provide area support to units operating in the forward portion of the corps rear area. They also support nondivision troops in the division sector. Depending upon task organization, forward CSGs provide GS petroleum, GS ammunition, and GS general supplies as well as reinforcing DS maintenance and field services support to division MSBs/FSBs, separate brigades, and ACRs. In mature theaters, close and continuous support relationships develop between forward CSGs, their CSBs, and the units they support.

Rear CSGs are allocated on the basis of one per corps support command. The rear CSG provides area support to units in or passing through the rear portion of the corps rear area. It provides GS supplies, and corpswide transportation, AVIM, and field services support to divisions, separate brigades, and ACRs as well as reinforcing support for the forward CSGs.

AREA OF RESPONSIBILITY

The COSCOM commander assigns forward CSGs an area of support responsibility along the corps' frontage. The area encompasses the support area behind the committed division's rear boundary and extends forward through the BSA. Figure 1-9 depicts this area of responsibility. The COSCOM commander adjusts this area of responsibility based upon the density of supported units, intensity of combat, and forward or rear movement of division boundaries.

The COSCOM commander also assigns an area support sector to the rear CSG. That sector normally encompasses an area from the rear of the forward CSGs to the rear boundary of the corps.

SUPPORT FROM THE CORPS/COSCOM

Figure 1-10 depicts elements of the corps and COSCOM which provide support to CSGs.

Support from the Corps

The corps provides CSGs –

- Personnel, morale, legal, and administrative service support. These soldier support services are provided by Personnel Service Companies (TOE 12467L100-600), assigned to the corps Personnel Group (TOE 12402L000). FM 12-6 prescribes this support doctrine.
- Pay and other area finance support. This support is provided by Finance Support Commands (TOE 14403L000), assigned to the corps Finance Group (TOE 14402L000). FM 14-7 describes finance support operations.
- Area signal support, to include over-the-counter record traffic. This support is provided by the supporting Corps Area Signal Company (TOE11617L000). (This company provides record traffic support until the CSG is authorized organic assets.)
- NBC reconnaissance, decontamination, and smoke support. This support is provided by chemical companies assigned to corps chemical battalions or chemical brigade. FM 3-101 describes these companies.
- Rear operations and ADC support. This is provided by the corps rear CR supporting RAOC, and engineer, MP, MI, ADA, artillery, and aviation units.

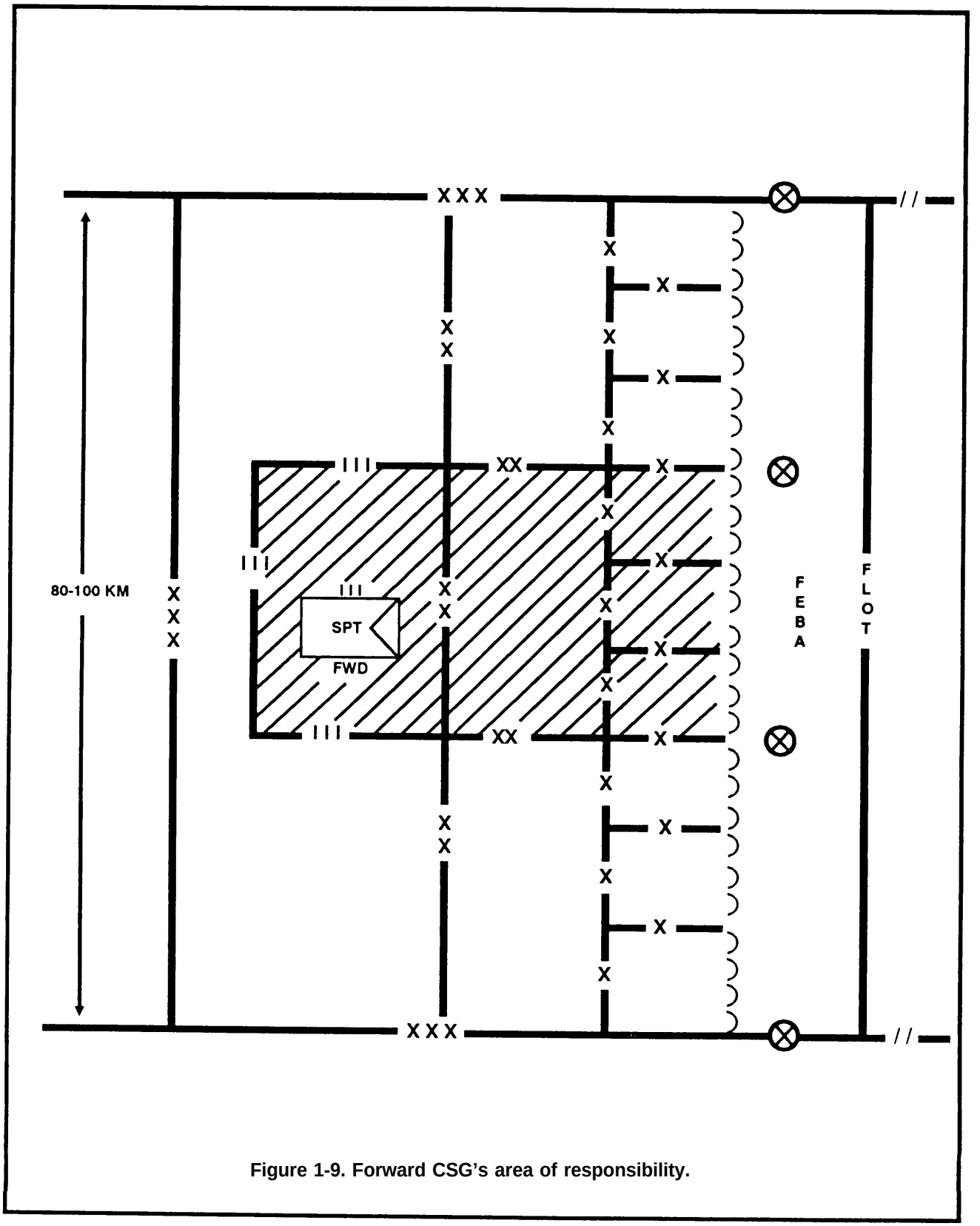
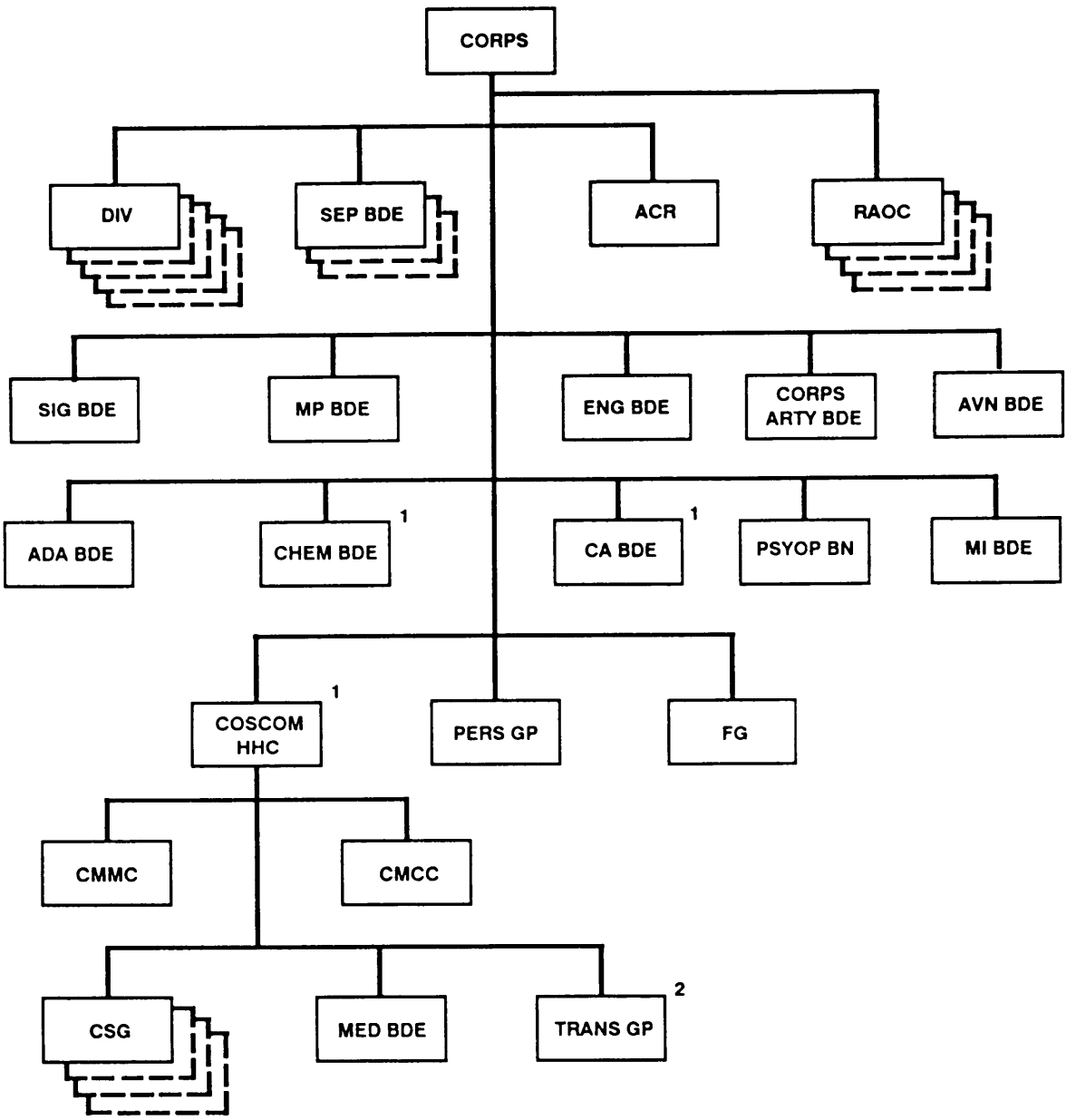


Figure 1-9. Forward CSG's area of responsibility.



LEGEND:

Variable number

1 Chemical units and CA units or a CA battalion may be assigned to the corps or the COSCOM.

2 Assigned if three or more functional transportation battalions are included in the force structure.

Figure 1-10. Support relationships.

CSGs remain OPCON to the corps rear CP for rear operations functions. These include terrain management, sustainment, security, and tactical movements.

- Support from the EOD control team and EOD detachments. These elements are tasked by the corps rear CP.

Support from the COSCOM

The COSCOM provides CSGs –

- Integrated materiel management. This is provided by the CMMC (TOE 63433L000). FM 54-23 describes CMMC management functions.
- Movement control, highway regulation, transportation planning, and movement programming. These are provided by the CMCC (TOE 55604L000). FM 55-10 describes these functions.
- Hospitalization, medical services, medical evacuation, and stress control. These HSS functions are provided by the COSCOM medical brigade's area support medical units and stress teams. FM 8-10 covers HSS in a theater of operations.
- Chemical unit and CA activities support. A CA battalion and chemical units can be attached to the corps or to the COSCOM. FM 3-101 describes chemical unit support. FM 41-10 describes CA activities.

WEIGHTING THE BATTLE

The rear CSG's functional battalions and general supply base enable the corps commander to-weight the battle. Subordinate GS units maintain the corps' general support base. GS conventional ammunition and bulk fuel stored in forward as well as rear CSG units form the combat multipliers which the corps commander can use to achieve his objectives.

CLOSE OPERATIONS

Pushing ammunition and fuel from GS units behind the division rear into the BSA enables US forces to gain the initiative in close operations. Retaining that initiative forces the enemy to react when and where the corps commander chooses. The CSG's GS base enables the corps to continue supporting close operations.

CSG units provide only minimal resupply during the movement to contact. The CSG support operations officer reorients DS assets to support the corps commander's intent. However, the momentum of deliberate attacks allows resupply only of critically needed items, such as MLRS, fuel and ammunition.

In coordination with the CMMC, CMCC, and COSCOM support operations staff, CSGs redirect the flow of fuel and ammunition based on corps priorities and the course of the battle. Subordinate DS supply companies set up refuel-on-the-move sites to refuel reserve forces moving to support close operations. Corps artillery units in the division AO obtain ammunition from FSB ATPs or the nondivision DS ammunition company ATP, depending upon directions from the DAO. The ATP operated by a conventional DS ammunition unit supports corps artillery units and other units in the area.

DEEP OPERATIONS

Normally CSGs help support deep operations by resupplying corps artillery and aviation units. The CSG commander may attach MSTs to the ground maneuver task force to repair critical weapon systems on site. He positions a DS supply company and an ATP or an ASP even farther forward to reduce the length of the LOC.

To prevent enemy capture of reparable weapon systems, CSG maintenance units provide recovery assistance. This allows task force trains to continue their forward momentum. If the LOC cannot be secured, forward CSG units prepare critical supplies for airlift.

REAR OPERATIONS

The area RAOC coordinates logistics requirements for a tactical combat force with the CSC support operations officer. CSG units need to redirect and push supplies to the TCF, despite interruptions in communications or disruption of MSRs.

The CSG support operations officer receives information copies of rear operations situation reports of incursions and strikes from subordinate units to plan logistics support to or around areas where fighting is taking place. Subordinate battalion S2/S3s coordinate ADC efforts to minimize disruption of logistics support. The area RAOC plots committed forces and those on alert in the CSG AO.

CONTINGENCY SUPPORT CHALLENGE

The probability that CSGs will provide a corps slice of logistics in support of short duration, limited objective, contingency operation remains high. Forward deployed CSG forces will likely have an out of sector contingency mission. Operating separately from the COSCOM, CSGs task organize subordinate units to support a separate infantry brigade, theater defense brigade, or contingency task force. FM 100-15 covers contingency operations. FM 100-20 describes low-intensity conflicts. FM 63-3 describes CSS support of LIC.

BASE DEVELOPMENT

Deploying combat and CS forces require sufficient logistics support to be echeloned into an AO with them. Appendix B provides a useful deployment planning checklist.

During deployment or mobilization, CSG subordinate units may support a force whose requirements far exceed their TOE design capabilities. In a bare base environment, CSG subordinate CSB or S&S battalions may set up a force provider complex designed to improve the quality of life for soldiers in austere environments. This life support complex may consist of billeting tents, shelters, field kitchens, and laundry and sanitation facilities.

CSGs may have to defer some mission support until the situation stabilizes. To better match corps priorities, CSGs cross-level subordinate resources and realign their existing work force. FM 54-40 provides additional information on tailoring support groups to support units in different geographic zones. CSG S2/S3s may find that CA teams have files of intelligence data on the potential AO.

COSCOM support operations staff and CMMC and CMCC staff plan requirements for logistics support. The base development plan forms an essential element of the OPLAN. The plan specifies the base facilities and support functions required and provided.

HOST-NATION/LOCAL CONTRACT SUPPORT

Requirements for CSG support elements depend upon the nature of the contingency area, expected duration, and availability of HN or contracted support. Where HNS exists, the CSG can reduce its support structure. Local resources offset immediate requirements for fuel, Class IV barrier or construction materials, and secondary field services.

CSG procurement personnel and HNS branch personnel need to be among the first to arrive in the AO. The CSG contracting officer and procurement personnel provide contingency contracting support to the division. They can appoint/supervise an ordering officer network. This prevents competition for local resources by unit ordering officers. Depending on the local economy, CSG contracting personnel may locally purchase—

- Field ration supplements (fresh fruits and vegetables, bread, milk, and ice).
- Bulk fuels and packaged products.
- Rough terrain vehicles.
- Construction materials.

CSG contracting personnel coordinate with CA teams to assist in securing goods and services, for example local transportation, labor, supplies, services, fuel delivery, trash disposal, and utility support. FM 41-10 describes CA teams which specialize in HN liaison and languages.

The COSCOM support operations officer prioritizes the use of HN resources. COSCOM procurement support branch personnel coordinate HNS procurement. Upon their deployment, COSCOM contracting personnel establish an area procurement section. CSG contracting personnel then become field agents of the COSCOM. CSG and COSCOM contracting personnel coordinate payment and related legal requirements with corps finance group personnel and the corps staff judge advocate.

ADVANCE ELEMENTS

Essential CSG elements deploy as soon as assault forces land. If possible, logistics elements which support corps combat and CS units set up in an area near the conflict area, before deployment of the entire task force. They may set up a force provider complex to provide initial reception support, billeting, hygiene, and field feed. Other elements arrive once the base support area has been secured.

Depending on the mission, AO, and size and composition of the task force, initial elements may include—

- CSG HNS branch and support operations section personnel, to coordinate initial logistics support.
- CSB headquarters personnel, for C2 of initial deployed logistics teams, detachments, and units.

- Materiel management team from the CMMC, to provide an interface between the DMMC and the CONUS based CMMC. A CMMC representative requires a current DODAC list to help expedite shipments from ports to units.
- Air terminal movement control team, to coordinate movement requirements and commit transportation assets for port clearance.
- Movement control team, to coordinate movement requirements, commit transportation assets, and provide convoy clearance.
- DS supply company elements.
- Transportation truck units, depending upon the availability and type of HNS assets.
- Transportation cargo transfer companies, to discharge, backload, and tranship cargo at air, rail, and motor terminals.
- Watercraft companies, to transport supplies from ships to shore, if the AO requires LOTS.
- AVIM repair teams.
- Conventional DS ammunition company, to establish three ASPs and an ATP.
- Petroleum platoon from the petroleum supply company, depending on the availability of bulk petroleum in the host country.
- Water purification and distribution teams, if potable water does not exist in the area.
- Forward collection platoon, to coordinate processing of initial combat losses.
- Maintenance support teams, for battle damage assessment and repair and rapid modular replacement of components.
- Maintenance elements for Iighterage water crafts, if required.
- Remaining CSG HHC elements, phased in during the transition to a mature theater.

ACCOMPANYING SUPPLIES

Though CSG units normally arrive with follow-on forces, they may accompany assault forces. The initial objective may be to set up the lodgment area at a port or airfield. For a bare base environment, CSG elements comprise a significant portion of early sorties.

Sufficient supplies accompany the early sorties to enable the force to support itself until resupply begins. The task force commander may limit accompanying supplies to unit basic loads and combat PLLs, plus limited quantities of critical supplies. Conventional CTA water purification items, lister bags, and 50 and 250 gallon water bags should be included in accompanying supplies. Tool kits need to accompany all mechanics.

ALOC/SEALOC DEPENDENCE

The contingency force may have to depend on ALOC/SEALOC resupply from an intermediate third country area. Supplies may even be stored offshore on cargo ships. Initial resupply should be predetermined, then pushed and adjusted as needed. Critical supplies may be airdropped.

TRANSPORTATION SUPPORT

Once initial forces secure an airfield or seaport, truck units can be introduced as part of the follow-on force to establish resupply operations. If HN transport does not exist, the COSCOM time-phases truck units into the contingency area ahead of supplies. COSCOM transportation support branch personnel ensure that adequate MHE and cargo handling equipment is phased ahead of supplies to support cargo transfer missions.

CSG transportation branch personnel review road nets and restrictions on size and weight. This prevents subordinate units from shipping vehicles which exceed local road net capabilities.

Where established road nets do not exist, or when geographic features limit ground transport, resupply may have to be by air. FM 55-40 describes theater airlift operations.

The contingency AO may require terminal service and watercraft units employed in logistics over-the-shore operations. FM 55-60 describes water and air terminal operations.

MAINTENANCE SUPPORT

CSG units deploy with an ASL adjusted to the contingency mission. Only essential maintenance is performed. Repair teams assess battle damage and fix forward by exchanging components. Emphasis is on recovery and reparable exchange. OPLANs set cannibalization policy.

FIELD SERVICES SUPPORT

Requirements for field services depend on the duration of the mission. Initially, the CSG may provide only primary services, to include mortuary affairs and airdrop. CEB and laundry services are provided when the situation stabilizes. The contingency plan specifies whether

the Army provides field services support for allies or other services taking part in joint or combined operations.

In developed areas, procurement personnel may contract with local nationals for—

- Shower facilities.
- Laundry support.
- Bakery products.
- Trash disposal.
- Vector control.

CHAPTER 2

Corps Support Group HHC

This chapter describes the mission, organization, and employment of the CSG HHC. It describes the functions and collective or individual tasks performed by personnel assigned to each section or branch.

The support operations section serves as the single point of coordination to resolve logistics support problems. The CSSAMO enables the group to resolve software support problems throughout the CSG AO. The HNS branch provides an interface between the group and HN elements which may augment CSG support capabilities.

CONTENTS

CSG HEADQUARTERS AND HEADQUARTERS COMPANY

The CSG headquarters is the command and control element for all assigned or attached battalions. It coordinates the logistics support activities of subordinate units. TOE 63422L000 lists personnel and equipment requirements. These requirements apply to all CSG HHCs, whether the CSG employs in the forward or rear portion of the corps rear area.

MISSION

The CSG headquarters commands and controls assigned and attached logistics units. At Level I, this headquarters can—

- Provide command, control, staff planning, and supervision of three to seven assigned or attached battalions and any separate companies.
- Exercise technical supervision over the mission operations of subordinate units.
- Provide food service, unit maintenance, and recovery for the RAOC which collocates with the CSG headquarters.

ARTEPs 63-422-MTP and 63-422-30-MTP list critical wartime missions and supporting missions. Headquarters staff officers accomplish these missions through developing plans, policies, and procedures. They formulate orders to ensure compliance with COSCOM plans, policies, and directives. Appendix C provides a sample CSG OPORD and service support annex. They then implement or supervise their execution.

ORGANIZATION

Figure 2-1 depicts the organizational structure of CSG HHCs. The functions of each section or branch are discussed later. Tables list the tasks performed by key personnel assigned to each element. Personnel authorization remains subject to change. Refer to the latest MTOE for current staffing authorizations.

EMPLOYMENT

The CSG HHC locates in the corps rear area, preferably in a built-up area. For security, this headquarters sets up operations within a base/base cluster designated by the sector RAOC. The general location of the CSG headquarters is assigned by the COSCOM. The CSG S2/S3 selects specific headquarters locations in coordination with the area RAOC. An MCT, RAOC, and EOD detachments/platoons may collocate with the CSG HHC for life support, local security, and case of coordinating support.

The CSG HHC requires an area approximately 200 by 250 meters. Area requirements vary pending METT-T and level of intensity. For example, elements spread out more during high intensity conflicts. Existing facilities and terrain determine actual location of headquarters elements and supporting staff sections. Normally, the S2/S3 and support operations sections collocate to form the logistics operations center. The S1 and S4 sections collocate nearby.

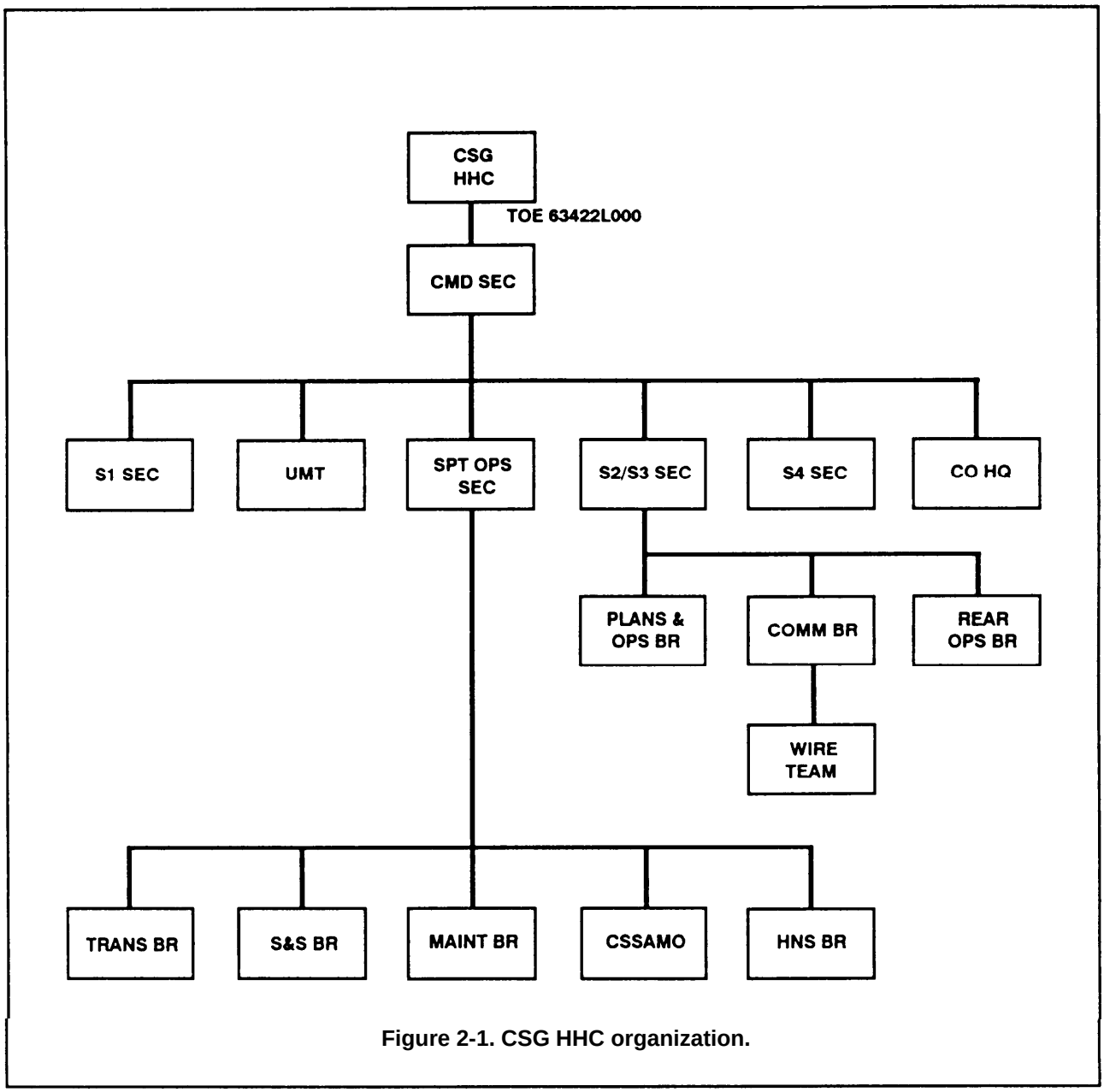


Figure 2-1. CSG HHC organization.

The company headquarters commander coordinates movement and security of the LOC. Due to its signature, the CSG HHC may need to move once every 8 to 17 days. It should be 75 percent mobile.

AUTOMATION SUPPORT

TACCS or other microcomputer devices transmit management information systems data between the CSG, its subordinate elements, COSCOM HHC, and CMMC. Figure 2-2 depicts the automation support systems designated by TOE incremental change packages for the following CSG HHC organizational elements:

- S1 section personnel process SIDPERS report data on their TACCS device.
- Support operations staff officers use CSSCS data to monitor the support missions of subordinate units. CSSCS software helps them implement logistics support plans and priorities. Upon loss of communications with the COSCOM, CSG staff officers use CSSCS data to take emergency or

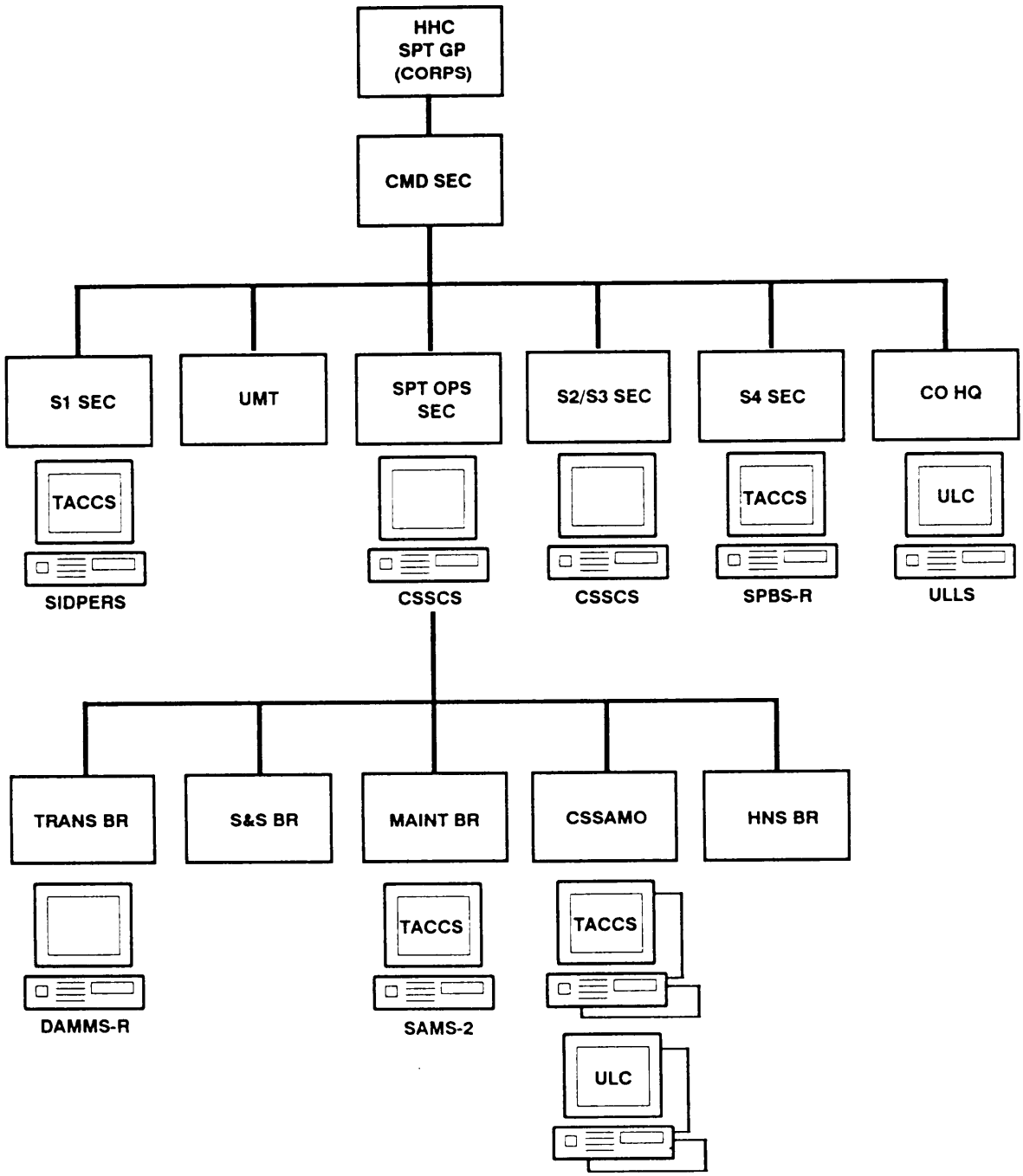


Figure 2-2. CSG HHC automation support.

priority type actions. If it becomes necessary, CSGs use CSSCS programs to take limited functional control of ADP generated requirements.

- CSSAMO personnel use TACCS and ULC devices to manage CSS software within the group AO.
- S2/S3 section personnel use CSSCS software, run on an ACCS common hardware device, to assist in preparing OPLANs/OPORDs and estimates.
- S4 section personnel use SPBS-R to monitor equipment on subordinate unit hand receipts. SPBS-R software maintains property book accountability for the group's company headquarters.
- Company headquarters personnel use the ULC, authorized by CTA, to process PLL data.

Computer data transfer between unit locations can be in diskette or hard copy format. MSE passes data over the corps area common user system.

COMMAND SECTION

The command section functions as the command and control headquarters under direction of the COSCOM. In turn, it provides C2 of all battalions and separate units assigned or attached to the group. The CSG coordinates day-to-day support missions in its AO, while the COSCOM plans and synchronizes support for the corps force. As applicable, command section staff officers—

- Issue planning guidance.
- Supervise, monitor, and coordinate staff operations.
- Prepare plans and orders.
- Prepare contingency support plans.
- Task organize subordinate battalions.
- Coordinate and monitor support operations.
- Monitor and keep CSG staff and units informed of the tactical environment.

COMMAND SECTION STAFF

The command section consists of the group commander and XO, coordinating S-staff, and special staff. S-staff officers supervise and coordinate the functions of subordinate elements. In addition to the S-staff, there is a support operations officer. Special staff includes the C-E officer and chaplain.

Command section staff officers perform the five staff functions common to all staff officers. They—

- Provide information.
- Make estimates.
- Make recommendations.
- Prepare plans and orders.
- Supervise.

Command section staff officers conduct staff mission analysis, develop estimates and plans, and implement COSCOM and corps G4 policies and orders. They develop a reporting and monitoring system for staff operations in their area of expertise. They provide information updates to the CSG commander and exchange information with other staff sections on areas that are critical to mission accomplishment.

FM 101-5 and AR 611-101 list generic staff responsibilities. Table 2-1 lists tasks performed by key command section staff.

COMMAND GUIDANCE

The group commander reviews command staff estimates and recommendations. He reviews draft plans and directives for adequacy and compliance with the COSCOM commander's intent. He advises his staff on how to resolve potential coordination problems. The commander and XO ensure that command section staff officers coordinate plans with their COSCOM and subordinate battalion counterparts.

STAFF PLANNING GUIDANCE

The group commander and XO provide direction to the command section staff for the preparation of plans and directives that support the COSCOM's concept of operations. They identify specified tasks in the COSCOM OPLAN/OPORD and assign responsibilities, additional staff duties, time frames, and tentative suspense dates. Command section staff officers assess the probable effects of enemy and allied operations on support missions. They recommend CSG task reorganizations to the COSCOM as well as shifts in priorities of support to customer units.

DEPLOYMENT PLANNING

The deployment planning checklist at Appendix B can help clarify guidance and directives from COSCOM or task force staff relative to requirements and the support which CSG units are to provide. Similar checklists in FMs 63-3 and 63-6 can be used to plan

Table 2-1. Key command section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Group Commander	Commands and controls the support group. Provides mission guidance and reviews staff estimates and recommendations. States his estimate of the situation and announces his decision.
Executive Officer	Supervises the CSG staff. Coordinates staff planning and response to the group commander's guidance. Disseminates time analysis limitations to all staff sections. Supervises staff mission analysis. Assumes command of the CSG when the CSG commander is elsewhere. Announces staff operating policies.
C-E Officer	Coordinates the communications system and communications support of the group and subordinate elements. Monitors communications security and communications operating procedures within the support group. Acts as information manager, as required by ARs 25-1 and 25-5.
Command SGM	Serves as the group commander's principal enlisted assistant. Maintains liaison between command SGMs of subordinate battalions. Provides the group commander information on the status of enlisted matters.

deployment in support of a contingency operation or if the CSG is to operate as the largest logistics support element in theater.

TASK ORGANIZATION

The group commander task organizes subordinate battalions. He attaches or places logistics units or teams OPCON in response to changes in missions and support requirements. Movement of units into or through the CSG's sector affects the supported customer list. Support operations staff and S2/S3 staff recommend possible organization shifts. Changing support requirements and estimates of the situation will impact on task organizations.

S1 SECTION

The S1 section serves the soldiers of the command. It monitors and reports on personnel service support functions, to include administrative, legal, and morale support.

S1 SECTION STAFF

S1 section personnel process personnel actions. These include assignments, promotions, awards, and decorations. They coordinate personnel service support, to include religious, postal, legal, and financial services. They also assess and enhance morale and coordinate law, order, and discipline activities.

S1 staff personnel perform administrative support duties. They monitor the personnel status of assigned or attached units. Subordinate units send information copies of personnel actions through the S1 chain. They prepare the personnel estimate, maintain strength data, prepare SIDPERS input, and determine personnel replacement requirements. If necessary, they plan for and supervise the use of civilian labor and coordinate civilian pay requirements with the supporting FSUs. Table 2-2 lists collective and individual tasks performed by S1 section personnel.

PERSONNEL STATUS REPORTS

S1 section personnel consolidate strength reports from all subordinate units. S1 section personnel use a TACCS device to monitor, update, and report unit status and SIDPERS personnel data. They prepare daily personnel status reports. Part I, Personnel Daily Summary, flows through command channels to the COSCOM ACofS, G1. Part II, Personnel Requirements Report, is sent through AG channels to help identify replacement requirements.

The S1 officer and staff make reconstitution recommendations based on data listed on the personnel data summary. The summary lists each unit separately. It lists daily strength, losses and gains. It also lists the number of days each unit has been in the AO.

SIDPERS REPORTS

S1 section personnel prepare and process SIDPERS transactions. SIDPERS input forms use codes in DA Pamphlets 600-8-1 and 600-8-2. Table 2-3 lists frequently used SIDPERS reports. Section personnel review SIDPERS personnel transaction registers to resolve strength imbalances.

CASUALTY REPORTING

Subordinate units send casualty feeder reports and witness statements to the CSG S1 section. S1 section personnel verify and correct casualty status and identity data based on input from medical and mortuary affairs elements. They also prepare a SIDPERS deceased transaction and a SIDPERS organization strength report change for all KIA. DA Pamphlet 600-8-1 covers SIDPERS report procedures.

REPLACEMENT ASSIGNMENTS

Replacement depends on strength reports submitted through personnel service units by company clerks. S1 section personnel assign replacements based on unit requirements, priority of requirements, and MOS. They coordinate assignment priority with S2/S3 staff and unit commanders to agree with critical needs. Replacement personnel are assigned based on valid position numbers on the unit manning report. S1 staff sends assignment notification, based on position number filled, to the receiving unit and the parent battalion headquarters S1.

MORALE SUPPORT PROGRAMS

S1 section personnel assess troop morale during visits to subordinate units. They assess AWOL rates, disciplinary reports, and requests for counseling. They also assess the adequacy of morale support activities, such as postal services and athletic events. They process recommendations for awards and decorations following AR 672-5-1 and command policy.

Section personnel prepare a personnel services program to, manage leaves, passes, and rotations. They project R&R quotas for subordinate units. S4 section

Table 2-2. Key S1 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S1 Officer	Supervises group administrative and personnel matters.
	Keeps the group commander informed of personnel actions within the group.
	Develops the personnel estimate and distributes it to CSG staff sections.
	Keeps staff informed of the supportability of missions from a personnel services viewpoint.
	Recommends ways to reduce the effects of major personnel deficiencies.
	Keeps the CSG commander informed on areas that impact on troop preparedness.
Personnel Staff NCO	Supervises personnel actions and coordinates assignments throughout the CSG.
	Prepares the personnel estimate.
	Submits loss reports.
	Monitors strength data.
	Requisitions replacements and recommends distribution of replacement personnel for attached units.
	Coordinates replacements with subordinate battalion S1 staff.
Legal NCO	Helps prepare and process legal records.
	Reviews legal correspondence to ensure that items are complete and correct.
	Helps prepare and process court-martial and board proceedings.
	Ensures proper and prompt disposition of legal actions to protect the rights of soldiers within the group.
Admin Spec	Processes personnel actions and reports. These include personnel situation reports, personnel spot reports, unit feeder reports, classifications, promotions, reductions, and efficiency reports.
	Operates the message center.
	Composes correspondence.
	Sets up and maintains logs, rosters, and status boards.
	Controls, publishes, and distributes orders, directives, and forms developed at the group level.

Table 2-3. SIDPERS reports.

REPORT	PURPOSE
Daily Strength Summary	Statistical report of cyclic strength status, to include authorized strength, reported accountable strength, and percentage of authorized strength in the unit.
Weekly Report of AWOL by Name	Roster of personnel AWOL.
AWOL Statistical Report	Monthly report, by unit, of those AWOL or dropped from rolls.
Enlisted Skills Inventory and Projection by MOS	Summary of enlisted spaces and personnel by grade, MOS, and additional skill identifier. Authorized and actual strength can be projected for the next 12 months. Report is used to requisition personnel.
Officer Skills Inventory and Projection	Summary of officer spaces and personnel by specialty.
Enlisted MOS Inventory Statistics	Summary of spaces and personnel by MOS, additional skill identifier, and grade with separate totals for each battalion.
Personnel Status Report	Summary of missing in action, wounded in action, and killed in action.
Critical MOS Report	Summary of critically short MOSs.

personnel coordinate requirements for transportation to R&R areas.

The corps personnel group provides movies, library kits, video games, and athletic equipment to authorized hand-receipt holders.

MEDICAL SUPPORT PLAN

Corps and COSCOM medical staffs develop, implement, issue, and update a medical support plan to cover operations within the group's AO. Refer to FM 8-20. The medical support plan includes information and instructions on —

- Hospitalization.
- Evacuation of sick or injured personnel.
- Emergency evacuation.
- Location of supporting medical and dental facilities.
- Procedures for requesting medical evacuation support.
- Return to duty personnel.

The S1 coordinates with the corps medical officer to determine medical support for mass casualties or an NBC attack. He also coordinates with the S2/S3 NBC officer to determine the probability and impact of NBC related casualties.

LEGAL SUPPORT

The legal NCO gathers legal data and prepares legal records. He also helps prepare and process court-martial and board proceedinggs using the US Manual for Court-Martials. AR 27-10 supplements that manual. AR 15-6 describes how to conduct an investigation.

The COSCOM headquarters has convening authority over CSG units. The Judge Advocate General Corps provides legal services on an area basis. It provides legal

advice and assistance to commanders and their staff on relations with the populace and government within the area of operations. It also provides legal advice on acquisitions using appropriated and nonappropriated funds. Its staff conducts war crimes investigations and trials.

CIVILIAN LABOR

HN and third country nationals supplement field services. The G5 and COSCOM contracting staffs have staff responsibility for the hiring and control of civilians. They identify operations which local workers can perform. The CSG contracting management officer contracts with local HN businesses for civilian services. CA teams coordinate the hiring or contracting. They also provide interpreters or translators. FM 41-10 describes CA functions.

EPW COORDINATION

The corps G1 and provost marshal define the EPW program. The MPs manage and control EPW collection points in the CSG area. The group S1 section coordinates with these elements, medical units, and their subordinate units on EPW issues. Subordinate units turn captured documents over to the group S2/3 section. They report captured materiel to the S2. Refer to FM 19-1.

UNIT MINISTRY TEAM

The UMT consists of the chaplain and senior chaplain assistant. Table 2-4 lists their responsibilities. The UMT provides religious support to soldiers in combat. The team moves among forward elements, ministering to soldiers before, during, and after contact with the enemy. The CSG's UMT assures essential religious ministry to rear areas where mass casualties, hasty burials, and psychological trauma

Table 2-4. Unit ministry team responsibilities.

PERSONNEL	RESPONSIBILITIES
Chaplain	**Develops an area coverage plan that provides chaplain and religious services for all personnel within the support group's area of responsibility.**
	Arranges for a base cluster coordinating chaplain in each base cluster.
	Recommends reassignment of chaplain and chaplain assistants to ensure adequate area chaplain coverage.
	Maintains liaison with chaplains of higher, lower, and adjacent commands as well as with other Services, allied units, and civilian agencies.
	Organizes and provides the widest possible denomination coverage.
	Plans pastoral ministry for hospital patients.
	Organizes special chaplian support for aid stations and mortuary affairs collection sites.
	Plans and supervises pastoral care to prisoners, civilian internees, evacuees, and refugees.
	Conducts services in mass casualty and mass burial situations.
	Delivers emergency messages received through the Red Cross, to group personnel.
	Supervises the training of lay readers.

Table 2-4. Unit ministry team responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Senior Chaplain Assistant	**Assists the chaplain on religious matters, including religious services.** **Maintains chaplain policy files and records.** **Requests religious supplies.** **Makes bibles and religious literature available.** **Drives the chaplain's vehicle and provides armed security for the chaplain.**

could equal that of soldiers in forward areas. FM 16-5 describes the chaplain and his assistant in combat operations.

The group chaplain provides staff supervision over chaplains and religious activities in subordinate units. He serves as advisor and consultant to the group commander and his staff on religion, morals, and morale as affected by religion. The chaplain advises the group commander on the impact of indigenous religions on military operations. He recommends policy for military use of civilian or HN places of worship. He also ensures that subordinate battalion chaplains follow any restrictions on their use.

SUPPORT OPERATIONS SECTION

The support operations section serves the customer units. Its primary concern is customer support and increasing the responsiveness of support provided by subordinate units. It continually monitors that support and advises the group commander on the ability to support future tactical operations. Support operations staff officers —

- Provide technical advice on the external support mission of subordinate units.
- Plan, coordinate, and monitor supply, field services, and maintenance support to customer units.
- Monitor the effectiveness of transportation services in the CSG area.
- Coordinate HNS requirements.

TECHNICAL EXPERTISE

Support operations staff officers provide technical expertise, advice, and assistance to subordinate units. They conduct staff visits to customer units and supporting units. They recommend ways to increase responsiveness to changing support requirements. Recommendations may include reallocation of resources, changing customer lists, and shifting customer priorities. Command section staff officers coordinate their recommendations with COSCOM, CMMC, and CMCC staff as required.

ORGANIZATION

The support operations section has five subordinate branches. These consist of a supply and service branch, maintenance branch, transportation branch, HNS branch, and a CSS automation management office.

SUPPORT OPERATIONS SECTION STAFF

This staff element serves as the point of contact for supported units. It directs problems to appropriate technical experts within subordinate branches. Table 2-5 lists the collective and individual tasks of section personnel. Though the support operations officer is assigned to the command section, Table 2-5 also lists his responsibilities.

LOGISTICS PREPARATION OF THE BATTLEFIELD

Like intelligence preparation of the battlefield, LPB is a planning tool. LPB is the sum of those actions taken to minimize the cost of supporting an OPLAN or a contingency plan. The ultimate purpose of LPB is to maximize logistics provided while minimizing the use of logistics resources. During initial planning

Table 2-5. Key support operations section staff responsibilities.

PERSONNEL	RESPONSIBILITIES
Support Operations Officer	Coordinates with COSCOM support operations staff on logistics policy and mission changes among subordinate units.
	Identifies tentative force structure and size to be supported.
	Coordinates the preparation of the support operations estimate on external logistics.
	Coordinates logistics effects analysis by support operations section staff.
	Sets up the group's logistics operations center.
	Implements supply, field services, maintenance, and transportation policies.
	Analyzes the impact of CSSCS reports
	Advises the group commander on the status of logistics support.
	Coordinates logistics support for units passing through the CSGs area.
	Provides subordinate unit terrain requirements to the sector RAOC.
	Directs lateral redistribution of DS stocks.
	Analyzes contingency mission support requirements.
	Revises customer lists (as required by changing requirements, work loads, and priorities) for support of tactical operations.
	Coordinates external logistics provided by subordinate units.
	Exercises technical supervision over support missions of subordinate units.
	Keeps the CSG commander advised of the supportability of CSG support missions and of shortfalls that may impact on mission accomplishment.
	Serves as the single point of coordination for supported units to resolve logistics support problems.
	Coordinates with CID agents to ensure that supplies are not subverted to the black market or diverted to the local populace.
Maintenance Mgt Officer	Assists the support operations officer, serving on the second shift at the LOC.

Table 2-5. Key support operations section staff responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
	Helps plan and coordinate contingency support.
	Helps develop supply, service, maintenance, and transportation policies.
	Monitors CSSCS reports, identifying red and amber conditions.
	Monitors the posture of maintenance units and Class VII and Class IX status.
	Directs redistribution of maintenance work loads.
Chief Supply Supervisor	**Maintains a logistics support situation map.**
	Maintains a mission essential item chart of items in short supply, regulated or command controlled items, and combat losses.
	Monitors the impact of CMO on external logistics operations.

stages, COSCOM support operations staff uses LPB processes to determine the number and type of logistics units required for an operation. LPB can help determine the placement of logistics units on time phased deployment lists. Support operations staff at all levels can use LPB processes in preparing to deploy to the theater of operations. LPB then becomes a continuous logistics planning process. Support operations staff officers use IPB products in performing logistics effects analysis. They update LPB tools during the duration of CSG involvement.

LIAISON

The support operations officer serves as the single point of coordination for customer units when problems arise with logistics support. He tasks his staff to determine the cause of customer dissatisfaction and correct or resolve support problems.

The CSG/CSB commander assigns liaison personnel to the DISCOM and FSBs. This enables the group to react to changing situations or prepare to support future operations in a more timely manner. Liaison personnel—

- Coordinate with DISCOM staff in determining how to best support corps units employed in the division AO.
- Provide timely information on maintenance overflow and reinforcing requirements.
- Coordinate CSG field services provided on an area basis.
- Check with group and battalion support operations staff officers for reasons for delays in satisfying MROs.
- Provide CSG subordinate units early warning of possible additional or changed tasking.

STATUS REPORTS

Support operations section personnel continually review status reports to determine whether requirements exceed supporting unit capabilities. Subordinate battalions consolidate status report data and submit significant change data to the CSG support

operations section. Battalion status reports to the group should relate—

- Significant shortages of supplies that impact on current and projected mission support.
- Significant shortages of mission support equipment or MOSS that impact on support.
- Status data on reportable items identified in OPLANs.
- Battle losses of critical mission support items.
- Overall status of supply, maintenance, field services, and transportation support (green, amber, or red).
- Overall quantity of stocks on hand and due in.
- Critical Class V DODIC information.
- Possible support problems and suggested courses of action to relieve problems.

LOGISTICS SUPPORT OVERLAY

Units moving into the CSGs area need to know where and when to obtain support. Merely knowing the designation of the supporting unit which provides supply, service, transportation, or maintenance is not enough.

The logistics support overlay shows the location of supply points, CEB points, MCPs, and mortuary affairs collection points, all of which provide support on an area basis. The overlay also lists the hours of operation. Support operations section personnel maintain and update the overlay to reflect repositioning of support elements.

Units arriving in or passing through a CSG area report to the RAOC for base or base cluster assignment. A RAOC collocates with each CSG HHC. Therefore, an expedient way to ensure continuation of logistics support is to hand out a logistics support overlay similar to that shown in Figure 2-3 to units, detachments, or teams as they report in to the RAOC.

Corps units employing in the division area receive a logistics support overlay from the DISCOM S2/3 at the division rear CP or FSB S2/3. These overlays depict the location of forward logistics elements or CSB supply points where corps forces can receive support.

UNIT POSITIONING

The corps rear CP operations cell, in coordination with the COSCOM support operations officer and corps G3, determines the general positioning of logistics units in the corps rear area. The sector RAOC determines specific unit positioning and positions units within bases and base clusters within its area of responsibility. CSG support operations staff ensure that the COSCOM support operations officer is kept up-to-date with terrain mission requirements of subordinate units.

The support operations officer of forward CSGs coordinates terrain positioning requirements of CSG elements employed in the division sector with the division rear CP's rear operations cell.

DEMAND SATISFACTION

CSG supply personnel focus on customer supply support. How well subordinate supply units support customers depend on stocks being on hand to fill requests upon demand. Automated systems can compute demand satisfaction percentages. The CMMC publishes the stockage objectives for supply points.

To increase demand satisfaction, CSG supply personnel continually monitor logistics status reports or CSSCS reports of stocks on hand and due in at DSUs. Another control is to review action codes on ASL change lists which recommend addition or deletion of ASL lines. Supply personnel coordinate with CMMC commodity managers in analyzing stock status projections.

SUPPLY REQUIREMENTS

Supported customers should provide a copy of DA Form 2406 to the support operations section of the CSB providing support in their area.

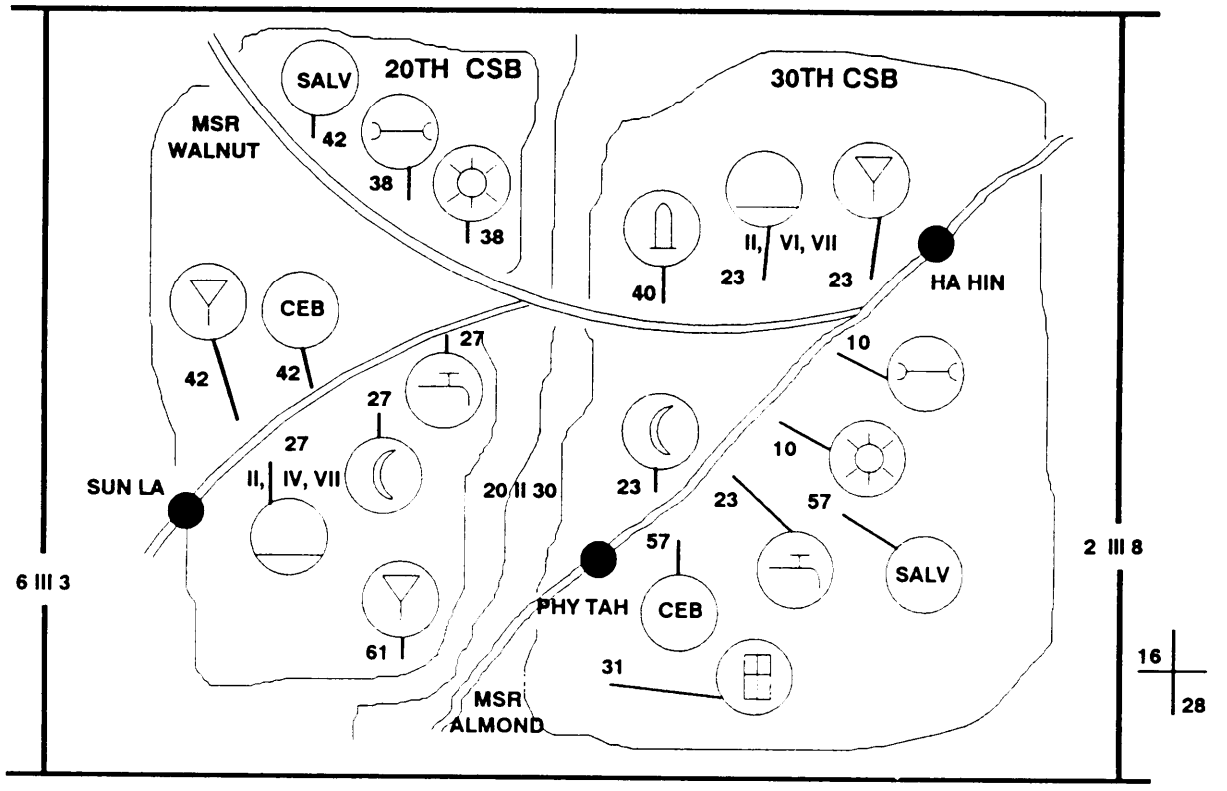
Until definite demand data becomes available in a given theater, supply staffs use preplanned supply requirements formulas. Consumption rates and planning factors enable them to estimate or forecast supply requirements and resupply rates.

Supply Requirements Formulas

When they know the strength to be supported and days of supply, supply staff officers use formulas from FM 101-10-1 to estimate initial supply and resupply requirements. OPLANs, OPORDs, and administrative/logistics plans list supply levels and data on estimated troop strengths.

Consumption Rates

To estimate supply requirements and resupply rates, supply staffs need to know the rate at



HOURS OF OPERATION

20th CSB AO	OPEN	CLOSE
27th SUP CO, DS		
IPT	0700	2100
II, III PKG, IV,VII PT	0100	2300
CLASS III PT	0100	2300
WATER PT	0600	2100
38th DS MAINT CO, DS		
MCP	0700	2100
42d FLD SVC CO,DS		
CEB	1500	1900
SALV PT	0800	1700
61st PETRL SUP CO		
CLASS III PT	0600	2100
62d TRUCK CO (PETRL)		

30th CSB AO	OPEN	CLOSE
23d SUP CO, DS		
IPT	0600	2200
II, III PKG, IV,VII	0600	2200
CLASS III PT	0100	2300
WATER PT	0600	2100
10th DS MAINT CO, DS		
MCP	0600	2200
57th FLD SVC CO,DS		
CEB PT	0800	1300
SALV PT	1500	1900
31st COLL CO		
COLL PT	0600	2000
40th GS AMMO CO		
CLASS V CSA	0100	2300
52d TRUCK CO		

Figure 2-3. Sample CSG support overlay.

which forces consume supplies. Consumption rates vary depending on —

- Type and intensity of combat.
- Types of units and force supported.
- Weapon systems.
- Climate.
- Area of operations.

In the early planning stages, supply officers use the per-man-per-day consumption rates for each class of supply listed in FM 101-10-1. These figures are adjusted as soon as experience usage data becomes available.

NOTE: When planning employment in a NATO environment, be aware that NATO uses 5, not 10, classes of supply. Refer to STANAG 2961.

STOCK MANAGEMENT

DS Stocks

SARSS-2A allows the CMMC to have asset visibility of DS stocks in those supply classes covered by SARSS. The CMMC cross-levels stocks. Based on COSCOM directives, the CSG provides subordinate units priority of issue.

Class II, IV, VII, and IX DS stockage depend on demands. Due to priority and number of demands, Class III, V, and IX require more intensive monitoring.

Certain items are placed on a controlled item list. The CMMC decides if controlled items will be released to fill requisitions.

GS Stocks

The CMMC manages GS stocks. It workloads GS supply units subordinate to CSGs. The CSB support operations section or its counterpart in the rear CSG's functional battalions needs to receive simultaneous transmission from the CMMC of MROs sent to their subordinate GS units. CSG subordinate battalions need to keep the CSG support operations section informed of support problems, such as MRO backlogs, in subordinate GS units.

RESPONSIVE SUPPORT

CSG supply personnel monitor the timeliness of supply support. AR 710-2 prescribes acceptable levels for processing requests and receipts.

To improve follow-upon outstanding PD 01-08 requisitions, supply personnel submit a special follow-up message. They request that CMMC commodity managers expedite actions to improve the availability date provided on a supply status card.

SUPPLY ASSISTANCE REQUEST

Follow-up on high priorities must be emphasized. CSG supply personnel submit supply assistance requests to the CMMC for assistance on requisitions with a PD of 01-06. They may request that the CMMC—

- Check on the status of requisitions.
- Substitute or interchange items.
- Cancel back-ordered requisitions.
- Divert a shipment.

AR 725-50 describes supply assistance requests.

FUEL SUPPORT

CSG petroleum supply personnel provide technical advice and assistance on petroleum support mission operations of subordinate units. They compare forecasted requirements against the current capabilities of DS supply companies and petroleum supply companies. They serve as liaison personnel between supported and supporting units. They recommend general locations for Class III supply points and coordinate petroleum storage construction requirements with engineers. If necessary, they revise fuel forecasts and reallocate fuel supply assets to better support surge operations and support deep attacks.

FIELD SERVICES SUPPORT

While not all field services are immediately critical, they are necessary to maintain troop health, comfort, welfare, and morale. Airdrop and mortuary affairs comprise critical or primary field services. They must be available from the onset of battle. CEB, laundry, and renovation comprise secondary services. However, they should be provided as soon as the tactical situation permits.

The S&S branch chief determines the impact of tactical operations on field services support requirements. After coordinating with the CSG S2/S3, he may recommend changes to supported customer lists. These lists need to be changed when field services personnel are assigned to support priority supply support missions.

Chapter 6 covers field services staff responsibilities for CEB, laundry and renovation, airdrop, and mortuary affairs.

CONTRACTING AND PROCUREMENT

Contracting and procurement personnel in the CSG S&S branch coordinate with the COSCOM's contracting staff for local procurement support for supported forces. Normally, they coordinate for contracting support to nondivision units on an area basis. However, during contingencies, they coordinate contingency contracting support for the division and CS units of the corps.

Though the operational situation determines when contracting personnel deploy, in low intensity and contingency operations, CSG contracting and procurement personnel may likely be included in the advance party. Prior to deployment, they—

- Coordinate with CA elements to acquire and update contingency contracting kit materials, to include maps, telephone books, and other documents.
- Validate with the CMMC those items of supply or required services authorized by the corps G4 to be obtained by contract.
- Determine the need for and nominate ordering officers for appointment.
- Coordinate with the COSCOM procurement support branch for appointment of ordering officers.
- Receive validated purchase requests from the division and other authorized units.

CSG procurement and contracting personnel process local procurement requests. Contracting officer representatives may appoint (with the battalion commander's approval) ordering officials at subordinate battalions. CSG contracting personnel use monetary limitations and restrictions on types of goods or services to control ordering officers. Supply personnel first determine whether supplies can be provided through the supply system or purchased locally. They need to consider—

- Acquisition advice code.
- Lead time.
- Required delivery date.
- Guidance from the COSCOM procurement support branch.
- Instructions from the CMMC.

The supply and field services operations officer reviews local purchase requests and the recommendations of his branch personnel. He may direct that his procurement NCOs purchase supplies and services locally.

Only warranted contracting officers can legally obligate the government to pay for goods and services. The acquisition method used depends upon the dollar amount and complexity of the acquisition.

Procurement NCOs coordinate all local procurement actions with civil affairs personnel. The contracting management officer coordinates with the HN on payment for supplies and services rendered.

TRANSPORTATION BRANCH

The transportation branch is the mode manager for transportation assets assigned to the CSG. It establishes formal accounting procedures for transportation assets and reports availability to the MCT and COSCOM transportation support branch. It coordinates with the MCT and CMCC on matters of movement control and highway regulation.

The group transportation officer keeps the CSG commander and servicing MCT informed of the status of transportation assets. His personnel monitor the movement situation in the group's AO. They investigate movement delays, initiate tracing actions, or make recommendations to the CMCC or area MCT concerning priority changes, diversions, or reconsignment. Table 2-6 lists the tasks performed by key branch personel

SUPPLY AND SERVICES BRANCH

This branch provides daily management and technical expertise for supply and field services missions. S&S branch personnel serve as liaison personnel between supported and supporting units. They ensure there are no breakdowns in support to newly supported units or units entering or moving through the CSG AO. They also ensure that supporting units change their support procedures to agree with changes in support priorities or customer unit lists. Branch personnel continually analyze requirements versus the mission capabilities of subordinate units. Upon application of the TOE incremental change package, they can monitor supply status using the STAMIS at the group.

Table 2-7 lists tasks performed by key S&S branch personnel. When trends or indicators such as high MRO backlogs or customer demand dissatisfaction warrant, branch personnel visit the site. They determine the problem, and recommend corrective actions or changes in support missions. Alternatives include contracting for local labor, services, equipment, or supplies. They may halt field services support and assign field services personnel to help process supply tonnages.

Table 2-6. Key transportation branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Transportation Officer	Coordinates with the COSCOM transportation support branch staff on transportation policy.
	Coordinates with the CMCC and serving MCT on matters concerning CSS air movement operations, movement control, and highway regulation.
	Recommends employment of transportation units to support CSG distribution requirements.
	Recommends cross-leveling to equalize work loads in subordinate battalions.
	Prepares group movement plans and annexes in support of logistics or contingency plans.
	Recommends the number and type of units or teams and sites to support cargo-transfer operations at air, rail, motor, beachheads, and inland waterway terminals.
	Maintains liaison with transportation units and HN military counterparts.
	Resolves movement priority conflicts with the support operations officer and S2/S3.
Motor/Rail Trans Officer	Coordinates with CMCC on use of HN assets and road and rail networks.
	Advises subordinate units on movement by motor and rail assets
	Reviews subordinate unit deployment and movement plans.
	Coordinates subordinate unit movement requirements.
	Assists in selecting units to support forces, areas and special operations.
	Recommends sites based on vehicle traffic and off-road capability.
	Monitors transportation capabilities of subordinate units.
	Analyzes status reports submitted by subordinate transportation units.
	Coordinates unit retrograde movement operations.
Staff Movements NCO	Consolidates MSR use requirements for unit moves.
	Submits unit movement schedules and requests movement credits from the MCT.
	Provides subordinate units with instructions on obtaining road clear antes and filling out STANAG forms.
	Advises on movement of personnel and cargo by air, highway, and rail.
	Ensures compliance with marking requirements.
	Initiates cargo movement tracer actions.

Table 2-7. Key S&S branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Supply Management Officers	Coordinate with COSCOM counterpart staff on DS supply and field services policy.
	Coordinate with subordinate units and CMMC and CMCC staff to resolve support problems and increase responsiveness.
	Visit subordinate and supported units to provide technical assistance and help resolve support problems.
	Analyze CSSCS data and logistics status reports to determine trends and conformance to standards, directives, priorities, and the COSCOM commander's priorities and intent.
	Recommend lateral redistribution of DS stocks.
	Determine which supplies and services can be procured locally.
	Recommend changes to customer lists.
	Conduct inspections and provide liaison and technical assistance to ensure mission support.
Ammunition Officers	Coordinate group Class V areas.
	Establish standards, directives, and standard procedures for handling, issue, receipt, turn-in, and maintenance of ammunition.
	Conduct technical visits.
	Recommend cross-leveling and changes to support procedures to the group commander and subordinate battalions.
	Interface with the HNS branch on HNS delivered ammunition.
	Coordinate the mission activities of CSG ammunition companies.
	Monitor the adequacy of ammunition stocks.
	Recommend ways to increase responsiveness of ammunition distribution.
	Request engineer support to construct storage sites and harden road nets.
Ammunition Supply SGT	Advises on ammunition service support operations.
	Recommends modifications to ASPs for ammunition storage activities.
Senior Ammo Inspector	Advises on ammunition service support SGT operations.

Table 2-7. Key S&S branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Petroleum Supply Officer	Determines petroleum and water requirements. Provides technical expertise on supply and distribution of petroleum and water by CSG units. Assesses subordinate unit capability to meet projected bulk fuel DS requirements. Reviews bulk fuel forecasts and adjusts the forecasts after coordination with the CSG S2/S3 on the impact of tactical operations on fuel requirements. Manages quality surveillance programs. Monitors fuel allocations. Monitors fuel and water storage and movement capabilities of subordinate units. Secures additional fuel and water storage capacity.
Petroleum Supply Supervisor	Reviews, consolidates, and prepares technical and administrative reports on petroleum support operations of DS supply companies and petroleum supply companies.
Water Treatment Supervisor	Monitors requirements for water source. Coordinates support with COSCOM troop support branch and engineers. Provides technical guidance on water treatment, storage, distribution, and quality control operations. Develops the area water supply and treatment plan.
Supply and Services Officer	Provides technical expertise on supply and field services support. Coordinates with HN officials and COSCOM contracting officers on field services. Coordinates laundry and bath when HN or contractor support is required. Performs inspections. Analyzes operational data and reports on efficiency of field service support operations. Coordinates field services support for regeneration of degraded units. Coordinates with CMCC relative to requirements for evacuation of remains to CONUS. Determines shortfalls in the group's field service for possibile HNS.

Table 2-7. Key S&S branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Supply Systems Technician	Conducts staff inspections to resolve problem areas and provides Class IX functional expertise. Monitors Class IX ASL mobility requirements. Provides advice to the S4 on management of PLL stockage.
Materiel Mgt Supervisor	Provides technical guidance on stock records and materiel control and accounting functions. Uses summary management reports to evaluate the efficiency of supply functions. Recommends modification of ASL's to support changes in customer units. Reviews materiel receipt and off-line document processing procedures. Coordinates allied CSS with the group's HNS branch.
Materiel Storage Supervisor	Conducts surveillance inspections of materiels, less Class V, in storage. Analyzes data and reports to determine efficiency of operations conformance to standards, and trends. Determines MHE requirements to support operations.
Subsistence Supply Supervisor	Provides technical guidance and monitors subsistence supply, storage, and distribution operations of subordinate units. Ensure compliance with subsistence directives.
Operations SGT	Analyzes trends and forecasts of requirements for supplies and equip ment based on priorities and procedures. Coordinates major end item resupply activities within the group.
Mortuary Affairs Specialist	Advises on emergency burial policy and the security and disposition of remains and personnel effects. Plans and coordinates escort of remains. Maintains files, reports, and a situation map on mortuary affairs support activities.

Table 2-7. Key S&S branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Mortuary Affairs Specialist (cont)	Advises summary court authorities on the disposition of personnel effects. Monitors remains evacuation. Coordinates training of subordinate unit personnel on mortuary affairs responsibilities.
Laundry NCO	Provides technical expertise on CEB site selection and support requirements. Determines requirements for and adequacy of laundry and bath activities. Coordinates support with HNS branch and COSCOM contracting staff. Coordinates delousing requirements with medical authorities.
Contracting Mgt Officer	Coordinates with COSCOM procurement support branch staff on contingency contracting of supplies and services to support division as well as corps CS units. Purchases, rents, leases, or obtains services in support of internal CSG functions. Analyzes purchase requests and commitment documents. Coordinates with area CA personnel to establish advance procurement.
Procurement NCOs	Check procurement requests for completeness and process procurement documents. Serve as field ordering officers. Assist subordinate units in preparing purchasing documents. Distribute command purchasing SOP. Serve as imprest fund custodian and comply with regulations to safe guard funds.

MAINTENANCE BRANCH

This branch provides technical expertise and operational supervision for maintenance support missions of subordinate maintenance units. Branch personnel plan and coordinate maintenance support provided by subordinate units. When maintenance management indicators such as maintenance backlogs and repair parts shortages warrant, maintenance personnel visit sites to determine the cause. They recommend corrective actions on mission changes to the support operations officer. They also provide input to the HNS branch on shortfalls in subordinate maintenance unit capability. Table 2-8 lists tasks performed by key maintenance personnel.

CSS AUTOMATION MANAGEMENT OFFICE

CSSAMOs serve as the area CSS STAMIS software manager. Each CSG CSSAMO provides CSS STAMIS support on an area basis. It serves as the focal point for CSS software management. It provides operator level support for all CSS STAMIS. Though SIDPERS users receive software support from the corps personnel service company, the CSSAMO coordinates the support for SIDPERS.

As shown by Figure 2-4, the CSG CSSAMO provides CSS STAMIS support to all units located in or passing through the CSG area. (This excludes units such as separate combat brigades, ACRs, medical brigades, and ADA command which have a small organic automation management element.) Note that the CSB in the division sector receives system support from its parent CSG CSSAMO.

The CSG CSSAMO interacts with the COSCOM CSSAMO and integrates data bases for new units. It coordinates signal support actions requirements with the corps signal officer. It maintains data on CSS hardware and software use on all CSS STAMIS, regardless of its location within the CSG area. It assists units with CSS automation COOP planning and execution.

CSSAMO Personnel

CSSAMO personnel receive, distribute, and implement change packages. They ensure that system change packages are applied in the proper order. Table 2-9 lists personnel responsibilities. CSSAMO personnel provide user level assistance, system troubleshooting, and software replacement. They review system problem reports. If the problem results from the hardware, CSSAMO per sonnel assist the user in turning in the computer for repair. As needed, they prepare Engineering Change Proposals - Software for common software problems. They also provide user level support training.

Software Problems

CSSAMO personnel assist TACCS and ULC microccomputer operators in resolving technical and operator induced software operating problems. STAMIS functional technicians provide software management and operator level problem resolution support.

CSS STAMIS software problems or malfunctions which cannot be corrected at the user or first-line supervisor level are reported to the CSG CSSAMO. To avoid redundant reporting, the CSSAMO establishes specific points of contact in all CSG elements for reporting software problems. CSS software problems that cannot be corrected by the CSG CSSAMO are reported through the C-E officer to the COSCOM CSSAMO.

TDA Augmentation

The CSSAMO is not staffed or equipped to support command systems unique to TDA organizations. CSSAMO staffing and equipment may require changes to accommodate emerging STAMIS. ATDA augmentation may be required as a result of—

- Stationing locations.
- Supporting STAMISs in TDA activities.
- Distributing forces among various components.

The group tailors the augmentation to support systems not supported by the CSSAMO. A rule of thumb is to assign a fourperson augmentation for every 5,000 troops or major fraction thereof. The augmentation may consist of a mix of civilian and military personnel. Personnel in the TDA augmentation can fill vacant spaces in the CSSAMO of support groups tramnsitioning to war or arriving in theater. They also help to integrate arriving forces into the theater's CSS automation structure.

HOST-NATION SUPPORT BRANCH

During a contingency operation in which the CSG is the senior logistics headquarters, the HNS branch provides an interface between the group and the foreign military or government activity that may augment the group's support missions. It coordinates HNS negotiated and agreed upon by the HN in peacetime for provision during war. It also coordinates any additional ad hoc HN support agreed upon by HN authorities. The branch implements and coordinates agreements at the operating level.

Table 2-8. Key maintenance branch staff responsibilities.

PERSONNEL	RESPONSIBILITIES
Maintenance Officer	Manages maintenance support activities of the CSG. Provides technical guidance to subordinate CSG maintenance units. Analyses trends and recommends repair priorities. Briefs command and staff personnel on maintenance posture.
Aircraft Maintenance Officer/NCO* * Provided by the AVIM battalion	Provides technical guidance on AVIM performed within the CSG AO.
Armt/Combat Vehicle Maint Officer	Coordinates maintenance support between supported units. Performs on-site staff inspections. Monitors maintenance on fire support systems, missile weapons systems, and TMDE.
Maintenance Operations NCO	Supervises branch NCOs. Monitors maintenance activities for potential problem areas and recommends improved procedures. Analyzes causes for backlogs and recommends possible solutions. Assists in the preparation of maintenance support operation plans, policies, and procedures.
Armt Maint Sgt	Provides technical expertise on maintenance support of tank turret repair and fire control instrument and computer repair. Assists in the preparation of armament fire control maintenance support plans.
Comm Equipment Staff NCO	Provides technical expertise in planning C-E maintenance support. Establishes C-E maintenance policies and procedures.
Construction Equip Maint SGT	Provides technical expertise in planning and execution of construction equipment maintenance.
Mechanical SGT	Provides expertise on TAMMS, PLL, and ULLS Maint maintenance automated system outputs. Provides expertise in the maintenance of wheeled and track vehicles. Assists in planning work loading of subordinate units.

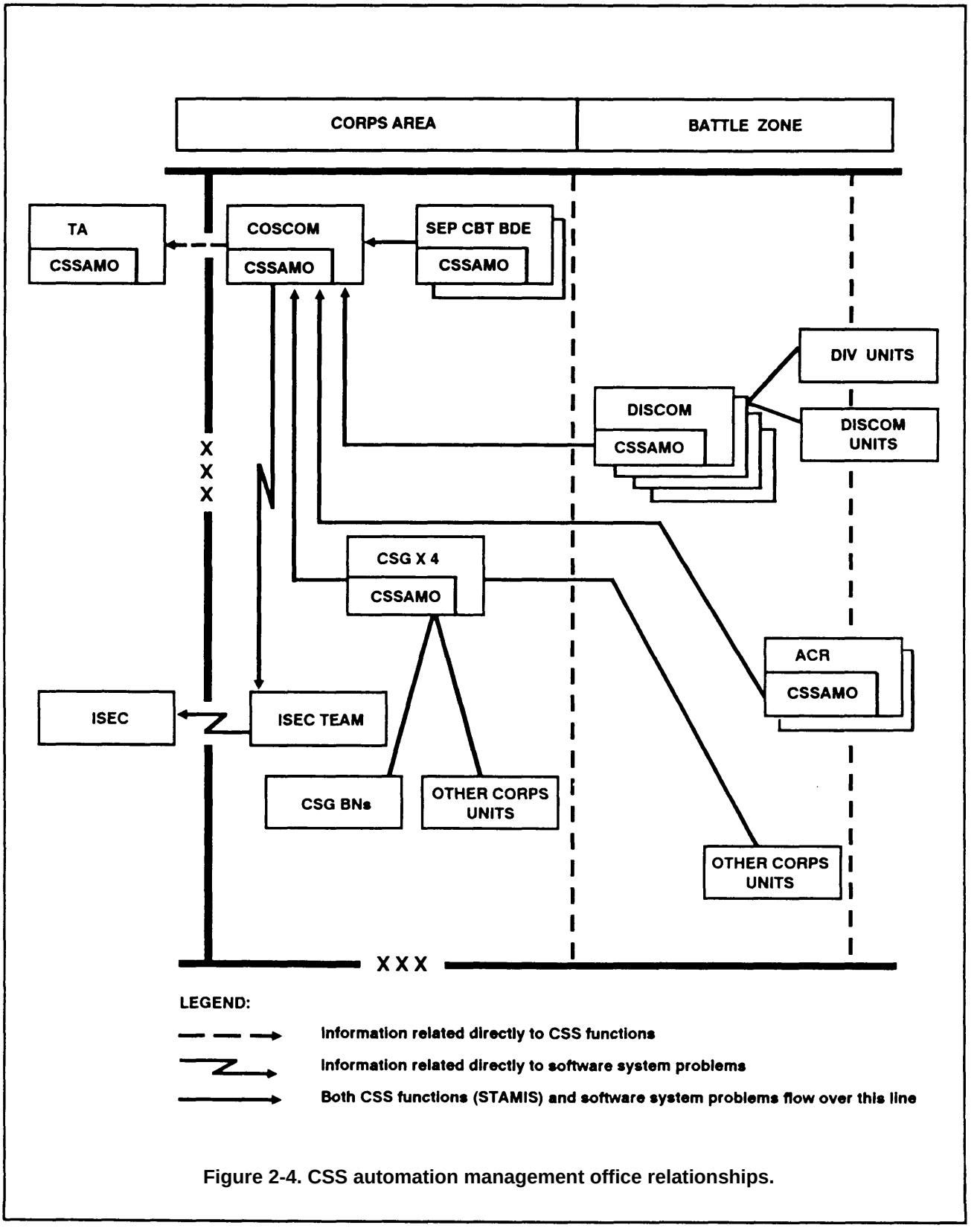


Figure 2-4. CSS automation management office relationships.

Table 2-9. CSSAMO personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
CSS Automation Mgt Officer	Advises the CSG commander and C-E officer on automation matters. Coordinates CSS software support requirements for the CSG and other units. Coordinates STAMIS and communications systems interface with the COSCOM ACofS , G6.
Data Processing Technician	Supervises technical operations related to CSS software management. Assists in resolving technical and operator induced software problems.
Programmer/ Analysts	Assist with operating system and communications interfaces. Provide CSS software support to CSG subordinate units and other units in the CSG support area which do not have organic software support capability.
Unit Supply Spec	Provides software management and operator level support for problems with SPBS-R and ULLS-PLL.
Material Acc Specialists	Resolve SARSS-1 software support problems.
Maint Mgt Spec	Resolves system support problems with SAMS software.
Record Equip Spec	Resolves system support problems with ULLS-PLL.
Trans Spec	Resolves system support problems with DAMMS-R.
Ammo Spec	Resolves system support problems with SAAS.
Med Sup Spec	Resolves system support problems with TAMMIS/TAMMIS-D.

Table 2-10. Key HNS branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
HNS Coordinator	Coordinates with his HNS staff counterparts in the COSCOM procurement support branch.
	Interfaces HNS with the CSG's support system.
	Coordinates new support agreements with HN authorities.
	Coordinates with HN authorities on labor restrictions on the use of HN labor.
	Coordinates HNS requirements with appropriate legal, contract, financial, and CA activities.
	Monitors HNS contractor performance and submits production reports to the CMMC on the amount and type of support provided.
Maintenance Officer	Coordinates the delivery of repair parts and unserviceable to HNS activities.
Supply Mgt Officer	Coordinates provision of US Army supplies to HNS activity
	Coordinates requirements for HNS services (bakery and laundry).
	Provides technical expertise to the HNS activity.
Transportation Officer	Coordinates with the CMCC on support requirements involving HNS transportation assets.
	Coordinates with the CMCC on delivery of HN products to CSG units.
Operations SGT	Monitors the performance of HNS activities.

As appropriate, branch personnel perform the tasks listed on Table 2-10. They coordinate closely with CA elements in obtaining required and agreed upon HNS. CA teams provide civil-military cooperation with HN authorities. JAG and finance group personnel negotiate agreements and provide payment for HNS.

On occasion, HNS branch personnel task subordinate battalions to provide technical expertise to the I-INS activity on a temporary basis.

HNS branch personnel perform the following missions:

- Develop HNS requirements and plans.
- Monitor the contractor's or HNS activity's performance.
- Ensure that HNS products or services undergo inspection and pass a quality control process.
- Coordinate the delivery of reparable or supplies to the designated HNS activity.
- Report on HNS provided supplies or services to the CMMC.
- Coordinate the delivery of HNS supplies or services to the supported corps unit.

S2/S3 SECTION

The group S2/S3 section plans, directs, and coordinates OPSEC, intelligence, NBC defense, and training programs for subordinate units. Section personnel coordinate development of OPLANs/OPORDs. They develop training plans and documents. They also coordinate tactical moves and unit displacements with the CMCC and sector RAOC. Tables 2-11 through 2-13 list collective and individual tasks performed by section personnel.

CONTINGENCY SUPPORT PLANS

S3 plans staff prepares plans to cover contingencies. Prepared contingency plans increase the responsiveness of logistics support to changing tactical situations. Close coordination between tacticians and logisticians enables CSG command section staff officers to better plan for contingencies.

OPERATIONS SECURITY

S2/S3 section personnel establish the main CP. They coordinate physical security of the CP, to include disseminating the challenge and countersign. They also prepare the base defense plan. As required, they issue the warning or OPORD to subordinate battalions.

INTELLIGENCE

Intelligence personnel develop intelligence estimates and the intelligence annex and OPSEC annex to OPLANs/OPORDs and SOPs. They develop plans for collecting and disseminating intelligence data and intelligence products (to include weather data and classified maps) throughout the group. Intelligence personnel maintain the current intelligence summary and estimate on probable actions of enemy forces. They determine essential elements of friendly information and provide input to the sector RAOC. They exercise staff supervision over EW, OPSEC, and PSYOP. As required, they provide guidance on disposition of captured enemy personnel, documents and materiel. They also provide information from the COSCOM on the location of enemy supply dumps and forageable supplies.

NBC DEFENSE

The NBC officer prepares the NBC defense annex to OPLANs/OPORDs and SOPs. He monitors NBC threats and predicts fallout. The chemical operations NCO collects, evaluates, and distributes NBC reports. He monitors contamination patterns and disseminates NBC data. He also assists the NBC officer in preparing vulnerability analyses of significant targets in the support group's AO. Together they coordinate surveys and determine requirements for NBC protective shelters. They also recommend priorities for decontamination support; and submit requests for NBC support from chemical units, detachments, or teams.

PLANS AND ORDERS

Plans and operations personnel prepare, coordinate, authenticate, and publish operations estimates, OPLANs, OPORDs, and SOPs. They coordinate development of command OPLANs/OPORDs. They also coordinate preparation of support group contingency plans. FM 101-5 depicts formats. Appendix C provides a sample CSG OPORD.

TRAINING PLANS

S2/S3 section personnel review the training programs of subordinate units. They ensure that their training programs stress training in rear operations

Table 2-11. Key S2/S3 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S2/S3 Officer	Develops tactical intelligence and operation plans and orders.
	Plans and executes operations security and NBC defense and training.
	Provides estimated times for deployment of CSB, functional battalions, and other elements assigned or attached to the CSG.
	Issues warning notice to all assigned or attached elements, informing them of pending operations.
	Coordinates with COSCOM ACofS, G2 and G3 section staff on the tactical situation in the CSG's area.
	Coordinates with supporting RAOC personnel on rear operations.
Plans Officer	Prepares operations plans, orders, and estimates IAW guidelines set by the COSCOM HHC.
	Prepares contingency plans.
	Analyzes operational data and reports for conformance to directives and commander's intent.
Chief Supply Supervisor	Supervises development and preparation of OPLANs, maps, and data relative to employment of CSG units..

and NBC defense and survival. They evaluate training in these areas.

MOVEMENT PLANS

S2/S3 section personnel prepare the unit movement order for moves, although elements may move constantly. The CSG HHC may move once every 8 to 17 days. They coordinate displacement of the CSG HHC and subordinate units with the area MCT and sector RAOC. They also develop and maintain movement plans for all modes of transportation using FM 55-series publications.Unit movement plans should include—

- Security requirements.
- Logistics coordination requirements.
- Load plans for vehicle, aircraft, and rail cars.
- Duties of unit movement personnel.
- Preparation of transportation documents.
- Description (weight, length, width, and height) of outsized, unusual cargo and hazardous material,
- Coordination with the supporting MCT.

PLANS AND OPERATIONS BRANCH

Plans and operations branch personnel prepare plans and process intelligence data. They perform battlefield area evaluations, terrain analysis, weather analysis, and logistics effects analysis. They provide subordinate units with tactical and intelligence information on the AO and expected actions by threat forces

Table 2-12. Key plans/operations branch personnel.

PERSONNEL	RESPONSIBILITIES
NBC Officer	Supervises the group NBC program. Prepares tactical NBC plans. Conducts weather analysis and nuclear vulnerability assessment analysis. Disseminates the commander's radiation exposure guidance. Maintains the radiation exposure status for subordinate units. Plans for decontamination support to subordinate units.
Tactical Intel Officer	Coordinates tactical intelligence activities between subordinate units, the RAOC, and COSCOM ACofS, G2 and G3 staff. Maintains a weather factor analysis matrix. Performs terrain analysis of the AOR. Prepares situation, event, and decision support templates. Supervises preparation of the intelligence portion of OPLANs/OPORDs and maps. Develops the intelligence estimate. Distributes the analysis of the AO, as appropriate.
Chemical Ops NCO	Maintains information on support provided by NBC units and activities. Prepares tactical NBC plans and training material. Maintains NBC staff journals, files, records, and reports.
Chief Supply SGT	Prepares operations information on employment of the group's units in support of forces, areas, and special operations.
Intelligence SGT	Identifies intelligence collection requirements. Assesses enemy vulnerability and probable courses of action. Disseminates intelligence to subordinate units. Prepares reports on captured enemy materiel.
Maintenance Control SGT	Provides input to OPLANs/OPORDs relative to DS maintenance support.

that may affect mission performance. Branch personnel maintain a map overlay of the AOR. They coordinate unit monitoring and survey operations. They prepare intelligence summaries and estimates, formulate OPLANs, and prepare and implement OPORDs. Table 2-12 lists tasks performed by branch personnel.

COMMUNICATIONS BRANCH

This branch operates under the control of the S2/S3. Branch personnel coordinate the communications system organic to the headquarters company and subordinate elements of the group. They provide technical advice and staff assistance to the group commander, group headquarters staff, and subordinate unit commanders. They coordinate with area communications elements to ensure efficient communications within the group, with the COSCOM C-E officer, and with attached and supported units. Branch personnel operate AM voice radio equipment and run the message center. A wire switchboard team provides internal wire communications for the group HHC. Table 2-13 lists tasks performed by key

Table 2-13. Key communications branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Comm Ops Chief	Plans, coordinates, directs, and supervises the installation, operation, and management of CSG communications systems.
	Assists in preparing the C-E annex to OPLANs/OPORDs and SOPS.
	Selects signal sites and advises on interference problems.
	Determines techniques for overcoming the vulnerabilities of communications equipment.
	Employs control measures that maintain C2 in spite of communications problems.
	Advises on priority of communications installation and restoration actions.
	Provides guidance on power hookup of FM radios.
Telecom Senior Operator	Supervises message processing, message accountability forms, and message delivery.
	Coordinates handling of high-precedence messages.
	Ensures secure message handling.
	Controls COMSEC material.
Combat Signaler Team Chief	Estimates time, supplies, personnel, and equipment to lay field wire.
	Supervises installation of FM radios, switchboards, and COMSEC equip ment.
	Coordinates duties and shifts wire installer personnel to meet work load demands.

Table 2-14. Rear operations branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Plans Officer	Prepares the rear operations annex to CSG OPORDs.
	Analyzes IPB situation, event, and decision support templates.
	Performs rear area threat evaluation.
	Develops doctrinal templates for threat forces within the AOR.
	Prepares the ADC plan and coordinates ADC mission requirements with the group S4.
	Coordinates support requirements with sector RAOC personnel and support operations staff.
Operations SGT	Operates the rear operations FM net.
	Advises on base security.
	Coordinates with EOD detachments/teams. Determines which group facilities are vulnerable to damage.
	Supervises rear operations training.

communications branch and wire switchboard team personnel.

REAR OPERATIONS BRANCH

Rear operations branch personnel provide an interface with the sector RAOC. They coordinate with the area RAOC/division rear CP and with EOD elements on current threat information affecting the AOR. They prepare vulnerability analysis of the group's subordinate units. Branch personnel develop the group's rear operations plan and asist subordinate battalions in developing their defense plans. They also coordinate ADC requirements with the sector RAOC and S4 staff. Table 2-14 lists tasks performed by rear operations branch personnel.

S4 SECTION

The S4 section provides staff assistance on internal logistics. It monitors the materiel readiness of subordinate units. He assists subordinate unit commanders in assessing equipment status and possible need for reconstitution. Following application of the TOE ICP for TACCS, S4 personnel use SPBS-R software to maintain asset visibility. S4 staff personnel provide coordinating staff supervision over the food and unit maintenance programs of all subordinate units. Table 2-15 lists tasks performed by key section personnel

INTERNAL LOGISTICS REPORTS

To enable group S4 personnel to evaluate the status of internal logistics. subordinate battalions submit logistics spot and materiel readiness reports to the CSG S4.

Logistics Spot Reports

This report relays data on critical events or situations which impact on the current logistics capability of the unit. For example, personnel report unusual bulk fuel requirements and current or anticipated ammunition shortages.

Table 2-15. Key S4 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S4 Officer	Develops the logistics estimate. Keeps CSG staff informed of mission supportability from an internal logistics viewpoint. Monitors the unit supply and unit maintenance operations of subordinate units. Acquires and assigns facilities.
Food Service Technician	Provides advice on food service operations and the command food service program. inspects field feeding operations and ration storage areas for conformance with established standards. Assists contracting and procurement personnel in procurement of rations.
Food Service Supervisor	Monitors food service operations of subordinate units for cleanliness and conformance with Army regulations.
Chief supply SGT	Supervises CSG HHC supply. Maintains status of commander's critical items list. Determines consumption rates for MOPP gear and decontamination supplies. Visits subordinate units and provides assistance to correct deficient areas. Monitors supply economy in subordinate units.
Senior Maint Supervisor	Supervises internal group maintenance. Monitors materiel readiness of subordinate units' organic equipment. Monitors repair times and the impact of Class IX on internal maintenance capabilities. Monitors the status of major end items. Monitors the Army Oil Analysis Program of subordinate units.

Table 2-15. Key S4 section personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Property Account Technician	**Serves as the property book officer.** **Maintains property accountability for the CSG HHC and uses SPBS-R to oversee CSG asset visibility.** **Monitors equipment shortages and unit status reports.** **Reviews property book records and adjustment documents for correctness.**

Materiel Readiness Reports

Materiel readiness reports enable S4 staff to monitor internal logistics status. Subordinate units prepare DA Form 2406 to reflect the readiness status of mission essential equipment. They submit materiel readiness reports to the battalion S4. Each battalion S4 consolidates report data and submits a report to the CSG S4 section.

At each level, S4 section personnel use the reports to analyze the status of –

- Maintenance and whether repair parts supply problems affect maintenance support.
- Equipment in maintenance.
- Requirements for external maintenance.
- Repair parts due-in.

Battalion S4s also report on the overall internal logistics situation. They report significant problem areas and major deficiencies in basic loads. They should also include an account of significant incidents which hinder logistics operations. Examples might be losses due to sabotage, refugees on MSRs, or bridges destroyed.

PROPERTY BOOK

The S4 section provides property book accountability. Supply specialists maintain property book records for the CSG HHC and any separate companies.

SPBS-R programs enable supply accounting specialists to record adjustments, issues, turn-ins, property loss, and status reports. Downloading records from the CMMC CTASC II onto the S4 TACCS device provides asset visibility of subordinate unit property book equipment.

STANDARD PROPERTY BOOK SYSTEM - REDESIGNED

SPBS-R automates the property management, accounting, and reporting functions required by ARs 710-2 and 710-3. It runs on the TACCS device in the CSG S4 section. SPBS-R provides increased asset visibility. It improves management of nonexpendable and expendable reportable assets. Through its interface with SARSS-1, SPBS-R provides direct file inquiry by LIN, NSN, document number, and serial number.

SPBS-R software programs prepare company level hand receipts and produce automated requests to the supply system. They maintain due-in status and automatically produce receipt confirmation. SPBS-R automatically generates battalion roll-up reports, excess/shortage reports, sensitive item inventory reports, CBS-X reports, and unit readiness feeder reports.

INTERNAL MOVEMENT

The S4 coordinates internal movement requirements with the supporting MCT. S4 section personnel submit movement bids in accordance with highway regulation and traffic circulation plans. They maintain movement planning data for the internal requirements of the CSG.

The S4 coordinates with transportation branch staff in the support operations section on transportation requirements for unit moves. He sends requirements that exceed organic capability through the servicing MCT to the CMCC.

COMPANY HEADQUARTERS

The company headquarters supports all soldiers assigned or attached to the CSG HHC. It also maintains organic equipment authorized the CSG HHC. As applicable, company headquarters personnel—

- Develop the' perimeter defense plan.
- Secure the CSG headquarters area and provide details as required.
- Provide unit administrative support.
- Set up field feeding support operations.
- Provide unit supply.
- Perform unit level maintenance on organic equipmen.
- Provide power generation.
- Maintain unit discipline.
- Coordinate search and recovery operations
- Process EPWs and captured documents and materiel.

The following paragraphs describe these and associated mission tasks, as well as basic company headquarters operations.

Company headquarters personnel secure the CSG headquarters area and set up the perimeter defense. They also prepare and process unit administrative and personnel reports. The ULC provides the ability to input data into SIDPERS and SPBS-R.

Food service and unit supply personnel feed, clothe, and equip all soldiers assigned or attached to the CSG HHC. Maintenance personnel establish the motor pool and perform unit maintenance on: organic vehicles and trailers, power-generation equipment, and tactical communications systems equipment required to support headquarters operations.

AR 611-201 describes the general duties of enlisted personnel. Table 2-16 lists the tasks performed by key company headquarters personnel.

AREA SECURITY

Headquarters personnel search the area to make sure that it is free of enemy forces. Details then set up OPs and LPs. OPs need to be repositioned as visibility changes. They should, however, remain within range of small arms perimeter fire.

Details test the chemical agent alarm system and early warning devices. Expedient early warning devices and chemical agent alarms supplement LPs. They provide early warning during periods of limited visibility, fog, or smoke screens.

The company headquarters commander assigns machine guns a final protective line and principal direction of fire. The fire plan designates alternate and supplementary fighting positions for key weapons. That plan also depicts the location of preplanned indirect fire. FM 19-30 covers physical security planning.

All personnel are assigned a fighting position. After detecting a threat, personnel immediately report the size, activity, location, and equipment to the BCOC. A SITREP should be submitted through the BCOC to the sector RAOC and support operations section. PRC-77 radios provide entry to the rear operations net.

ADMINISTRATIVE SUPPORT

Company headquarters personnel maintain personnel data for input into the SIDPERS reporting system. They send SIDPERS data, casualty reports, requests for replacement personnel, and recommendations for promotions to the CSG S1.

Casualty feeder reports, unit manning reports, personnel qualification records, and other personnel data (gains, reassignments, AWOLs, and grade changes) are submitted following local SOP. ULLS software helps compile this unit administrative data.

FOOD SERVICE SUPPORT

Food service personnel select a field kitchen site within the general location designated by the company commander. They set up the mobile field kitchen following FM 10-23. They submit ration request forms to the supporting DS supply company Class I supply point. A company representative drives to the Class I point to pick up rations. Meals are prepared in accordance with TM 10-412. FMs 21-10 and 10-23 cover trash, garbage, and liquid waste disposal.

FIELD SANITATION

Field sanitation procedures help prevent the spread of illness and disease. AR 40-5 prescribes procedures. The HHC commander appoints and

Table 2-16. Key company headquarters personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Commander	Plans, directs, and supervises company employment. Commands the unit's enlisted personnel. Supervises unit administration, security, discipline, and training. Plans perimeter defense.
First SGT	Supervises company headquarters operations, to include personnel administration, discipline, and billeting. Maintains duty rosters. Counsels soldiers on personnel matters.
Supply SGT	Supervises unit supply operations and supply personnel. Requests, receives, stores, accounts for, safeguards, maintains, and issues OCIE and expendable supplies. Prepares hand receipts. Prepares clothing and equipment records and laundry lists. Supervises mortuary affairs recovery team.
NBC NCO	Provides technical assistance for the maintenance and operation of NBC equipment. Prepares and evaluates NBC reports. Develops plans for unit hasty decontamination. Conducts unit NBC defense training.
Motor SGT	Plans, supervises, and coordinates unit maintenance operations. Monitors unit maintenance and troubleshooting procedures and practices. Performs approval inspection of repaired equipment. Checks the preparation of equipment maintenance records.

Table 2-16. Key company headquarters personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Equip Records/ Parts Spec	Maintains equipment (TAMMS) records.
	Provides input for materiel readiness reports.
	Maintains the PLL.
	Prepares requests for repair parts.
	Receives, stores, and issues repair parts to unit maintenance personnel.
	Prepares requests for reparable items.
Food Service SGT	Supervises field feeding operations.
	Selects field kitchen sites.
	Requests and maintains adequate stocks of operational rations.
	Inspects storage, preparation areas, and food service personnel.
	Sets up insect and rodent control procedures.

trains a field sanitation team using AR 40-5 and FM 21-10. Team personnel –

- Make nonpotable water safe to drink by following procedures in FM 21-10.
- Set up hand washing facilities near the entrance to the field kitchen and latrines.
- Set up and maintain garbage and litter disposal areas.
- Set up latrines following FM 21-10.

The company commander coordinates with the S4 to ensure that the company has the prescribed load of water purification materials on hand. S4 staff ensures that adequate stocks of insect repellents, pesticides, and rodent bait exist.

UNIT SUPPLY

The supply sergeant sets up the unit supply facility. He submits requests to the S4 section which maintains the property book using SPBS-R programs. Unit supply personnel issue property on subhand-receipts and prepare shortage annexes for components of end items.

WEAPONS AND AMMUNITION CONTROLS

Headquarters personnel secure weapons and ammunition in accordance with ARs 190-11 and 190-40. They issue and replenish the basic load of ammunition to support base defense operations. The authenticating officer appointed by the commander verifies requests for issue and turn-in of ammunition.

UNIT MAINTENANCE

Mechanics perform unit level maintenance on organic vehicles and associated trailers, power-generation equipment, and organic radio and field wire equipment.

Unit maintenance personnel also maintain the combat PLL following AR 710-2 and DA Pamphlet 710-2-1.

ULLS AUTOMATION SUPPORT

Maintenance personnel use ULLS programs to prepare materiel readiness reports and requests for Class IX repair parts. They also use ULLS programs to assess the status of equipment, monitor stock status, process PLL data, and prepare and transmit TAMMS reports.

EPW AND CAPTURED MATERIEL

Personnel turn EPWs in to an EPW collection point operated by MPs. They inform the S2/S3 regarding EPW number and disposition. Captured documents

and equipment are tagged and turned over to the S2/S3 section.

MORTUARY AFFAIRS

The first sergeant notifies the S1 when company personnel are killed in action. Unit personnel prepare DA Form 1155 witness statement for each known or suspected casualty. Company headquarters personnel recover remains and make initial identification on a casualty feeder following FM 10-63. They send notification of unrecovered remains to the S1 section. They inventory personal effects and list them on a record of personal effects.

As the tactical situation permits, unit personnel evacuate remains and personal effects to the nearest mortuary affairs collection point. Medical and dental records accompany the remains. Personal effects not with the remains are shipped to the theater effects depot.

CHAPTER 3

Command, Control, Communications, and Automation

Success on the battlefield depends on command, control, communications, and automation. Commanders and staff need real time communications and automation support to direct and control subordinate mission operations. Staff officers analyze data, prepare estimates, formulate plans, and supervise the execution of the commander's intent.

Success depends on communications support and the timeliness and accuracy of data provided through automated management information systems. Automation and communications systems and devices make possible real time processing and transmission of data and orders.

CONTENTS

COMMAND AND CONTROL

Command and control are separate processes. Command provides decision and direction. Command is expressed through the commander's estimate and intent. Command charnels determine who will support and the priorities of support.

Control involves follow-up on a decision. Control is established as staff officers assess the continuous flow of information and reduce deviation from the commander's intent. Staff officers provide control by providing planning guidance and monitoring what is to be done. FM 100-5 outlines the C2 process.

GROUP COMMANDER

The group commander is responsible for C2 of the group headquarters and all assigned or attached units. The group commander aligns support provided by subordinate battalions in relation to the tactical situation and the COSCOM commander's priorities. As his second in command, the XO operates within the authority given to him by the group commander.

COMMANDER'S INTENT

The COSCOM and group commanders set forth their intent in paragraph 3 of the COSCOM/CSG OPORD. The commander's intent includes a restatement of the mission, the commander's concept of operation, and the results to be achieved. The commander uses the intent subparagraph to provide his initial guidance concerning directed, potential, and assumed missions. It provides the basis for decentralized execution of the COSCOM/group's support missions.

The commander's intent provides staff planning guidance. It needs to be clear and concise to be understood and correctly restated one level up and two levels down. As such, it provides the basis for corps, COSCOM, and subordinate battalion commanders and staff to provide direction relative to support missions. It provides the cohesive stability during the fog of battle when C2 and communications become disrupted. It provides the common start point for staff planning. To arrive at this estimate, commanders use the nine-step planning sequence prescribed by Chapter 6 of FM 101-5.

COMMAND RELATIONSHIPS

Relationship to Subordinate Battalions

The group commander directs the relationships between group and subordinate battalion staff officers. He ensures that subordinate commanders' prerogatives for direct command are not usurped by the group's staff. Formal policy actions occur through command channels.

CSG staff officers control and coordinate the mission activities of subordinate units. They provide technical expertise and exercise technical supervision over the mission operations of subordinate units, within parameters established by the COSCOM staff. Coordination of subordinate unit activities occurs primarily through

development and implementation of SOPs, policies, and orders.

Relationship to the COSCOM

CSGs are subordinate to the COSCOM. Formal policy actions and command decisions pass through command channels. CSG staff receives policy directives and broad guidance on support functions as well as general supervision from COSCOM staff. The COSCOM staffs maintain informal liaison with the corresponding group staff on technical matters. As shown by Figure 3-1, CSG staff officers coordinate directly with their counterpart staff elements within the COSCOM HHC.

Relationship to the DISCOM

Forward CSGs coordinate reinforcing support requirements with the DISCOM and the DMMC. This includes reinforcing or augmenting support provided to FSBs and MSBs to enable them to support nondivision forces, such as corps artillery, air defense, and engineer battalions, operating in or moving through brigade and division support areas. To more effectively coordinate this support, the forward CSG commander places an LO with the DISCOM.

FM 63-2 describes the support relationship with heavy division DISCOMs. FM 63-2-1 describes the relationship with DISCOM of light infantry, airborne, and air assault divisions.

All CSG units or teams entering the division rear area report to the division rear CP. The rear CP operations cell and DISCOM CP coordinate movement routes, positions, communication links, support requirements, and security responsibilities. CSG units or teams which enter the BSA coordinate with the brigade rear CP and FSB S2/3.

To facilitate support coordination, forward CSGs develop a habitual support relationship with the division in whose area they support nondivision CS or CSS elements. The COSCOM task organizes the CSG to support requirements and work loads.

Coordination becomes imperative for support of nondivision CS and CSS forces accompanying or following a division task force or supporting offensive surge operations. This is particularly true for JP-4 or JP-8 fuel pushed forward to support corps aviation units in the division AO. Coordination is as imperative in withdrawal situations. CSG elements operating in the division AO must be kept informed of division plans. This helps prevent forward CSG units and teams getting in the way of combat troop movements along limited roads.

The limited mobility of logistics elements should not impede movement of combat elements. For this reason CSG elements with limited mobility should not employ within a band 20-35 kilometers behind the division rear boundary. During division withdrawals, these forward elements withdraw early, allowing division elements maximum freedom to maneuver.

Relationship to HostNations

To offset the shortfall of logistics units, HNS organizations may help support US forces during a crisis or war. While continuing to command and control their subordinate units, HN support commands maintain obligatory cooperation with the US supported command.

In certain theaters, cellular logistics teams provide the liaison interface between the US logistics support organization and wartime HN logistics battalions. Refer to Figure 3-2. The CMMC tasks HN logistics companies through the cellular logistics teams. These teams collocate with the HN logistics battalion. They transmit stock status reports to the CMMC.

COMMAND RELATIONSHIPS

Command relationships vary depending on whether elements are attached or placed under operational control.

Attached

The COSCOM can attach subordinate battalions or units to a CSG on a temporary basis. CSGs attach units or teams to their subordinate battalions. Based on the attachment order, the battalion commander exercises the same C2 over attached units as he does over his organic HHC.

Operational Control

To perform specific missions or tasks limited by time or location, the CSG can place units or teams under the OPCON of a subordinate battalion or unit. Elements placed under OPCON of another organization receive support from their parent organization. For example, a forward CSG could place MSTs OPCON to a division task force. The controlling commander has tactical control of the team. The MST continues to receive support from its parent unit. Note that OPCON may not include logistical, administrative, disciplinary, or training responsibilities.

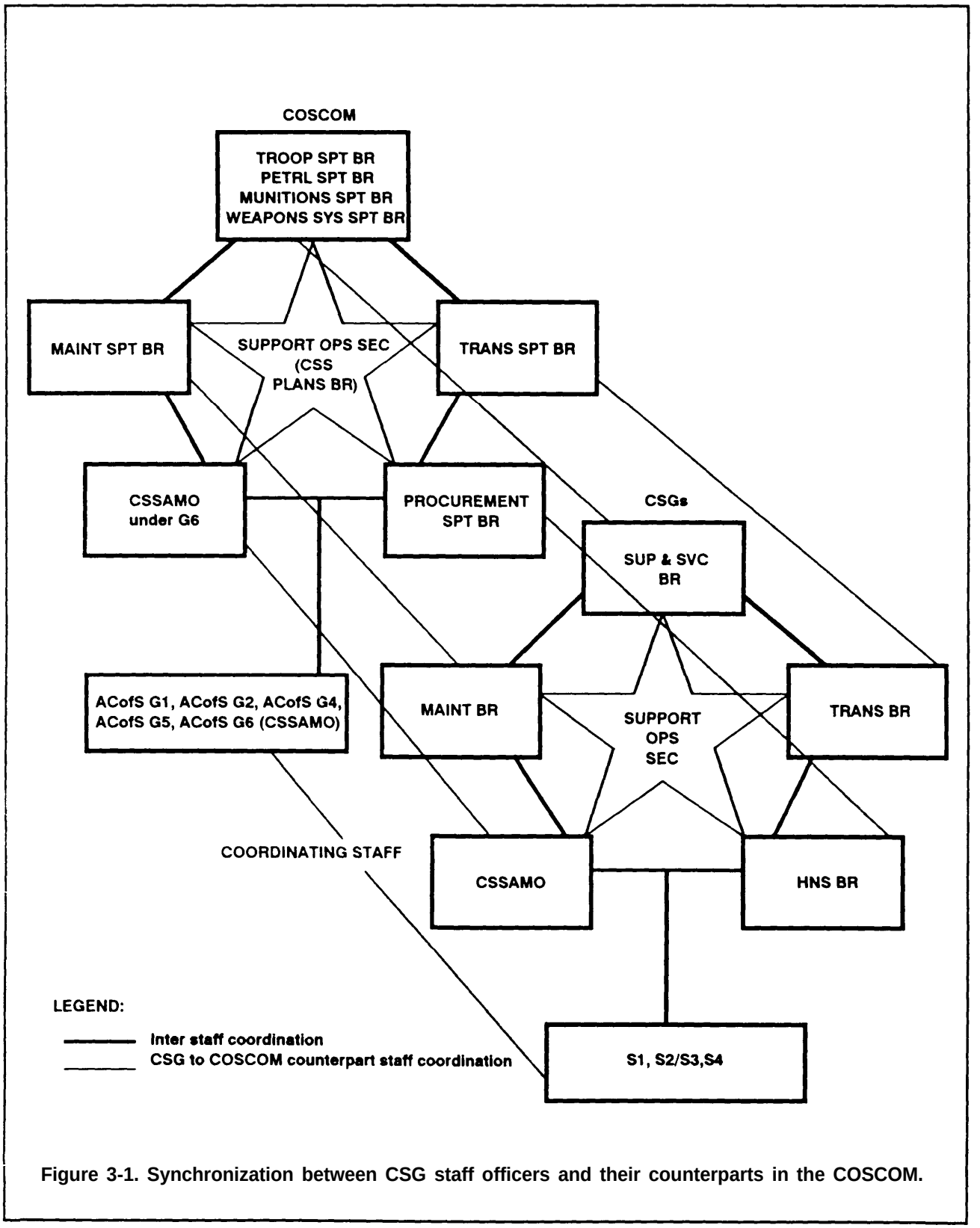


Figure 3-1. Synchronization between CSG staff officers and their counterparts in the COSCOM.

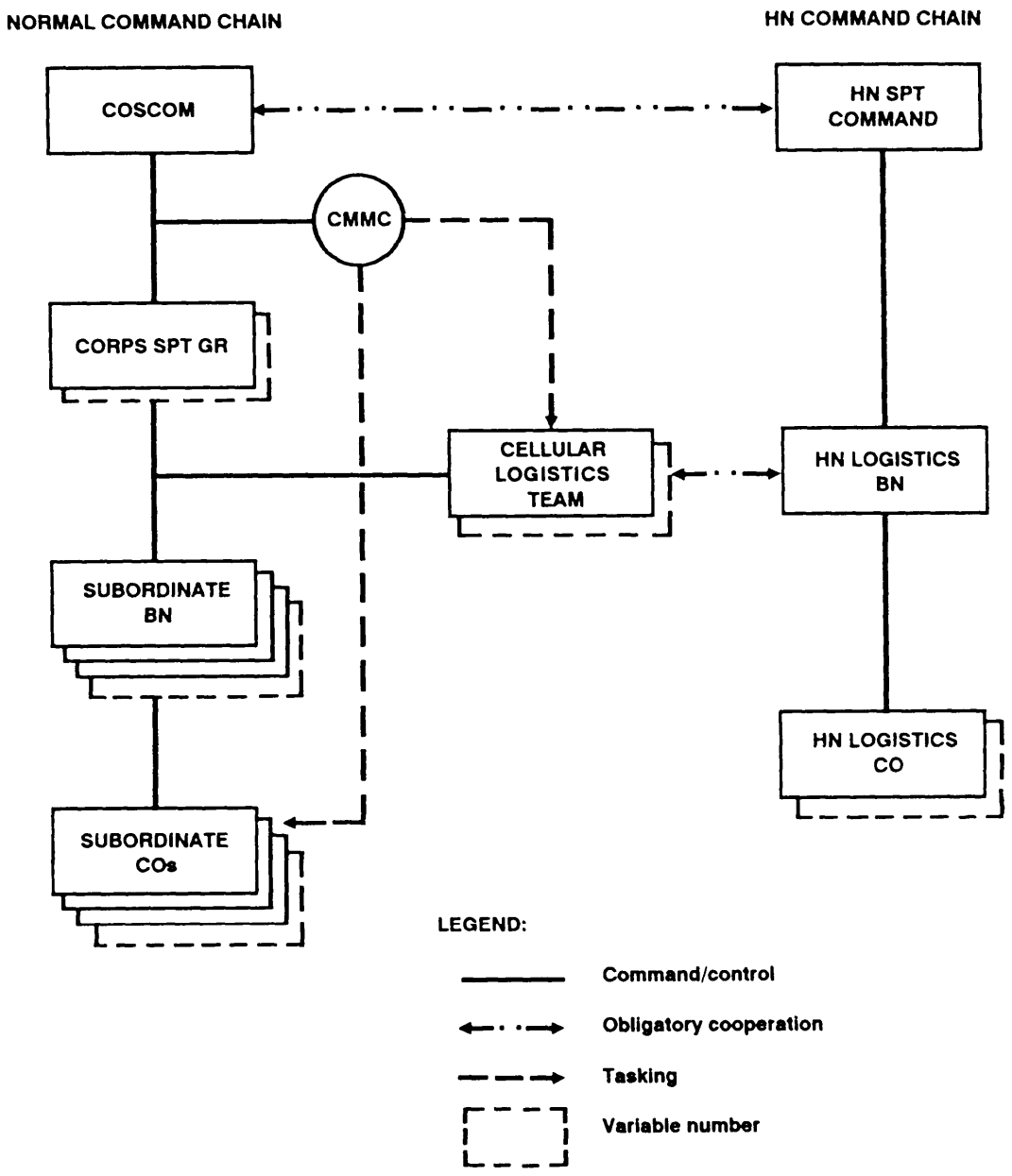


Figure 3-2. Host-nation obligatory relationship.

COMMAND POSTS

For CSGs and subordinate battalions, CPs serve as control centers from which to plan and supervise logistics operations. CPs facilitate the acquisition, consolidation, and coordination of critical information among staff officers. Since CPs are high-value targets, FSOP reestablish CP staff from subordinate battalion staff. CPs are the first element reinforced or reestablished. OPORDs and FSOP detail the succession of command.

CSGs establish a main CP. They designate a subordinate battalion CP as their alternate CP.

MAIN COMMAND POST

The CSG main CP maintains C2 of current operations. Its logistics operations center plans support operations. It provides a facility for centralized command actions, staff coordination, and communications, The main CP –

- Monitors tactical operations within the CSG AO.
- Gathers and disseminates CSS intelligence and rear operations data.
- Issues OPORDs, warning orders, or fragmentary orders. (FRAGOs on previous orders save time over preparing new orders.)
- Maintains data on the status of resources and mission capabilities.
- Implements contingency plans.

CP Location

CP location depends on available cover, concealment, and access to lines of communication, It also depends on the location of the COSCOM HHC and subordinate battalion headquarters. The CSG S2/S3 selects the general location. The CSG OPORD and defense plan designates main and alternate CP locations.

To allow relatively easy access, the CP needs to be near a road network. However, for security reasons, major road junctions should be avoided. Roads need to support vehicle traffic, provide enough space to disperse vehicles, and have good drainage.

Locating the main CP in a built-up area or urban area facilitates communications and camouflage efforts. CP layout conforms to the structure of available buildings. Barns, garages, and warehouses reduce the need for extensive camouflage. Basements provide protection from enemy fires and enhance noise and light discipline. Using buildings in built-up areas reduces infrared and electromagnetic signatures. This reduces the requirement to move as often.

Staff Responsibility

The main CP operates under control of the CSG XO. Normally, CSG S2/S3 staff and communications branch personnel locate in the main CP. The S2/S3 recommends the composition and strength of security elements needed to protect the CP. The headquarters company commander establishes LPs arid OPs.

CP Displacement

The CSG main CP can be a prime threat target, especially since the sector RAOC collocates with the group headquarters. Due to its electromagnetic signature, the CSG main CP displaces as often as practicable considering the threat. The main CP may need to displace once every 8 to 17 days. The CSG HHC should maintain 75 percent mobility.

The main CP displaces in either a phased movement or a single move. The CSG S2/S3 section coordinates displacement with the sector RAOC and MCT/CMCC. It requests additional transportation assets through the supporting MCT. An advance party prepares the new site. The group S2/S3 determines the advance party composition. To speed displacement, the main CP can set up in existing urban area buildings. The XO determines the time to transfer operational control from the main CP to the new CP.

Communications need to be operatiomd during displacement. CP staffs monitor the command operations net during the move to the new CP. MSE provides MSRT users with continuous telephone service during CP displacement.

LOGISTICS OPERATIONS CENTER

The support operations section sets up a LOC to control logistics support operations. The LOC ensures that continuous logistics support is provided to support combat operations. The LOC monitors —

- DS status of supplies.
- Availability and status of service and transportation assets.
- Availability of weapon systems.
- Status of maintenance.
- External reconstitution requirements.
- Report of incidents in the CSG’s sector which affect support operations.

The CSG commander or XO determines the composition of the LOC. It normally consists of support operations section staff and staff from S1 and S4 sections.

TACTICAL LOGISTICS OPERATIONS CENTER FORWARD

Key personnel from the support operations section and other sections comprise a TLOC forward. The TLOC forward moves forward to keep up with the move of the division and supported nondivision elements into forward areas. It deploys close to the division rear.

The TLOC could deploy when a division attacks or conducts turning movements. It enables the group headquarters to jump without disrupting control of CSG support operations.

ALTERNATE COMMAND POST

The alternate CP ensures continuity of C2 operations. It covers possible loss of communications with the group headquarters or destruction of the CSG main CP.

The FSOP designates which subordinate battalion headquarters operates the alternate CP. Selection depends upon the location of subordinate battalion headquarters and their organic communication capability.

If the main CP is destroyed, the surviving staff moves to the alternate CP to reconstitute the main CP. The group commander determines the time when operational control transfers from the main CP to the alternate CP. Personnel and equipment assets needed to reconstitute the main CP are drawn from subordinate battalions and units.

AUTOMATION SUPPORT

Staff officers need accurate and timely information to make estimates and prepare effective plans and orders. Their decisions depend on the quality and timeliness of the data on which they base their recommendations.

STANDARD ARMY MANAGEMENT INFORMATION SYSTEMS

STAMISs to support logistics are either in transition or under development. Refer to Figure 3-3. These systems will impact on how CSG units accomplish their missions. More detailed coverage of SAMs, SARSS, SAAS, and DAMMS-R appears in the support chapters which follow. Fielding of software systems depends on TACCS or ACCS common hardware device procurement and distribution schedules.

TACTICAL ARMY CSS COMPUTER SYSTEM

TACCS is the prototype of the small microcomputer tactical hardware required to process computer software programs. Its data entry device edits and automatically formats input. This precludes high error rates and reduces verification time.

The current automation plan calls for TACCS computers to be allocated to the CSG S1 and S4 sections. These sections use their TACCS devices to run SIDPERS and SPBS-R programs respectively. The CSS automation management office uses TACCS hardware devices to provide CSS STAMIS support to all units located in or passing through the CSG support area.

Both the S2/3 and support operations section run CSSCS on ACCS common hardware.

STANDARD INSTALLATION PERSONNEL SYSTEM

SIDPERS provides numbers only, strength accounting data, and by-name personnel accounting information. It runs on TACCS and ULC hardware. SIDPERS automates —

- Assignments.
- Organizational recordkeeping.
- Personnel recordkeeping.
- S1 personnel operations.

Subordinate units transmit unit status reports to their supporting personnel support unit. They send information copies to the CSG S1 section to enable it to perform group personnel management functions. S1 section personnel use SIDPERS reports to coordinate group strength accounting data and replacement operations.

COMBAT SERVICE SUPPORT CONTROL SYSTEM

CSSCS provides a means to collect, analyze, and present near real time data on support functions. It integrates the CSS data bases of subordinate units and supports cross-functional decision making.

Group and subordinate battalion staff officers use CSSCS to plan and coordinate support on a timely basis. CSSCS also provides decision support aids, to include message formats and algorithms. These help CSG S2/S3

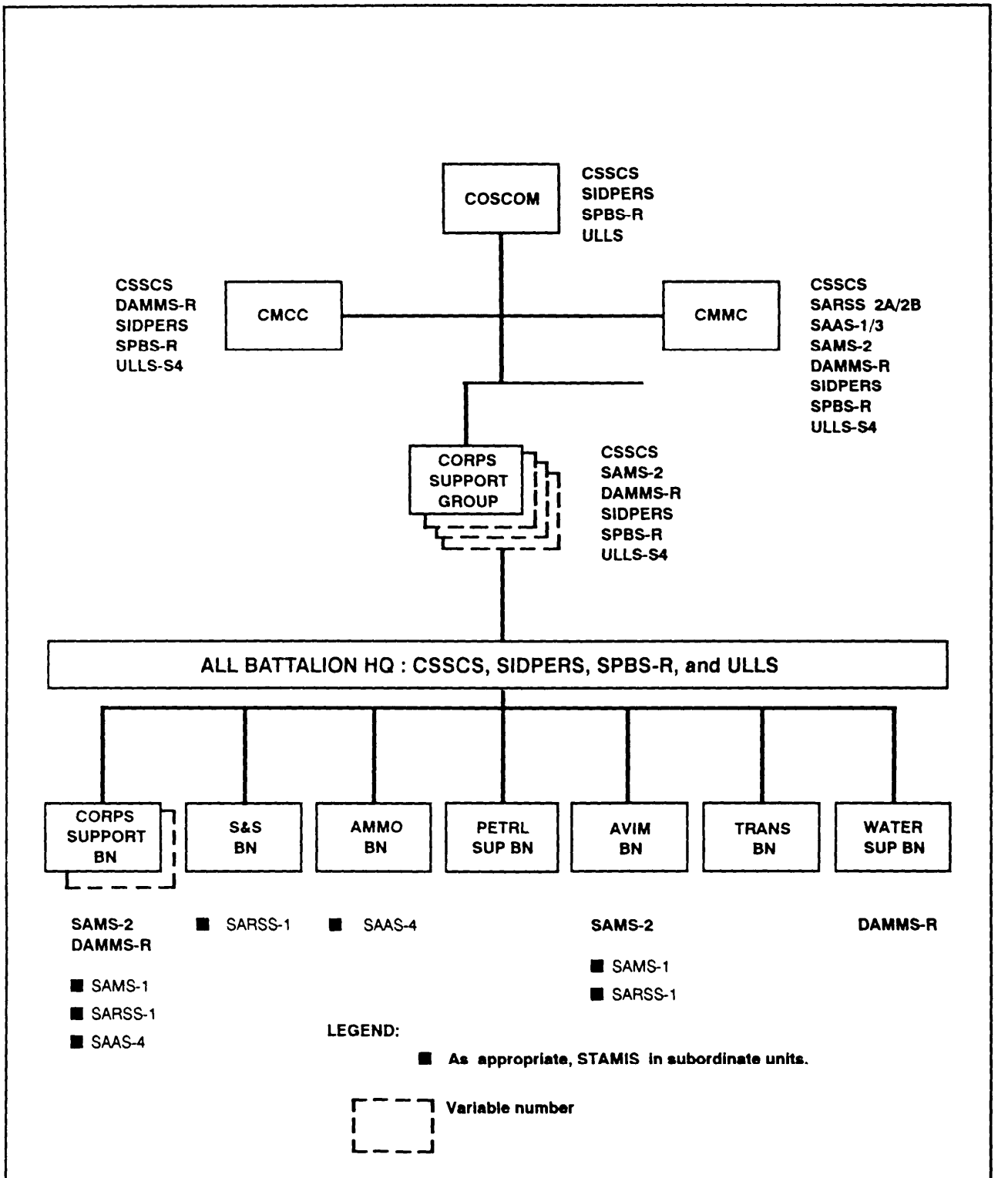


Figure 3-3. Automation information systems.

and support operations staff officers to project resource requirements and determine the supportability of alternate courses of action. They use CSSCS data to analyze and plan logistics operations. CSSCS enables CSGs to respond to emergency or special requirements from customers.

CSSCS software runs on ACCS common hardware devices. It interfaces with and retrieves data from SARSS, SAMS, SAAS, SIDPERS, and SPBS-R. CSSCS programs collect selected critical information from automated systems scheduled to support subordinate unit mission operations. Subordinate units transmit data to the CMMC.

STANDARD PROPERTY BOOK SYSTEM - REDESIGNED

SPBS-R automates property book accountability. It generates the CSG roll-up report and excess/shortage listing. It also generates CBS-X data and readiness reports.

The CSG S4 uses the asset visibility file to manage and recommend cross-leveling of assets among subordinate battalions. S4 section personnel process feeder information from subordinate battalion S4 sections. The asset visibility file maintained at the CSG S4 section can be updated with floppy disk or by telephonic interface with subordinate battalions.

UNIT-LEVEL COMPUTER

This CTA item supports company headquarters, unit supply, and unit maintenance operations. ULC interfaces with a bar code printer and LOGMARS scanner. This interface allows ULCs to read, store, write, and display soldier data tag information.

Interface between ULC, TACCS, or ACCS common hardware devices occurs through radio, wire, radio-wire integration, or commercial telephone. Electronics communication is the perferred means. Couriers with diskettes provide an alternative means of data transfer if electronics equipment is disrupted or not available.

UNIT-LEVEL LOGISTICS SYSTEM

ULLS software supports company headquarters PLL and maintenance reporting requirements. Other software programs support the materiel readiness/unit status reporting system and supply accountability procedures. ULLS allows company headquarters commanders to assess the status of equipment and thus better manage resources.

AUTOMATED SYSTEMS SECURITY

Automated systems are vulnerable to destruction, sabotage, and compromise. Security includes not only physical security of hardware devices but security of programs and procedures. Groups and subordinate battalions establish the following physical and security practices for the use of TACCS or other microcomputers:

- Locate the computer within an enclosure that protides controlled access.
- Secure all electrical facilities that support the system.
- Position magnetic media storage containers at least 20 inches from an exterior wall. (This helps provide protection against the potential effects of magnetic fields or radiation.)
- Restrict physical access to diskettes.
- Require that authorized operators have at least an interim confidential security clearance.
- Restrict access to the CSSAMO area by the use of classified passwords.
- Rotate unique operator passwords every 30 days or less.
- Control all log-ons and file access by unique operator passwords.
- Monitor device usage.
- Restrict the access of visitors.
- Monitor report distribution plans.
- Reduce the number of copies of each report.
- Destroy all printouts of reports and lists as new ones are printed.

CONTINUITY OF OPERATIONS

COOP plans exist at the CSG and subordinate battalions to continue operations if automated systems become inoperative due to battle loss or technical problems. One COOP safeguard requires that each computer operator dump selected system files on to a disk at the end of each day's processing. Store these disks away from the processing site.

Short-Term Outages

Outages occur due to a mechanical or power failure. During short-term outages, DS/GS unit personnel alter normal procedures as little as possible.

Long-Term Outages

When long-term outages occur, the group S4 locates replacement, substitute, or float equipment. He also arranges to time-share another command’s equipment.

COMMUNICATIONS SUPPORT

The capability of communications support systems and organic communications equipment impacts the timeliness of C2 decisions. Adequate communications are required to keep up with changing tactical situations and corresponding support requirements.

MOBILE SUBSCRIBER EQUIPMENT

MSE provides a secure, mobile, survivable system capable of covering an area from the corps rear boundary to the division maneuver battalion's rear area. The system can meet the area common user voice requirements of a five division corps. It also provides area voice coverage and limited interface with adjacent corps. MSRT users can communicate over the system as long as their radio unit maintains line-of-sight contact with the radio access unit. The operational planning range is 15 kilometers from any radio access unit. The MSE network automatically bypasses and reroutes communications around damaged or jammed nodes.

Subscriber Access

Personnel enter the MSE area system via MSE compatible equipment. This includes digital telephone, radio telephone, and combat net radio. User-owned access equipment consists of –

- Digital nonsecure voice terminals.
- Mobile subscriber radio-telephone terminals.
- Facsimile equipment for informal page traffic.
- Single subscriber terminal for record traffic.

The TOE/MTOE lists MSE authorizations for CSG HHC elements.

User Responsibility

User devices such as phones, facsimiles, and MSRTs are the responsibility of the using unit. Communications branch personnel install, operate, and perform unit maintenance on subscriber terminal equipment. They also lay the wire to MSE interface points.

COMMUNICATIONS BRANCH

Personnel assigned to the communications branch operate the radio nets and the internal wire communications net. They—

- Accompany the advance party to establish the CP.
- Select the most appropriate method of transmitting messages.
- Receive, encrypt, decrypt, and transmit messages.
- Install switchboards and telephones.
- Maintain a dispatcher's map.
- Select primary and alternate messenger routes.
- Display markers for a helipad, as appropriate.
- Install light sets for the CP.
- Log in all messages.
- Install local communication wire and telephones.
- Maintain line route maps for telephone lines.
- Know and comply with COMSEC measures.

COMMUNICATIONS SECURITY

COMSEC measures deny unauthorized persons information of value. Every individual engaged in the preparation and transmission of messages, whether by telephone, radio, or messenger, need to know and follow COMSEC procedures. COMSEC measures include physical security, cryptographic security, and transmission security.

RADIO NETS

Radios supplement MSE as a means of transmitting C2 and logistics data. However, radios have limited range and retransmission capability. They are susceptible to interception, direction finding, jamming and imitative deception. Other limitations include the number of channels and length of transmission. Short, digital burst transmissions reduce electronic signature and jamming. Personnel use radios when they cannot use wire due to the distance involved. A special radio modem allows an interface with automation equipment.

Organic radios provide CSG HHC personnel access to the COSCOM command net and CSG's command operations net. They provide a means to transmit C2 information. They also transmit data if the MSE system cannot meet data transfer requirements. Table 3-1 lists VRC 12 series radios and auxiliary equipment currently authorized the base TOE. It also lists projected SINCGARS radios scheduled to replace current radios as incremental change packages are applied to the base TOE.

COSCOM Command Net (AM Radio)

CSG staff officers use the organic AM radio to communicate with their staff counterpart in the COSCOM. The AN/GRC 106 radio authorized the plans/operations branch provides long-range access to the COSCOM command net. The radio transmits information over medium to long distances (80 kilometers/50 miles) and varying terrain

Table 3-1. CSG command operations net (FM radios).

HQ ELEMENT	BASE TOE	OBJECTIVE
Command Section	AN/VRC-47 Mast AB-903/G	AN/VRC-92 (CSG Cdr) AN/VRC-90 (XO) Antenna OE-254 () /GRC TSEC/KY-57
Support Ops Sec Trans Br S&S Br Maintenance Br	AN/VRC-47	AN /VRC-89 AN/VRC-90 AN/VRC-90 AN/VRC-90 TSEC/KY-57 for all
S2/S3 Sec	AN/VRC-47 Antenna RC-292	AN/VRC-90 (S3) AN/VRC-92 (Signal) Antenna OE-254 () /GRC TSEC/KY-57
Plans/Ops Br	AN/VRC-47 Antenna RC-292 Control Group AN/GRA-39 Power Supply	AN /VRC-90* Antenna OE-254 ( ) /GRC Control Receiver/Transmitter Power Supply TSEC/KY-57
Rear Ops Br	AN/VRC-46 Antenna RC-292 Control Group An/GRA-39 Power Supply	ANA/RC-90* Antenna OE-254 ( ) /GRC TSEC/KY-57 Control Receiver-Transmitter Power Supply
S4/S1 Sec Collocated TSEC/KY-57	ANA/RC-46	AN/VRC-90 (S4) AN/VRC-90 (S1) AN/VRC-90 (S4 Sec) Remote Terminal
Company HQ	AN/G RC-160	AN /VRC-90 TSEC/KY-57

*No OPFAC rule.

where VHF/FM is not practicable. An improved high frequency radio (AN/GRC-213) will replace the AM (AN/GRC-106) radio.

CSG Command Operations Net (FM Radio)

Organic FM radios enable CSG personnel to communicate with internal staff sections, customer units, subordinate battalions, subordinate units, base cluster units, and the sector RAOC. They provide a channel for subordinate battalions to submit status reports and customer units to resolve support problems. Table 3-1 lists VRC series 12 radios authorized in the CSG HHC base TOE. It also lists the SINCGARS radios which will replace existing radios.

SINCGARS radios provide short-range or long-range voice or digital data communications. Range varies from 8 to 35 kilometers. SINCGARS radios provide more usable channels, increased security, and increased survivability against nuclear effects and electronic countermeasures. They interface with AN/VRC-12 series radios or other FM radios operating in a single-channel mode. They also operate in a jam-resistent, frequency-hopping mode which can be changed as needed. TSEC/KY57 ensures secure voice transmission.

SIGNAL SECURITY

Jamming must be expected. CSG FSOP prescribe actions for subordinate battalions to follow upon loss of direct communications with the group headquarters.

Radio transmission can be intercepted and radio traffic analyzed. Subordinate units need to reduce the amount of logistics requirements transmitted over the command operations net. To minimize the enemy's ability to intercept and locate transmissions —

- Use radios only when absolutely necessary.
- Use only authorized call signs and brevity codes.
- Maintain net discipline and control.
- Distribute codes on a need-to-know basis.
- Use authentication and encryption codes specified in the current SOI.
- Keep transmission less than 20 seconds.
- Use the lowest transmitter power output possible.
- Avoid significant surges in radio net traffic.
- Use wire and messengers whenever.

WIRE NET

A wire net provides the means for transmitting information when movement is limited and time is not available for antenna installation. Tactical secure telephones provide the primary means of communicating between the group headquarters and subordinate elements.

Current organic 2-wire TA-312 telephones and SB-22/PT switchboards cannot enter the MSE 4-wire digital system. However, even when MSE is fielded, the CSG HHC and subordinate units will retain their 2-wire telephones and switchboards to supplement internal staff communication and support rear operations security. This helps reduce the message volume sent over the MSE network.

Field telephones support internal communications, local security, perimeter defense, and LPs. Talking range depends on —

- Number and quality of splices.
- Weather conditions.
- Number of switching centrals.
- Cross-talk noise.
- Other interference in a circuit.

Communications branch personnel install local phone lines within the main CP and LOC. Until fielding of MSE, the nearest area signal company runs wire to the switchboards. Following MSE fielding, wire switchboard team personnel run wire from the CP location to the MSE interface point. Signal battalion communications support teams lay wire for long distance lines.

MESSENGER SERVICE

Messenger service provides the most reliable and secure means of communicating. Couriers provide immediate delivery of high precedent traffic during periods of circuit outages or message backlogs. Using couriers eliminates the security risk associated with using radios.

Subordinate units provide their own courier service. Subordinate battalions schedule couriers to deliver daily reports on scheduled runs. Messages can be hand carried to the message center operated by the signal area support company.

HN COMMUNICATION SERVICES

If the HN has an operating telephone system, the COSCOM C-E officer may direct that the CSG use that system. Use of HN wire facilities follows the C-E annex to group plans, orders, or special instructions. The CSG C-E officer coordinates requests for HN support through the COSCOM C-E officer and corps

G5. The group and subordinate battalions maintain a phone log for each commercial phone in use.

If HN mail service is operative, units can send written communications by mail. Special instructions cover the use of HN mail service.

OPERATIONAL SECURITY

Security is a major CSS challenge. OPSEC measures deny the threat access to information. AR 530-1 describes OPSEC measures.

PHYSICAL SECURITY

CSG HHC and subordinate headquarters detachment personnel devise physical security measures to prevent espionage, sabotage, and theft and to safeguard personnel. Other physical security measures deny unauthorized access to equipment, logistics facilities, and documents. The OPSEC annex to all CSG unit FSOP describes the use of—

- Random perimeter patrols.
- Early warning devices.
- Perimeter barriers, to include hasty mine fields.
- LPs and OPs.
- Sign and countersign procedures.
- Access or clearance roster.
- Night observation devices.

INFORMATION SECURITY

Threat forces gather information on CSG operations from something as commonplace as requisitions and shipping documents. Subordinate units need to train all personnel to deny the threat any data on the logistics status of CSG units which could reveal tactical operations of supported units.

SIGNAL SECURITY

Subordinate units train their personnel to deny the threat information from telecommunications and interception of electromagnetic radiations. SIGSEC measures include using—

- Authentication procedures outlined in the CSG SOI. (Electronic notebooks provide a means of distributing the SOI.)
- Call signs or call words.
- Short transmissions and random transmission times.
- Lowest possible radio power settings.
- Correct radio antenna sitting and decoy antennas.
- Alternate means of communications.

COUNTERSURVEILLANCE

All CSG units employ countersurveillance measures to prevent threat surveillance by visual, sonic, and electronic means. The OPSEC annex to all CSG unit FSOP describes the use of –

- Dispersal of major items of equipment.
- Smoke to screen logistics support activities.
- Battlefield deception measures.
- Cover, camouflage, and concealment measures.
- Night resupply operations.
- Noise, light, and litter discipline.
- Visual shadow disrupters, to blur supply point patterns.
- Traffic control procedures.

ELECTRONIC COUNTER-COUNTERMEASURES

Threat forces could attempt to gain information on CSG operations by analyzing the patterns, volume, and content of communications on the CSG command operations net. They could jam a frequency or frequency band. They could enter radio nets to deceive operators and cause confusions and delays in operations.

To prevent imitative communications deception, all communications operators need to use correct authentication procedures, call signs, and frequencies. Other measures include authorized brevity lists, prosigns, passwords, and operation codes. During any MIJI incident, operators use local command procedures to switch frequencies and send MIJI reports to the designated CEWI organization.

CHAPTER 4

Corps Support Battalions

To provide responsive logistics support to corps units in a division sector, forward CSGs employ a task organized, multifunctional CSB in the division area. They also employ two or more task organized CSBs behind the division boundary. The rear CSG also organizes multifunctional CSBs to provide DS level logistics on an area basis to units in or passing through the corps rear area.

CONTENTS

CSBs, FORWARD CSGs

Projecting the subordinate elements of a multifunctional CSB into the division area provides responsive support to corps forces supporting the division. Employing multifunctional CSBs with GS as well as DS level support close to the division rear boundary reduces the length of lines of communication.

Corps units are supported in the division area, The forward CSB either forms a forward logistics element to support fast-moving offensives or provides reinforcing support to FSBs and the MSB. This enables them to support corps forces in the brigade or division AO.

FORWARD CSB MISSION

The CSB in the division area supports nondivision units in the division sector. For a heavy division, this supported force approximates 9,000 nondivision soldiers. For a light infantry division, this force is even larger, since additional corps CSS forces are needed to offset the inherent leanness of that division. CSB subordinate units provide DS level supplies (less Class VIII), field services, DS maintenance, and transportation support in direct support of nondivision forces in the division area. Support options are to provide –

- Area support to units within the CSB area of responsibility, Supported units drive back to supply points, their supporting DS maintenance unit, or designated field services site to obtain support.
- A forward logistics element which allows corps forces to obtain rations, water, and fuel from a forward logistics base in the brigade AO. The light/medium truck company attached to the forward CSB continually transports supplies from the supply points in the division area to the forward logistics base in the brigade AO. This reduces the length of the LOC for corps forces to obtain support.
- Reinforcing support to FSBs and the MSB which provide support to nondivison units located respectively in the brigade or division AO and to division units. However, to provide this support, FSBs or MSBs must be augmented with elements from the forward CSB.

CSBs employed behind the division area provide area support for units in their area of responsibility. Subordinate units of these CSBs provide DS/GS supply, field services, DS maintenance, and distribution systems support to nondivision units in their area. As required, they provide field services support, reinforcing GS level supply, and reinforcing DS maintenance to the division, separate brigades, and ACR.

These CSBs also provide assets to support units out of sector. If corps forces move to a non-US Army corps area, the COSCOM/forward CSG task organizes a support element to provide required support. Depending upon requirements, that support element may include –

- ADS ammunition company ATP or ASP element,

- Light/medium truck company platoons.
- Maintenance collection point personnel and MSTs.
- Class I section from a DS supply company.
- A water point from a DS supply company's water section.

Assets from these CSBs may form a corps slice of support to accompany corps forces tasked to support an ally or a sister Service.

FORWARD CSB ORGANIZATION

Unlike the division's multifunctional FSBs and MSB, CSBs have no fixed organization. Forward CSGs tailor their CSBs to the support requirements. The number and type of companies assigned or attached depend on mission capability of supporting units.

A CSB headquarters can command and control from three to seven subordinate units. Figure 4-1 depicts a sample organization for the CSBs of forward CSGs. Nearly all types of logistics units maybe attached to a CSB. However, only DS companies are attached to the CSB employed in the division area.

FORWARD CSB EMPLOYMENT

To reduce the length of LOCs and lengthy turnaround times, forward CSBs may either employ a forward logistics element in the brigade AO or provide reinforcing elements to FSBs. The remainder of CSB elements employ in the division area and behind the division rear boundary. Figure 4-2 depicts the employment of a forward CSG's CSBs The number of CSBs employed depends upon logistics support requirements and the number of subordinate units required.

Employment in the Division Area

The CSB employed in the division area focuses on supporting corps forces operating in the division or brigade areas. Subordinate units create mobile supply points. Their personnel may form a forward logistics element in the brigade AO or augment support provided to corps units in the brigade AO by FSBs.

CSG subordinate units and teams entering the division AO are attached or placed OPCON to this CSB's HHD.Prior to their entering the division area, the CSB will coordinate with the division rear CP/RTOC and the DTO. The RTOC assigns them to a base or base cluster, The DTO issues movement credit. The CSB support operations officer provides the RTOC with a logistics support overlay or sketch which identifies the location of supply points, MCPs, CEB teams, laundry teams, and mortuary affairs collection points and their hours of operation. His staff keeps the RTOC informed of changes in support locations.

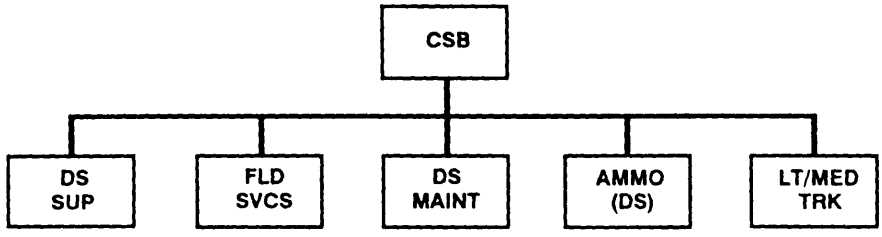
Once the decision is made by the DISCOM and brigade to allow the CSB to position units or teams forward in the brigade area, either in a forward logistics base or in augmentation to the FSBs, the CSB coordinates for terrain directly with the FSB S2/3. The CSB coordinates movement from the division rear to the BSA with the DTO. The BSA equates to the base cluster, with each company designated as a base. METT-T dependent, the forward logistics element may also be designated as a base. Each base is OPCON to the FSB commander for security and positioning. FSB S2/S3 personnel tell CSB reinforcing elements or forward logistics element where to locate and integrate them into the BSA defense plan. They provide CSB or forward logistics elements with perimeter security instructions and an SOP which describes alert signals and explains how to call for support.

The CSB support operations officer provides the FSB S2/3 or support operations officer with a logistics support overlay or sketch identifying location of forward logistics element or support facilities and hours of operation. The FSB support operations officer uses this information to inform nondivision elements entering the brigade area where and when they obtain their logistics support.

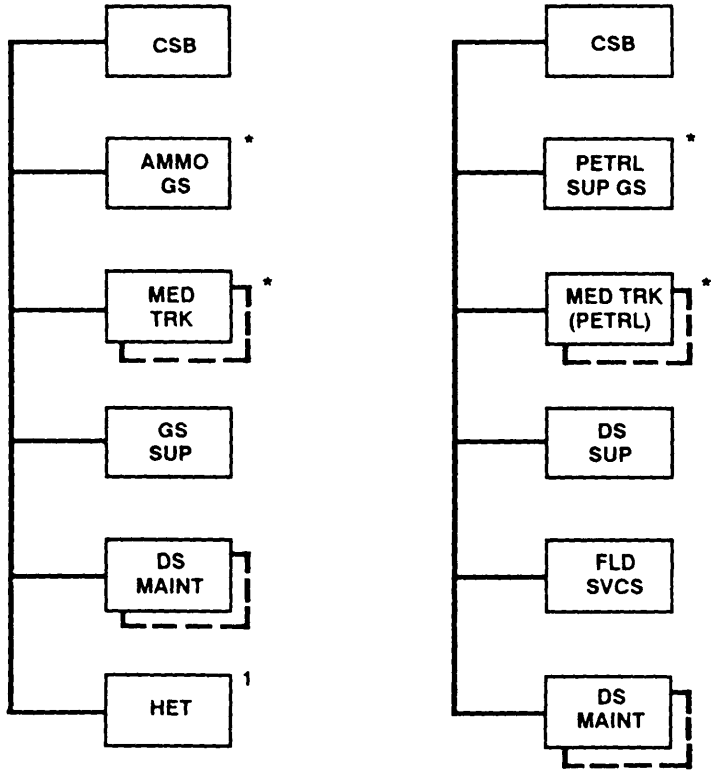
Depending on the projected length of a delaying action, the forward CSB could also help support a separate brigade or ACR performing a corps covering force mission to enable the division to establish a new defensive position. This CSB might locate subordinate elements forward of the division establishing this new position. For example, MSTs could fix on site or help recover ACR or separate brigade vehicles or weapon systems. These teams could also assist ACR or separate brigades by preparing vehicles for evacuation to a unit maintenance collecting point. Other elements provide minimum supply support to ensure that the corps covering force elements clear the division area which they are passing through.

Like the DISCOM headquarters and MSB headquarters, the CSB headquarters may move at least once every three days. While-movement depends on factors of METT-T, this headquarters should be 100 percent mobile.

Typical task organized CSB in the division area.



Typical task organized CSBs employed behind the division rear boundry.



LEGEND:

* May be host nation.

1 Later assigned to the transportation battalion when the theater matures and the rear CSG arrives in theater.

NOTE : The number and type of companies depend on work loads.

Variable number of companies.

Figure 4-1. Sample task organization of CSBs forward CSGs.

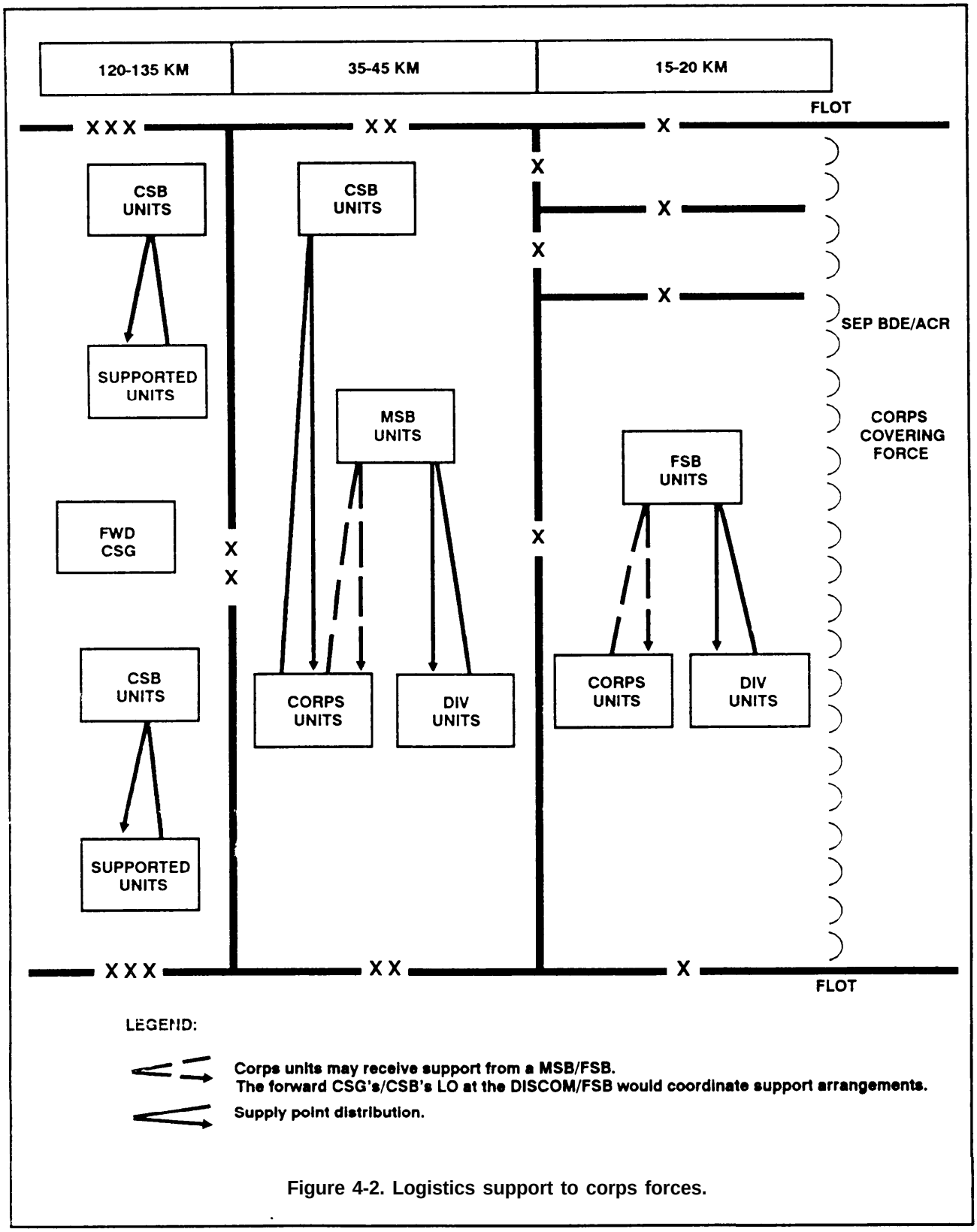


Figure 4-2. Logistics support to corps forces.

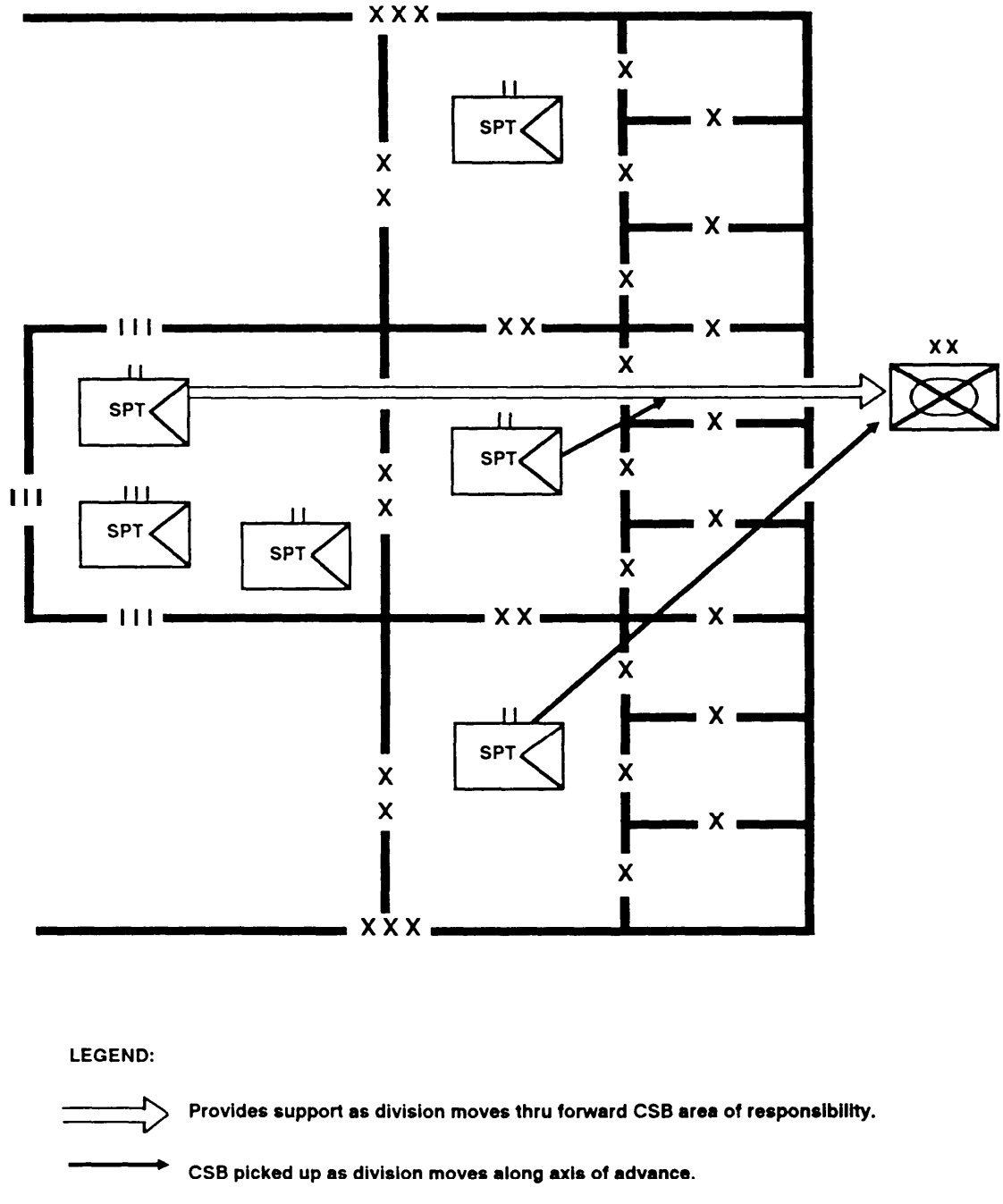


Figure 4-3. Employment of a forward CSB in support of a newly committed division.

Employment Behind the Division Rear Boundary

The forward CSG's remaining CSBs employ outside the division area. Subordinate units should not employ in the area 20 to 35 kilometers behind the division rear boundary. This restriction ensures space in which combat and CS units maneuver or assemble.

The corps rear CP manages terrain in the corps rear area. Sector RAOCs assign the CSB's units to bases or base clusters for increased security. Depending on the tactical situation, subordinate units and these CSB headquarters may move at least once every three to seven days. To do this, the headquarters should be 75 percent mobile.

Immediately upon arrival in the CSG's AOR, supported unit logistics officers coordinate support relationships directly with the forward CSG and CSB support operations officer. The CMMC diverts due-in supplies and repair parts to the new forward CSG and supporting CSB units. CSB maintenance units realign demand supported shop stocks and backup ASLs to the Class IX requirements of the units to be supported.

As supported units change their missions and areas of operation, the COSCOM/CSG reorganizes CSBs to support the scheme of maneuver established by the corps G3. The COSCOM commander normally tailors his forward CSGs to best support the covering force. Corps artillery units in direct support of the covering force receive support from forward logistics elements or FSBs reinforced by the forward CSG assigned the covering force support mission. To weight a surge, the corps commander might task the COSCOM to provide reinforcing maintenance support, field services, and GS level supply support to nondivision CS and CSS elements of a newly committed division or task force. As shown by Figure 4-3, elements of a CSB could be picked up as the division moved along its axis of advance. To reduce the amount of forces moving into and across other division sectors, a forward CSG on either the right or left can give up elements of its CSBs to the newly committed division or task force.

CSBs, THE REAR CSG

To increase the responsiveness of support to customer units, the rear CSG also employs a multifunctional CSB(s) in its AO. Functional battalions attached to the rear CSG provide GS level logistics support. Chapter 5 of this manual describes these functional battalions.

REAR CSB MISSION

The CSB(s) assigned or attached to the rear CSG provides only DS level logistics support to customer units. It provides support on an area basis to units employed in or passing through its area of responsibility in the rear of the corps rear area. The CSB headquarters may also participate as part of a regeneration task force

Depending upon the type of units attached to the CSB, its mission encompasses—

- DS supply.
- DS-level maintenance.
- CEB, laundry, and mortuary affairs.

REAR CSB EMPLOYMENT

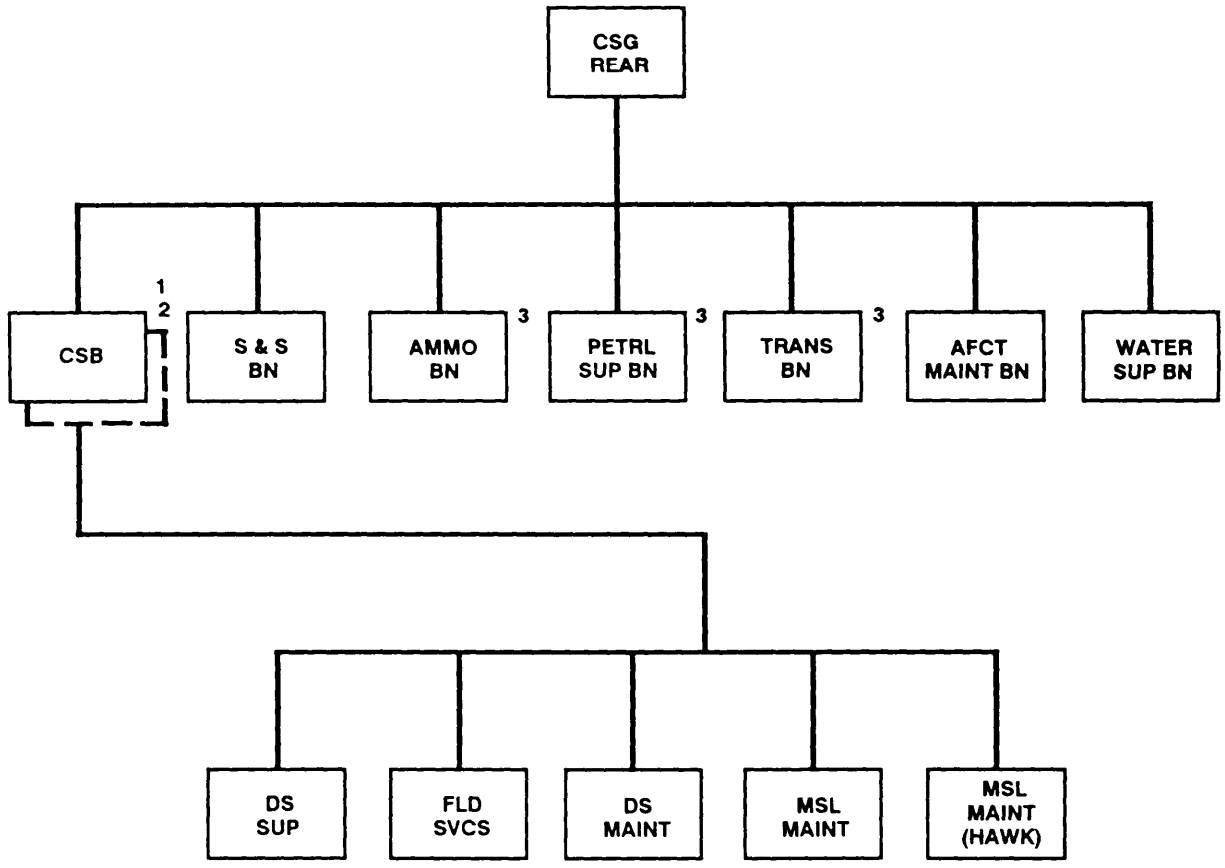
The sector RAOC assigns the CSB headquarters and subordinate units to a base or base cluster. The CSG support operations officer submits terrain requirements to the COSCOM support operations officer for further submission to the corps rear CP's CSS cell.

To add weight to a surge or offensive, the corps commander could task a rear CSB to move in support of corps CS forces which accompany the reserve division or attacking forces once committed. This CSB then operates much like a forward CSB employed in a division area.

Depending on the tactical situation, the CSB HHD and subordinate units may move an average of every 8 to 17 days. To accomplish this, the CSB HIHD should be 50 percent mobile.

REAR CSB ORGANIZATION

CSBs have no fixed organization. The COSCOM/rear CSG attaches a mix of DS supply, DS maintenance, missile maintenance, field services, and transportation units to the CSB HHD. Figure 4-4 depicts a sample organization for a CSB attached to a rear CSG. The number and type of units assigned or attached are workload driven. However, the battalion's span of control ranges from three to seven subordinate units.



LEGEND:

1 Number of battalions dependent upon force structure, geography, and span of control.

2 DS units only. The CSB span of control is limited to seven companies.

3 May be host nation support.

4 Attached to support corps requirements in arid environments.

Variable number.

Figure 4-4. Sample task organized CSBs the rear CSG.

SUPPORT FOR CSBs

Chapters 6 through 10 describe how CSG subordinate units provide support to customer units. This sec-[ion describes how CSB subordinate units obtain internal support. The sample service support annex at Appendix D describes support required by CSB units.

RATIONS AND SUNDRY PACKS

Deploying commanders determine the type and quantity of health and comfort items carried by their soldiers. Commands need to deploy with and maintain personal welfare and comfort items.

While AR 30-7 governs the contents and supply procedures, sundry packs maybe tailored for each theater or contingency. After D-45, sundry packs should be available through the theater supply system. CSB subordinate units pick up ration supplement sundries packs when they pick up rations from their supporting DS supply company's Class I supply point.

POTABLE WATER

Subordinate units obtain water either from one of four water points run by a supporting DS supply company or from a water point set up by a supporting water supply company.

BREAD

A bakery team assigned to a GS supply company provides bread and bakery products. Subordinate units obtain these products at the Class I supply point of their supporting DS supply company.

CLOTHING AND PROTECTIVE MOPP GEAR

CSB subordinate units pickup these Class II items at the appropriate Class II, IV, and VII point run by their supporting DS supply company.

CLOTHING EXCHANGE AND BATH SUPPORT

CSB S4s arrange to have a CEB team from the supporting field services company provide CEB support. Field services units also provide textile renovation and laundry support.

COMBAT LIFESAVER SUPPORT

All soldiers receive self-aid and buddy-aid training during their basic training. Selected individuals in subordinate units need enhanced medical training. A minimum of one individual per squad, crew, team, or equivalent sized unit needs training in combat lifesaver skills.

PATIENT EVACUATION

Ground ambulance companies evacuate patients from battalion aid stations, area support medical companies, or medical treatment facilities. Air ambulance companies provide acromedical evacuation and emergency movement of medical supplies and blood products. The SOI provides emergency medical air evacuation call signs and precedence.

COMBAT STRESS CONTROL

The battalion's UMT helps soldiers cope with combat stress. Battle fatigue casualties can be treated by combat stress control preventive teams or combat stress control restoration teams attached to a medical company in the corps area.

HOSPITALIZATION SUPPORT

For soldiers in the division sector, the medical company assigned to FSBs or the MSB or a medical treatment facility provides emergency care and resuscitation (Level II support) on an area support basis.

In the corps rear area, the area support medical battalion provides emergency care and resuscitation (Level II medical support). A MASH near the division rear area provides lifesaving surgery and resuscitative care for nontransportable patients (Level III support). Combat support hospitals provide resuscitative surgery (Level III medical support). The medical holding company provides care for RTD patients. It holds patients awaiting evacuation.

CSB soldiers who require definitive specialized care are evacuated to a general hospital in the COMMZ until evacuated to CONUS.

DENTAL SUPPORT SERVICES

Dental units provide treatment to eliminate or reduce the effects of dental disease and injury to soldiers within their geographic area of responsibility. Hospitals also provide dental support.

MAIL

DS postal platoons provide DS postal service support. This includes receipt, routing, directory service, and dispatch to and receipt from organizations. FM 12-6 provides postal support doctrine.

FINANCE SUPPORT

Finance support commands provide finance support on an area basis. An FSC normally supports units in a CSG's area. FM 14-7 describes FSC missions and capabilities. The FSC—

- Provides combat payments to soldiers.
- Services soldiers' pay accounts.
- Collects and converts currencies.
- Cashes negotiable instruments.
- Supports and pays local procurement requirements.

Class A agents or finance support teams travel to unit locations. They provide combat pay, exchange currency, process pay inquiries, and prepare and review vouchers for local purchases.

MORALE, WELFARE, AND RECREATION

Subordinate unit commanders arrange for self-administered activities using morale, welfare, and recreation supplies. These include—

- Athletic/recreation equipment.
- Paperback book kits.
- Magazine and newspaper kits.
- Motion picture projectors, televisions, or video cassette recorders to show AAFES films at safe locations.
- Live entertainment, as feasible.

CONVENTIONAL AMMUNITION

Subordinate CSB units in the DSA go to the nearest ASP or ATP to obtain required ammunition. Those employed in the corps rear area go to the closest ASP or the CSA. Battalion S2/S3 staff personnel, in coordination with the S4, estimate the RSR.

BARRIER AND FORTIFICATION MATERIAL

CSB units obtain barrier and fortification material from their supporting DS supply company's Class IV point. The S4 needs to check command controlled and regulated lists.

MAJOR END ITEMS

Subordinate units send daily battle loss reports on combat losses to the CSB S4. To replace a combat loss of a major end item on their TOE/MTOE, CSB units go to their supporting DS supply company's Class VII point.

BULK FUEL AND PACKAGED PRODUCTS

CSB units obtain bulk fuel from the Class III point run by their supporting DS supply company. DS supply companies normally run mobile filling station type facilities to issue fuel to vehicles.

Supporting DS supply companies may issue packaged petroleum products, such as lubes and oils at their Class H, packaged III, and IV point instead of at their Class III supply point.

DS MAINTENANCE SUPPORT

Subordinate units recover inoperable or damaged equipment to the maintenance collection point run by their supporting DS maintenance unit. If required MSTs attached to that unit assess battle damage and recovery requirements. MSTs use modular items to fix critical damaged equipment on site. DS maintenance units also pro tide common repair parts and reparable items for unit level maintenance.

TRANSPORTATION SUPPORT

Subordinate units submit requests for transportation assistance beyond their organic capability to their supporting MCT. The MCT then commits CSG transportation assets, assigned or attached to CSBs or the TMT battalion, to provide support. The CSG transportation branch tasks the specific units that will accomplish the mission, If transportation assets are not available in its area the MCT passes the transportation support requests to the CMCC.

The CMCC prioritizes transportation support requirements, tasks US transportation assets. or coordinates with the HN for transportation support. The CMCC informs the MCT of what support will be provided to fulfill the request. The US transportation unit tasked to provide the support, either by the MCT or CMCC, submits a road movement document (bid) if applicable, to the CMCC.

AIRDROP SUPPORT

If subordinate units become cutoff from supply lines, it maybe necessary to airdrop critical supplies, such as food fuel ammunition, water, and medical supplies. FMs 10-400, 100-27, and Chapter 10 describe airdrop request procedures. Light airdrop supply company personnel rig supplies and equipment for airdrop.

REAR OPERATIONS SUPPORT

Subordinate units send SITREPs through their BDOC/BCOC to the sector RAOC. They also send an information report to the CSB S2/3 and support operations officer. If required, the BDOC/BCOC submits a

request through the sector RAOC to the corps rear CP operations cell for EOD support or MP assistance in responding to a threat.

MORTUARY AFFAIRS SUPPORT

Unit personnel search for and recover remains to the nearest mortuary affairs collection point. The collection company assigned to the rear CSG S&S battalion operates up to 20 collection points within corps, division, and brigade areas. Each collection point can process 20 remains per day for evacuation to the main collection platoon in the corps rear area.

CSB HEADQUARTERS AND HEADQUARTERS DETACHMENT

The CSB headquarters provides command and control for three to seven logistics units in addition to the HHD. Battalion staff sections supervise the daily operations and coordinate the logistics support missions of assigned or attached units and teams. The regeneration task force could also task them to supervise the execution of logistics regeneration missions at a regeneration site. Refer to Appendix D.

Personnel and equipment authorized by TOE 63426L000 apply to all CSB HHDs, whether the battalion operates in the division area or in the forward or rear portion of the corps rear area. This TOE standardization reduces problems when cross-attachments occur.

MISSION

The CSB headquarters provides command, control, and staff supervision to all assigned or attached units or teams. The headquarters detachment provides unit administration and logistics support for the battalion's staff sections.

Battalion headquarters staff officers accomplish the CSB's missions through the development of plans, policies, and procedures. They formulate and implement FSOP and orders, They coordinate and supervise the execution of the missions of subordinate units. Sufficient functional expertise exists in the CSB headquarters to enable the staff to oversee the daily operations of subordinate units.

ARTEPs 63-426-MTP and 63-422-30-MTP list critical wartime missions and supporting missions for the CSB headquarters and headquarters detachment.

CAPABILITIES

At Level I, personnel assigned to the CSB HHD can—

- Command, control, and supervise three to seven assigned or attached logistics units.
- Provide staff coordination and planning assistance to supported and subordinate units.
- Plan and supervise base defense and coordinate physical security and ADC.
- Perform property book accountability for units assigned or attached to the battalion.
- Perform unit maintenance on organic equipment, except ADP equipment.

ORGANIZATION

Figure 4-5 depicts the organizational structure of the CSB HHD. In addition to the traditional S-staff organization, it includes a support operations section. That section provides the functional expertise to oversee the daily support operations of subordinate units. Generally, the functions of the staff sections equate to those specified in FM 101-5 for battalion level staff officers.

DEPLOYMENT

If the CSB deploys in the division area, the HHD sets up near the DISCOM headquarters. When the CSB employs in the corps rear area, the sector RAOC assigns the CSB HHC to a base or base cluster. Depending upon terrain, it could require an area 300 meters by 100 meters. The COSCOM support operations officer submits area requirements to the CSS cell of the corps/division rear CP. Figure 4-6 depicts a possible disposition of the CSB HHD.

DEPENDENCE

The CSB HHD depends upon the parent CSG, the COSCOM, and appropriate elements of the corps for the support noted below.

Dependence on the Parent CSG

The CSB HHD depends upon the parent CSG for –

- Technical expertise, prioritization, and staff supervision of its subordinate units' support missions.
- Automation systems support management of the standard Army management information systems operated by the CSB HHD and subordinate units.

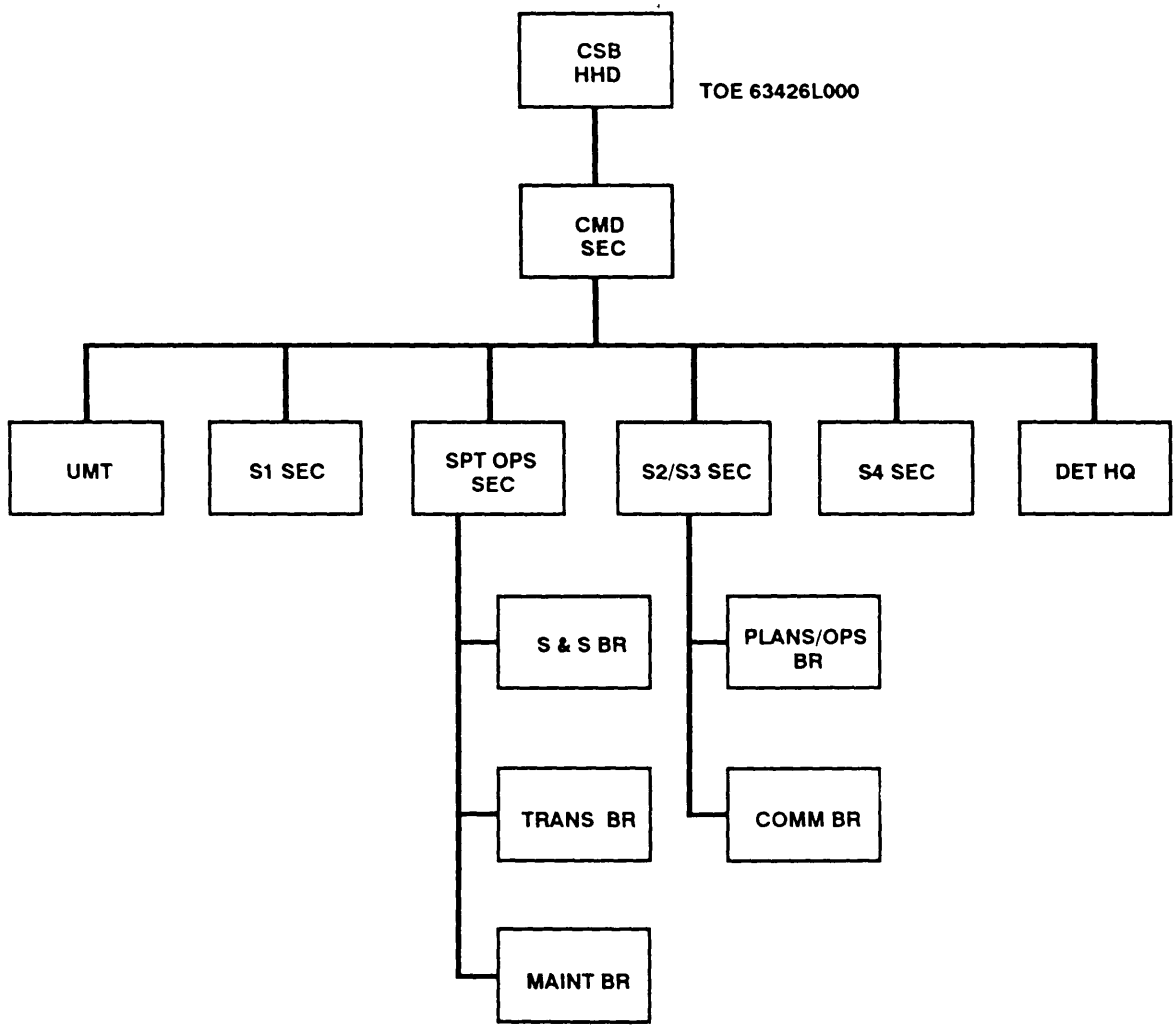


Figure 4-5. CSB HHD organization.

- Coordination and limited acquisition of HNS.
- Procurement of local labor, supplies, services, and equipment.
- Petroleum quality surveillance, provided by the mobile petroleum laboratory team (TOE 1056OLCOO), if assigned.

Dependence on the COSCOM

The battalion depends upon the COSCOM for—

- Integrated supply and maintenance management, provided by the CMMC (TOE 63433L000).
- Transportation movements management and prioritization of transportation assets, provided by the CMCC (TOE 55064L000). It also depends on the CMCC's subordinate MCTs and MRTs for movements control and highway regulation.
- Health services supported provided by appropriate corps medical elements.

Dependence on the Corps

The CSB depends upon elements of the corps for—

- External communications support and record traffic support, on an over-the-counter basis, as

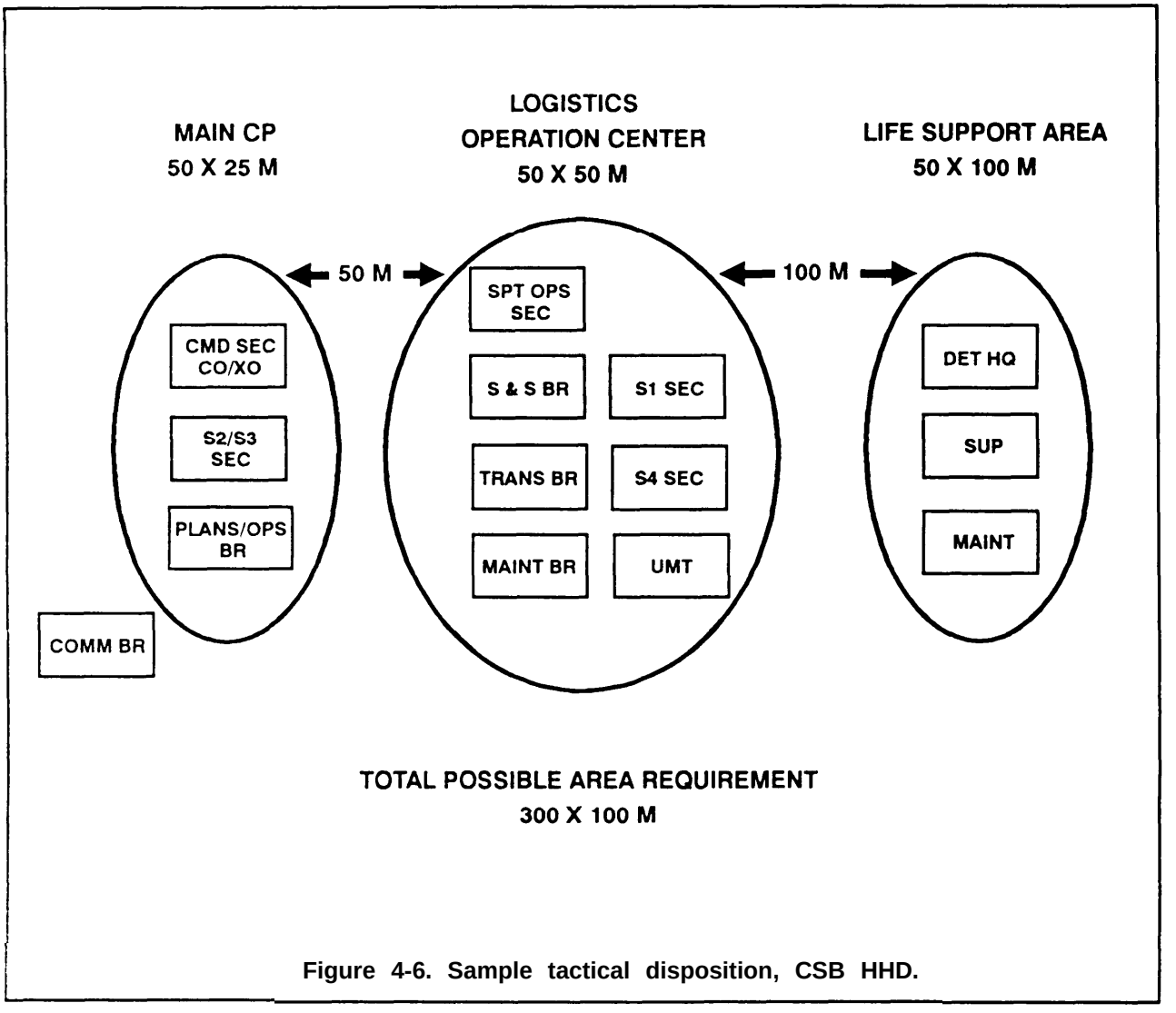


Figure 4-6. Sample tactical disposition, CSB HHD.

well as COMSEC maintenance and limited messenger service, provided by a corps area telecommunications battalion (TOE 11435 L000)..

- Personnel services, provided by the personnel group's personnel service companies (TOE 12467L100-600), DS postal companies, and DS replacement company.
- Finance services, provided by the corps finance group's finance support commands (TOE 14423L000).
- Direction and coordination of rear operations, provided by the corps rear CP's operations cell.
- Law and order, battlefield circulation control, EPW operations, and area security of attached units, provided by MP elements.
- Explosive ordnance disposal, provided by EOD detachments (TOE 09527LB00).

COMMAND AND STAFF RELATIONSHIPS

The CSB commander is responsible to the CSG commander for command and control of subordinate units. He determines the policies, procedures, and standards to which the battalion adheres. He provides operational direction to units of the battalion, by directing his staff to develop necessary policies and guidelines.

Internal Battalion Staff Relationships

The CSB commander determines internal staff relationships. Staff officers implement the commander's intent through their preparation of command plans, policies, procedures, and orders. Headquarters staff officers formulate and implement FSOP and orders and coordinate and supervise the execution of orders.

Staff Relationships with Subordinate Units

CSB headquarters staff provide command and control for subordinate units. Subordinate units provide the functional expertise over their units' support missions. Battalion support operations staff officers oversee the daily mission operations of subordinate units. As necessary, they cross-level resources among subordinate units.

Relationships with Parent CSG Staff

Formal policy actions and command decisions flow through command channels. CSB staff officers receive and implement orders and directives from their parent CSG headquarters. CSG staff officers monitor the daily operations of subordinate battalions. As required, they cross-level resources among subordinate CSBs and functional battalions.

Figure 4-7 depicts the direct coordination between CSB staff officers and their CSG staff counterparts. The CSG support operations officer determines which units will be supported by the battalion and the priority of that support. Staff officers in the CSB S&S branch, maintenance branch, and transportation branch refer problems and report trends to their counterparts in their parent CSG. CSB staff officers coordinate with the CSG HNS branch on HNS provided to the battalion.

Relationships with COSCOM Control Centers

The CMMC provides centralized management over GS level stocks and coordinates requisitions, issues, turn-ins, transfers, and dispositions. It issues MROs to CSB subordinate units which maintain GS level supplies. The CMMC notifies the CMCC of movements requirements.

The CMCC controls the transportation assets in the battalion's subordinate truck companies through its subordinate MCTs. It programs truck asset use, based on priorities and the supply distribution plan received from the CMMC. The MCT/CMCC passes commitments to the CSG/CSB transportation branch. CSB transportation branch personnel coordinate the time and place where designated transport assets report. Close coordination with supporting MCTs helps prevent backlogs and delays in loading and unloading carriers.

Relationships with DISCOM Staff

The allocation of a forward CSG per division, fosters development of a habitual relationship between CSG and DISCOM staff. The peacetime habitual relationship between supported and supporting units eases the transition to war. Forward CSG support operations staff train with and establish support procedures with DISCOM support operations staff. This includes advance planning on how personnel and equipment from CSB subordinate units can augment the DISCOM's MSB and FSBs to enable them to best support corps forces in division and brigade areas.

The CSB's plans and operations branch personnel coordinate the employment and movement of subordinate units, detachments, and teams in the division sector. They coordinate with the division rear CP and FSB S2/3, the respective terrain managers for the DSA and BSA. The operations cell of the division rear CP assigns CSB elements to a base or base cluster. While operating in the division AO, CSB units and elements are incorporated into the division's rear operations plans. They coordinate their fields of fire and overlapping fires with the BDOC/BCOC in control of rear operations planning for the base/base cluster to which they are assigned.

Relationships with FSB Staff

The CSB in the division area provides LOs to the FSBs to coordinate support to corps organizations, units, or teams employed in the brigade area. These LOs coordinate with FSB and CSB support operations staff in determining how to best provide support or continually move reinforcing supplies to forward supply points. They require a vehicle with communications link to the FSB, parent CSB, and forward CSG.

Initially, corps FA, corps ADA, and corps engineer battalions in the brigade area maybe supported from CSB forward logistics elements. The CSB coordinates the location of these forward logistics elements with the BSA terrain manager, the FSB S2/3,

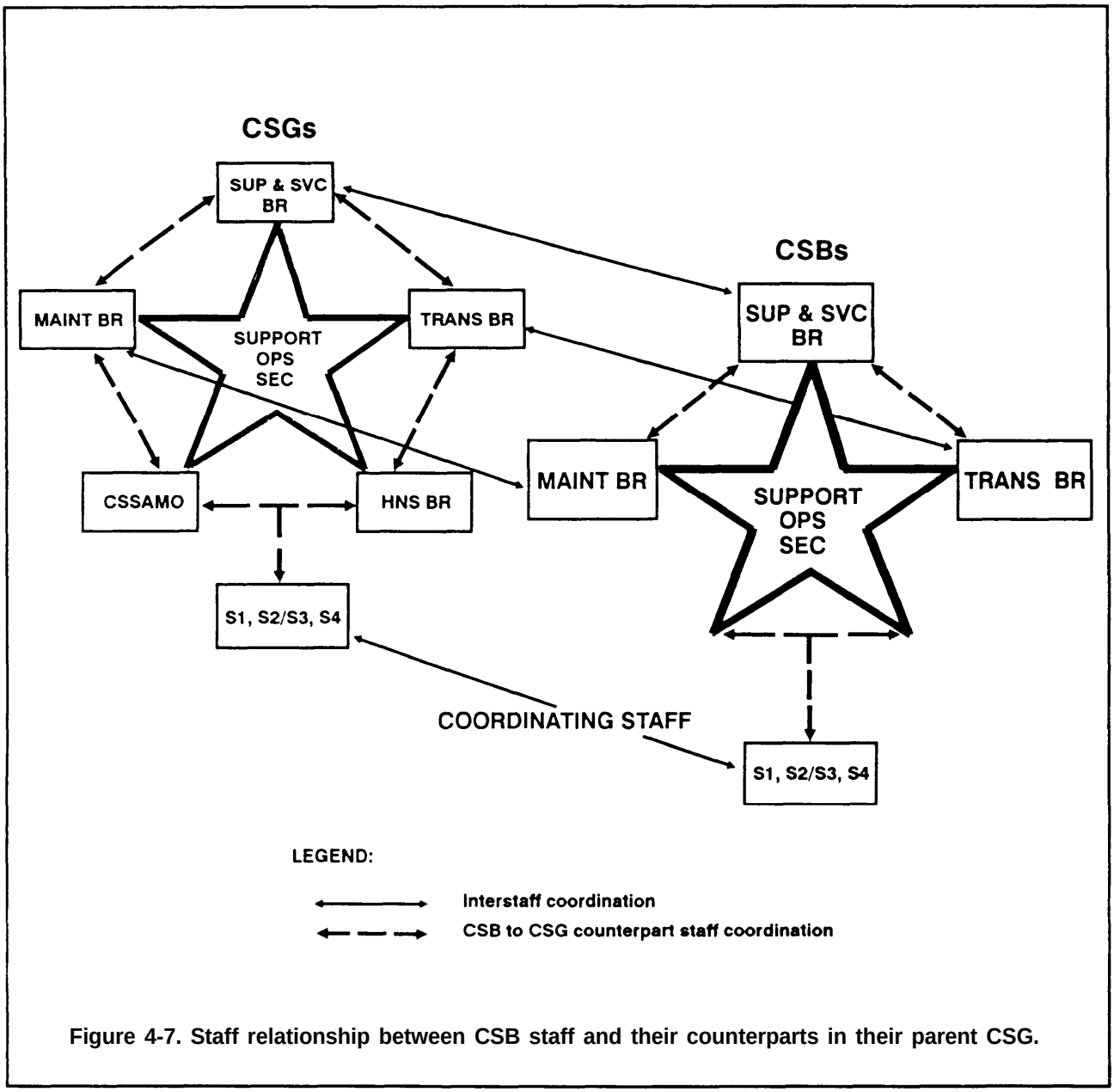


Figure 4-7. Staff relationship between CSB staff and their counterparts in their parent CSG.

COMMAND SECTION

The command section serves as the C2 element for the battalion and its subordinate units. Section personnel provide direction. They ensure that subordinate units follow the policies and procedures prescribed by the CSB commander and by the parent CSG.

Command section S-staff officers perform the staff functions identified in FM 101-5. Table 4-1 lists the basic responsibilities of key personnel assigned to the command section. S-staff officers exercise staff control over the day-to-day internal operations of subordinate units. The support operations officer monitors the work loads of subordinate units and ensures that mission support remains satisfactory. As appropriate, command section staff officers—

- Prepare estimates and plans.
- supervise personnel assigned to S1, S2/3, S4, or support operations sections.

Table 4-1. Key command section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Commander	Commands and controls the battalion. Provides direction for the command section's staff officers. Serves as a base\base cluster commander, if appointed by the RAOC.
Executive Officer	Coordinates the preparation of staff estimates and plans. Assumes command of the battalion in the absence of the battalion commander.
Command SGM	Advises the commander on enlisted matters.

- Serve as principle staff advisors in their respective areas.
- Recommend courses of action.
- Keep the battalion commander and their CSG counterpart informed.

If the sector RAOC designates the battalion commander as a base or base cluster commander, plans and operations branch personnel establish a BDOC or BCOC to coordinate rear security for units within the base or base cluster. Chapter 11 covers base and base cluster commander responsibilities.

UNIT MINISTRY TEAM

The UMT consists of the chaplain and chaplain's assistant. They conduct or arrange for denominational religious services. These include prayer services, small group worship, rites, sacraments, and memorial services. The UMT provides pastoral care and counseling. It ministers to combat shocked and battle fatigued soldiers and consoles combat casualties. FM 16-1 describes specific duties.

The chaplain advises the battalion commander and staff on ethical issues and morale in the battalion. He coordinates with the CSG chaplain and with chaplains of other battalions or units in the CSB's area to ensure denominational religious coverage in the area. He also provides input to the personnel estimate prepared by S1 staff.

S1 SECTION

The S1 section coordinates personnel and administrative support services for subordinate units. S1 section personnel maintain liaison among supporting personnel service units, finance support-cornmands~ postal units, and CSB subordinate units. Table 4-2 lists collective and individual tasks performed by S1 section personnel. The S1 needs to keep the personnel group's strength manager and supporting DS replacement company informed of personnel changes resulting from battalion task organizations.

SUPPORT OPERATIONS SECTION

This section serves as the initial point of coordination for resolving support problems between subordinate units and supported units. Personnel assigned to the section's supply and services branch, transportation branch, and maintenance branch provide staff control and supervision of the daily support missions of subordinate units,

Support operations section personnel develop support operations estimates. They set up the LOC from

Table 4-2. Key S1 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S1 Officer	Advises the commander and staff on all personnel matters. Prepares personnel estimates. Maintains discipline. Publishes orders. Coordinates morale support activities. Recommends replacement priorities. Coordinates medical evacuation for battalion personnel with the S4.
Personnel Staff NCO	Advises the S1, commander, and staff on personnel matters. Processes personnel records and reports. Consolidates and transmits SIDPERS data. Maintains subordinate unit strength data. Orients replacement personnel. Operates the message center.
Legal NCO	Prepares records and legal documents associated with court-martials proceedings, line of duty investigations, board proceedings, claims investigation, and other military justice and legal assistance matters.

which to synchronize the support operations of subordinatc units. They monitor the current status and capabilities of subordinate units. They keep the battalion commander and CSG support operations section staff informed of subordinate unit mission accomplishment and mission shortfalls. They recommend possible solutions to those shortfalls.

Tables 4-3 through 4-6 list the tasks of personnel assigned to the support operations section and its subordinate branches. The section is staffed only to provide sufficient expertise for the most common logistics functions.

Supply and Services Branch

Personnel assigned to this branch exercise staff supervision over the supply and services missions of subordinate units. They maintain liaison with supported and supporting supply units and field services units. Table 4-4 lists the tasks of key personnel assigned to the supply and services branch.

Transportation Branch

The transportation branch exercises staff supervision over transportation operations insubordinate transportation units. Branch personnel ensure that transportation requirements are fulfilled. They develop policies to coordinate transportation support. Table 4-5 lists tasks performed by transportation branch personnel.

Branch personnel coordinate the use of truck assets in subordinate truck units which have not been committed by the supporting MCT for daily support requirements. They receive commitments from the supporting

Table 4-3. Support operations section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Support Operations Officer	Plans, directs, and advises on external logistics support provided by subordinate units. Develops support operations estimates. Establishes the LOC. Serves as the initial point of coordination for problem resolution between supported and supporting units.
Operations Sgt	Assists the support operations officer in monitoring the external logistics support missions of subordinate battalion units. Supervises the preparation of logistics estimates. Analyzes LOGSTAT reports and CSSCS data.

Table 4-4. Supply and services branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Supply & Services Officer	Serves as the supply and services branch chief. Assists the support operations officer in planning and coordinating the battalion's supply and field services support missions. Analyzes LOGSTAT reports and CSSCS data to determine trends and possible support problem areas. Keeps the support operations officer informed of the status and current mission capabilities of subordinate supply and field services units. Coordinates supply priorities with the CSG's support operations section's S&S branch staff. Coordinates supply point locations with CSG support operations staff and the sector RAOC. Conducts staff site visits and inspections. Coordinates with subordinate units on stocks due in to cover anticipated future requirements. Recommends shifts in attached unit work loads to the support operations officer.
Ammunition Officer	Monitors the support operations of subordinate ammunition units. Provides staff advice on conventional ammunition supply, maintenance, surveillance, inspection, stock control, and security.

Table 4-4. Supply and services branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Ammunition Officer (Cont.)	Analyzes CSSCS data which interfaces with SAAS-4 run by supply and storage personnel in subordinate DS/GS conventional ammunition units. Assists in synchronizing the activities of subordinate ammunition units with habitually supporting truck units.
Operations SGT	Assists the ammunition officer in coordinating conventional ammunition support operations.
Petroleum Supply SGTs	Advise the supply and services officer on petroleum and water receipt, storage, and distribution operations. Monitor quality surveillance programs for water and petroleum products within the battalion. Maintain data on the stock status and location of Class III and water points and forecasted requirements from supported units.
Materiel Control Supervisor	Analyzes CSSCS data and LOGSTAT reports to ascertain trends and efficiency of stock operations. Assists the supply and field services officer in preparing the supply support portion of logistics estimates. Reviews stock records pertaining to the requisition, receipt, distribution, and issue of supplies. Recommends modification to subordinate units' ASLs.
Laundry NCO	Determines the requirements for and adequacy of field services. Recommends sites for field services operations. Coordinates mortuary affairs collection point locations.

MCT and task subordinate transportation companies. When the MCT reduces the number of truck assets available for daily support, transportation branch personnel match priorities of support required against remaining truck assets. They keep the support operations officer informed of the ability of subordinate units to perform their transportation support mission when the CMCC/MCT diverts truck assets for other than daily CSB mission support. As necessary, they request transportation through the supporting MCT.

Maintenance Branch

Maintenance branch personnel supervise the provision of DS maintenance and Class IX support to supported units. They coordinate or cross-level the battalion's maintenance resources to support work

Table 4-5. Transportation branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Motor/Rail Trans Officer	Supervises transportation branch personnel.
	Provides technical advise to the S4 on preparing movement bids or movement planning.
	Maintains estimates and summaries of transportation requirements for support plans.
	Coordinates transportation activities between subordinate truck companies and supply units.
	Advises the support operations officer and assists subordinate unit commanders on transportation support operations.
	Maintains liaison with subordinate truck units, supporting MCTs, and CSG transportation branch staff.
	Receives commitments from the supporting MCT/CMCC to support unusual transportation requirements.
	Tasks those truck company assets which are not precommitted to daily support operations.
	Supervises subordinate unit accomplishment of assigned transportation missions.
	Coordinates the backhaul of equipment and supplies with the servicing MCT and CSG transportation branch staff.
Operations SGT	Advises the transportation officer on movement of personnel and cargo by motor transport, rail, air, or water.
	Maintains data on the location and mission capability of subordinate transportation units.
	Maintains current road net data.
	Coordinates emergency aerial resupply operations with supply and services branch personnel.
	Ensures adherence to movement priorities for delivery.

Table 4-5. Transportation branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Operations SGT (Cent)	Recommends reconsignment, transfer, or diversion of cargo. Inspects transportation operations areas and unit dispatch areas.
Movements Supervisor	Requests movement credits from the supporting MCT Prepares unit movement reports. Monitors movement requirements and movement schedules.

Table 4-6. Maintenance branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Maintenance Officer	Supervises maintenance branch personnel. Plans and coordinates the battalion's maintenance support activities. Coordinates maintenance priorities with CSG maintenance branch staff. Keeps CSG maintenance branch staff informed of maintenance overflow. Conducts site visits to and staff inspections of maintenance operations. Provides technical assistance to subordinate DS maintenance units and supported units. Facilitates resolution of maintenance support problems with supported and supporting units.
Operations SGT	Monitors the maintenance portion of LOGSTAT reports, battalion work load summaries, and SAMS-2 data. Keeps the maintenance officer informed on the mission capabilities of subordinate maintenance units. Monitors work loads and backlogs in subordinate DS maintenance units.

Table 4-6. Maintenance branch personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Operations SGT (Cont.)	Recommends realignment of maintenance resources in subordinate units to balance work loads.
	Coordinates the recovery and evacuation of vehicles and equipment with maintenance units and supported units.
Mechanical Maint SGT	Provides technical guidance on the maintenance of equipment.
	Recommends corrective actions for repair parts supply shortages.
	Disseminates cannibalization instructions and provides instructions for the emergency destruction of equipment.
	Advises and trains subordinate maintenance unit personnel in the use of TAMMS and SAMS-1 output.
Equip Records/ Parts Sp	Monitors NMCS data and uses all available resources of supply to obtain repair parts required for repair and return to using units.
	Runs SAMS-2 programs on the branch's TACCS device.
	Monitors the ASLs of subordinate maintenance units.
	Recommends adding reparable line items and adjusting the ASL to cover the combat PLL of new customer units.

loads. Table 4-6 lists tasks performed by maintenance branch personnel.

S2/S3 SECTION

The S2/S3 section serves as the tactical plans and operations element for the battalion. Its staff officers develop operations estimates, plans, and orders as well as intelligence estimates. Appendix D provides a sample CSB OPORD. They exercise staff supervision over military intelligence gathering, rear operations, unit displacement, communications, and tactical skills training. The S2/S3 section has a subordinate plans/operations branch and a communications branch. Tables 4-7 and 4-8 list the tasks performed by subordinate branch personnel.

Plans/Operations Branch

Plain and operations branch personnel collect, analyze, and disseminate the latest data on the tactical situation in the battalion's area of responsibility. This includes information on threats, NBC warnings, contaminated areas, and the effects of weather and terrain on battalion support operations.

Branch personnel maintain current estimates of the situation and update contingency plans and rear operations plans. They control the daily operations of the battalion through preparing and publishing OPLANs/OPORDs and the battalion SOP.

If the sector RAOC designates the CSB commander as a base or base cluster commander, this branch forms the nucleus of a BDOC or BCOC. The BDOC or BCOC coordinates defense of the units/bases in its base/cluster and their response to threats.

Communications Branch

Communications branch personnel install and operate the battalion switchboard and install internal

Table 4-7. S2/S3 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S2/S3	Coordinates preparation of contingency plans.
	Plans, directs, and provides advice on battalion operations, intelligence, security, communications, and training.
	Develops operations estimates, intelligence estimates, and plans and orders IAW formats in FM 101-5.
	Prepares base/base cluster defense plans, if applicable.
Operations SGT	Supervises the development and preparation of OPORDs/OPLANs, operating instructions, maps, sketches, overlays, and data relative to the employment of subordinate units.
	Assists the S2/S3 officer in planning rear operations and reaction to incident reports.

Table 4-8. Plans and operations branch personnel.

PERSONNEL	RESPONSIBILITIES
Operations Officer	Supervises branch personnel.
	Integrates the input from battalion staff officers into OPLANs/OPORDs and the battalion SOP.
	Identifies battalion elements at risk.
	Develops reconnaissance and surveillance plans.
	Plans the tactical movement of battalion units and how to support the battalion units during movement.
	Selects specific march routes and organizes quartering and advance parties.
	Arranges for combat lifesaver training within battalion elements.
NBC NCO	Develops NBC defense plans.
	Coordinates NBC reconnaissance and decontamination support operations.
	Prepares and maintains maps and operation information on NBC units and activities.

Table 4-8. Plans and operations branch personnel. (Continued)

PERSONNEL	RESPONSIBILITIES
NBC NCO (Cont.)	Interprets and disseminates NBC data to subordinate units. Plans and supervises NBC training of subordinate unit personnel.
Intelligence Sergeant	Coordinates battlefield deception IAW corps battlefield cell directives. Assesses friendly and enemy organizations, dispositions, equipment, capabilities, tactics, and intelligence resources. Assists in establishing and maintaining situation maps depicting current intelligence information on the identification, disposition, and move ment of enemy forces. Prepares order of battle records and strength estimates of enemy units. Analyzes enemy vulnerability and probable courses of action. Disseminates intelligence data to subordinate battalion units. Issues classified maps. Prepares reports on captured enemy materiel.
Single Channel Operators	Operate the CSB command/operations net (FM Radio Operators voice). Maintain a station in the CSG's command/operations net. Install, operate, and perform unit level maintenance on radio sets, associated equipment, and COMSEC devices. Site antennas to reduce interference and install power generators. Employ antijamming measures and principles of COMSEC, SIGSEC, and OPSEC. Issue and ensure proper accountability of SOI extracts.

Table 4-9. Communications branch personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Bn Comm Chief	Supervises communications branch personnel. Develops the wire net plan.
Combat Signaler Team Chief & Wire Installer	Lay telephone cable from the area signal node access to organic switchboards.
Switchboard Operator	Operates switchboards and MSE devices. Ensures secure message handling and delivers messages.

telephones. They also establish a message center which coordinates the pickup and delivery of messages.

S4 SECTION

S4 section personnel plan, coordinate, and supervise the battalion's internal supply, maintenance, field services, and transportation activities. They prepare logistics estimates and service support annexes to the battalion's OPORDs/OPLANs. They also monitor the materiel readiness of subordinate units. Table 4-10 lists tasks performed by S4 section personnel.

Section personnel use SPBS-R software to maintain property accountability of the accountable assets organic to the HHD and a diverse number and type of subordinate units. The property book officer supervises the receipt, storage, and issue of general supplies in the S4 section of battalion headquarters.

Since CSBs are semipermanent task organizations, the COSCOM ACofS, G4/CSG S4 needs to develop procedures which detail the transfer of property when units or teams are attached or placed OPCON to the battalion. While property books continue to be maintained in CONUS for anticipated short contingency operations, property books on floppy diskettes need to be transferred between CSBs or the functional battalions and CSBs.

HEADQUARTERS DETACHMENT

The headquarters detachment ensures that personnel assigned to the battalion HHD are clothed. equipped, billeted, and trained. It provides unit level administration and support functions to include organizational administration, unit training unit supply, and motor pool support operations. Since the battalion HHD has a required strength less than 99 soldiers, it is authorized a cook to assist with ration preparation in a nearby feeding unit.

Headquarters detachment personnel maintain organic equipment. They also coordinate guard details and provide for the physical security of the battalion headquarters area. Table 4-11 lists tasks performed by key headquarters detachment personnel.

CSB HHD COMMUNICATIONS SUPPORT

The CSB depends on signal corps area communications to ensure efficient communications within the battalion, with supported units, and with its parent CSG. Communications personnel operate an FM command operations net, a station in the CSG's command

Table 4-10. S4 section personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
S4 Officer	Plans, directs, and exercises staff responsibility for the internal logistics support of subordinate battalion units. Prepares logistics estimates and service support annexes. Serves as the battalion accountable officer. Performs financial inventory accounting. Serves as a contracting officer representative, if needed.
Senior Maint Supervisor	Supervises S4 section personnel. Supervises the battalion's internal maintenance operations. Supervises, trains, and provides technical advice to subordinate unit personnel on the use of TAMMS, PU, and SAMS records. Reviews and consolidates materiel condition status reports from subordinate units. Initiates repair parts supply corrective actions. Performs liaison site visits to subordinate maintenance units. Monitors the battalion's motor pool activities.
Supply SGT	Monitors the supply and inventory control procedures of subordinate units. Performs liaison site visits to subordinate supply points. Inspects supply rooms and arms rooms to ensure compliance with SOPS. Checks that arms, ammunition, and explosives are maintained IAW ARs 190-11 and 190-40. Monitors MOPP gear supply levels. Maintains basic load of decontamination supplies and equipment for centralized decontaminating apparatus. Coordinates the disposition of excess property and salvage. Reviews subordinate unit materiel condition status reports to determine readiness. Coordinates schedules, locations, and operating hours for field services support to subordinate units.

Table 4-10. S4 sectioin personnel responsibilities (Continued).

PERSONNEL	RESPONSIBILITIES
Property Book & Supply Specs	Post transaction to property book pages and supporting transaction files.
	Run SPBS-R software on the S4 section's TACCS device.
	Prepare hand-receipt property listings and annexes.
	Determine method of obtaining relief from responsibility for lost, damaged, and destroyed property and prepare administrative adjustment documents, reports of survey, and statement of charges.

Table 4-11. Key headquarters detachment personnel responsibilities.

PERSONNEL	RESPONSIBILITIES
Commander	Commands and supervises headquarters detachment personnel.
	Plans and coordinates perimeter security.
Detachment SGT	Coordinates the detachment's support activities.
	Establishes priorities and assigns work to ensure efficient support of battalion personnel.
	Performs route reconnaissance.
	Coordinates camouflage activities.
	Takes necessary action to ensure professional development of detachment soldiers.
Motor SGT	Supervises detachment headquarters maintenance personnel.
	Advises detachment maintenance personnel on preparing maintenance records and reports and using TAMMS, PLL, and SAMS outputs.
	Assists detachment maintenance personnel with troubleshooting and unit maintenance procedures.
	Performs approval inspection of repaired equipment.
	Initiates repair parts supply corrective action.

Table 4-11. Key headquarters detachment personnel responsibilities. (Continued)

PERSONNEL	RESPONSIBILITIES
Supply SGT	Establishes and operates a unit supply facility. Requests and picks up rations, water, basic ammunition load, OCIE, fuel, and other general supplies. Prepares and updates signature cards to enable detachment personnel to receive supplies. Prepares and maintains OCIE records. Processes individual and organizational laundry. Performs armorer duties, issuing small arms and ammunition to battalion HHD personnel.
Light-Wheel Vehicle Mechanics	Troubleshoot, diagnose malfunctions, and perform unit maintenance on light-wheel vehicles and associated equipment. Prepare vehicles and equipment for operation under abnormal conditions, using special fuels, coolants, and lubricants. Perform or assist in vehicle recovery operations.
TAMMS Clerk & PLL Clerk	Maintain TAMMS records and provide input for materiel readiness reports. Use ULLS software to process PLL records on the detachment's ULC device. Maintain the PLL. Request, receive, store, and issue repair parts to detachment mechanics.

operations net, and internal switchboards with access to the area signal node.

CORPS AREA SIGNAL BATTALION SUPPORT

Under the area signal system, a corps area signal battalion (TOE l1035L000) supports all external communications requirements which enable access to the area system. These include telecommunications center record traffic support and limited courier service.

Under MSE, the corps area signal battalion (TOE 11065 L000) provides access to the area system via area nodes and extension switches. CSB communications branch personnel install and operate organic DNVT and facsimile communications equipment. They connect organic communications equipment to access points provided by signal units.

FM COMMAND OPERATIONS NET

Single channel radio operators operate the FM command operations net and a station in their parent CSG's command operations net. When the CSB HHD employs in the division AO, it needs to operate a station in and monitor the DISCOM's command operations net.

Table 4-12 lists base and objective TOE equipment authorizations which comprise the FM command operations net. Incremental change packages to the TOE

Table 4-12. CSB HHD FM command operations net.

BN OFFICER or ELEMENT	BASE TOE	OBJECTIVE TOE
BN Cdr	AN/VRC-47	AN/VRC-89 AN/VRC-90 (XO)
Support Ops Officer	AN/VRC-46	AN/VRC-90
Support Ops Sec		AN/VRC-89
S&S Br		AN/VRC-90
Trans Br		AN/VRC-90
Maint Br		AN/VRC-90
S2/23 Officer	AN/VRC-46	AN/VRC-90 (S3)
Plans/Ops Br (BN TOC/NCS)	AN/VRC-47 AN/GRC-106 Power Supply Control Group AN/GRA-39 Control Group AN/GRA-6 Antenna RC-292	AN/VRC-89 AN/GRC-213 Power Supply Control Receiver-Transmitter Antenna OE-254 ()/GRC
S1/S4 Sec Combined	AN/VRC-46	AN/VRC-90 (S1 See) AN/VRC-90 (S4)
(Alternate NCS)	Power Supply Control Group AN/GRA-39 Antenna RC-292	Power Supply Control Receiver-Transmitter Antenna OE-254 () /GRC
HHD Cdr	AN/VRC-64	AN/VRC-87

replace the AN/VRC-12 family of radios with SINCGARS radios.

SINCGARS radios have a vehicular short range of up to 5 kilometers and a vehicular long range of up to 35 kilometers. They are secured by speech security equipment TSEC/KY-57. The ECCM fill device provides a resistance to jamming and thus increases security.

AN/VRC-47 or VRC-89 radios support command and control and communications with the CSG headquarters, subordinate units, and CSB staff. They can be used to contact the sector RAOC in support of rear operations.

AN/VRC-46 or VRC 90 radios support the CSB HHD's internal mission requirements.

The AN/GRC-64 or AN/VRC-87 radio supports the detachment. Detachment personnel use it to support base self-defense, security patrols, and listening posts.

The AN/GRC-106 radio, operated by plans and operations branch personnel, enables the CSB HHD to operate as a station in the CSG's command operations net and to communicate with subordinate units.

Power supply PP-6224/U provides conversion from an AC commercial or field generator source to DC power. It allows vehicular operation of AN/VRC 47 and 46 radios.

Radio set AN/GRA-39 control groups enable personnel to remote the AN/VRC-46 and AF/GRC-106 radio set to a tent operations center. The control receiver-transmitter or control remote transmitter remotes SINCGARS radios.

VINSON speech security equipment ensures secure voice/data transmission between users. Wire lines which extend beyond the physical security of the CP or interface with external users can be secured by the HYP-57/TSEC power supply vehicle and its associated remote unit.

WIRE NET

Communications branch personnel operate the battalion's internal SB-22/PT switchboard which accesses the area signal node. The CSB HHD will retain its internal SB-22 switchboards and TA-312/PT telephone sets for internal communications and rear operations requirements, However, the switchboard will not be connected to the area system. The 2-wire switchboards and TA-312/FT telephones cannot enter the 4-wire digital MSE system.

When MSE is available, DNVTs, MSRT, and facsimiles will be authorized by applying incremental change packages to the TOE. These devices connect directly to the signal node switchboard. They provide mobile and wire subscribers a means of exchanging command and control information using a fixed directory with discrete subscriber addresses.

DNVTs are nonsecure telephone sets which interface with MSE facsimile and data terminals. They provide voice access to wire subscribers at CPs. The data port provides a means to interface with TACCS and ULC devices. The battalion connects DNVTs via WF 16 field wire to MSE interface points. FM 24-20 describes installation procedures.

MSRTs consist of a very high frequency radio and a digital secure voice terminal mounted on a vehicle. They provide mobile radiotelephone capability for secure command net communication on-the-move. As long as the radio unit maintains line-of-sight contact with a radio access unit, approximately 15 kilometers, it connects into the MSE area system.

CSB HHD OBJECTIVE AUTOMATION SUPPORT

Figure 4-8 depicts the objective automated architecture planned for the CSB HHD. TACCS and ACCS common hardware devices provide an information data link between the CSB HHD, the parent CSG HHC, and the CMMC. SIDPERS, SAMS-2, and SPBS-R software has been developed. These STAMISs run on TACCS devices authorized by incremental change packages to the CSB HHD TOE. When available, CSSCS programs will run on ACCS common hardware devices.

Depending on software development and hardware fielding schedules—

- S1 personnel process SIDPERS reports and personnel strength data on a TACCS.
- Support operations section staff officers use CSSCS programs to monitor supply status and subordinate unit support mission capabilities.
- Maintenance branch personnel use SAMS-2 programs to monitor maintenance operations in subordinate DS maintenance units.
- Plans and operation branch personnel use CSSCS programs to project logistics support for tactical operations and prepare and process plans.
- S4 section personnel use SPBS-R programs to maintain property book records and property accountability for units assigned or attached to the battalion.
- The detachment headquarters PLL clerk runs ULLS software on a TDA acquired ULC to process PLL records.

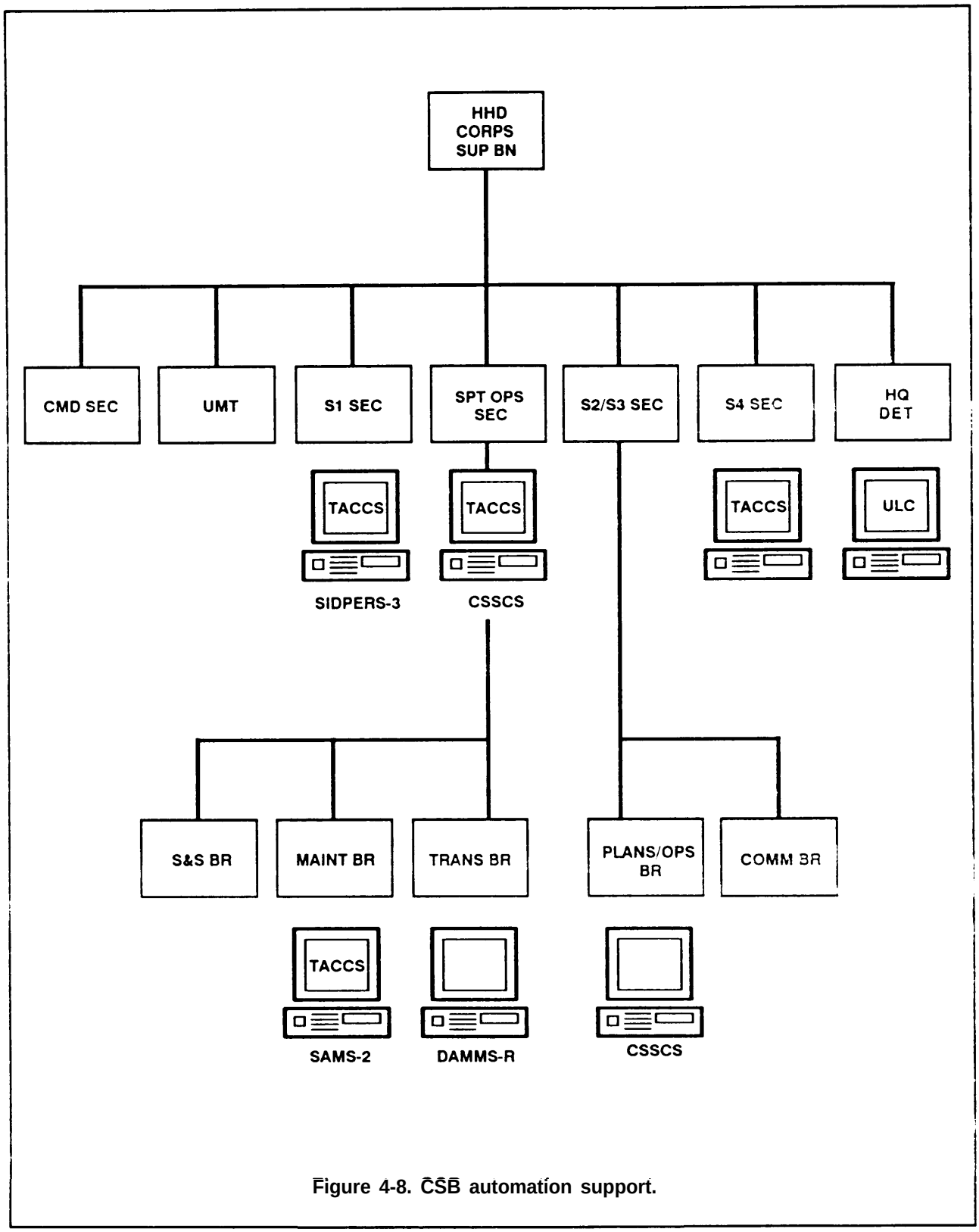


Figure 4-8. CSB automation support.

CHAPTER 5

Subordinate Functional Battalions

The COSCOM attaches functional battalions to the rear CSG to perform corpswide GS support missions, reinforce the forward CSGs, and support surges in corps operations. The number and type of functional battalions attached to the rear CSG vary based on requirements, METT-T, and the existence of equivalent HNS ammunition, petroleum, and transportation organizations.

This chapter covers the organizational composition of each type of functional battalion. Both H and L-series companies may be assigned or attached to these battalions. As a result, CSGs and subordinate battalion staffs could control and provide technical supervision of a mix of units organized under both H and L TOES.

CONTENTS

SUPPLY AND SERVICE BATTALION

Normally, an S&S battalion is attached to the rear CSG to provide GS level supply (less medical, ammunition, and bulk fuel) and primary field services (mortuary affairs and airdrop) to nondivision units, divisions, separate brigades, and ACRs.

MISSION

The HHD, Supply and Service Battalion (TOE 42446 L000), commands and controls attached GS level supply, mortuary affairs, and airdrop support companies. The battalion headquarters—

- Provides command, control, staff planning, and technical supervision for two to five companies that provide GS level supply and primary field services.
- Exercises technical supervision over mission operations of subordinate units, except for those supply control functions provided by the CMMC.
- Provides technical staff supervision of unit level supply and maintenance operations of subordinate units,
- Provides supervision for administration, training, and operations.

ORGANIZATION

The rear CSG commander task organizes the S&S battalion to meet the requirements of METT-T. Figure 5-1 depicts units which can be attached to an S&S battalion. Both H and L series TOE units may be assigned or attached. DS supply companies and field services companies are attached to CSBs, The battalion organization depends on the size of the corps (soldiers supported), planning factors, and work load.

ALLOCATION

A battalion headquarters is allocated for two to five subordinate units. Allocation of subordinate units depends on requirements and stated capabilities. However, for planning purposes the –

- GS supply company allocation is one company per TOE capability to receive, store, and issue 467 STONs per day of Class I, II, packaged III, and IV.
- Heavy materiel supply company allocation is one company per TOE capability to receive, store, and issue 1,400 STONs of Class VII per day as well as deprocess approximately 280 STONs of Class VII supplies.
- Repair parts supply company allocation is based on TOE Level I capability to receive, store, and

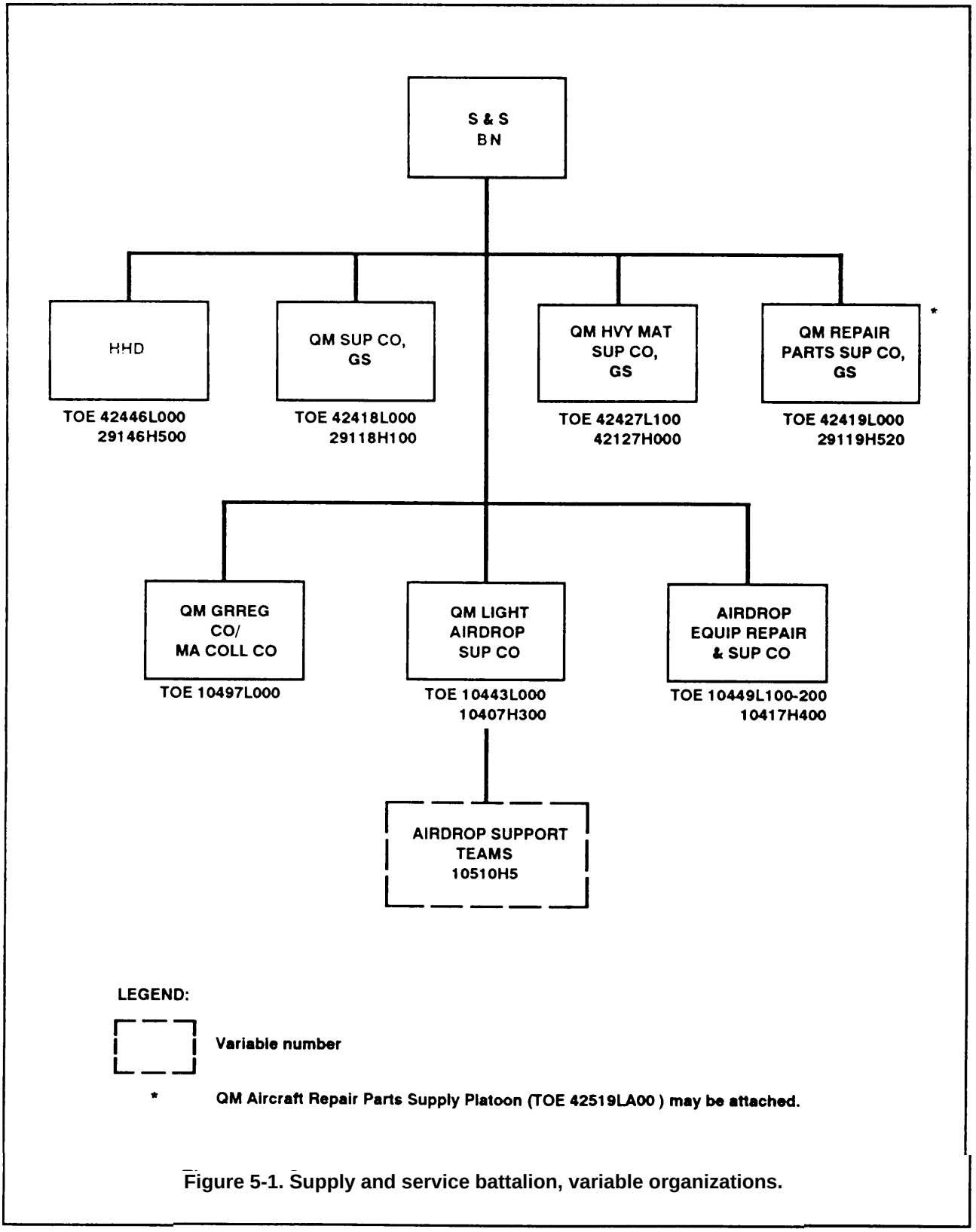


Figure 5-1. Supply and service battalion, variable organizations.

issue 102 STONs of Class IX repair parts. At TOE Level I, it maintains a 15-day stock of Class IX non-ALOC supplies and a 30-day supply of maintenance related Class II and Class IX ALOC supplies, for a maximum of 20,000 ASL line items.

- Light airdrop supply company initial allocation is one per corps.
- Airdrop equipment repair and supply company is allocated on the basis of one per airdrop supply company and one per airborne division.
- Collection company is allocated on the basis of one company per corps.

EMPLOYMENT

Subordinate units provide corpswide support. Units normally locate in the rear of the corps rear area, within easy access to MSRs, rail, or airfields.

For more information, refer to FM 10-27-3, Chapters 6 and 9 of this manual, and the Mission Training Plans which correspond to the battalion HHD and subordinate units.

AMMUNITION BATTALION

Only one ammunition battalion is required per COSCOM to support a fully deployed corps. The conventional ammunition ordnance battalion is attached to the rear CSG to establish and operate ammunition supply facilities. This battalion provides corpswide GS ammunition support to divisions, separate brigades, and ACRs.

MISSION

The HHC, Ordnance Battalion, Conventional Ammunition (TOE 09466L000), provides —

- Command, control, and staff planning for up to five subordinate units.
- Technical direction over the mission operations of subordinate units (except for the supply and maintenance management functions for which the CMMC is responsible).

ORGANIZATION

Figure 5-2 depicts the organization of a conventional ammunition battalion. The number of GS

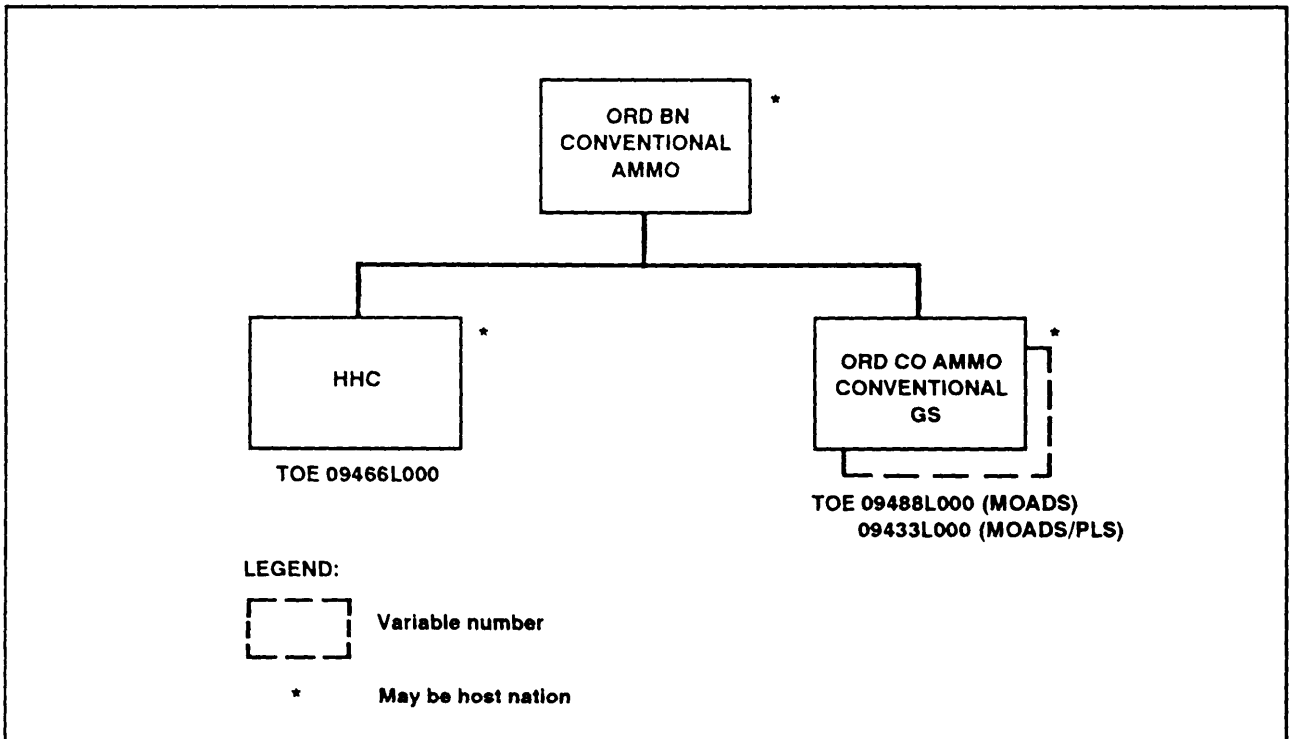


Figure 5-2. Ordnance battalion, ammunition, organization.

ammunition units attached to the battalion depend upon the—

- Tactical situation.
- Requirements.
- COSCOM stockage objectives.
- Existing HNS organization.
- Transportation assets and effectiveness of throughput from the COMMZ.
- Type and density of weapons supported.
- Projected intensity of battle and ammunition consumption rates.

ALLOCATION

An ammunition battalion HHC is allocated per two to five companies commanded. Allocation of ammunition companies depends on the—

- Number of lifts needed to move the required ammunition tonnage from the time of its arrival in the corps rear area until its issue from the ASPS or ATPs.
- Estimated percentage of ammunition tonnage that can be throughput.

Mission requirements may necessitate attaching conventional ammunition supply and maintenance teams (TOE 09530H4) to augment company-size units in the area of ammunition supply, maintenance, and munitions safety control.

EMPLOYMENT

GS conventional ammunition units set up a corps storage area in the corps rear area. A CSA is required for each committed division to support ASP and ATP issue operations. Corps truck units provide transportation support.

For more information on employment, refer to the MTP for the GS ammunition unit, to FMs 9-6 and 9-38, and to Chapter 7 of this manual.

PETROLEUM SUPPLY BATTALION

The petroleum supply battalion is assigned or attached to the rear CSG for command and control. This battalion provides corpswide GS bulk fuel support for nondivision DS supply units, divisions, separate brigades, and ACRs.

MISSION

The HHD, Petroleum Supply Battalion (TOE 10426 L000), provides command and control and administrative, technical, and operational supervision over assigned or attached petroleum supply companies, transportation medium truck companies (petroleum), and a mobile petroleum products Iaborator) team. The headquarters staff—

- Supervises the command's petroleum quality surveillance program.
- Plans for the storage, distribution, and quality surveillance of bulk petroleum products required by division and nondivision DS units in the corps area.
- Ensures that attached petroleum supply units maintain a prescribed portion of the corps petroleum reserve.

ORGANIZATION

Figure 5-3 depicts the variable organization of a petroleum supply battalion. The battalion organization depends upon the—

- Type and level of conflict.
- Availability of bulk petroleum in underdeveloped theaters.
- Availability of HN units.
- Consumption of bulk fuel.
- Requirement for petroleum quality surveillance.

ALLOCATION

Only one petroleum supply battalion is required per COSCOM to support a fully deployed corps. The battalion HHD is allocated per two to six petroleum supply companies and transportation medium truck companies (petroleum).

The COSCOM allocates petroleum supply companies on the basis of—

- One petroleum supply company per armor or mechanized division.

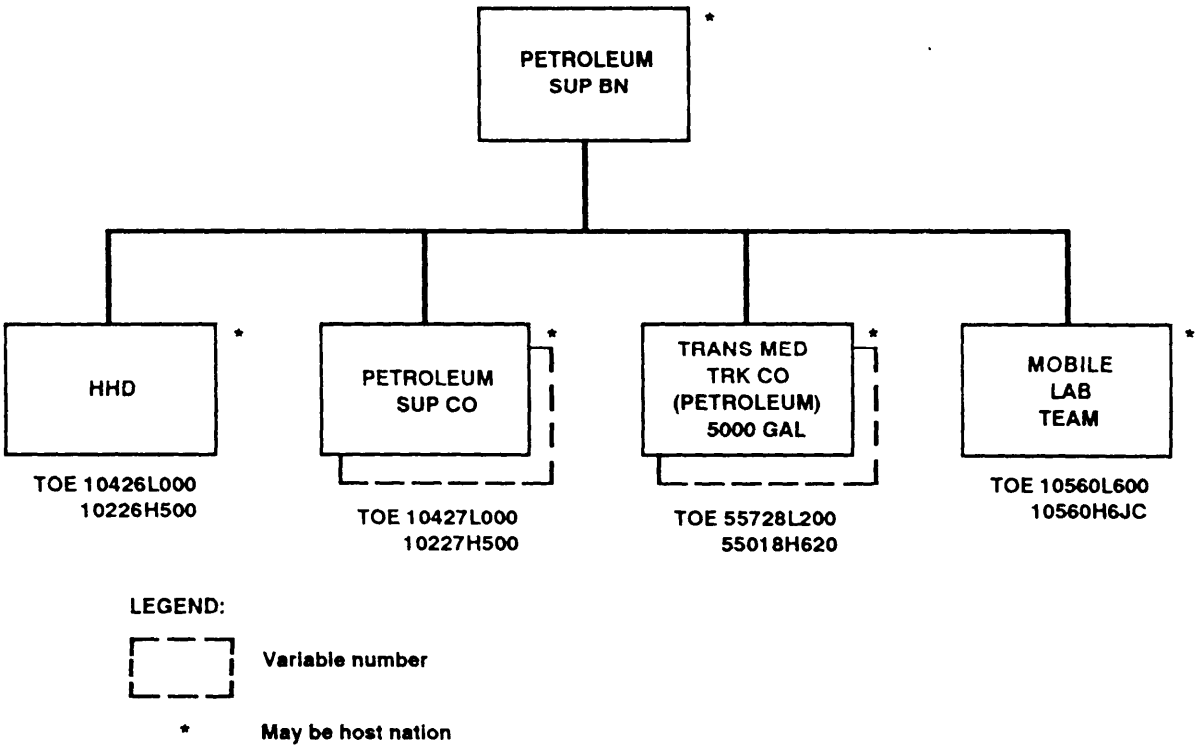


Figure 5-3. Petroleum supply battalion, variable organization.

- One petroleum supply company (TOE 10427L000) per two airborne, air assault, or infantry divisions or combinations thereof. A1-location of petroleum supply companies (TOE10227H500) is based on one company per 685,000 gallon daily requirement.

A petroleum supply company should not support more than one division slice of the corps. Allocation depends on the size of the corps reserve and daily consumption. For example, two or three petroleum supply companies may be needed to support the daily consumption requirements of a mechanized heavy corps.

The COSCOM allocates transportation medium truck companies (petroleum) per stated mission capabilities. Resupply routes to supported units may approximate 60 miles round trip, given two round trips per shift or four trips per day. Allocation needs to be modified to adjust to the corps commander's plan, priorities established by the CMMC's bulk fuel commodity managers, road conditions, and throughput distances.

The CMCC commits tractors assigned to transportation medium truck companies (petroleum) which are not supporting petroleum distribution requirements to other line haul transportation support missions.

If required, the COSCOM allocates a mobile petroleum laboratory team to a CSG. Requirements depend on—

- Testing requirements (accelerated in hot climates).
- Criticality of the fuel.

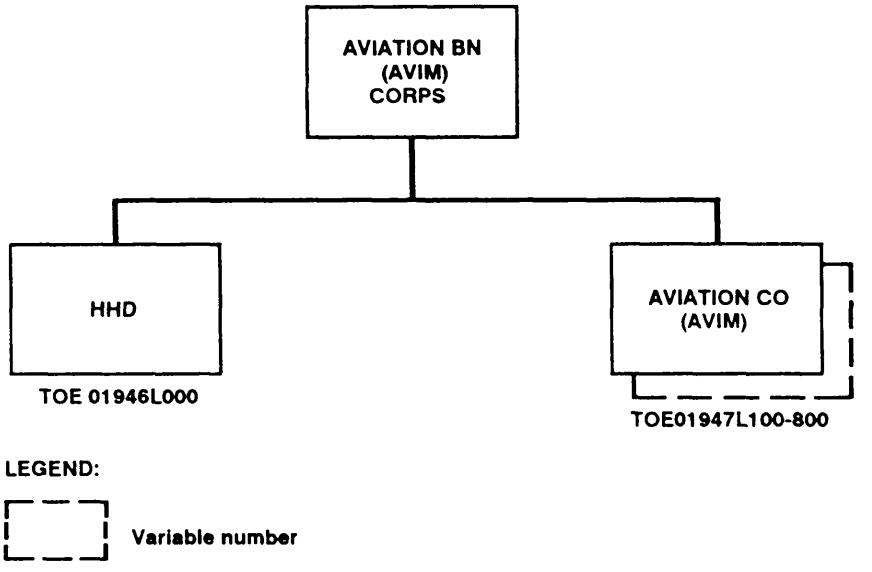


Figure 5-4. Aviation battalion (AVIM) organization.

- Intended use of the fuel.
- Type of theater (developed or undeveloped).

EMPLOYMENT

Units provide corpswide support. Subordinate petroleum supply companies and supporting truck companics (petroleum) normally employ in the rear of the corps rear area near a hard surface MSR on level, well-drained terrain. They often employ near a railhead or seaport.

For more information on employment, refer to the MTP for the battalion HHD and subordinate units; FMs 10-69, 10-70, 10-71, 10-72, 10-200, 10-427; and Chapter 8 of this manual.

AVIATION BATTALION (AVIM)

If the aircraft density in the corps area requires more than one AVIM unit, an aviation battalion (AVIM) is required. The battalion is then attached to the rear CSG.

MISSION

The HHD, Aviation Battalion (AVIM) (TOE 01946L000)—

- Provides command and control for attached units.
- Operates the battalion communications net, both wire and radio.
- Provides unit level maintenance of CE equipment for subordinate units.
- Provides staff planning, implementation, and execution in support of the battalion maintenance mission.
- Provides aviation maintenance and supply operations program direction to assigned, attached, or OPCON units.

- Provides unit level administration to the elements of the battalion.

ORGANIZATION

The AVIM battalion consists of a variable number of aviation companies (AVIM). Figure 5-4 depicts the battalion organization.

ALLOCATION

The COSCOM bases allocation on the density of aircraft supported. Allocation of AVIM units depends on the number of aircraft in the corps supported.

EMPLOYMENT

AVIM units support on an area basis. They provide AVIM and aviation repair parts support to nondivision units within the corps area. As necessary, AVIM units provide direct support to ACRs. When the work load for division AVIM units in the DSA becomes too great the work load is passed back to corps AVIM units. Heavy division AVIM platoons may passback 25 percent of their work load to the supporting corps AVIM unit. Even higher percentages of passback may require that corps AVIM units be augmented when tasked to support light infantry division units. The aviation battalion manages the cross-leveling of work loads between its AVIM units.

For more information on AVIM unit employment and AVIM management, refer to applicable MTPs, FM 1-500, and Chapter 9 of this manual.

TRANSPORTATION BATTALION

The COSCOM can attach a transportation battalion to the rear CSG. This battalion provides corpswide transportation support. It throughput GS supplies from the rear CSG to the division area and backs up movement of supplies from forward CSGs. The battalion supports evacuation missions. It also moves units, supporting division moves.

MISSION

The HHD, Transportation Motor Transport Battalion (TOE 55716L000)—

- Provides command supervision for three to eight transportation companies and attached supporting units.
- Supervises the operation of truck terminals, trailer transfer points, or a trailer relay system when required and augmented by motor transport teams.
- Receives and translates transport requirements from the supporting MCT or CMCC into specific vehicle commitments and assigns these commitments to subordinate truck units.
- Evaluates highway traffic circulation plans to determine best routing.
- Plans and schedules tasks for subordinate units to conform with the overall movements program and with operating requirements and capabilities.
- Provides unit maintenance on communications electronic equipment for attached units. It depends upon one of its attached companies for unit maintenance for wheeled vehicle and power generation equipment.

ORGANIZATION

Figure 5-5 depicts the variable organization of a transportation battalion. The battalion may consist of a mix of medium, combat HET companies, and cargo transfer companies. The battalion organization depends upon –

- Requirements for truck transport.
- Availability of HN truck companies or assets.
- Availability of other transport modes,
- Condition of road networks,
- Distances to supported units.

ALLOCATION

The basis of allocation for a transportation battalion HHD is one per three to eight subordinate motor transport operating companies or equivalent units. Allocation of subordinate units depends upon local and line-haul capabilities of truck units and requirements to operate terminals and transhipcargo.

EMPLOYMENT

Truck companies assigned to the transportation battalion provide support on a corpswide basis. Medium truck companies line-haul cargo from the rear of the corps rear area to the DSA/BSA. Combat HET companies haul tracked vehicles during relocation of a brigade task force. Cargo transfer companies transship cargo at arrival airfields, marshaling area, forward mode transfer points, and rail terminals.

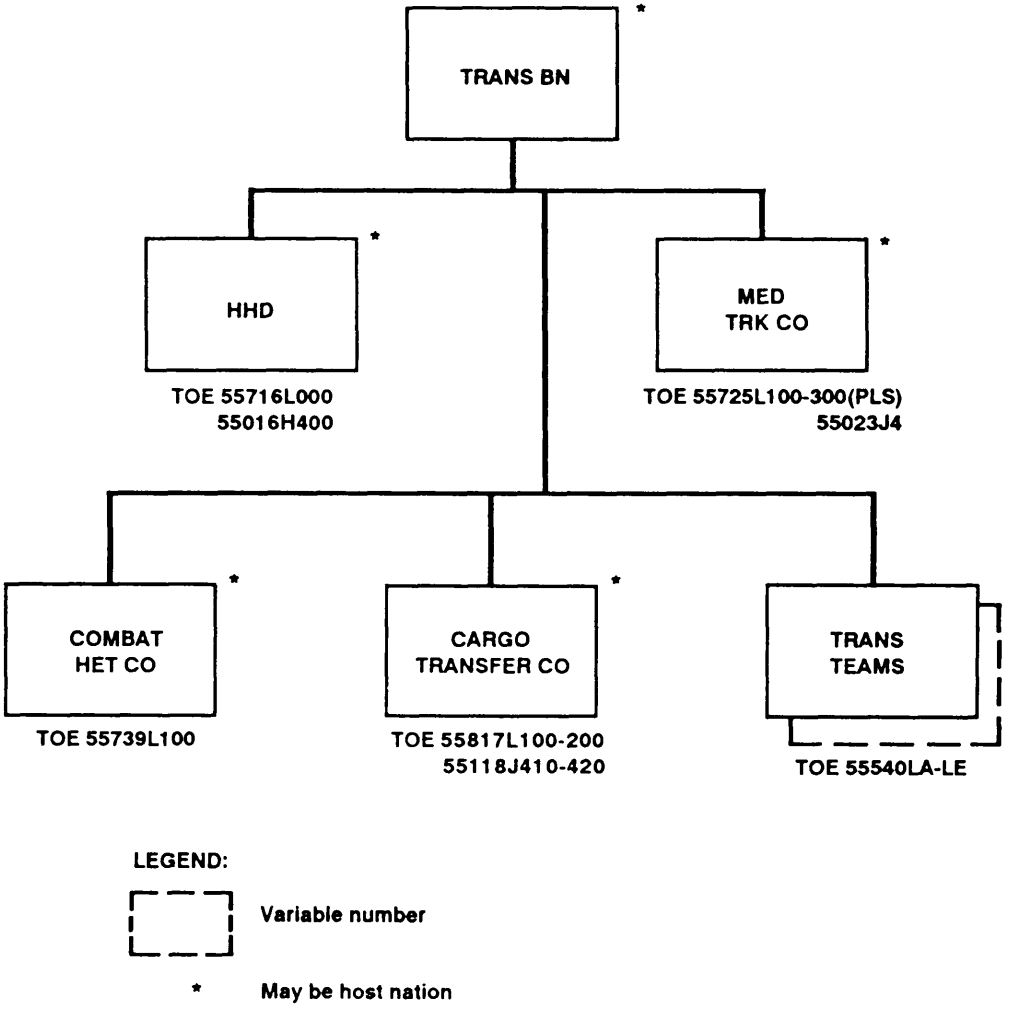


Figure 5-5. Transportation battalion, variable organization.

WATER SUPPLY BATTALION

To meet mission requirements for potable water in hot, arid environments, the COSCOM assigns or attaches a water supply battalion to the rear CSG. Subordinate units purify, store, and distribute potable water. For contingency operations, subordinate units can be attached to a forward CSG. For example, water purification detachments and teams can be attached to augment the water purification capability organic to DS supply companies.

MISSION

The HHD, Water Supply Battalion (TOE 10466L000) provides command, administrative, technical, and organizational control over two to six assigned or attached water supply companies or company equivalents engaged in providing potable water support. The battalion HHD –

- Plans and supervises the supply of potable water.

- Exercises control over the supply of potable water through the water supply branch.
- Provides technical and operational supervision for water purification, supply, and distribution.
- Plans, controls, and supervises battalion employment, deployment, security, and operations.
- Provides unit maintenance on organic communications equipment and communications-electronic equipment organic to assigned or attached units. A water supply company provides unit maintenance support for the battalion HHD.

ORGANIZATION

Figure 5-6 depicts the variable organization of a water supply battalion. The actual organization depends upon the—

- Climate and geographic area of employment.
- Size of the force to be supported.
- Number of troops supported.
- MOPP level and decontamination required.
- Theater shower policy.

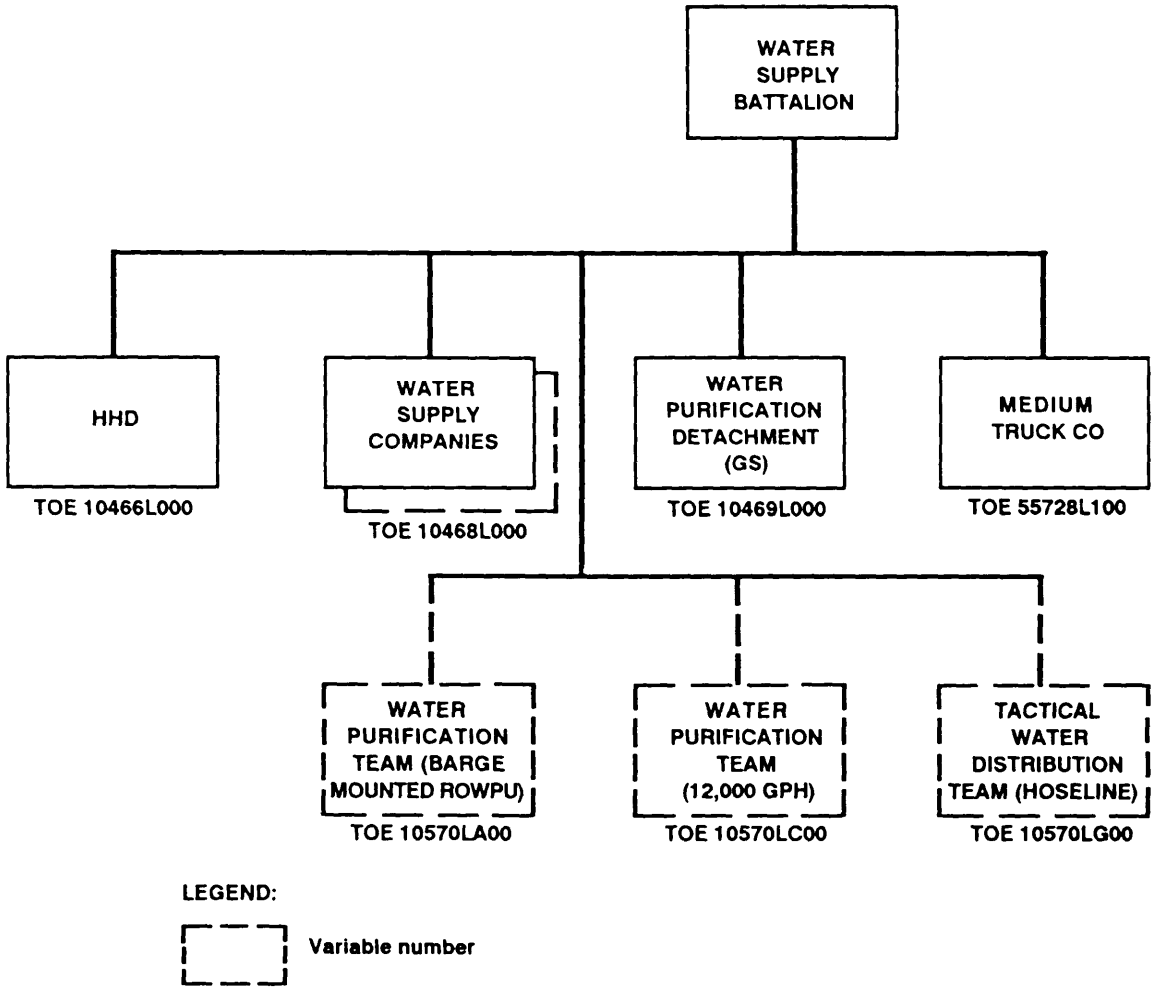


Figure 5-6. Water supply battalion, variable organization.

Water supply companies establish and operate up to eight DS water issue points in support of division and nondivision units in an arid environment. They set up 50,000-gallon collapsible water storage bags and operate tactical water distribution systems. Augmentation of TWDS (cams extends the TWDS to 80 miles.

Water purification detachments operate ROWPUs at up to five locations. A barge mounted ROWPU team produces potable water from salt or freshwater sources. Water purification teams operate four water points to produce potable water using a fresh water source.

Transportation medium truck companies transport potable water using 4,750-gallon fabric collapsible tanks mounted on semitrailers.

ALLOCATION

A water supply battalion HHD is allocated on the basis of one per two to six subordinate units required to provide potable water support. Allocation of subordinate units is based on TOE mission capabilities.

EMPLOYMENT

Though water purification detachments normally operate out of base terminals, they may locate near any large water source. TWDS and water storage distribution sets require special transport. Once base terminals, storage tank farms, and TWDS are emplaced, truck companies haul semitrailer mounted fabric tanks of potable water from corps area tank farms forward to division and brigade storage facilities. Supported units pick up water from storage and distribution points using tank trucks, water trailers, or 5-gallon water cans.

For more information, refer to FMs 10-52 and 10-52-1, Chapter 6 of this manual, and the MTPs for the battalion HHD and subordinate units.

CHAPTER 6

Sustaining the Soldier

Wars are fought and won by soldiers, not by machines. As in past battles, the human element may well decide the outcome of operations fought on future battlefields. Soldiers need to be fed, clothed, and provided individual equipment, shelter, and health and welfare items. The stress of modern warfare and the probability of continuous operations on a contaminated battlefield make it imperative that leaders focus on field services and maintaining the health, morale, welfare, and combat capability of their soldiers.

CONTENTS

BASE SUPPORT

In those areas of the world in which the Army maintains a forward presence, base support is a mission which is performed in peacetime and which continues during hostilities. If required, a base support battalion maybe attached to the rear CSG or to an ASG to provide or coordinate base support missions in support of forward deployed forces. The BSB headquarters (TOE 63636L000) provides the C2 and coordination focus for planning and conducting NEO. The BSB coordinates and supports the reception and stationing of deploying, reinforcing, and relocating units.

NONCOMBATANT EVACUATION OPERATIONS

In theaters where forces are forward-deployed, noncombatants need to be evacuated before or as hostilities begin. Noncombatants include military dependents and US government employees. NEO relieve forward-deployed soldiers of worrying about their families at the onset of hostilities.

BSB headquarters personnel maintain administrative rosters and evacuation schedules and route plans for US government sponsored citizen evacuees located within or relocated to the BSB's area of responsibility. They execute the NEO notification plan, coordinate the assembly of noncombatants, and maintain accountability of noncombatants. With minimal assistance from personnel from designated units, the BSB provides or arranges for—

- Food, housing and logistics support of noncombatants.
- Community service support.
- Health service support.
- HN vehicular assets.
- Evacuee security and protection.
- Movement of evacuees to designated theater transfer points.
- Storage and transportation of evacuee property.

DEPLOYMENT SUPPORT

The BSB provides deployment support to units located within the BSB's AO deploying out of post or station areas. It organizes and coordinates mutual assistance efforts of later deploying units, augmenting the support provided by other CSS units. The BSB may provide laundry, mail, fuel, OCIE, MP, communications, maintenance, and transportation support. Other deployment support may include—

- Deployment route coordination.
- Traffic control support.
- Installation security support.
- Deploying unit facility turnover and inventory functions.
- Securing essential facilities and supplies.
- Coordinating and executing the phase-down.
- Processing military surplus or abandoned equipment and supplies.
- Close-out or conversion of community service.

RECEPTION SUPPORT

The BSB provides reception support to soldiers of reinforcing or relocating forces. Battalion personnel coordinate the use of base facilities and base support services. They provide HN liaison or liaison assistance to reinforcing forces. They also provide forward staging area support of transient units during personnel and equipment link-up periods.

As part of its reception support mission, the BSB could set up a force provider complex of sleeping, hygiene, eating, and morale/welfare facilities. The force provider complex can be set-up, operated, and maintained by a staff augmented by temporary duty personnel or local hire.

BARRIERS AND PROTECTIVE FIGHTING POSITIONS

All units require barrier and fortification materials to counter enemy advances and to prepare individual and crew fighting and protective positions.

BARRIER AND FORTIFICATION MATERIALS

Barrier materials help to delay, channel, or stop offensive movement by the enemy. Fortification materials enable corps forces to prepare protective fighting positions and protective shelters. They help our forces to reduce or avoid the effects of enemy weapon systems.

Proposed barrier plans and requirements need to be coordinated with the COSCOM support operations officer and CMCC as far in advance as possible. A preconfigured unit load of barrier material has been developed to facilitate throughput to engineer units supporting the division barrier plan. Corps engineers in the division sector coordinate requirements with the CSG LO at the DISCOM or the CSB LO at the FSBs. LOs assist with distribution coordination.

CONSTRUCTION MATERIAL

Engineers may require construction materials initially to repair or build airstrips, landing zones, or low altitude parachute extraction system sites. Subsequent priorities may be to expedite the forward movement of combat resources by repairing or constructing combat roads and trails.

SOURCES OF BARRIER FORTIFICATION, AND CONSTRUCTION MATERIAL

- DS Supply Company (TOE 42447L000). Attached to a CSB, each DS supply company can receive, store, and issue 29.65 STONs of Class IV items daily. Generally, only limited quantities of certain Class IV items are stored at DS level. Some examples include sandbags, barbed wire, concertina wire, and stakes.
- GS Supply Company (TOE 42418L000). Attached to either a S&S battalion or a forward CSG's CSB, this company can receive, store, and issue 212 STONs of bridging equipment and fortification and construction supplies daily. Preconfigured barrier packages and most Class IV items are stored at the GS level.
- Local Purchase. Local purchase of barrier and construction material reduces requirements placed on distribution systems. CSG HNS branch personnel and contracting staff coordinate purchase requirements with the COSCOM procurement branch and CA elements and HN agencies.

DISTRIBUTION OF BARRIER AND FORTIFICATION MATERIAL

Figure 6-1 depicts the distribution of barrier and fortification material. GS supply companies replenish stocks issued by DS supply companies. GS and DS supply companies coordinate issue schedules with the

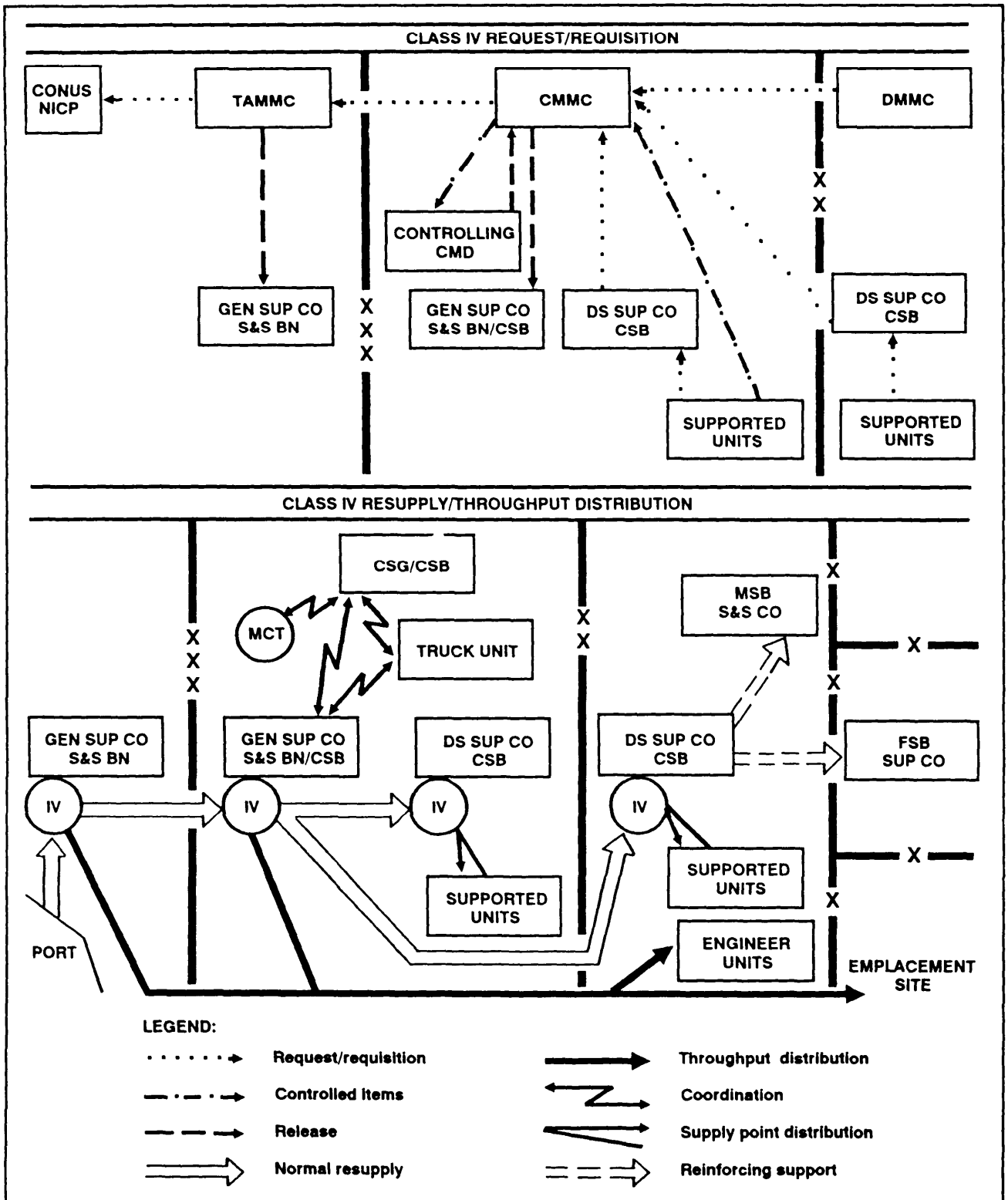


Figure 6-1. Requisition and distribution flow for Class IV barrier, fortification, and construction materials.

supporting MCT and truck units. S&S battalion staff officers assist subordinate GS supply companies by coordinating with CSG and COSCOM staff for MHE to load bridging or heavy equipment on HETs or rail carriers.

Delivery as close to the barrier sites as possible minimizes handling and facilitates rapid installation of barriers. Whenever possible, truck units throughput barrier and fortification material as far forward as the emplacement site. Large users, such as engineer units, obtain ammunition barrier items at designated ATPs or ASPs.

Other users pick up common usage barrier and fortification supplies at their supporting Class II, IV, and VII supply point. CTA 50-970 authorizes basis of issue allowances. CSG/CSB support operations supply personnel advise supported units of available materials which may be substituted for items not in stock.

CONTROLLED ITEMS

Commands may place barrier and bridging materials under controls not applied to other classes of supply. They are often placed on regulated or command-controlled lists. For example, certain stocks can be reserved to support barrier requirements of forward deployed forces for the first days of war. Other Class IV stocks can be reserved to support forces projected from CONUS to bare base environments.

CSG and battalion supply staff officers need to ensure that subordinate units remain aware of which items are on regulated or command-controlled lists. They notify subordinate units when items are placed on controlled lists. CSG supply staff officers check on the quantity of controlled items on hand during their periodic staff visits to supply sites.

Requests for command controlled items flow through channels to the commander who placed the items on the list. Only the commander who initiated the list can approve the request or take the items off the list. The CMMC can then direct issue from a GS or DS supply unit.

RATIONS

Army policy is that soldiers be provided three quality meals per day. DS supply units issue MREs and T Ration meals until conditions become stable enough to introduce B or A Ration components. The Surgeon General has approved continuous feeding of MREs for up to 10 days without ration supplement. Fresh fruit and vegetables need to be provided as soon as feasible.

FIELD FEEDING

Supported unit commanders decide which type of ration is best suited, based on unit mission, tactical operations, and relocation requirements. The administrative/logistics plan sets the ration cycle. If group meals (T, B, or A Ration meals) cannot be served because of heavy or moderate levels of commitment, the combat ration becomes the primary ration. For example, MREs are used when the levels of combat become intense or unit activity precludes the use of a prepared group ration. MREs support soldiers in transit, in movement to contact, or in convoy.

Supported units in the corps rear area may transition to B and A Rations earlier than indicated in the Army wartime feeding plan by using peacetime operating stocks. These include TISA stocks, DLA wholesale stocks, or commissary resale stocks. Allied nations normally provide their own subsistence support.

To support feeding of A Ration meals, the support operations officer needs to arrange for ice and refrigeration containers and additional materiel handling personnel at Class I break points. Possible sources for ice and refrigeration assets include the HN, designated commercial sources, logistics civil augmentation program, or engineer constructed ice facilities. In the absence of veterinary personnel, medical and field sanitation personnel may have to inspect ice to ensure that it is safe for consumption.

When possible, rations need to be supplemented with food items obtained by local purchase. CSG procurement personnel process local procurement requests.

SUPPORT REQUIREMENTS

The type and quantity of rations required depend on personnel strength, unit locations, the type of operations, and field feeding capabilities. Strength reports serve as the basis for computing requirements for Class I supplies. The CSG subsistence supply supervisor totals authorized TOE strength data to determine the quantities needed at the start of hostilities.

Initial stockage should cover surges in the number of troops supported, including expected number of medical RTD soldiers from DS replacement companies. Actual strength data, available from SIDPERS reports, are

used to determine actual support requirements. Actual subsisted strength data can also be used to help compute the stockage for subordinate Class I points.

SUPPORTING UNITS

The following units may be attached to a CSG—

- Quartermaster Supply Company, Direct Support (TOE 4247L000), which can receive and issue 39.91 STONs of Class I stocks each day.
- QM Supply Company, General Support (TOE 42418L000), which can receive, store, and issue 117 STONs of Class I stocks per day. It can also maintain approximately 150 line items of nonperishable Class I items.

CLASS I DISTRIBUTION SYSTEM

If possible, rations are prepositioned in the theater to provide support at the outbreak of hostilities. Initially, GS supply units push Class I supplies forward, based upon authorized strength data and the wartime feeding plan. Transition to a pull system, wherein supported units submit requests to subordinate DS supply units, takes place as soon as tactically feasible and actual strength figures appear in personnel status reports. Maximum use of HNS is desired for Class I receipt, storage, and issue functions in the corps rear area.

Figure 6-2 depicts Class I requisition and distribution flow. FM 10-60 describes the Class I distribution system,

Requisition

Units submit requests for rations and ration supplement sundries packs to their supporting Class I point. FM 10-23 prescribes request procedures.

Class I point personnel consolidate and compute total ration requirements. As appropriate, they prepare and forward requisitions to the DMMC or CMMC for rations not available for issue by the Class I point. If the CMMC cannot fill the requisition from within the corps, the CMMC transmits the requisitions to the TAMMC.

Distribution

The CMMC directs subordinate GS supply units to issue rations to DS supply units. GS supply units request transportation from the supporting MCT to haul rations to DS supply units. GSUs break down rations, complete issue documents, and send the rations to DS supply unit distribution points.

Supported units pick up rations at their supporting DS supply unit Class I point. Corps forces in the brigade area may receive support at a forward logistics element or from the forward Class I point of an FSB supply company. When they move to another division area, they obtain support from the forward Class I point of the FSB responsible for that area. As required, the forward CSB provides reinforcing support. Corps organizations employed in the division rear area may pickup supplies at the MSB main Class I point. The forward CSB/CSG LO at the FSB or DISCOM coordinates support to corps forces.

RESPONSIBILITIES

CSG Responsibilities

CSG S&S branch personnel assist in planning and coordinating the subsistence supply, storage, and distribution operations of subordinate elements. S&S branch personnel also—

- Establish liaison with supported units.
- Advise on Class I storage and distribution operations.
- Recommend additional ration break capability to support increased B and A Ration feeding.
- Monitor standard B medical rations to ensure that they are issued only for hospital patients.
- Disseminate distribution instructions for use of captured subsistence.
- Inform units of local requirements relative to trash disposal.
- Coordinate through the CMMC subsistence branch for veterinary inspection service teams to inspect locally procured items and inspect contaminated subsistence at subordinate Class I points.
- Arrange for the contracting management officer to purchase ice and local food items to supplement MREs and operational rations. Veterinary service teams inspect all locally procured food items (milk, bread, fruits, and vegetables).

Subordinate Battalion Responsibilities

Subordinate battalion S4s—

- Monitor replenishment of subordinate unit basic ration loads.
- Monitor subordinate unit food preparation and sanitation.
- Ensure that units follow AR 30-1 in accounting for rations.

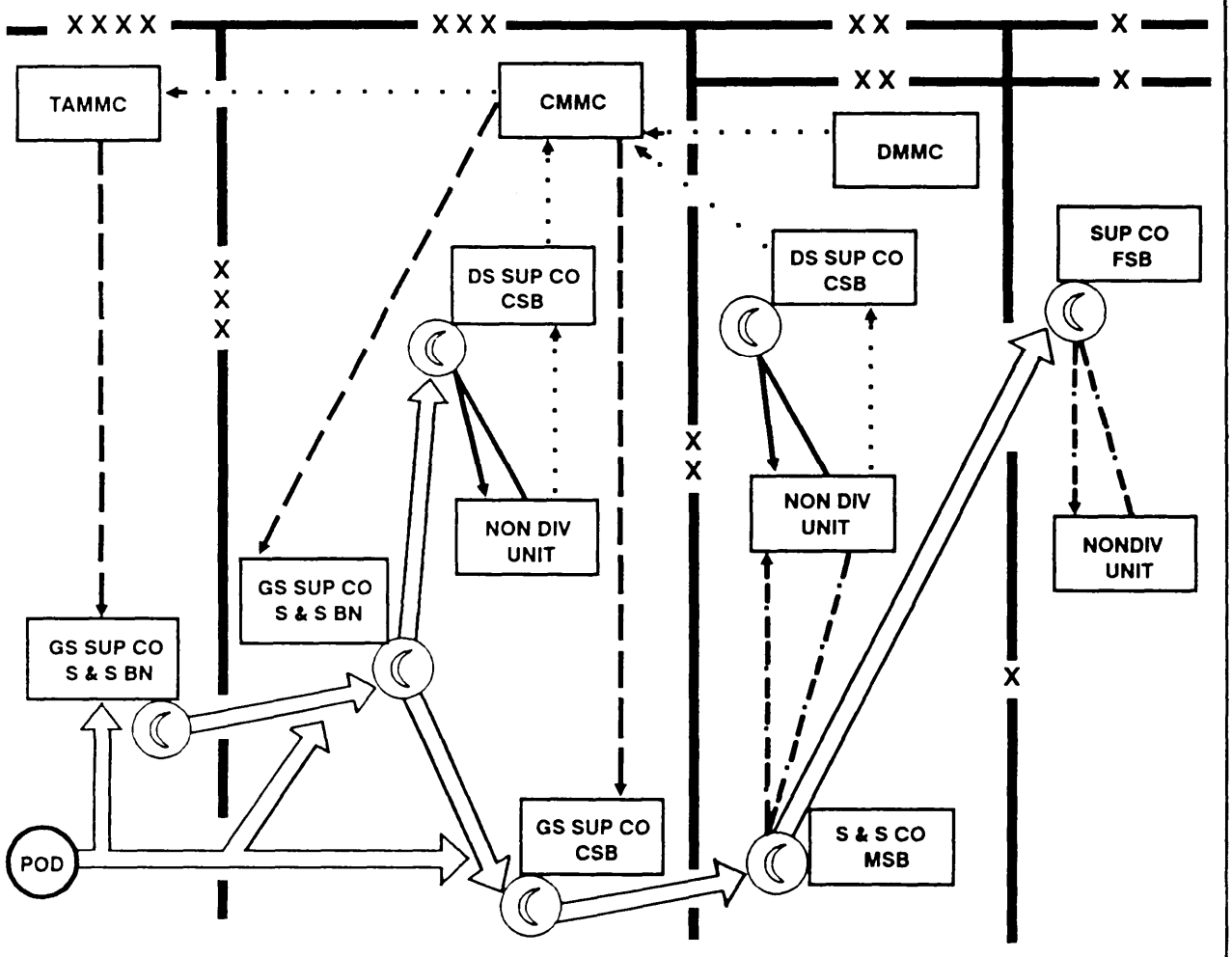


Figure 6-2. Class I requisition and distribution flow.

NBC CONCERNS

Storage

Subsistence item packaging provides some protection against liquid and vapor agents. Supplies in open storage need to be covered with NBC protective covers, tarpaulins, heavy plastic sheeting, or other available covering. Coverings reduce contamination from liquid agents and radioactive fallout. Earth cover protects against nuclear contamination, chemical liquids, and aerosols. Storing subsistence in buildings, basements, tunnels, refrigerated warehouses, or trailers provides additional protection.

Decontamination

FM 3-5 lists subsistence decontamination methods. Veterinary service teams inspect food that has been exposed to contamination. They decide how to decontaminate or dispose of contaminated food in coordination with NBC unit personnel.

BAKERY PRODUCTS

Fresh bread or bread-like products serve as essential components of T, B, and A Ration meals. During the transition to war, fresh bread requirements maybe filled initially by existing AAFES baked goods, then by the HN or designated commercial source. Pouch bread can supplement MREs and group rations until fresh bread or bread products can be procured from commercial vendors or prepared by field bakery teams.

SUPPORTING UNITS

In a developed theater, bakery products are prepared by a bakery team (TOE 42518LA) augmenting a GS supply company. Bread is transported to a DS supply company Class I point for issue to supported units. The GS supply company coordinatestransportation requirements with the MCT in its area. The MCT coordinates with the Class I point to ensure that it can receive the bread.

RESPONSIBILITIES

CSG Responsibilities

The CSG's supply and field services personnel—

- Review the adequacy of the quantity of bread baked.
- Coordinate with the HN, when required, to augment fresh bread support.
- Coordinate local procurement of bread.
- Request veterinary service team inspection of locally procured bakery products.

Subordinate Battalion Responsibilities

As applicable, CSB or S&S battalion staff personnel—

- Select the general operating site for the field bakery.
- Review replenishment requests for bread ingredients.
- Recompute bread support requirements.
- Coordinate potable water support.
- Inspect the way baked bread is stored.
- Inspect field sanitation facilities.
- Ensure that bread remains protected during transport.

NBC CONCERN

Field bakeries will not operate in areas where known NBC hazards exist.

WATER

Troop health, welfare, and morale depend on a safe water supply. In hot, arid environments, water shortages limit a soldier’s ability to accomplish mission tasks. Under severe heat conditions, water shortages can result in heat strokes and an incapacity to perform any work.

SUPPORT REQUIREMENT

The type of environment directly affects water requirements. Other factors which affect water requirements include—

- Type of battlefield and requirement for decontamination.
- Expected duration of operations.
- Troop density.
- Expected number of replacements and medically RTD soldiers.
- Equipment density.
- Theater command policy on ration type.
- Policy on frequency of showers and provision of laundry support.

- Medical treatment requirements.
- Chemical decontamination.
- Engineer construction requirements.
- Mortuary affairs requirements.

FM 10-52 provides water consumption planning factor tables. Local water requirements can be projected more accurately from data reported on water point daily production and distribution summaries.

SUPPORT PRIORITY

At times, command decisions may be needed to determine the best use of available water. First priority must be survival of the force and accomplishment of the immediate mission. Priorities for use include—

- Personnel drinking water.
- Mission essential decontamination.
- Other personnel uses – medical treatment, food preparation, and personnel hygiene.
- Vehicle and equipment cooling systems.
- Laundry.
- Construction.

SUPPORTING UNITS

In nonarid regions, subordinate water producing elements may include—

- DS Supply Companies (TOE 42447 L000) which produce potable water and treat NBC contaminated water. These companies provide water support on an area basis for nondivison forces. Based on the requirement to support corps organizations in the brigade area, forward CSGs could attach personnel and equipment from the water section to operate a water point at a forward logistics element in the BSA. This company can augment the capability of MSB water elements attached to the FSB supply company to provide potable water or treat NBC contaminated water. Refer to Figure 6-3.
- QM Water Purification Teams (TOE 10570L000) and QM Water Purification Detachments (TOE 10469L000) which operate the 3,000-gph ROWPU. These purification elements can be used collectively in one site, or individually at remote locations. They can purify both fresh and sea water, but have limited storage capability.

In arid regions, subordinate water storage and distribution elements may include –

- Water Supply Companies, DS/GS (TOE 10468L000) which establish and operate two tactical water distribution systems, operate up to eight DS issue points in support of divisional and nondivision units, and establish temporary collapsible bulk water storage facilities. Refer to Figure 6-4,
- Water support teams which may be attached to provide potable water and augment bulk distribution capabilities.

FM 10-115 and appropriate MTPs describe the mission operations of water units and teams.

RESPONSIBILITIES

CSG Staff Responsibilities

The CSG's subsistence supply supervisor and water treatment supervisor, under the supervision of the supply and services officer (petroleum supply officer in arid regions) –

- Provide technical advice and assistance on water purification, supply, and distribution.
- Project water requirements.
- Coordinate water support activities with the COSCOM troop support branch and the CMMC's Troop Support Materiel Division's Subsistence Branch and Petroleum Division. (See FM 54-23 for a description of the CMMC's areas of responsibility.)
- Monitor water distribution schedules.
- Recommend that supported customer lists be changed to agree with changing priorities and tactical situations.
- Coordinate quality control surveillance.
- Establish liaison with preventive medical staff personnel and the command surgeon relative to bacteria content in water and the degree of treatment required.
- Coordinates the location of subsurface water sources and well construction with engineer units.
- Coordinates with the MCT for special transport required for TWDS and delivery of water to water points.
- Performs staff site visits.

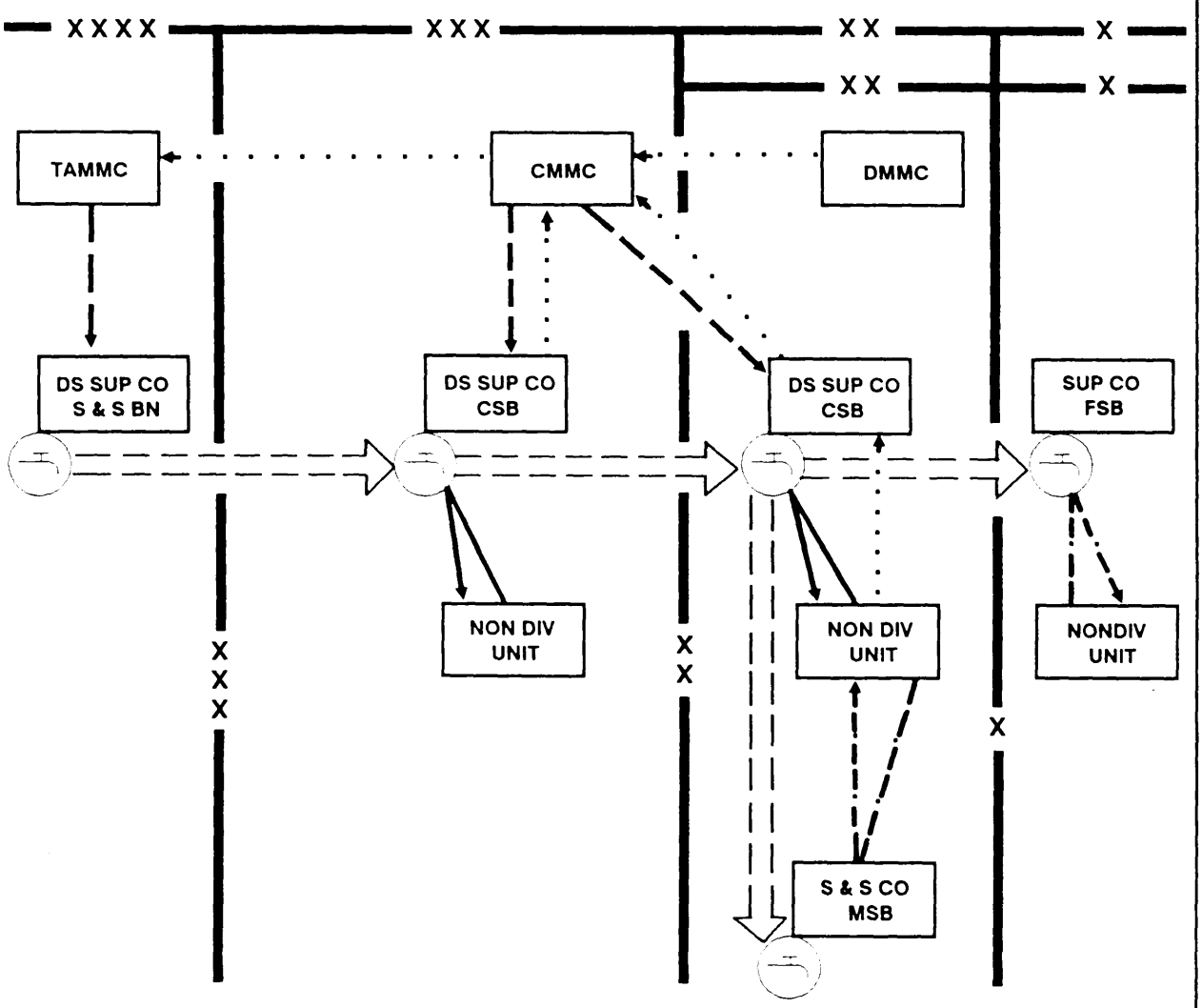


Figure 6-3. Water support in nonarid regions.

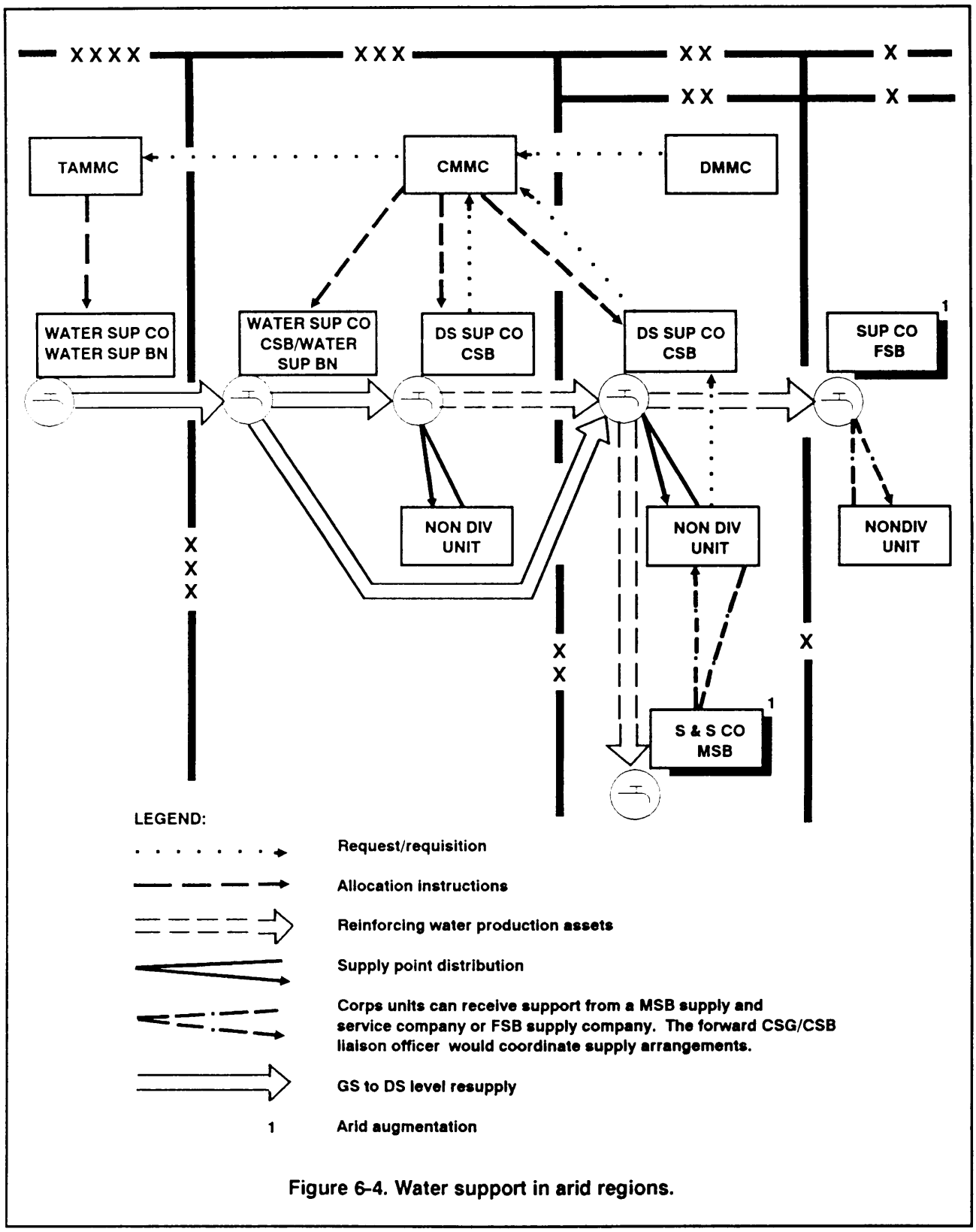


Figure 6-4. Water support in arid regions.

- Investigates discrepancies between the amount of water pumped and the amount received.
- Ensures that water purification waste water and waste chemicals are isolated from operational areas and disposed of in approved dumps.
- Develops a water conservation program.
- Specifies reporting procedures for subordinate units.

Subordinate Battalion Responsibilities

Subsistence staff personnel assigned to subordinate battalions perform the following water superv - sory tasks:

- Select the general operating area for water points, TWDS, hose line, and distribution points.
- Monitor daily requirements and available storage space.
- Develop water consumption graphs to project consumption and deliveries.
- Consolidate and transmit stock status reports to the CSG support operations section and CMMC.
- Review water distribution schedules.
- Ensure that an adequate supply of chemicals is available for water purification.
- Identify sources of potential contamination and deterioration of water.
- Manage the quality surveillance program and monitor sampling and testing procedures for potable water supply.

NBC CONCERNS

Since decontamination of personnel and equipment requires large quantities of water, requirements for water increase dramatically on a nuclear or chemical battlefield. Safe drinking water needs to be available to offset dehydration and heat casualties which result from wearing MOPP gear.

The area's water supply can be contaminated by NBC agents. FM 3-5 lists water decontamination methods. FM 10-52 lists contamination detection and treatment procedures.

CLOTHING, INDIVIDUAL EQUIPMENT, AND SHELTER

Soldiers need to be provided clothing, personal gear, and MOPP gear as well as tentage for shelter. OCIE is required for replacements, return to duty personnel, medical patients, contractors, reporters, essential civilians, EPWs, local nationals, and NEO family members. A subsequent section covers clothing provided through CEB elements.

SUPPORT REQUIREMENTS

Requirements for clothing, individual equipment, and shelter items depend on operations in seven climatic zones. CTAs 50-900, 50-909, and 50-970 list basis of issue allowances.

Clothing allowances for contingency plans and mobilization conform to that shown in the mobilization column of CTA 50-900. The theater of operation or contingency force commander designates which items in that column are to be worn or carried and which are transported. This decision affects load plans prepared by S4s.

CTA 50-970 lists initial issue and initial stockage levels for expendable and durable items. Replenishment quantities depend on demands and anticipated requirements.

SUPPORTING UNITS AND TEAMS

Supporting units and teams include the –

- DS supply company (TOE 42447L000), which can provide 33.95 STONs of Class II items per day in support of 18,500 nondivi - sion soldiers. When employed in the division area or behind the division boundary, stocks from this company can augment the ability of an FSB supply company to support nondivision forces in the brigade area.
- GS supply company (TOE 42418L000), which can provide 101 STONs of Class II items per day.
- Quartermaster renovation teams (TOE 1053 OLA-LC) and canvas and webbing repair teams (TOE 42560 LA-LE), which augment field services companies to repair clothing, canvas, and web items.
- Replacement companies (TOE 1256033F), which provide replacements and medically

RTD soldiers released from Level III and IV medical treatment facilities with clothing and equipment.

RESPONSIBILITIES

The CSG's supply and field services personnel—

- Monitor demand satisfaction and customer wait time.
- Monitor MOPP gear stocks and establish priorities for issue.
- Publish a repair policy on cost effectiveness of textile repairs.

NBC CONCERNS

Class II includes NBC-related items. Protective clothing and filters may be in high demand. DS supply units expedite issue through the use of preconfigured push packages. The CSG supply and field services operations officer and NBC officer provide advice and assist subordinate DS supply units in planning push package support.

Storage techniques offer limited protection from nuclear blast and thermal effects. FM 3-5 lists decontamination methods for removing chemical, biological, and nuclear agents from clothing and textile items.

HEALTH AND COMFORT ITEMS

Health and comfort items allow soldiers to maintain personal hygiene. They also help relieve the stress of soldiers subjected to continuous operations. A few health and comfort items maybe issued when soldiers report to a reception station. Initially, health and comfort items may be limited to those items which soldiers carry with them. Initial requirements are met with bulk Class VI supplies until sundries packs can be provided. Sales teams provide another source until AAFES provides an exchange service. Depending on the area of operations, many personal demand items can be purchased through HN or contract support.

SUNDRIES PACKS

Ration supplement sundries packs contain the hygiene and comfort items authorized by AR 700-23. Sundries packs are designed to support 100 soldiers for 30 days. A supplement containing health and comfort items for female soldiers supports 25 female soldiers for 30 days. Sundries packs are issued with Class I rations.

The CSG support operations officer confers with COSCOM troop support branch Class I staff on initial and follow-on requirements. The CSG/CSB LO at the DISCOM or FSB alerts CSG supply and service staff of requirements to augment stocks of sundries packs at forward and main Class I points. FSBs and the MSB can then provide sufficient sundries packs to corps forces operating in the brigade and division areas.

COSCOM troop support branch personnel coordinate with AAFES representatives to ensure that an interim supply of health and comfort items is available to support troops until the supply system adjusts to demands.

Until PX support can be provided, units request sundries packs using DA Form 2058-R. Supporting Class I points issue sundries packs with Class I items on DA Form 3294-R.

EXCHANGE SERVICE

In the early stages of war, stocks in PXs in the COMMZ and corps area are turned over to the theater supply system. Until AAFES provides an exchange service, the corps G1 has responsibility for exchange operations manned by military personnel.

SALES TEAMS

When health, comfort, and personal demand items cannot be obtained by AAFES exchange, sales teams BP and BQ (TOE 2951 OH) may be authorized. These teams may be attached to a CSB DS supply company or field services company.

Sales team BQ can provide once-a-week retail sale of personal demand items for up to 10,950 soldiers. Light-medium truck units provide trucks to move supplies to the sale sites. Work details need to be available to load and unload supplies.

RESPONSIBILITIES

CSG supply staff coordinates requests for exchange service with COSCOM troop support branch staff. The supporting MCT coordinates transportation support. Since exchange items remain highly subject to pilferage, battalion S4s arrange storage security.

CLOTHING EXCHANGE AND BATH

CEB helps maintain soldier health, morale, comfort, and welfare. These services are provided as soon as the tactical situation permits.

CEB points set up either in the supported unit's area or in a location central to several units. Clothing exchange is normally provided at bath points or decontamination facilities. CEB teams can also provide delousing services. When possible, HNs provide CEB functions in the corps rear area.

POLICY

For hygienic and morale purposes, CSG supporting units should attempt to meet the Surgeon General's directive of a bath and exchange of clothing at least once a week for each soldier. Battalion S4s schedule unit rotation with the CSB's supply and field services officer to meet this requirement. Supported units provide ration, water, and fuel support to CEB teams. They also provide detail personnel to assist in the setup, operation, and breakdown of shower equipment.

SUPPORT PRIORITY

Operation orders establish CEB priority, based on the tactical situation and mission support tasking. Normally, priority of support is as follows:

- Personnel decontamination stations. (CEB teams can set up a personnel decontamination station upon direction of the CSG headquarters.)
- Hospitals.
- Rest areas and troop staging areas.
- Troop units.

SUPPORTING UNITS

Field Services Companies, DS (TOE 42414L000), provide CEB support on an area basis to division as well as nondivision soldiers. Augmentation CEB platoons (TOE 42507 LB) can offset the CEB capability lost when S&S companies transition to DS supply companies.

FM 10-280 covers CEB support operations, to include setup, processing, delousing, and displacement of the CEB point. Appendix A of that FM provides a sample SOP for CEB elements. If units become responsible for providing bath and clothing exchanges, the supporting DS supply unit provides appropriate supplies to the unit.

RESPONSIBILITIES

CSG Responsibilities

The CSG's supply and field services personnel oversee the CEB support provided by field services units. They—

- Provide technical expertise on CEB.
- Recommend changes to supported unit lists.
- Coordinate CEB site locations with the sector RAOC.
- Coordinate CEB site location with the CSG/CSB LO in the DISCOM and FSB, as appropriate.
- Coordinate with water supply unit staff to ensure that a source of water exists for bath points.
- Arrange for medical personnel to test the water.
- Coordinate with engineers to construct soakage pits for waste water.

  Coordinate bath requirements with CSG HNS branch personnel and the HN or contractor, if required.

Subordinate Battalion Responsibilities

The CSB's supply and field services officer –

- Recommends the general field site area.
- Determines the availability of water to support CEB operations in the CSB's geographic area.
- Notifies supported units of CEB location, operation times, and unit requirements to provide guards for personnel effects at dressing stations.
- Passes down orders and information on changes in bath schedules.
- Arranges for CEB personnel to subsist with the supported unit, if necessary.
- Ensures that a prescribed stock of clothing exists for emergency replacement of contaminated items.
- Submits support statistics to the CSG support operations section.
- Ensures that waste water runoff has been disposed of following Army policy and local requirements

NBC CONCERNS

At the bath point, contaminated soldiers are separated from noncontaminated personnel. Contaminated soldiers decontaminate themselves following

procedures in FMs 3-5 and 10-280. Bath water needs to be monitored for contamination. Towels and conventional clothing are taken to the nearest field laundry to be decontaminated.

LAUNDRY AND RENOVATION

Field laundry and renovation aid in maintaining soldier health, comfort, and morale. These secondary field services are provided as soon as the tactical situation permits. Field services units provide these services on an area or mission support basis.

FIELD LAUNDRY

Field laundries normally employ in the rear of the corps area to reduce battlefield clutter in forward areas. HNS may also provide laundry services in the corps rear area.

FM 10-280 describes mobile field laundry operations, to include field setup, laundry supplies and records, laundry processing, and operations in an NBC environment. FM 10-27-2 describes DS laundry elements.

Laundered serviceable clothing is returned to supported organizations. Clothing washed in support of CEB operations is returned to stocks within the field services company.

RENOVATION

Renovation services support CTA 50-900 clothing and equipment, military clothing, and lightweight washable textiles. Renovation services include sewing, patching, and darning individual equipment (such as sleeping bags, shelter halves, and blankets). They also include attaching buttons, zippers, and snaps to field packs, pistol belts, and load carrying slings. FM 10-267 covers general repair of clothing and textiles. FM 10-27-2 covers supporting unit operations.

SUPPORTING UNITS

Though HNs may provide laundry and renovation services in built-up countries, Army units provide these services in many contingency areas.

Field Services, DS Companies (TOE 42414L000), can launder 7.2 pounds of laundry per soldier per week in support of approximately 18,500 troops. They support organizational laundry and CEB laundry requirements,

RESPONSIBILITIES

CSG Responsibilities

The CSG's supply and field services personnel—

- Provide technical expertise to subordinate units.
- Reduce service so that field service unit personnel can help supply unit personnel meet priority support surges.
- Coordinate with CSG HNS branch personnel and the HN element or designated contractors for laundry support, if such support exists in the theater.
- Coordinate laundry supply requirements with the CSG's procurement personnel and CA teams, if required.
- Coordinate with engineer units to ensure that a source of water exists for laundry support operations.
- Arrange for medical corps personnel to test water.
- Cross-level work load from supporting laundry element to help reduce backlogs resulting from laundry equipment failures.

Subordinate Battalion Responsibilities

The CSB's supply and field services personnel –

- Recommend the general laundry field site in the CSB's AO, after assuring that water requirements can be met.
- Arrange for shipment of water to laundry sites, if an adequate supply does not exist.
- Ensure that field laundry sites set up downstream from water points, as required for sanitation.
- Notify supported units in the CSB's AO when unit details are needed to help setup tents and laundry equipment.
- Arrange for mobile laundry personnel to subsist with supported units.
- Submit data on laundry work loads and backlogs to the CSG support operations section.

SUPPORT CONCERNS

The following concerns occur with laundry and renovation support—

- The support operations officer needs to obtain permission from HNs or higher headquarters to use soakage pits. His staff ensures that units follow environmental restrictions.

- An adequate water supply needs to be available, since a laundry section uses about 500 gallons of water an hour. The CSB laundry NCO needs to arrange for shipment of water to support operations. Collapsible fabric drums can be used in lieu of water trailers to support the need for water.
- Mobile field laundry personnel require subsistence and billeting support from supported units. The CSB's S4 officer arranges for this support.

NBC CONCERNS

Laundering provides the primary method for removing contamination from clothing and textiles. Field laundries set up a separate receiving and storage area for contaminated clothing. Laundry transported through a contaminated area needs to be monitored for contamination. FM 10-280 specifies laundry formulas and decontamination procedures.

Heavily contaminated items need to be burned or buried. However, burning contaminated laundry could create a possible downwind vapor hazard. Permission to burn or bury heavily contaminated items needs to be obtained from the CSG S2/S3.

Water used in decontaminating clothing and textiles should drain into a soakage pit prepared by engineer personnel. The CSB's supply and services officer and engineers select the soakage pit site. The site must be marked with the standard NBC marker. Its location should be reported to CSG S2/S3 and supply and field services operations officer.

REEQUIPPING RETURN TO DUTY SOLDIERS

Support of replacement operations can put an enormous strain on DS supply companies to provide rations, sundry packs, water, and clothing and equipment. DS replacement companies can process up to 400 replacements per day, to include return to duty soldiers. FM 12-6 describes the Army's replacement operations.

Soldiers released from Level III and IV medical treatment facilities return to their original unit unless emergency battlefield requirements dictate otherwise. Level III and IV MTFs provide minimal basic uniform items and, if required, MOPP gear to medical RTD soldiers to protect them during transit to replacement companies. Level III and IV MTFs request minimal Class II supply items authorized for issue to RTD soldiers.

After discharge from Level III and IV MTFs, RTD soldiers obtain the balance of their clothing and equipment, to include their weapon and ammunition, from the personnel group's DS replacement companies. Replacement companies reequip RTD soldiers using existing manpower, borrowed manpower from replacement operations, HNS, and contracting. Backup support is provided from the DS supply company providing area support in the AO.

MORTUARY AFFAIRS

It remains a basic tenet of faith that the Army always take proper care of soldiers who lose their lives in the service of our nation. Mortuary affairs support helps to maintain soldier morale by ensuring —

- Search for and recovery of remains.
- Evacuation and escort of remains out of the combat area.
- Prompt and accurate tentative identification of remains in the theater.
- Recovery, inventory, and return of personal effects to the next of kin.

SUPPORTING UNIT

A Quartermaster Mortuary Affairs Company (TOE 10497L000), allocated on the basis of one per corps, provides MA support to corps forces. Division forces are supported through active and reserve component augmentation teams.

The four collection sections of the collection platoon operate collection points in support of units in the corps area. The cemetery/evacuation platoon operates a central collection point for remains processed through the corps (both from the collection points in the corps area and from those in the divisions and separate brigades). Remains are evacuated from the corps collection point to the theater evacuation point operating in the COMMZ area for further evacuation to the mortuary.

Collection points locate where they can be concealed from operating areas and passing traffic. The CSG/CSB support overlay identifies the location of collection points and temporary interment sites. The

support overlay is provided to organizations, units, and teams when they first check in with the area RAOC or division rear CP.

Company commanders are responsible for the recovery and evacuation of battlefield dead in their areas of responsibility to a designated collection point or for their burial when circumstances preclude evacuation. To shorten the distance units travel to deliver remains and personal effects and hasten evacuation of the deceased, collection points are employed as far forward as possible in brigade-size organizations.

During intense fighting or a surge, collection personnel may go forward to the division area to help evacuate remains and personal effects. They form search and recovery teams to locate and recover remains and personal effects not recovered during combat operations or as a result of a large air crash or artillery strikes.

POLICY AND PROCEDURES

FM 10-63 prescribes mortuary affairs doctrine and describes procedures for search and recovery, evacuation, burials, and disinterments. The services paragraph to the administrative/logistics plan provides guidance on evacuation procedures and handling of personal effects. The services paragraph identifies the mortuary affairs equipment with which units are to deploy. In addition to outlining actions which occur at each point that remains change custody, it provides guidance relative to burials and contaminated remains.

Unit commanders are responsible for the search, recovery, and evacuation of deceased personnel to a collection point. When a unit leaves an area prior to the recovery of all remains, MA personnel perform post-combat search and recovery missions. FM 10-63 lists search and recovery team responsibilities.

All efforts must be made to recover and evacuate remains from the theater. Burials occur only when authorized by the theater commander. If the tactical situation makes it impossible to evacuate remains to collection points, temporary isolated burial procedures are used to inter the remains for recovery and evacuation at the earliest possible time. Whenever possible initial identification must be established before isolated burial and the site coordinates and pertinent facts reported to the support operations or S4 staff. To assist with later identification, personal effects are buried with the remains in emergency war burial sites.

RESPONSIBILITIES

CSG Responsibilities

The CSG supply and field services operations officer supervises the conduct of MA activities in the CSG's area. Assisted by the mortuary affairs NCO, he provides staff supervision of and maintains liaison with MA activities throughout the group's AO. He also –

- Changes supported unit lists to agree with area requirements for mortuary affairs.
- Prepares a remains evacuation flow diagram.
- Recommends general locations for collection points.
- Determines the location and coordinates real estate for interment sites with the sector RAOC, CSG S4, civil authorities, and civil affairs personnel.
- Monitors MA records and reports.
- Arranges for aerial reconnaissance of search areas.
- Arranges for security of remains and personal effects.
- Requests additional covered vehicles for recovery and evacuation operations.
- Coordinates MA support requirements with the AG casualty section, S2/S3, chaplain, civil affairs teams, and other Services and allied forces.

Subordinate Battalion Responsibilities

The S&S or CSB battalion's support operations officer supervises the overall operation of mortuary affairs collecting points. Field services personnel –

- Relay consolidated casualty report data to the CSG S1 section.
- Notify MA personnel of areas known to be mined.
- Arrange for a security force to protect search and recovery teams when hostile forces appear to be operating in the area.
- Assign collection point coordinates or sites. In urban areas, the collection point may be established in a building. Good examples of suitable buildings include warehouses, preferably with cold storage capability, a morgue or building

with enough open room to establish operations, such as a large hall.

AUTOMATED SUPPORT

The Mass Fatality Field Information Management System is used throughout the evacuation channel to account for and track the remains from the first collection point to the port of entry mortuary in CONUS. Computers are distributed throughout the theater evacuation channels for this system as required.

NBC CONCERNS

Remains found in a contaminated area are considered to be contaminated. These remains can only be evacuated to a collection point after they have been decontaminated. The CSG NBC officer provides advice on containment procedures, protective gear, and decontaminants. If the remains cannot be decontaminated, they must be temporarily interred as a last resort. This is accom - plished following the procedures in FM 10-63.

Procedures exist for the decontamination of remains. If it is determined that the tactical situation permits, a MA collection point-decontamination will be established following prescribed procedures for the theater/AO.

CONTROLS

Controls include adjustable basic loads and stockage levels and status reports on supply and field sevices

BASIC LOADS

Basic loads of Class I and II supplies enable units to support operations in combat for a prescribed number of days. If required the CSG support operations officer recommends that the basic load be adjusted to reflect mission changes.

WARTIME STOCKAGE LEVELS

Though AR 710-2 prescribes stockage levles the CMMC establish stockage levels or days of supply to be stocked at CSG DS and GS supply units. The number of days of supply required depends on the responsiveness of the supply system.

Supply levels and estimated troop strengths to be supported are listed in group OPLANs or OPORDs. Class I and II stockage levels need to be recomputed as troop strength data and the density of supported units change. Stockage levels also depend on—

- Order and ship time.
- Seasonal changes.
- Supply route vulnerability.
- Probability of local procurement or HN support.
- Requirements to feed or clothe civilians or PWs.

STATUS REPORTS

Group and battalion supply and field services staff officers need status data submitted in a standard format. Table 6-1. provides a sample field services status report.

Supply points report on the following areas:

- Class I point personnel report the rations on hand and due in.
- Class II, IV and VII point personnel report on controlled stocks on hand or due-in Class II point personnel also report on possible shortages of MOPP gear.
- Water point personnel report the gallons on hand or due in and storage capacity problems.

CSG supply and field services staff officers compare status data with projected requirements and recommend courses of action to resolve problem areas. Analysis of status data enables them to recommend reassigning work loads to alleviate backlogs and to reschedule support to work around troops committed to tactical operations.

AUTOMATED SUPPLY SUPPORT

The Class I distribution system is manual.

SARSS-1 programs facilitate receipt storage, and issue of Class II, packaged III, IV, and VII supplies. Refer to Figure 6-5. DS supply units use SARSS-1 programs to keep track of issues from stock on hand and to transmit requisitions to the CMMC.

Subordinate DS supply units transmit requisitions electronically over the data network or by telephone modems. As a backup, couriers may carry floppy disks of SARSS-1 unfilled supply requests to the CMMC.

The interface of SARSS-2A programs with CSSCS provides CSGs, CSBs, S&S battalions, and the CMMC asset visibility on command tracked items. CSSCS projects supply status of these tracked Class II, IV and VII items at 24, 48, 72, and 96-hour time frames.

SARSS-2A provides the CMMC asset visibility. The CMMC uses SARRSS-2A/2Bprograms to analyze demands, compute requirements and control critical stocks SARSS-2A/2B programs also enable the CMMC to perform lateral issue and to transmit disposition instructions for excess stocks.

Table 6-1. Sample consolidated field services report.

Report period _____

SECTION I - CEB STATUS

a. CEB Team Locations _____
b. Showers in Past 24 Hours _____
c. Major Clothing Shortages _____
d. Equipment Problems _____
e. Support Problems/Remarks _____

SECTION II - LAUNDRY AND RENOVATION

a. Unit (Grid Location) _____
b. Support Provided _____
c: Backlog _____
d: Equipment Problems _____
e. Support Problems/Remarks _____

SECTION III - BAKERY

a. Team (Grid Location) _____
b. Number Loaves Issued/On Hand _____
c. Support Problem/Remarks _____

SECTION IV - MORTUARY AFFAIRS

a. Collection Points (Grid Locations)
b. Mortuary Affairs Statistics: _____

	RECVD	PROCESSED	IDENTIFIED	EVAC	BURIED	WAITING EVAC/BURIAL
(1) US Forces						
(2) Allied						
(3) Enemy						
(4) Civilian						
(5) PW						
(6) Other						
(7) Totals						

c. Support Problems/Remarks:

SECTION V - HOST-NATION SUPPORT

a. Support Requested _____
b. DTG Requested _____
c. Status of Request _____

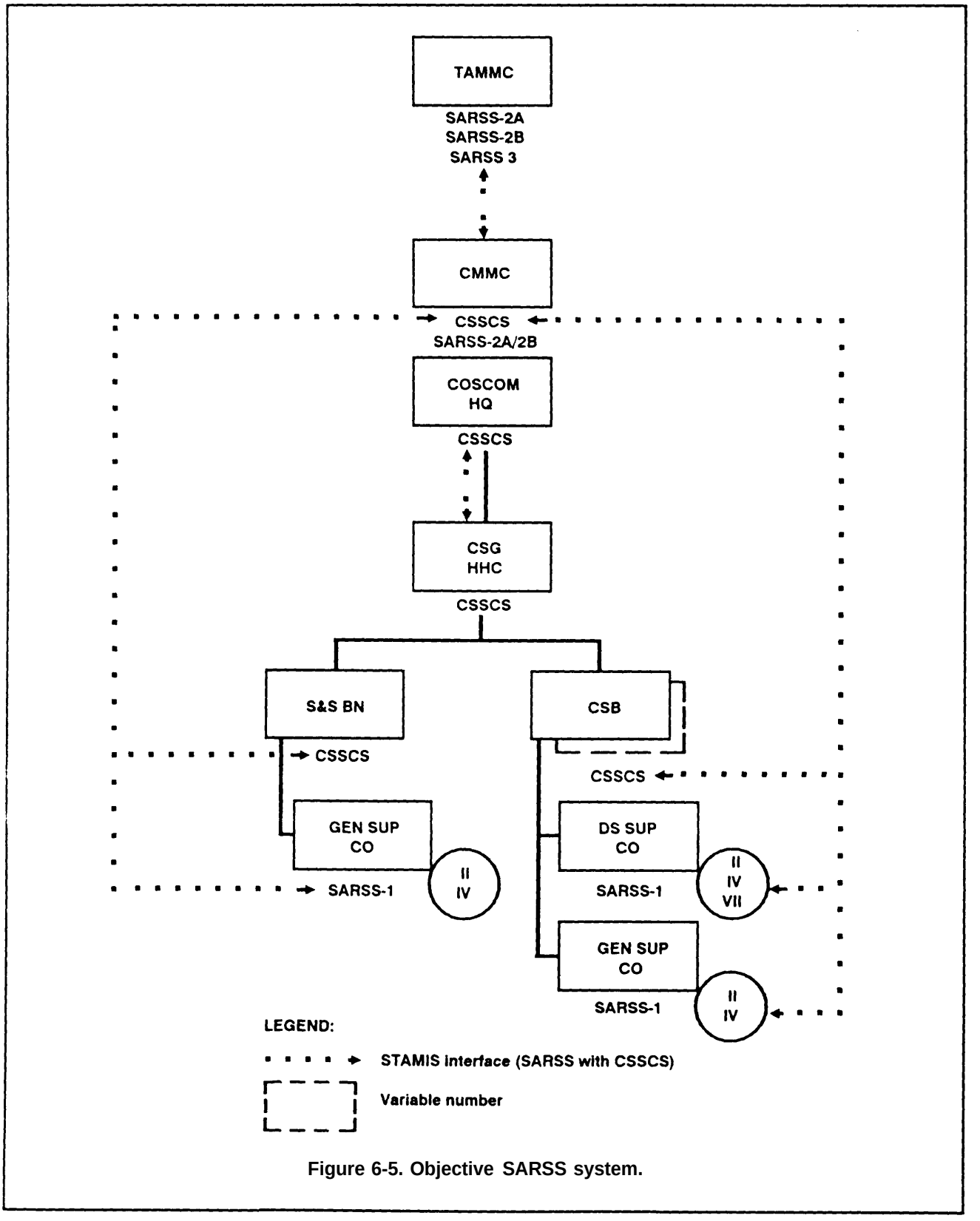


Figure 6-5. Objective SARSS system.

CHAPTER 7

Arming the Force

Arming the force presents the most extensive and time-sensitive challenge of the support system. No war can be won without munitions to arm weapon systems. Mission capable weapon systems remain ineffective if not provided with a continuous supply of ammunition.

No matter what intensity of war, the corps force can continue to fight only as long as CSG subordinate units arm the force. CSGs provide corps forces with missiles, munitions (including mines and explosive demolitions), and the transportation required for their movement.

FMs 9-6, 9-38, and 9-13 provide more detailed information on the topics in this chapter.

CONTENTS

CSG AMMUNITION SUPPORT ORGANIZATION

CSG units supply and distribute the right mix and quantity of munitions to the right place at the right time. The ammunition distribution system calls for munitions as close to the point of weapon systems employment as the tactical situation and transportation system permit. Arming the force may require that forward CSG ammunition and transportation units replenish and deliver 3,500 STONs of ammunition per heavy division sector per day. This requires the synchronization of munitions receipt, reconfiguration, storage, movement, cargo transfer, and forward supply resources.

CONVENTIONAL AMMUNITION SUPPORT STRUCTURE

Figure 7-1 depicts the CSG conventional ammunition support structure. Appendix A of FM 9-6 covers the organizational structures and missions of conventional ammunition units in greater detail. Based on HNS agreements, a WHNS ordnance battalion with similar ammunition units could augment the US ammunition support structure.

Ordnance Company, Ammunition, (DS) (MOADS)/(MOADS/PLS)

An ammunition company (DS) (TOE 09483L000/09484L000) is attached to the forward CSG's forward CSB. Basis of allocation is one company per division. The company's mission is to establish and operate three dispersed ASPs and a ATP in the division area.

At full TOE authorized strength, each ammunition company (DS) (MOADS) has a daily lift capability of 2,130 STONs at the three ASPS collectively, and an additional 970 STONs at the ATP. Lift capabilities lessen during hostilities as casualties occur and equipment breaks down. Cross-leveling assets from other locations may be necessary to maintain or expand operations. ASP lifts are divided among the operations of receipt, storage, rewarehousing, reconfiguration, and issue of ammunition. ATP lifts are transload operations.

A medium truck company from the CSB provides transportation support to this unit. The CSG allocates additional transportation assets to support the ammunition company (DS) in the division sector based upon movement priorities, anticipated ammunition consumption, ammunition availability, and other such factors.

DS ammunition companies also perform limited DS maintenance (preservation and packaging) and modification of ammunition, components, and containers. Though the DS companies rely on EOD response teams, their personnel, along with DA civilian quality assurance/ammunition surveillance specialists, perform emergency and routine destruction of unserviceable ammunition.

The units are designed by TOE to be 50 percent mobile with their organic vehicles, not including ammunition stocks on hand. They provide administrative and

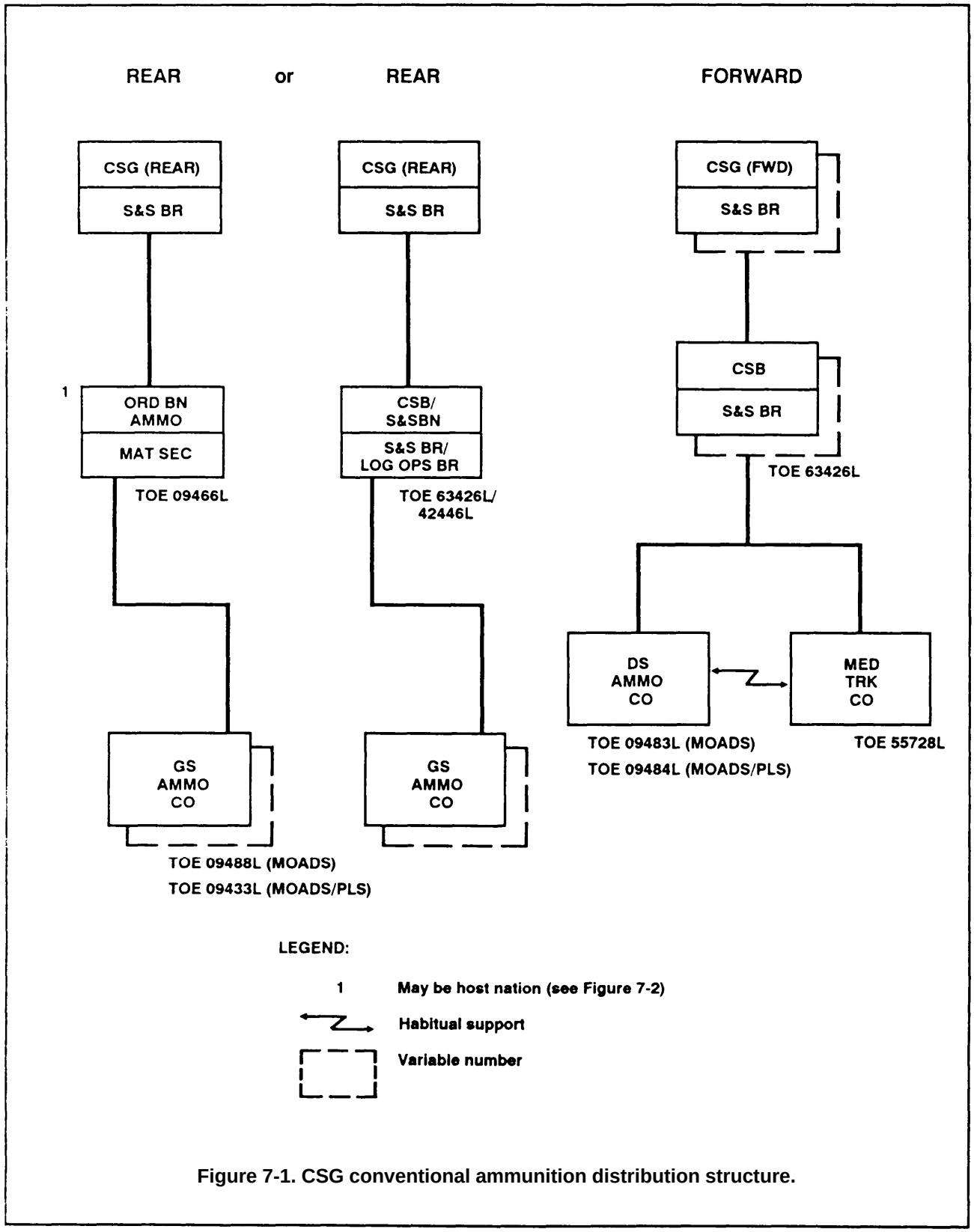


Figure 7-1. CSG conventional ammunition distribution structure.

logistics support of the personnel and equipment located at the ASPs and ATP.

Ordnance Company, Ammunition, (GS) (MOADS)/(MOADS/PLS)

The ammunition companies (GS) (TOEs 09488L00/09433L000) are assigned to the rear CSG's ammunition battalion, to the S&S battalion, or to a CSB to establish and operate corps storage areas. One or more ammunition companies (GS) are required to operate each CSA established in the corps area. CSA allocation depends upon METT-T and the size of the corps' stockage objective.

Truck companies from the rear CSG's transportation battalion provide transportation support to the ammunition companies (GS). They move ammunition from the CSAs to the ASPs and ATPs. These truck units provide support on an area support basis. Their areas are adjusted based upon the intensity of combat and density of maneuver forces. If the GS company is attached to a CSB, then that CSB's medium truck company provides movement support.

Given its full TOE authorized strength, each ammunition company (GS) (MOADS) has a daily lift capability of about 5,320 STONs of ammunition. This figure assumes a mix of half containerized and half breakbulk ammunition, CSA lifts encompass the operations of receipt, storage, rewarehousing, reconfiguration, and issue of ammunition.

GS ammunition companies also perform limited DS maintenance (preservation and packaging) and modification of ammunition, components, and containers, Though these GS companies rely on EOD response teams, their personnel and QASAS perform emergency and routine destruction of unserviceable ammunition.

The units are designed by TOE to be 50 percent mobile with their organic vehicles, not including ammunition stocks on hand. They provide administrative and logistics support of the personnel and equipment located at the CSAS.

CELLULAR LOGISTICS TEAMS

Depending on the theater of operation and HN support agreements, the COSCOM may attach the HHD of a WHNS ordnance battalion to a CSG. This WHNS detachment and its subordinate WHNS ammunition companies collocate with the HN ammunition battalion and HN ammunition companies. As shown by Figure 7-2, they provide the CLT liaison between the CSG, CMMC, and HN ammunition organization.

HHD, Ordnance Battalion, Ammunition, WHNS

This battalion headquarters detachment (TOE 09574LA00) coordinates and manages US-owned Class V stocks received, stored, and issued to US forces by HN ammunition supply companies. It provides command, control, and staff planning for up to nine WHNS ammunition companies. It operates like a conventional ammunition battalion headquarters in that it prepares and disseminates logistics plans and orders. HHD personnel coordinate the—

- Dissemination of CSR data to HN ammunition companies.
- Distribution of ammunition stocks.
- Cross-leveling of US ammunition stocks between HN ammunition supply companies.
- Stockage objectives for HN units.
- Surveillance program.
- Relocation of HN ammunition supply companies and their physical security requirements.
- Transportation requirements for subordinate ammunition detachments.

Ordnance Company, Ammunition, WHNS

These WHNS ammunition companies (TOE 09574LB00) provide operational control over US-owned ammunition stocks which HN ammunition supply units maintain and issue to US combat units. The CMMC tasks HN ammunition supply companies through these WHNS ammunition companies. They serve as the interface between US forces and HN ammunition supply companies. They perform the following functions:

- Coordinate the distribution of ammunition stocks with HN ammunition supply companies.
- Coordinate emergency resupply of ammunition stocks.
- Perform quality assurance/quality control functions, to include inspections and malfunction investigations on ammunition stocks.
- Coordinate retrograde of suspended or unserviceable stocks.
- Coordinate DS maintenance support for US equipment operated by HN ammunition supply companies.

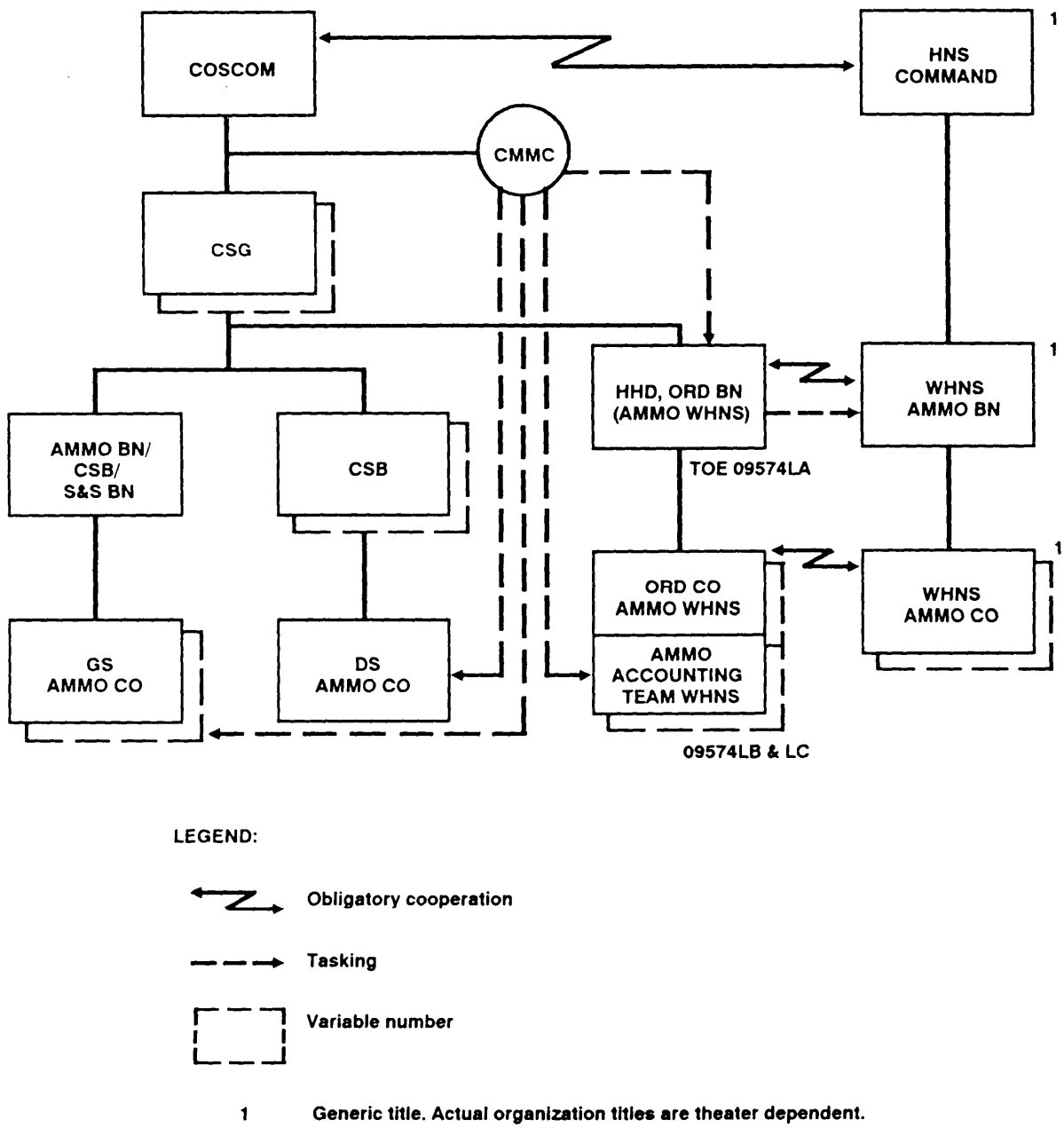


Figure 7-2. Command and tasking relationships, ammunition CLTs.

Accounting Team, WHNS

These teams (TOE 09574LC00) assist in the accounting of US-owned ammunition handled by HN ammunition supply companies. Up to two accounting teams may be attached to a WHNS ammunition company, depending upon the HN structure and operation. They perform the following functions:

- Perform stock accountability and stock status reporting of US-owned stocks.
- Maintain surveillance data on ammunition stocks (to include ammunition interchangeability and substitution data).

SUPPORT OPERATIONS

The CSG and subordinate battalion's ammunition staff officers do not act autonomously with regard to support operations. They act in concert with the munitions and transportation managers at the CMMC and CMCC to coordinate assets, monitor and cross-level stocks, and direct the implementation of COSCOM support operations directives, CMMC taskings, and CMCC/MCT commitments. The CMMC is responsible for ammunition distribution, work loading, and management within the corps.

BATTLEFIELD EMPLOYMENT

Figure 7-3 depicts a sample employment of munitions elements.

Forward Ammunition Transfer Points

Forward ATPs provide ammunition support to their combat brigades and to other units that maybe operating in the brigade area. The FSBs operate the forward ATPs in or near the brigade support areas. The FSB's supply company provides administration and logistics support for the personnel and equipment in the ATP sect ions.

Although the forward ATPs are manned by elements from the FSBs, the DAO provides mission guidance through a representative located at each ATP. The respective combat brigade commanders establish shipment priorities.

At full authorized strength, forward ATP sections have a daily lift capability of 550 STONs, when organized to support heavy forces. When supporting light forces, this reduces to 350 STONs.

DS Ammunition Company ATP

The ATP established by the nondivision ammunition company (DS) supports corps units operating in the division area. This ATP supplies the high-volume, high-tonnage items used primarily by the corps artillery and aviation units. Its daily lift capability is 970 STONs. As a secondary function, it provides reinforcing support to the forward ATPs.

Though manned by an element from the nondivision ammunition company (DS), the ATP receives mission guidance and shipment priorities from the DAO through his representative located at that ATP.

ATPs receive their ammunition loaded on corps transportation assets. The majority of ammunition comes from the CSAs, and the remainder comes from the ASPs. Ammunition should not be downloaded from corps trailers and flatracks for temporary storage at the ATPs. This defeats the ATPs' purpose, which is to provide the combat units a place to transfer pre-positioned, uploaded ammunition onto their unit support vehicles as quickly as possible.

ATPs must be prepared to stop operations and relocate whenever the brigades or divisions move. Moves must be carefully coordinated with the CMMC, DAO, customer units, and ATP parent units so that continuity of support and protection of assets are not compromised.

Ammunition Supply Points

ASPS receive, store, issue, account for, combat configure, and prepare ammunition for ground or aerial transport to the ATPs and units operating in the division area. A nondivision ammunition company (DS) operates three ASPS and a ATP in each division sector. METT-T may necessitate establishing an ASP behind the division boundary. Ammunition companies (DS) provide administration and logistics support of the ammunition supply platoons which run each ASP. The platoons receive their mission work loads and priorities of issue from the CMMC.

Employing three ASPs in a division allows for continuous support to advancing combat forces. One ammunition platoon can relocate to better support the combat forces while the other two continue their

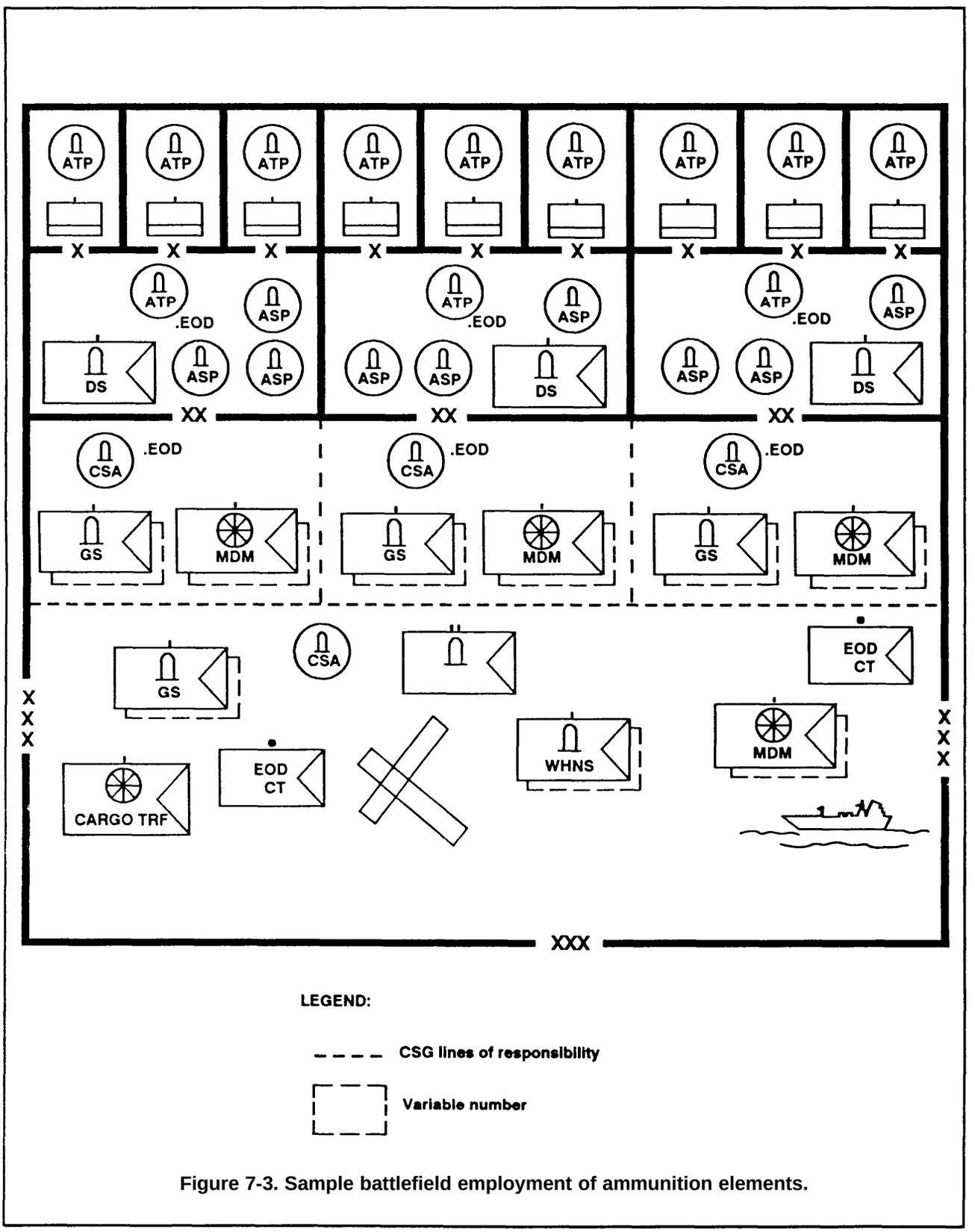


Figure 7-3. Sample battlefield employment of ammunition elements.

ASP operations. Depending upon the tactical situation, simultaneous relocations may be necessary.

Each ASP should maintain a one-to three-day supply of ammunition to meet routine, surge, and emergency requirements. The COSCOM sets the stockage objective based on projected battle intensity, tactical plans, unit types, ammunition availability, LOC vulnerability, and enemy disruption of resupply operations. Requirements to relocate rapidly may limit ASP stockage levels to two days of supply or less.

Under MOADS doctrine, ASPS receive ammunition replenishment stocks on theater and corps transportation assets. Half come from the TSA and port and half come from the CSAs. Once the PLS is fielded, the ASPs receive all of their stocks from the CSAs on corps transportation assets. PLS is to be fielded in corps sets to corps truck units, GS and DS ammunition units, and self-propelled artillery units.

The corps allocates ground and air transportation for ammunition movement to committed divisions for specified periods of time or specific missions. Division transportation assets assist in emergency resupply of ammunition.

When the tactical situation disrupts shipments between the CSAs and the ATPs for 6 hours or more, ASPS ship emergency ammunition to the ATPs on available transportation until CSA operations resume or the MSR is reestablished. Such situations necessitate cross-leveling of personnel, equipment, and transportation assets to ensure that resulting increased work loads at the ASPs do not hinder support to the users.

Corps Storage Area

CSAs provide high tonnage ammunition for the divisions. They receive, store, issue, account for, inspect, combat configure, and prepare ammunition for shipment to the ASPs, ATPs, and units operating in the corps area. The rear CSG's transportation battalion supports ammunition shipments from the CSAs. Its medium truck companies collocate with or near the CSAs.

Depending upon the corps stockage objective and METT-T one or more ammunition companies (GS) operate one or more CSAs from semifixed or field locations in the corps area. CSAs locate at former ASP locations when combat forces advance a significant distance and the former ASP locations facilitate continuous support to the users.

The ammunition companies (GS) are organic to the rear CSG's ammunition battalion, to a CSB, or to a S&S battalion. The parent battalion coordinates the administrative and logistics support of the personnel and equipment in the GS companies. The companies receive their mission work loads and priorities of issue from the CMMC.

A CSA should maintain a 7-10 day supply of ammunition following initial combat drawdown. The COSCOM sets CSA stockage objectives based on the tactical situation, weapon types and densities, storage space, transportation assets, and vulnerability of LOCs from the TSA. In mature theaters of operation, initial CSA stockage comes from breakbulk pre-positioned war reserve stocks. CSAs then receive replenishment stocks on theater transportation assets, half from the TSA and half from the port, in either containerized or breakbulk form.

TERRAIN REQUIREMENTS

CSG and CSB ammunition staffs coordinate the DS ammunition company's ASP and ATP terrain positioning requirements with the division rear CP. To reduce signature and targeting, ammunition units disperse stocks. Ammunition must be kept distant from other commodities. Units locate storage sites as far as possible from hospitals and airfields, factories, or facilities subject to enemy attacks, Dispersion of stocks at CSA and ASP sites helps to minimize losses. CSG ammunition officers, military inspectors, and QASAS provide technical guidance on explosive safety and quantity-distance factors.

ASP Terrain Requirements

Each ASP may require an area 5 to 6 kilometers square or larger. Depending on METT-T, ASPs may receive up to 60 semitrailer loads of ammunition daily In addition, an ammunition sling-out area, at least 25 meters square (larger for operations using CH-47 helicopters), needs to be established approximately 550 meters from Class V storage and inhabited areas. The sling-out area provides for limited aerial resupply by rotary wing aircraft.

The distance between ASPs and CSAs should not exceed 100 kilometers. This distance derives from the maximum practical lime-haul distances of supporting medium truck companies.

CSA Terrain Requirements

Terrain requirements of CSAs remain a primary concern of the CSG support operations officer. He

coordinates CSA positioning requirements with the area RAOC. The COSCOM support operations officer coordinates CSA positioning requirements with the corps rear CP CSS and operations cells.

Depending on METT-T, CSAs need an estimated 40 square kilometers or more, preferably near primary MSRs or railheads. Road networks need to support up to 250 trailers arriving daily at the CSA. There should be no more than 130 kilometers between CSAs and ATPs. CSG ammunition officers coordinate engineer support to construct storage sites and hardened roads.

AMMUNITION REQUIREMENTS

In wartime, ammunition requirements, not requisitions, arc passed up the chain. Requirements alert commanders and supply channels of planned ammunition expenditures and that certain quantities and types of ammunition are required to support mission changes.

Battalion S4s and S3s work together to consolidate their ammunition requirements and pass them through their brigade or DIVARTY staffs to the DAO. Nondivision units operating in the division area, such as corps artillery, aviation, and engineer units, pass their requirements through their higher headquarters to the DAO as well. The DAO verifies, consolidates, and passes the requirements to the CMMC. He directs the using units to pick up their ammunition from one of the ATPs or ASPS, depending upon METT-T.

Nondivision units operating in the corps area pass their requirements through their higher headquarters directly to the CMMC. The CMMC verifies, consolidates and passes all requirements received from the DAOs and nondivision units to the TAMMC. The TAMMC passes its requisitions, not requirements, for theater ammunition resupplyu to the NICP.

AMMUNITION SUPPLY

Ammunition supply is based on a continuous filll/refill system. Ammunition is automatically pushed forward from the air and sea ports of debarkation. Figure 7-4 depicts ammunition supply flow.

The TAMMC directs TAACOM MMCs to provide ammunition support to the corps. TAACOM MMCs direct shipment from TSAs to the CSAs and ASPS. When possible, shipments from the port and TSA to the ASPs are palletized to facilitate handling. Munitions managers at the CMMC direct shipments from corps stocks at the CSAs to ASPS and from ASPS to ATPs. Combat configured loads, built at CSAs and ASPs, constitute a majority of those shipments.

To support the continuous, recurring distribution of ammunition, the COSCOM allocates corps transportation assets to CSGs to operate in a DS role. CSGs attach medium truck units to CSBs to provide habitual ammunition distribution system support for DS/GS ammunition units.

CSG and CSB transportation branches coordinate requirements with supporting MCTs to routinely move ammunition from CSAs to ASPs/ATPs and from ASPS to ATPs. The MCT preassigns a block of TMRs to cover continuous, recurring daily movement of ammunition from CSAs to ASPs and ATPs and from ASPs to ATPs. The CSG/CSB transportation branch staff tasks the medium truck company to move ammunition stocks. The medium truck company then coordinates with the supporting MCT for road credit. Supporting MCTs provide the shipping CSA/ASP advanced notice on the mode of transportation and time of arrival. They notify the receiving ASP/ATP about times of departure and arrival and the number and type of truck assets used.

Ammunition support to corps forces is by supply point distribution from the nearest ATE ASP or CSA. Normally, unit organic vehicles with onboard MHE pick up ammunition at supporting ATPs. However, based on distances and customer lists, some units pick up their ammunition from the nearest ASP or CSA in their support area.

Corps units, such as corps artillery, ADA, and engineers, employed in the brigade area pick up their ammunition at the forward ATPs. However, ammunition requirements need to be precoordinated with the DAO to determine that stocks exist at those forward ATPs. Most of the ammunition these type units use are easy-to-manage CCLs.

To support one or more corps FA battalions, often requiring a different caliber munition, forward ATPs must be augmented by the forward CSG. Forward CSG LOS at the DISCOM arrange for reinforcing support from the forward CSB's nondivision ammunition company, DS. Forward CSGs may cross-level ASP personnel, MHE equipment, and supporting transportation assets to augment ATP and ASP lift capabilities.

When corps artillery and engineer units move from one division to another within the same corps, they receive support from the new division's ATPs. Until the CSA to ATP resupply loop can be established for the

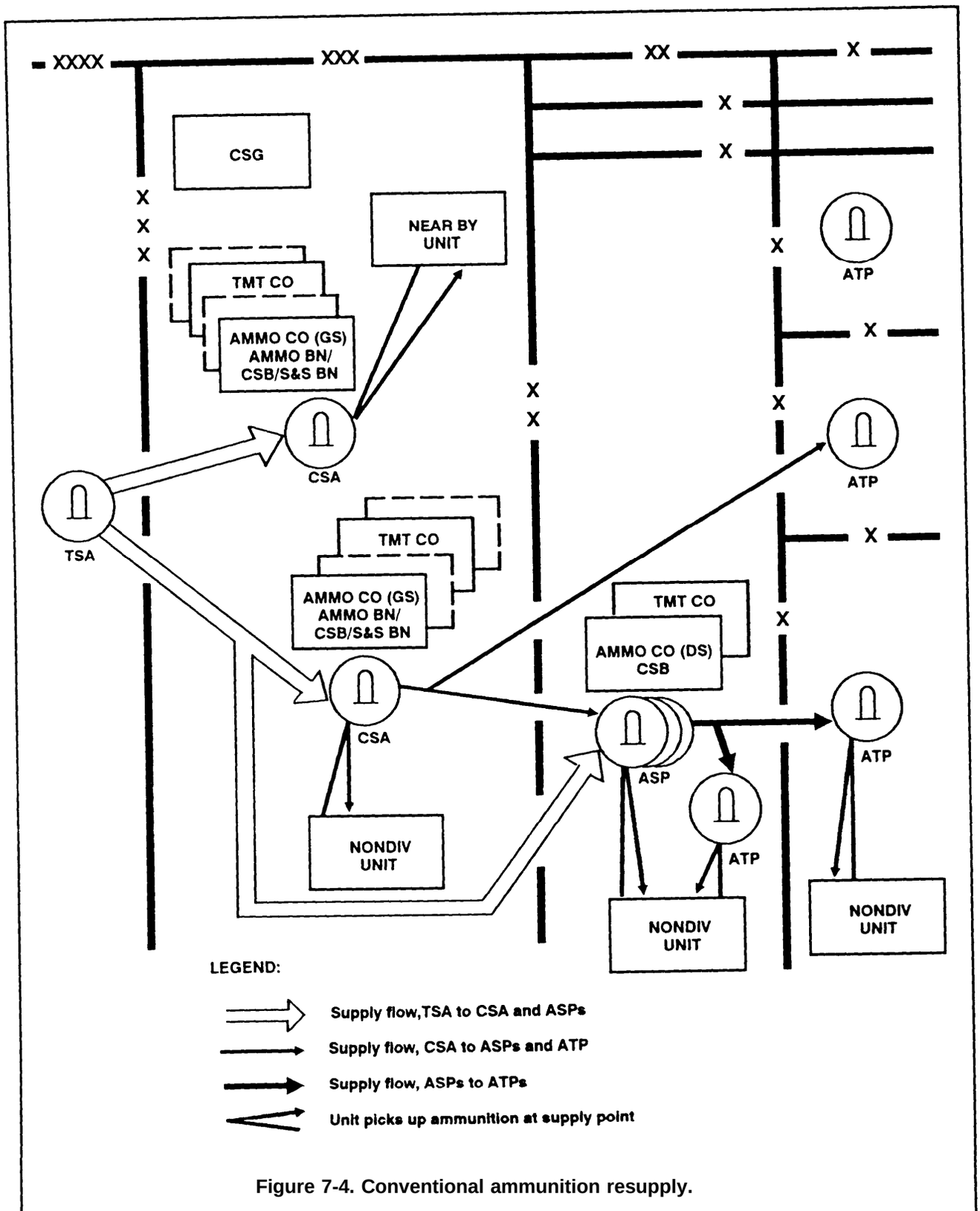


Figure 7-4. Conventional ammunition resupply.

additional ammunition support requirements, it maybe necessary to use aviation assets to transport ammunition from the previously supporting CSA/ASPs to the new ATPs. The COSCOM munitions support branch coordinates this continued support from out-of-sector CSAs and ASPs. They also coordinate the transfer of support responsibilities between units.

IMPROVED AMMUNITION HANDLING SYSTEMS

Improved ammunition handling systems result in a more responsive ammunition supply and distribution system. They provide an improved capability to support changing tactical requirements. Techniques to reduce handling, conserve transportation, and streamline the resupply system include —

- Prepositioning high-demand ammunition.
- Establishing CCLs for each type of combat unit.
- Unit positioning of small stocks near battle positions.

MOADS-PLS

MOADS-PLS enhances current MOADS doctrine by incorporating the use of PLS flatracks and self-Ioading trucks. It expedites relocation of ammunition stocks because the ammunition is loaded on flatracks which slide directly on and off PLS trucks in one lift. A single PLS truck driver can drop off or pick up a loaded flatrack in a matter of minutes. Faster ammunition transfers decrease the amount of time trucks remain in the area. They also reduce the target signatures of the ASPs and ATPs.

Combat-Configured Loads

CCLs are preplanned, matched packages of ammunition, in complete round configuration, that can be transported as single units. CCLs improve the efficiency of DS and GS ammunition company operations at the storage sites. Storage personnel can build the standard CCLs continuously and routinely instead of preparing unique loads for each resupply mission. CCLs can be easily transported by PLS trucks and flatracks. They facilitate loading units' supply vehicles with a minimum breakdown of ammunition.

CCLs simplify planning and coordination for wartime ammunition resupply. To enhance wartime readiness, CCL planning occurs in peacetime. Corps staffs define from 15 to 20 corps standard CCLs to support their different units, weapon systems, and missions. It is faster and simpler in wartime for DAOs to call the CMMC for the required CCLs than for supported units to request each component of those CCLs.

ASP DECEPTION DECOYS

The logistics base decoy package contains two and three dimensional decoys which replicate ASPs. Their employment depends on the deception plan developed by the corps G3 and published in the OPORD. The corps deception section determines which decoy devices support the deception story. The CSG S2/S3 coordinates decoy positioning.

SUPPORT OF TACTICAL OPERATIONS

Arming the force depends upon METT-T. It may require forward CSGs to cross-level their ammunition personnel and equipment and transportation assets to support increased or emergency work loads at the ASPs or ATPs. This occurs when CSGs reinforce forward ATPs to support one or more additional corps artillery battalions in the brigade sector.

To successfully support tactical operations, CSG ammunition officers need to analyze munitions support options and how those options change to support tactical operations. Table 7-1 lists support planning considerations and actions which they can recommend or implement to weight the battle with respect to arming the system.

EXPLOSIVE ORDNANCE

The arm function encompasses all types of ammunition, to include mines and demolition munitions. Mines and demolition munitions enhance the mobility, countermobility, and survivability of corps forces. They enable freedom of movement on the battlefield relative to the enemy.

MINES AND OBSTACLES

For offensive operations, corps forces require mines and explosives to breach enemy minefield and obstacles. Mines and explosives enable the force to maintain its mobility by removing or

Table 7-1. Supporting Tactical Operations.

Offensive Operations	**Review expected ammunition consumption data.** **Determine the availability of internal assets to transport ammunition.** **Arrange to stockpile ammunition.** **Plan for use of preplanned/preconfigured push packages when communications break down.** **Request additional transportation from the supporting MCT or the CMCC to support increased ammunition resupply requirements.** **Monitor ammunition expenditures.** **Redistribute ammunition stocks as the battle situation changes.**
Defensive Operations	**Plan for high expenditures of munitions.** **Plan for increased use of mines and demolition obstacles.** **Allow using units to stock Class V in excess of their basic load.** **Stockpile ammunition stocks at successive occupied defensive positions.** **Position semitrailers loaded with unit type munitions near defensive positions to be occupied as units fall back.**
Retrograde Operations	**Plan for possible destruction of munitions to prevent enemy capture.** **Store as much ammunition as possible on mobile tractor trailers.** **Ship only enough ammunition forward to support the delaying force.**

clearing enemy minefield and breaching obstacles such as antitank ditches.

During defensive operations, demolition obstacles help restrict or channel enemy movement. They may be used to slow or stop an enemy advance, deny terrain to the enemy, or enhance a kill zone.

EXPLOSIVE ORDNANCE DISPOSAL

The proliferation of munitions increases the risk to soldiers and to operations. EOD response teams reduce the hazards of unexploded ordnance. They detect, identify, render safe, recover, evacuate, and dispose of unexploded US and foreign ordnance. They assess explosive hazards and advise commanders on protective measures to reduce hazards and risks. They also provide supplemental hazard recognition training to soldiers. FM 9-6 describes the EOD support structure.

Ammunition company personnel assist EOD response teams with routine destruction of unserviceable conventional ammunition. If required, they can perform emergency destruction of unserviceable conventional ammunition.

AMMUNITION CONTROLS

Ammunition controls depend on ammunition stocks available, consumption rates, and tactical priorities. Basic loads enable units to support themselves for a short period without resupply. Required and controlled supply rates enable commanders to control the use and allocation of ammunition stocks.

AMMUNITION BASIC LOAD

An ABL is the quantity of ammunition authorized and required by a unit to support itself until resupply can be effected. The ABL must be capable of being carried in one lift by a unit's personnel and organic equipment along with other commodity basic loads.

A unit's ABL can be expressed in terms of its number of required combat loads/battalion loads. A combat load, or battalion load for artillery systems, is the quantity of ammunition carried by each deployable weapon system and its directly associated munitions carrier. For example. a unit's ABL may consist of 1.5 combat loads.

As a major part of the peacetime planning process, the theater commander determines the size and composition of the ABL for the entire theater, depending on the mission, enemy, and types of units. During this planning process, commanders at all levels analyze the directed ABL and recommend changes as required.

For a deployed corps, units maintain their ABLs uploaded on organic transport whenever possible. If this is not possible, they secure them in accessible areas. Battalion S2/S3s need to ensure that the basic load plans of subordinate units are workable.

REQUIRED SUPPLY RATE

The RSR is the quantity of ammunition a combat commander estimates will be needed to support tactical operations, without ammunition expenditure restrictions, over a specific time period. The RSR is based on threat and mission analyses. As these change, RSRs change to reflect revised ammunition forecasts.

At each level, S3s coordinate with S2s and S4s in estimating the RSR. RSRs are expressed as rounds per weapon per day or as a bulk allotment per day or per mission. If no assessment of the enemy exists, S3s may initially use FM 101-10-1 planning factors and expenditure rates to develop gross planning requirements. Requirements are later adjusted based on experience factors and actual consumption rates.

Division G3s provide the corps G3 with their RSRs. The corps G3 consolidates these RSRs and passes the corps RSR to the corps G4. The corps G4 passes requirements and guidance to the COSCOM support operations officer to determine if stocks can support requirements.

The CMMC, in coordination with the COSCOM support operations officer, passes current stock status and availability information with a supportability assessment to the corps G4. The corps G4 recommends a suitable distribution. The corps G3 reviews the recommendation in light of the corps' tactical situation and current and future corps operations.

CONTROLLED SUPPLY RATE

The CSR is the amount of ammunition that can be allocated over a specific time period. This limits the amount of ammunition that units are authorized to request. Allocation depends on the availability of ammunition and transportation assets. CSRs are expressed in the same terms as RSRs.

Combat commanders use CSRs to allocate the flow of ammunition to their subordinate units engaged in combat and to those held in reserve. They withhold some key ammunition assets to

meet unexpected requirements or for use as reserve assets. Limited availability of new types of ammunition may result in commanders allocating a specific number of rounds for a specific operation, mission, or period of time.

The TA commander publishes the CSR to the corps commanders based on each corps' mission, objectives, priorities, anticipated threat, and ammunition availability. Each combat commander then publishes a CSR to his subordinate commanders through the G3s/S3s. CSRs can be published in OPORDs, fragmentary orders, service support annexes, or fire support annexes.

At each level, G3s/S3s, in coordination with the G4s/S4s, may need to adjust the CSR to better allocate or prioritize ammunition assets. At each level, G4s/S4s ensure that units' requirements do not exceed the CSR. The ammunition managers at the CMMC and the DAOs enforce the CSR.

QUALITY ASSURANCE

The COSCOM closely monitors the ammunition supply quality assurance program within its command. The program includes inspection/malfunction investigation procedures and reports. COSCOM munitions support branch personnel and CSG ammunition staff conduct technical visits and evaluate program implementation by subordinate ammunition units.

In DS and GS ammunition companies, implementation of quality assurance and ammunition surveillance programs rest with military ammunition inspectors and QASAS. However, QASAS may not be in theater at the company level at the start of hostilities. Military inspectors would then perform all of the functions of the program without interrupting the flow of ammunition to the users.

AUTOMATED MANAGEMENT SYSTEMS

Arming and rearming combat or CS units during periods of intense combat comprises the most time sensitive support task logisticians face. SAAS provides timely stock records, stock control, and asset visibility over Class V stocks. It supports receipt, storage, issue, and release operations. Its interface with CSSCS provides CSG and battalion support operations staff asset visibility of critical stocks.

STANDARD ARMY AMMUNITION SYSTEM

SAAS is the standard automated management information system designed to provide uniform procedures for ammunition management and accountability at all levels. SAAS standardizes Class V status reporting and provides visibility of ammunition requirements and stock status. Figure 7-5 depicts objective SAAS usage by corps elements.

SAAS has three subsystems tailored to the specific requirements of the organizational level at which they are used—

- SAAS-DAO standardizes and automates the divisions' ammunition management and logistics functions. It provides visibility of division ammunition assets to the DAO.
- SAAS-4 automates accounting at the ASPS, CSAS, and TSAs. Supply personnel in nondivision DS and GS ammunition companies use SAAS-4 software to record ammunition receipts, issues, and stock adjustments. Storage personnel in ASPs and CSAs use SAAS-4 to keep track of ammunition by stock number, lot number, DOD identification code, date of manufacture, and inspection data. Both transmit stock status data as input to SAAS-1/3 programs run on the CTACS-II at the CMMC.

  SAAS-1/3 provides ammunition managers at the CMMC, TAMMC, and TAACOM MMC asset visibility and management data at corps and theater levels. SAAS-1/3 enables munitions commodity managers at the CMMC to maintain status on stocks on order or in transit. It computes authorized levels and CSA and ASP stockage objectives.
- SAAS-1/3 enables CMMC commodity managers to assess requirements and monitor allocations. As a result, CMMC commodity managers and COSCOM munitions support branch personnel recommend redistributing stocks as necessary among ASPs and CSAs.

At time of publication, there were no automated interfaces between the ammunition and transportation managers in the theater, nor the DAO and the ATPs, nor the DAO and the users. These deficiencies should be corrected by planned SAAS modernizations and the fielding of DAMMS-R and ULLS-S4. The objective interface between SAAS and DAMMS-R shown on Figure 7-5 allows for data on ammunition movements to

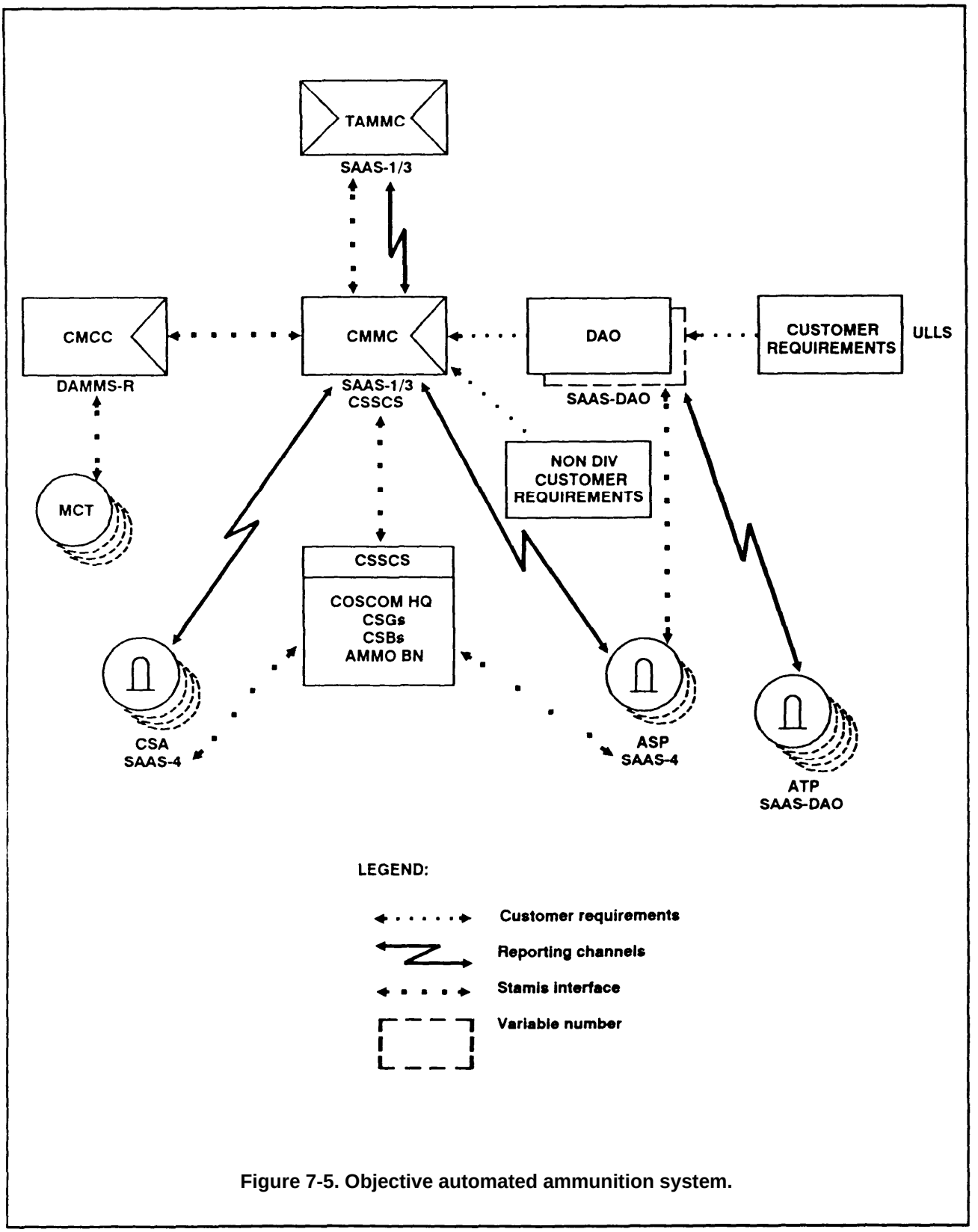


Figure 7-5. Objective automated ammunition system.

flow between the CMMC and CMCC, the CMCC and MCTSs and the MCTs and ASPs and CSAs.

COMBAT SERVICE SUPPORT CONTROL SYSTEM

CSSCS supports planning and decision making at COSCOMs, CSGs, and subordinate battalions. Its interface with SAAS provides support operations staff with supply status data on Class V stocks at CSAs, ASPS, and the CBS's ATPs. CSSCS software allows CSG, CSB, and ammunition battalion staffs to monitor RSR, CSR, ABL, quantity on-hand, and movement requirements data. When necessary, CSG ammunition officers recommend to the COSCOM munitions support branch that the CMMC divert intransit ammunition stocks based on the tactical situation in their area.

NBC CONCERNS

CSAs, ASPS, and ATPs are prime targets for NBC attacks. To continue operations in an NBC environment, ammunition supply elements need to employ the contamination avoidance and resupply measures outlined in FMs 3-3 and FM 9-38. Procedures to guard against the effects of NBC attack should be integrated into daily ammunition operations.

CONTAMINATION AVOIDANCE MEASURES

To minimize enemy targeting and the effects of nuclear and chemical weapon strikes and to maximize survivability, DS and GS ammunition units need to properly employ contamination avoidance measures.

Active Measures

Active measures include contamination control; detection, identification, and marking of contaminated areas; issuing contamination warnings; and relocating or rerouting units to uncontaminated areas.

To increase survivability and supportability once NBC weapons are used, ammunition units use alarm and detection equipment; overhead shelters; NBC-hardened shielding materials and protective covers; chemical agent resistant coatings; and NBC reconnaissance and intelligence assets.

Passive Measures

Passive measures include the use of cover, concealment, dispersion of stocks. It also includes deception measures to reduce the enemy's ability to use NBC weapons against US units and to minimize damages caused by NBC weapons, if used.

Dispersion

Ammunition stocks should be kept dispersed within storage sites to minimize NBC effects and to interfere with the enemy's ability to target the sites. Dispersion also prevents all of one type of ammunition from becoming contaminated. Ammunition should be stored separately from other commodities, kept as mobile as possible, and resupplied at night as often as possible.

PROTECTIVE OVERWRAP

Containers with protective overwrap reduce the effects of radiological fallout and chemical agents. They also facilitate decontamination. Outer packaging protects individual rounds from becoming contaminated while in storage and during unpacking. If ammunition lacks special protective overwraps, tarpaulins, plastic sheets, and other such available coverings provide some protection from contamination and facilitate decontamination efforts. Protected stocks should be stored on pallets or flatracks that can also be decontaminated.

CONTAMINATED AMMUNITION RESUPPLY

Ammunition units must try to issue uncontaminated ammunition to using units. Their priority of effort is to use contamination avoidance measures. Normally, contaminated stocks are not issued, but segregated from clean stocks until they can be fully decontaminated. FM 9-38 provides more detail.

Ammunition unit SOPs address the following critical NBC concerns as a matter of peacetime planning prior to wartime execution.

Decontamination Concerns

If uncontaminated stocks are unavailable for issue, the priority of decontamination goes to those stocks being sent to clean environments. Since ammunition units do not possess extensive decontamination capabilities, decontamination procedures must be preplanned and understood prior to the need for their execution. Refer to FMs 3-5 and 3-100. When possible, simple weathering should be sufficient to reduce contamination to acceptable levels.

Issue Concerns

Ammunition units issue contaminated stocks only as a last resort and only if the combat commanders deem that it would provide a decisive tactical advantage to the receiving unit.They try to issue contaminated stocks to those units similarly contaminated. Only under the most extreme conditions would uncontaminated units receive contaminated ammunition. It is crucial that every attempt be made to avoid the spread of contamination and that contaminated stocks are clearly marked with standard NBC markers.

The decision to ship contaminated stocks occurs jointly between the issuing and receiving commanders. The decision depends on the tactical situation, item criticality, type and extent of contamination, and resources available for decontamination. Once issued, the receiving units decontaminate stocks as necessary.

Transportation Concerns

Transportation of contaminated ammunition must be carefully coordinated and conducted, with the utmost flexibility given to routing, marshaling, serializing, and communicating. The potential danger to the surrounding terrain, population, and other vehicles as a result of dust and vapor clouds caused by the transportation of contaminated stocks must be considered. Ways to reduce these hazards include:

- Placing NBC protective covers on all contaminated loads.
- Coordinating movement of contaminated stocks with the MCTs, CMCC, and supporting transportation units.
- Requesting specific routes from the MCTs/CMCC for transporting contaminated stocks.

CHEMICAL MUNITIONS

Chemical munitions are provided through the conventional Class V distribution system. Release of chemical munitions occurs through command channels and starts at the National Command Authority level. Conventional ammunition units involved in the distribution of chemical munitions must be concerned with their proper protection and security, as well as with the need for the potential decontamination of these munitions in the event of an accident or incident.

CHAPTER 8

Fueling the Force

Fuel can be a war stopper. A force can move and attack only as long as vehicles and weapon systems receive fuel, oils, and lubricants. Ultimate success may depend on having enough fuel to support the mobility requirements of air and ground weapon systems.

Bulk fuel accounts for a large percentage of all tonnage moved in a theater of operations. An armored division could consume an estimated 500,000 gallons of fuel per day, more than twice that consumed by Patton's entire army. A corps size force could require an estimated two million gallons of fuel per day.

CONTENTS

CSG FUEL SUPPORT ORGANIZATION

A fuel support organization maybe either storage or distribution oriented. It depends on the length of operation and whether the theater is developed or undeveloped. Short operations are distribution oriented. The focus is on pushing fuel forward. Lengthy operations are storage oriented. Time exists to build up an extensive GS storage base. The support organization is tailored to the resources required. Developed theaters have a fuel storage base and an extensive road and rail distribution network. Undeveloped theaters require that additional fuel supply units and habitually supporting truck units deploy to offset the dearth of existing fuel storage and the lack of HN fuel transportation assets. The number and type of fuel support elements attached to a CSG vary depending on the—

- Forward or rear employment of the CSG.
- type and size of the supported force and its mission requirements.
- Type of tactical operation (offensive, defensive, or retrograde).
- Command reserve policy.
- Existence of HN petroleum storage facilities,
- Distances between supply sources and destinations.
- Condition of roads.

As shown by Figure 8-1, the CSG fuel support organization consists of DS supply companies, petroleum supply companies, mobile petroleum laboratory teams, and medium truck companies (petroleum). CSGs and subordinate battalions provide C2 and technical and operational supervision over these attached elements.

SUPPLY COMPANY, DIRECT SUPPORT

The COSCOM assigns Quartermaster Supply Companies, DS (TOE 42447L000) to forward and rear CSGs. The group attaches the companies to subordinate CSBs for command and control.

Each company provides DS level bulk fuel and packaged product support to nondivision units. It can also provide mobile filling station support for units in the area. As required, it fuels convoys passing through its area of responsibility. It can also fuel assault vehicles at assembly areas.

TOE 42447L000 lists mission capabilities. FM 10-69 describes Class III supply point operations. The unit's MTP identifies critical missions and tasks performed by the company.

PETROLEUM SUPPLY COMPANY

The COSCOM assigns a Petroleum Supply Company (TOE 10427L000) or platoon to forward and rear CSGs. The group attaches the company or platoon to a CSB or a petroleum supply battalion. The company can operate Class III supply points at two

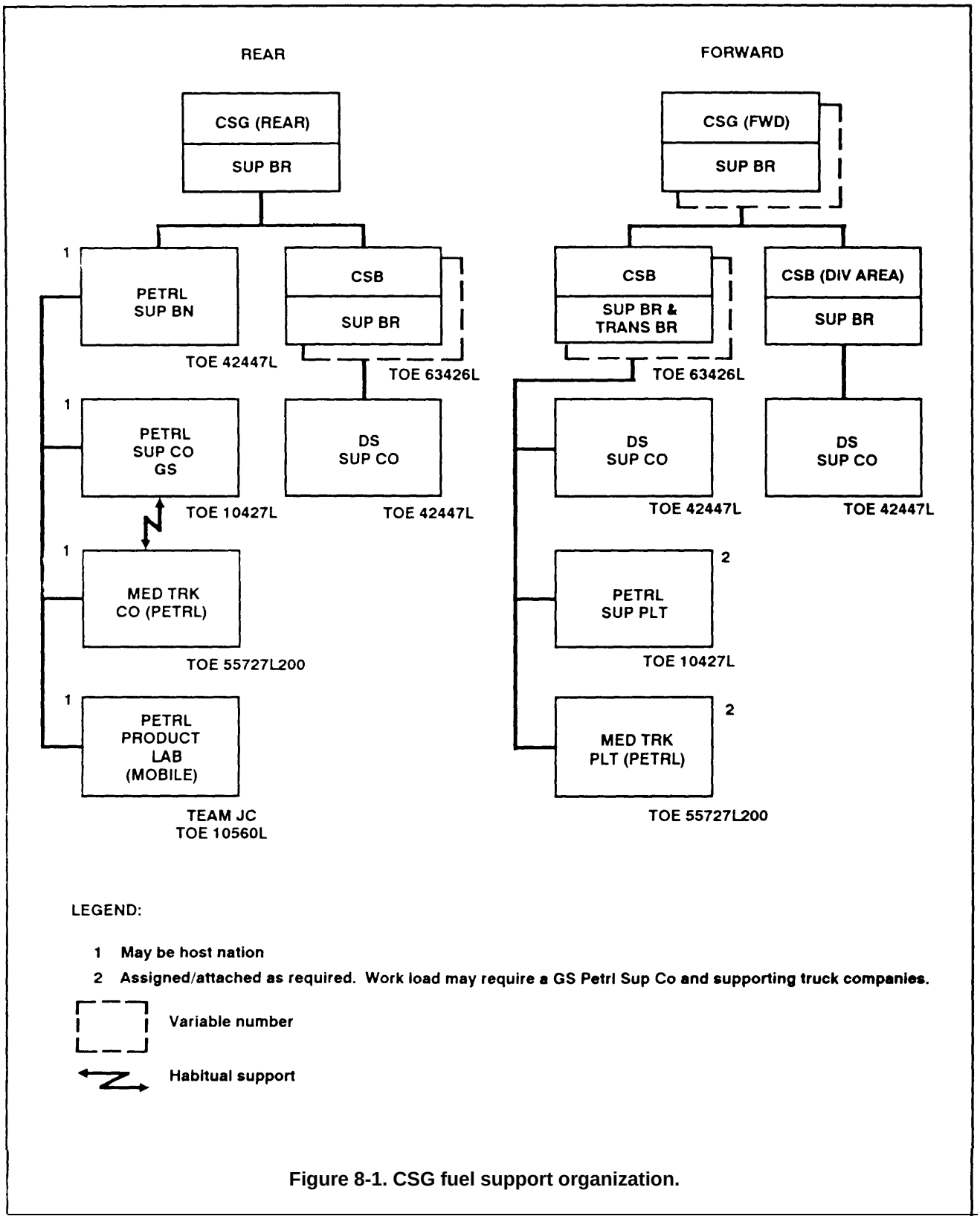


Figure 8-1. CSG fuel support organization.

locations. Depending on its employment, the company may provide bulk GS level fuel to—

- Quartermaster supply companies, DS.
- MSB S&S companies or FSB supply companies.
- Aviation brigades.
- Separate brigade support battalions.
- ACR support squadrons.

The petroleum supply company also provides direct support to customers that require large quantities of fuel. Examples include medical evacuation units and aviation units.

TOE 10427L000 lists specific mission capabilities. FM 10-427 describes the daily operations of petroleum supply companies. The unit's MTP identifies critical mission tasks.

MOBILE PETROLEUM LABORATORY TEAM

Depending on the theater, the COSCOM attaches this team to the rear CSG's petroleum supply battalion. The team tests petroleum samples. It also provides technical assistance on sampling, identification, and quality evaluation of petroleum products and containers.

TOE 1056OLC lists mission capabilities. FM 10-72 describes the deployment and operation of mobile laboratories. FM 10-70 covers laboratory testing, sampling, and inspection. Military Handbook 200G provides a detailed breakdown of the types of tests required for each type of product.

MEDIUM TRUCK COMPANY (PETROLEUM)

The COSCOM assigns Transportation Medium Truck Companies (Petroleum) (TOE 55727L200) to forward and rear CSGs. Depending upon distribution requirements, the CSG attaches these companies to CSBs or a petroleum supply battalion.

The medium truck company (petroleum) transports bulk fuel in organic 5,000-gallon tank semitrailers. Tankers deliver fuel from GS petroleum supply company storage to DS supply company storage, They also throughput bulk fuel to selected customers in the corps area, DSA, and (in emergency situations) BSA.

TOE 55727L200 lists mission capabilities. FM 55-30 describes daily operations. The unit's MTP identifies critical mission tasks.

CELLULAR LOGISTICS TEAM

Depending on the theater, a US petroleum supply CLT (TOE 10560LS) could provide liaison and the interface between a CSG and a WHNS petroleum supply battalion. The CLT collocates with the HN battalion and acts as a special staff element of the battalion. It coordinates work load, maintains visibility of bulk petroleum stocks, and provides status to the CSG's petroleum staff. The CMMC tasks the HN's petroleum supply companies through the CLT. Figure 8-2 shows this command and tasking relationship.

PETROLEUM PIPELINE AND TERMINAL OPERATING COMPANY

Though pipelines may run through a CSG AO, petroleum pipeline and terminal operating companies are not normally attached to a CSG. They are EAC units assigned to the petroleum pipeline and terminal operating battalion employed in the COMMZ. However, to support a contingency, the TA or joint/combined commander could assign petroleum pipeline and terminal operating companies or battalions to the COSCOM.

FUEL SUPPORT OPERATIONS

To support the momentum of early air and ground operations, fuel support needs to be continuous from the outset of operations. Preplanned bulk fuel resupply occurs through D + 10.

The fuel supply system is essentially an automatic resupply operation. Units move fuel forward based on stockage policy and the storage capacity of receiving units. The petroleum distribution system synchronizes transportation transfer, rail, water and truck movement with bulk fuel storage and forward supply resources. Movement of bulk fuel is triggered by the requirement to replenish prescribed stocks as forces consume fuels.

BATTLEFIELD EMPLOYMENT

Figure 8-3 depicts a sample employment of CSG fuel supply elements. Actual employment depends on the theater, terrain, tactical requirements, and possible HNS.

In the brigade area, an FSB supply unit supports corps forces, such as corps FA, corps ADA, and corps engineer organizations, as well as division units from its forward Class III supply point. In the DSA, the MSB's S&S company may support corps FA headquarters units at the main Class III supply point. Based on prior coordination between the forward CSB LO at the FSB, CSG

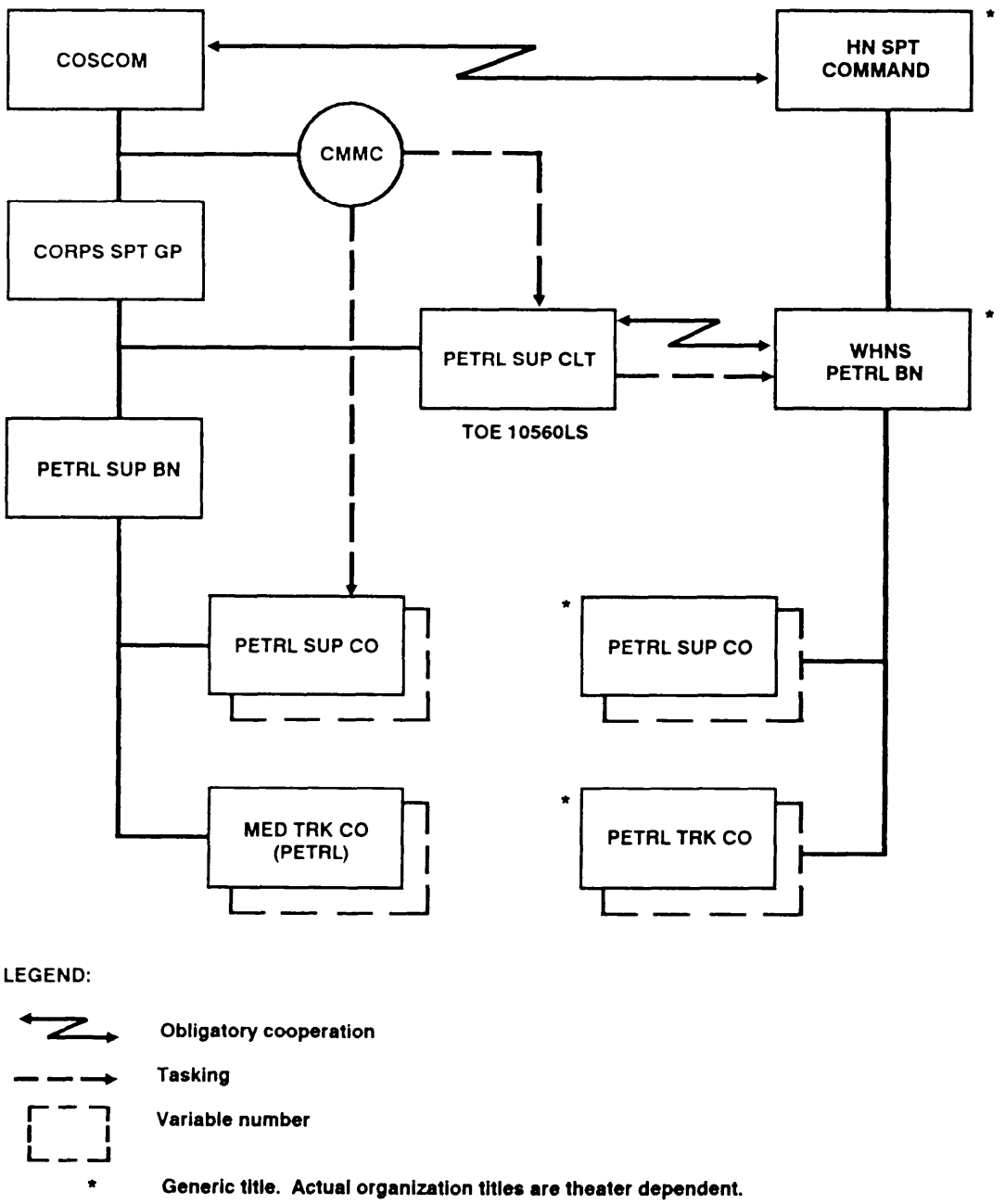


Figure 8-2. Command and tasking relationships, petroleum supply CLT.

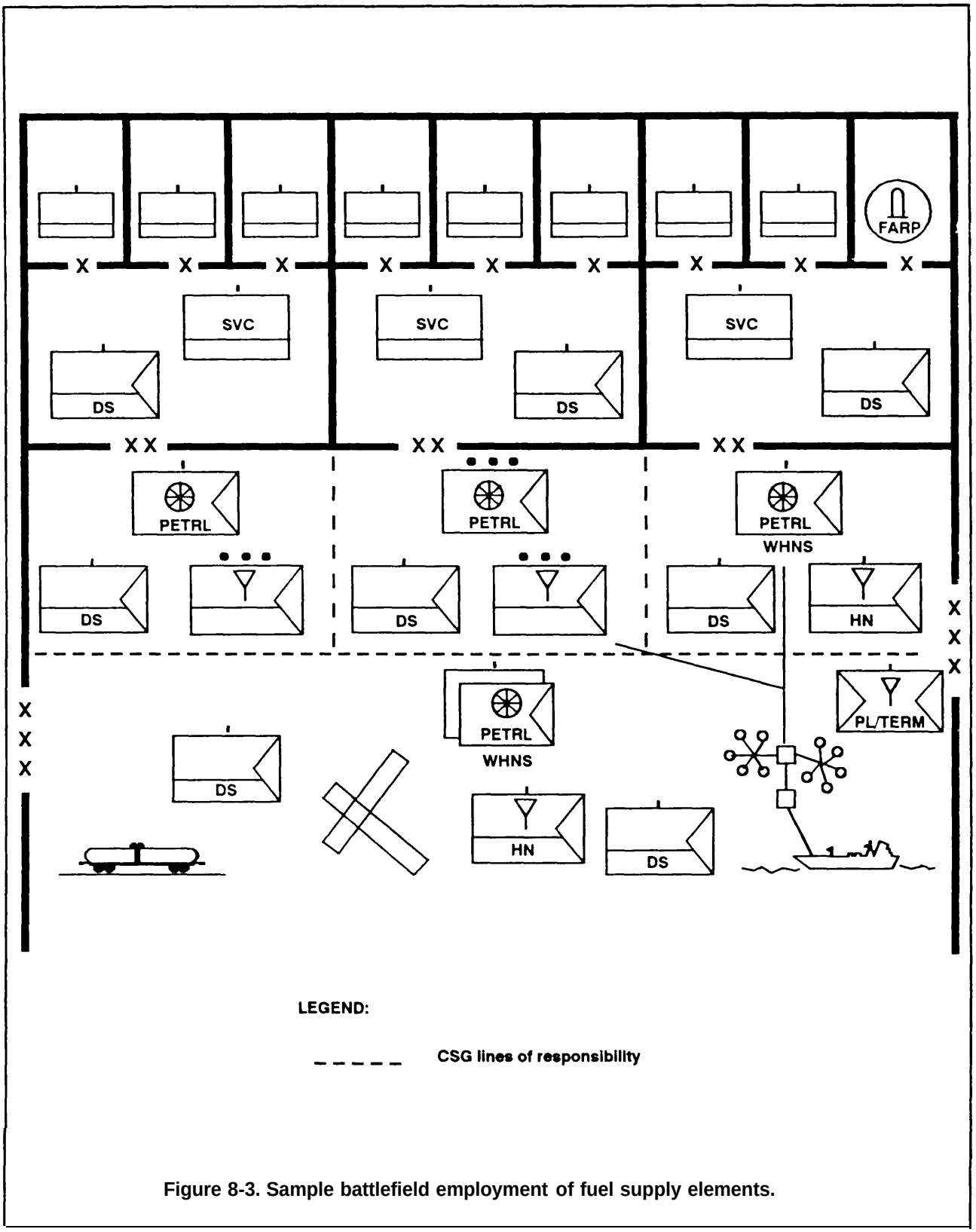


Figure 8-3. Sample battlefield employment of fuel supply elements.

LO at DISCOM headquarters, and brigade S4 staff, the nondivision DS supply company may provide tankers, collapsible tanks, or drums to offset FSB and MSB supply to corps forces.

Forward CSGs employ a DS supply company in the division area to support nondivision units on an area support basis. This company operates refuel-on-the-move sites to support forces moving through the forward CSB's area of responsibility. It provides personnel and equipment to distribute fuel from a forward logistics element or reinforce FSBs and MSBs providing support to corps forces in the BSA and DSA.

Forward CSGs also employ a DS supply company(s) behind the division boundary to provide support on an area basis to nondivision customers. Depending upon requirements, they could also employ a GS petroleum supply platoon or company and habitual supporting medium truck companies (petroleum) in the corps rear area. This reduces the length of the LOC and provides more responsive throughput to the MSB S&S company or FSB supply company.

The rear CSG employs a DS supply company in the corps rear area to support nondivision units on an area support basis. It may employ GS petroleum supply companies and habitually supporting medium truck companies (petroleum) to maintain the corps reserve from which to weight the corps battle.

BULK FUEL SUPPORT CYCLE

Bulk fuels are not formally requested. Petroleum supply companies push bulk fuel forward in response to forecasted requirements and status reports. Figure 8-4 depicts the bulk fuel requirements and distribution cycle.

Forecasted Requirements

Each day, unit supply sergeants and battalion S4s forecast requirements based on the actual type and quantity of equipment on hand. S4s coordinate with S2/S3s to forecast requirements based on the probable level of activity for the next 72-hour period. Initial forecasts can be based on consumption data for periods of similar operations.

Corps forces, such as corps FA organizations, corps ADA, and corps engineers, send their forecasted requirements through their brigade S4 chain to the DMMC. Their forecasts are consolidated with forecasted requirements from other division forces and sent to the CMMC. When COSCOM forces support a division, they send their forecasts directly to the CMMC.

Division, ACR, and separate brigade MMCs compare fuel forecasts and status reports and transmit bulk fuel requirements to the CMMC's petroleum and water division. The CMMC prepares a forecast of Army requirements. It combines that requirement with requirements to support other services and allies. The CMMC forwards the total requirement to the TAMMC in a fully developed theater or JPO in an undeveloped theater. The JPO prepares the petroleum slate.

Daily Status Reports

Nondivision Class III points submit a daily status report to the CMMC on quantities received, issued, and on hand. The CMMC consolidates status data and compares bulk requirements against quantities available for issue. It transmits requirement data to the TAMMC or JPO as appropriate.

Issue

The corps provides allocation instructions. The CMMC provides prioritized shipping instructions to the petroleum supply battalion or CSB. COSCOM petroleum support branch personnel modify issue schedules based on the tactical situation or changes in stock status. For example, the corps G3 may change priorities to shift support to a tactical combat force. The CSG support operations officer needs to coordinate with the CMMC, CMCC, and area MCT to divert or reroute fuel to alternate locations or to meet unexpected surge requirements.

Receipt

Corps Class III points receive bulk fuel from GS petroleum supply company Class III points at EAC. Based on the Class III distribution plan, bulk fuel is distributed from GS to GS or GS to DS Class III points.

FM 10-69 describes receipt operations at Class III supply points. FM 10-71 describes procedures for unloading tank trucks. FM 10-18 describes procedures for tank railcars. DA Form 3857 provides a useful procedural checklist for monitoring receipt operations. Class III point personnel post quantities received to the stockage record and update the daily status report.

Class III supply points consolidate stocks to provide for more efficient use of collapsible fabric tanks. If there is not enough storage space to accept deliveries, the CSG support operations officer secures additional storage capacity. Tankers or 500 gallon drums

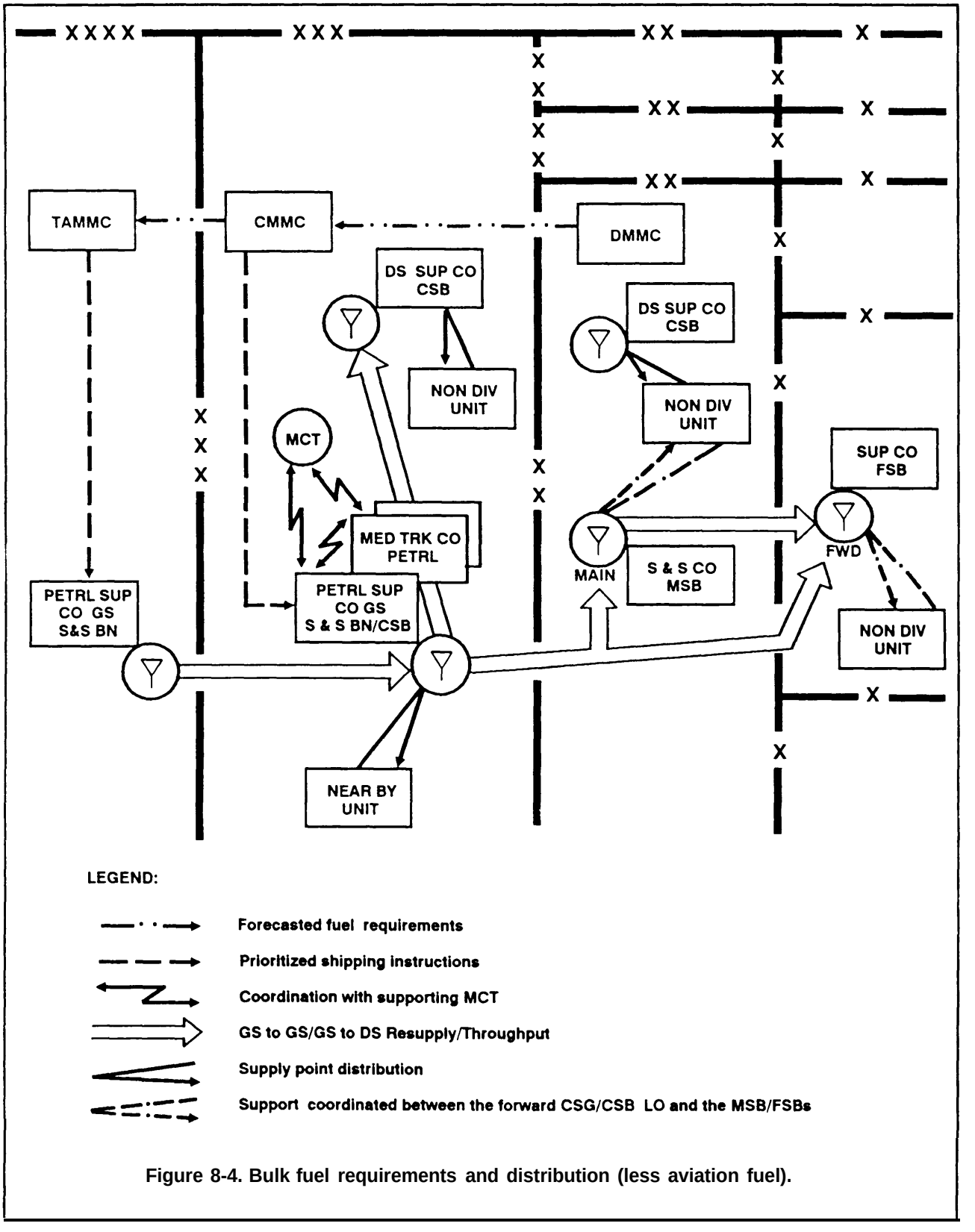


Figure 8-4. Bulk fuel requirements and distribution (less aviation fuel).

can provide additional storage. Groups use HN storage and distribution capability whenever possible. CSG HNS branch personnel coordinate the use of petroleum facilities made available by the HN with the CSG petroleum officer.

The backup of fuel tankers along supply routes increases the probability of becoming a target. Trailer transfers wherein truck tractors drop off a full semitrailer and pick up an empty one save time. Petroleum officers in the petroleum supply battalion and CSBs monitor delivery schedules to ensure that empty tankers are on hand when resupply tankers arrive.

Distribution

The GS petroleum supply company coordinates with its habitually supporting medium truck company (petroleum) to transport fuel from the Class III supply point to a DS supply company or other customers. As an exception, if the supported unit employs closer to a GS petroleum supply company, it obtains resupply from that company.

The medium truck company (petroleum) requests road access from the supporting MCT. The MCT coordinates movement with the medium truck company (petroleum) and petroleum supply company. Throughput from a GS petroleum supply company to the supported unit or MSB/FSB Class III point remains the most responsive way to move fuel.

Under supply point distribution, supported units drive organic vehicles to the DS supply company's Class III supply point, Nondivision units obtain fuel from a supply company employed in the division area. Depending upon organic capability and corps reinforcing support, forward CSG/CSB LOS at the DISCOM and FSBs arrange for corps units to receive support from a MSB S&S company or FSB supply company.

REFUEL-ON-THE-MOVE

Refuel-on-the-move support ensures that the fuel tanks of combat and fuel-servicing vehicles are topped off en route, This support is normally provided by using 5,000-gallon petroleum tankers and refueling equipment to establish four- to eight-point refueling site. It can occur along any portion of a line of march. Using CSG assets eliminates the need to draw down petroleum supply vehicles organic to combat and CS units.

The CSG petroleum officer and petroleum supply battalion staff plan the refuel operation to preclude shutting down the system, More than one tanker can be connected to the refueling system. When one tanker is emptied, switch to another and replace as necessary. A tank and pump unit can employ near the site exit to fuel wheeled vehicles.

CSG support operations staff officers coordinate refueling site selection with the sector RAOC. Parking area, concealment, and traffic flow comprise key site selection factors. Fuel tankers need to be able to exit the area rapidly in the event of an attack.

Petroleum officers in CSBs and petroleum supply battalions need copies of the march tables and fuel consumption figures. Supported units coordinate resupply requirements with the supporting unit. FM 10-71 describes refuel-on-the-move operations.

AVIATION FUEL RESUPPLY

Helicopter operations are time-critical. Delays in resupply of aviation fuels could jeopardize critical missions. Depending on the mission and environment, attack helicopters could require resupply every one and a half to two hours. Aviation battalion staff officers forecast support requirements based on the expected duration of the mission.

When possible, medium truck company (petroleum) tankers throughput aviation fuels to the—

- Attack/assault helicopter battalion combat trains.
- Division airfield site.
- MSB Class III supply point. (The MSB S&S company typically positions its jet fuel assets at the FSB's forward Class III point.)

Medical evacuation helicopters refuel at the division/corps airfield.

Forward deployed corps aviation units receive aviation fuel from corps assets. To expand the storage and distribution capabilities of the division aviation brigade, forward CSGs can—

- Allocate 10,000-gallon collapsible fabric tank(s) to provide a temporary corps storage facility at the division airfield or other precoordinated location.
- Temporarily allocate tankers to corps aviation battalions to provide mobile aviation fuel storage.
- Deliver 500-gallon collapsible drums of aviation fuel to supported units for aircraft refueling.
- Maintain at least one petroleum semitrailer to transport aviation fuel.

Normally, corps aviation units are resupplied with aviation fuel direct from the corps. The MSB's main

Class III supply point also maintains a limited reserve stockage of aviation fuel. Refer to Figure 8-5. In an emergency, aviation units could obtain aviation fuel from the MSB. Corps or MSB tankers transfer aviation fuel support to petroleum vehicles organic to aviation units at predetermined locations. The COSCOM may also arrange to have corps aviation units obtain aviation

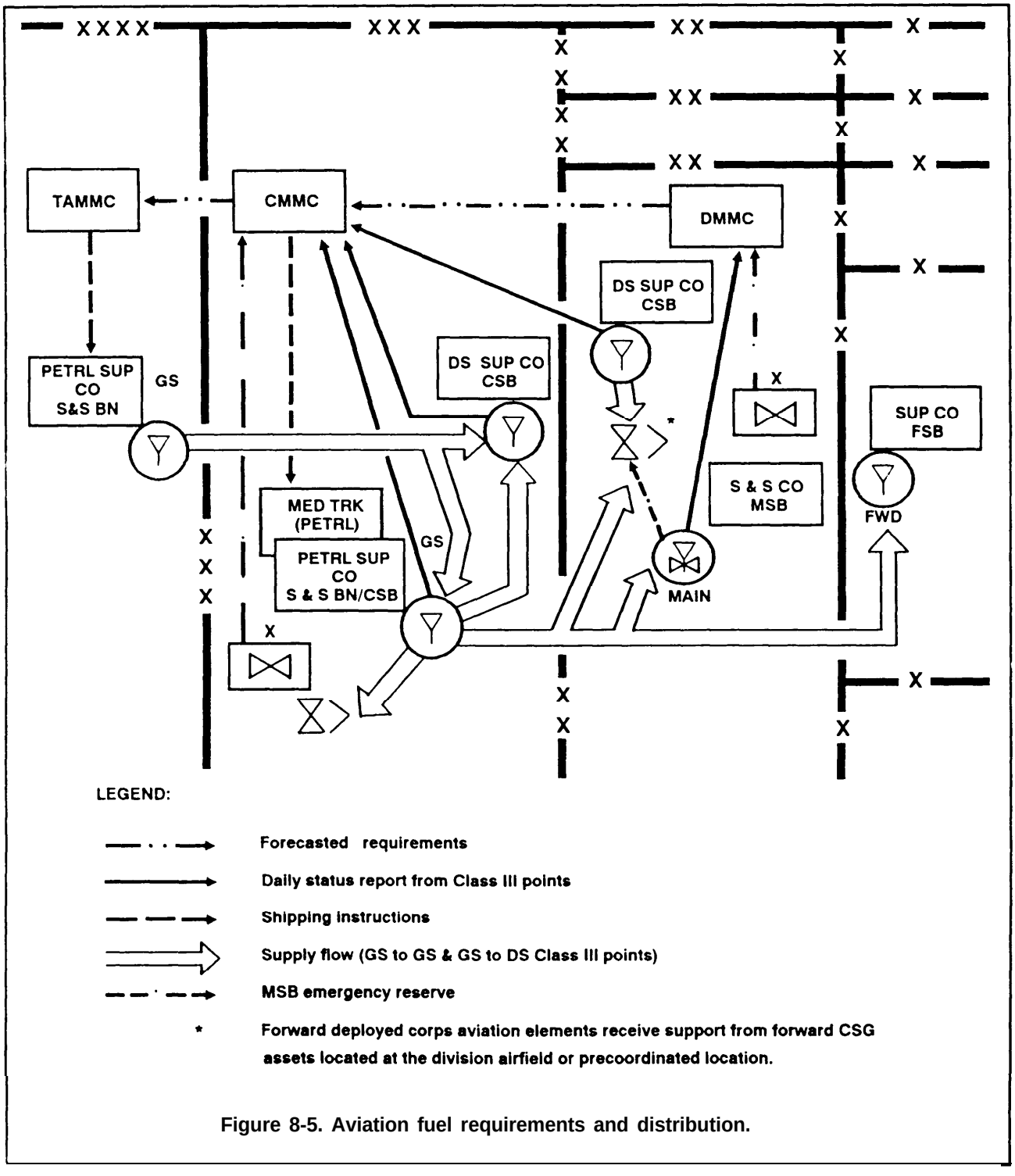


Figure 8-5. Aviation fuel requirements and distribution.

fuel from the division aviation brigade FARPS or supply point.

Corps cargo and utility aircraft provide limited aerial resupply from corps sources. When operations occur beyond the FLOT, aerial resupply may comprise the only way to support operations.

PACKAGED PRODUCTS SUPPORT CYCLE

Packaged products include 5-gallon cans and 55-gallon drums of fuel. They also include packaged products such as engine oil, hydraulic fluids, greases, fog oil, turbine oil, sulfuric acid, antifreeze, and cylinders of liquid and compressed gases.

Requirements depend on the number and type of equipment supported, climate conditions, and the area of operations (for example, hilly or desert). SB 710-2 lists packaged products consumption data for intense and sustained combat.

Packaged products are requested, received, and distributed like Class II and IV items. Figure 8-6 depicts the request and distribution flow of packaged products. FM 10-69 describes their receipt, storage, and issue.

Request and Issue

Units request packaged products from their supporting DS supply company. If the products are on hand, the DS supply company issues the product and sends status reports to the CMMC.

Requisition

If the required amount exceeds the available quantity, or if the product is not stocked, the DS supply company consolidates the requests and fonvards a requisition to the CMMC.

The CMMC performs a lateral search for the product within the corps. If the product is available, it transmits MROs directing a GS supply company to issue packaged products to a DS supply company. The DS supply company's Class II, packaged III, and IV point uses advance copies of issue documents to prepare for the receipt of supplies. The GS supply company coordinates movement requirements with the supporting MCT.

Distribution

Supply point distribution is normally used to issue packaged III products. Nondivision units drive to the DS supply company Class II, packaged III, IV, and VII point to pick up packaged products. This includes filling 5-gallon cans or 55-galion drums. Corps organizations employed in the brigade area may obtain packaged III products at a forward logistics element or at an FSB's supply company forward Class III point.

Fog Oil

Requirements for fog oil depend on the—

- Duration of smoke or deception operations.
- Weather conditions.
- Terrain.
- Time allowed to produce smoke.

The CMMC cuts MROs directing issue from stocks at a GS supply company Class II, packaged III, and IV point. The CMCC coordinates its delivery with MCTs, Corps trucks deliver fog oil in 55-gallon drums to corps chemical units, bypassing the DS level.

AIR RESUPPLY

Air resupply becomes necessary when ground LOCs are not secure or available. It can support units cutoff from normal resupply. DS supply company personnel sling load 55- and 500-gallon drums for helicopter external sling load. Airdrop supply company personnel prepare the load for delivery by fixed wing aircraft. Receiving units turn slings back into the supply system.

SUPPORT OF TACTICAL OPERATIONS

To successfully support tactical operations, petroleum staff personnel need to analyze support options. They —

- Plan for shifts in tactical operations from offensive to defensive or retrograde.
- Monitor fuel forecasts and recommend adjustments as necessary.
- Assess storage and distribution requirements versus the mission capabilities of subordinate units.
- Analyze ways to reinforce FSB forward Class III point.
- Analyze the impact of the enemy's capability to interdict ground LOCSs.

Table 8-1 lists other areas for petroleum officers to consider and actions to take to support offensive, defensive, and retrograde operations.

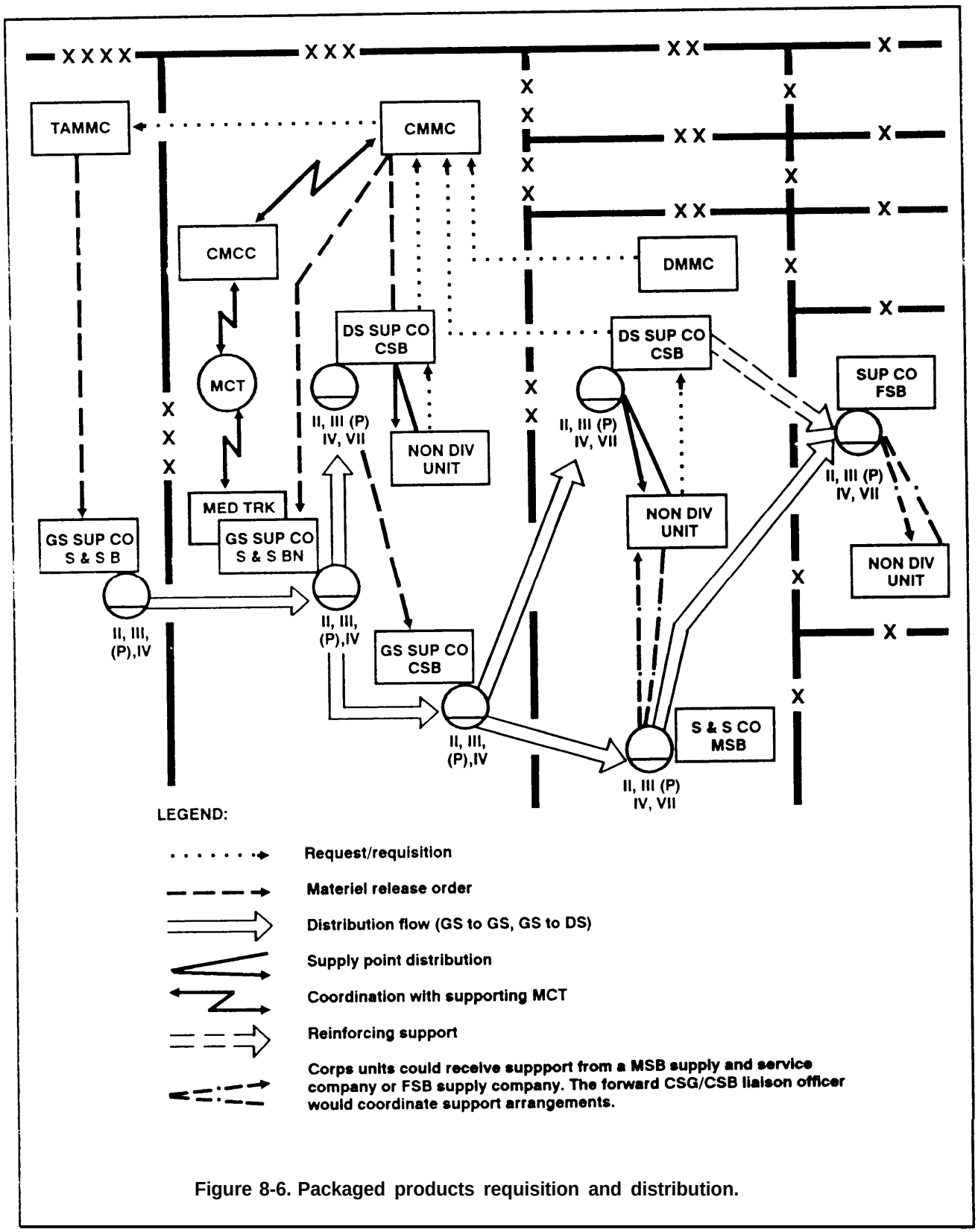


Figure 8-6. Packaged products requisition and distribution.

Table 8-1. Supporting tactical operations.

Offensive Operations	Plan for increased consumption due to increased maneuver activity.
	Adjust fuel forecasts to reflect increased fuel requirements.
	Recommend changes to customer support lists.
	Modify fuel requirement data based on terrain and level of combat.
	Analyze the organic fuel storage capabilities of committed units.
	Ensure that vehicles have their complete basic load of fuel.
	Employ refuel-on-the move tactics to refuel combat vehicles.
	Build up quantities of fuel in forward locations.
	Move Class Ill supply elements forward as the attack develops.
	Arrange to throughput bulk fuel and fog oil to fuel supply points in the BSA.
	Arrange for resupply by Cl 30 bladder-birds and wet-wing operations.
Defensive Operations	Plan for decreased use of fuel.
	Recommend adjustments to fuel forecasts.
	Recommend changes to customer lists as needed.
	Ensure units replenish basic loads.
	Plan for routine resupply at night using the LOGPAC method.
	Plan alternate supply routes.
	Arrange to prestock 500-gallon drums at successive defensive positions.
Retrograde Operations	Analyze and adjust fuel consumption forecasts.
	Recommend adjustments to customer support lists.
	Arrange to use tank trucks and rail cars to store bulk fuel. (This avoids drainage and evacuation of 10,000-, 20,000-, and 50,000-gallon collapsible fabric tanks.)
	Allow forward elements to use up their fuel by not pushing normal fuel replenishment forward.
	Redirect fuel tankers to rear supply points or positions.
	Plan for possible destruction of fuel stocks to prevent enemy capture and use.

SUPPORTING OFFENSIVE OPERATIONS

Stockpiling large amounts of bulk fuel in forward areas could indicate to threat intelligence that an attack is pending.

The DS supply company can setup a service station type operation near the MSR. This supports rapid refuel and return of combat and CS elements to the offense.

Resupply occurs as the situation permits. This is normally during scheduled halts or after achieving the objective. Tactical vehicles should enter the resupply point, following a one-way traffic flow. Based upon the tactical situation, a section or platoon pulls out of its position, is refueled, and returns to the convoy. This process continues until the company has been refueled.

The CSG commander assesses the risk to soft-skinned vehicles against the chance of enemy action. To speed resupply, the commander can attach resupply vehicles to the supported unit.

Soldiers of all units need to know how to defuel 500-gallon drums. All fuel-servicing vehicles should have fuel pumps as basic issue items. Train soldiers to identify the hoses and couplings required to mate the 500-gallon drum to organic fuel-servicing equipment.

SUPPORTING DEFENSIVE OPERATIONS

When out of contact, supported units may continue to send vehicles back to the centralized resupply point. Alternatively, they could remain in place while petroleum tankers or tank and pump units go to each vehicle position. Regardless, to decrease enemy detection, resupply should occur during periods of limited visibility.

CSG and tactical commanders need to weigh the risk associated with forward resupply against providing fuel from a supply point in the corps rear area. The supported commander accepts the chance of loss due to enemy action. He preplans destruction of prestocked fuel to prevent capture.

SUPPORTING RETROGRADE OPERATIONS

COSCOM petroleum support branch personnel recommend adjusting fuel forecasts to reduce the quantity of fuel pushed forward. CSG petroleum staff could recommend diverting tankers to rear storage points or storage facilities in areas where troops are preparing to support follow-on offensive operations.

Battlefield deception techniques can cover the withdrawal of fuel supply elements. Fuel elements set up filling station type operations along withdrawal routes. CSG OPORDs describe destruction procedures to prevent enemy capture of petroleum stocks.

BATTLEFIELD DECEPTION

Supply point size and petroleum tanker movements make Class III supply points difficult to conceal. CSG petroleum staff could recommend using the following deception techniques:

- Use civilian trucks and tankers in resupply operations.
- Set up collapsible fabric tanks in warehouses or factory buildings.
- Store packaged products in houses.
- Paint and mark 55-gallon drums to look like ones used by local civilians.

Deception techniques depend on the overall corps deception plan. However, CSG petroleum staff could recommend the following as possible ways to lead the enemy to believe that fuel elements operate where in reality none exist:

- Arrange empty fuel drums, damaged 500-gallon drums, and combat vehicle losses to portray a mobile filling station or forward Class III supply point.
- Transmit bogus requirements and MROs over the administrative/logistics net.
- Use decoy devices available in the logistics base decoy package. (These provide visual, thermal, and radar signatures similar to equipment and vehicles found in Class III sites.)

CAPTURED PETROLEUM PRODUCTS

As part of the LPB, the CSG S2/S3 provides information on enemy storage sites. Use of captured fuel without petroleum laboratory approval occurs only in emergencies. Forces discontinue use of captured fuel as soon as US fuel becomes available. The CSG petroleum supply officer coordinates testing and use of captured petroleum products.

SUPPORT CONCERNS

Due to the unique characteristics of petroleum, concerns include terrain requirements, quality surveillance, loss, and destruction.

INCREASED BATTLEFIELD DEPTH

The depth of air-ground operations has increased the dispersion and possible isolation of supported units. Increased battlefield depth requires that CSGs push fuel farther forward than ever before. Petroleum tankers deliver fuel to the DSA and, depending upon requirements of corps organizations employed in the brigade area, as far forward as brigade trains. This forward support places thin-skinned petroleum tankers at risk. Securing the ground LOC becomes imperative for support of operations. Air resupply becomes more critical as ground LOCs become too long to maintain.

THREAT TARGET

Class III supply points and distribution assets at forward supply elements appear as lucrative targets to threat forces. Threat forces understand the value of disrupting fuel distribution to forward forces. Subordinate fuel elements should expect, not merely consider, attacks from saboteurs, partisans, special purpose forces, and exploitation forces.

It is difficult to hide storage of over two million gallons of bulk fuel. Storage patterns formed by grouping 50.000- and 20,000-gallon storage bags are distinctive. It is difficult to hide traffic associated with the receipt and issue of over one million gallons of fuel per day from petroleum supply companies.

TERRAIN REQUIREMENTS

Though terrain dependent, petroleum supply companies could require an area of about 1,600 meters by 900 meters. Elements disperse to provide a less lucrative target. Dispersion enhances operational safety. Class III supply points require—

- Cover and concealment.
- Level, well-drained land.
- Easy access to road networks.
- At least 500 feet distance from other areas of operation.
- Water source to aid in fire control.
- Engineer site preparation.
- At least 150 feet between each of six 50,000-gallon collapsible fabric tanks per IFSSP.
- At least 40 feet between each of the four 10,000-gallon and 20,000-gallon collapsible fabric tanks per IFSSP.
- At least 25 feet between vehicles receiving fuel.
- At least 100 feet between aircraft refueled by FARE.
- At least 50 feet between the mobile laboratory site and other areas.

The CSG petroleum supply officer coordinates with the sector RAOC and division rear CP or FSB S2/3 in selecting a general operational area. Petroleum staff officers in subordinate battalions select the specific site. The CSG support operations officer coordinates petroleum storage facilities construction requirements with supporting engineers.

QUALITY SURVEILLANCE

Petroleum testing needs to be available early in undeveloped theaters. MIL-HDBK-200G prescribes the minimum emergency tests required. If the mobile laboratory team is not in theater, units need to send samples to the nearest laboratory out of country.

Petroleum quality surveillance specialists test products upon receipt and prior to shipment. They test stored products for serviceability and possible contamination.

The CSG petroleum supply officer implements the COSCOM's quality surveillance policy. The CSG FSOP lists the types of samples subordinate units submit for testing. It prescribes when and how units submit samples. It also specifies provisions for ensuring that HN facilities meet quality standards.

CONTAMINATED OR OFF-SPECIFICATION PRODUCTS

The mobile petroleum laboratory team recommends ways to deal with contaminated or off-specification. products. Reclamation is preferred, unless time or the tactical situation prevents it. The CMMC petroleum manager coordinates final disposition instructions between the CSG petroleum supply officer and petroleum supply battalion staff. CSG HNS branch personnel coordinate product disposal through HN channels.

DESTRUCTION

Subordinate units need to destroy fuel stocks to prevent enemy capture and use. The degree of destruction depends on available time, equipment, and personnel.

Base cluster commanders can authorize destruction of fuel supply facilities to prevent imminent enemy capture. If time permits, they coordinate the decision to destruct with the CSG support operations officer and area RAOC.

The CSG FSOP specifies destruction authority and detail procedures for destruction. Unless otherwise specified, units destroy fuel stocks by burning.

FUEL SUPPLY CONTROLS

To ensure availability for critical surges, DS supply and petroleum supply units allocate bulk fuel according to priorities. The CMMC provides centralized control.

To ensure a continuous readiness posture, petroleum supply officers plan for and continually monitor fuel consumption. Successful tactical support depends on—

- Fuel allocation.
- Centralized control of GS fuel stocks.
- Maintaining a corps reserve (minimum days of supply).
- Accurate fuel forecasts.
- Timely status reports.
- Effective coordination between tactical and logistical planners.

FUEL ALLOCATION

When demand exceeds availability, commanders establish an allocation system. Allocations depends on priority and the commander's intent. Allocation instructions flow from the TAMMC and CMMC to the CSGs.

CENTRALIZED CONTROL

The CMMC exercises centralized control over bulk petroleum within the corps. It consolidates forecasts and transmits requirements to the TAMMC.The CMMC work loads GS petroleum supply companies by issuing MROs. If the corps allocates fuel resupply, the CMMC provides prioritized shipping instructions to the petroleum supply company. It also redirects shipments to meet surge requirements.

MINIMUM DAYS OF SUPPLY

To ensure that the theater provides responsive bulk fuel support, the TA commander prescribes minimum DOS. This quantity should be maintained within organic storage available in the combat zone and the COMMZ.

Developed Theaters

FM 10-67 recommends that the corps maintain the following minimum DOS within large developed theaters of operations:

- Four days of GS supply in the corps area.
- One day of DS supply in the corps area.
- One day of supply in the DSA.

Support operations staff officers use these figures for planning purposes only. In actual practice, the days of bulk fuel supply maintained at each level in a developed theater depend upon—

- Demands.
- Distances.
- Storage.

The COSCOM may need to expand existing petroleum distribution systems to support HN civilian and military forces.

Undeveloped Theater

The minimum DOS stocked in an undeveloped theater depend upon the—

- Available storage.
- Number of days required to resupply an independent corps by tanker ships.
- Duration and geographic expansion of the operation.

For planning purposes only, FM 10-67 recommends the following minimum DOS for an independent corps:

- Four to 15 days of supply at the GS level.
- One day of supply at the DS level.
- Two days of supply at the unit level.

COSCOM petroleum support branch personnel may recommend that the corps G4 adjusts these minimum stockage levels. An increase may be needed to

enable the COSCOM to meet the needs of all users, to include the Air Force, Navy, and allies.

CORPS RESERVE STOCK

The corps reserve of bulk fuel allows CSGs to support division surges and counter battle losses. It is based on the requirement to support a heavy division for four days (about 2,140,000-gallons). The COSCOM portion of the Class III reserve equates to four days of supply. However, one of the four days is normally stock in transit to DSUs or using units. CMMC petroleum and water division staff officers ensure that fuel elements maintain their prescribed portion of the corps reserve stocks.

FUEL CONSUMPTION ESTIMATES

Fuel consumption estimates provide the basis for planning resupply operations. CSG petroleum officers use fuel consumption estimates to assess distribution priorities and develop plans for supporting corps forces.

Fuel estimates include requirements for each piece of organic fuel consuming equipment, by type of product, for each 24-hour period. The estimate reflects the battalion's probable level of activity, as determined by battalion S3s.

Until experience data accumulates, CSG and subordinate battalion petroleum officers use consumption data in SB 710-2. If appropriate, forward deployed units use STANAG 2115 to compute their fuel consumption. They adjust that fuel consumption to the type of combat, terrain, and climate.

The CSG petroleum supply officer analyzes the accuracy of supported unit fuel consumption estimates. These estimates help him determine the number and type of distribution equipment needed in subordinate fuel elements. CSG petroleum officers use these estimates to recommend ways to cross-level subordinate fuel elements to better balance requirements against capabilities.

FUEL FORECASTS

Fuel forecasts help the CMMC determine the quantity of fuel to resupply. Figure 8-7 depicts the flow of fuel forecasts. The CMMC sets corpswide reporting procedures. The TAMMC sets reporting procedures for the theater.

Each day, supported units forecast fuel requirements for the next three-day period. Table 8-2 provides a sample forecast. Supported units submit fuel forecasts to their battalion S4. As appropriate, S4s consolidate and forward the forecasts to the DMMC or CMMC. Corps FA, corps ADA, and corps engineer organizations attached to a division submit forecasted requirements to the DMMC. However, when those corps organizations support a division, they submit their forecasts to the CMMC.

Class III points submit daily status reports of fuel received, issued, and on hand to the DMMC/CMMC. Those within the corps send an information copy to their parent CSB and CSG's support operations section.

The CMMC uses forecasts and daily status reports to compute bulk fuel requirements for the corps. It modifies forecasts based upon stock status and the tactical situation. The CMMC's petroleum and water division develops and forwards a daily bulk fuel requirement requisition to the TAMMC. The CMMC also informs the CMCC of forecasted work loads.

STATUS REPORTS

Each day Class III supply points submit a status report through their parent battalion to the CMMC's petroleum and water division. Petroleum inventory control specialists in subordinate petroleum supply battalions receive stock status reports from petroleum companies and transmit storage and availability data to the CMMC.

WARTIME ACCOUNTABILITY

The Secretary of the Army may waive peacetime accountability procedures. When waived, GS petroleum supply companies and DS supply companies implement the following directives:

- Perform only cyclic inventories, as the situation allows.
- Perform summary accounting.
- Use the post-post method when issuing fuel.
- Record, but not report, fuel discrepancies.

If accountability procedures are not wavered, units follow procedures in AR 710-2 to determine allowable losses.

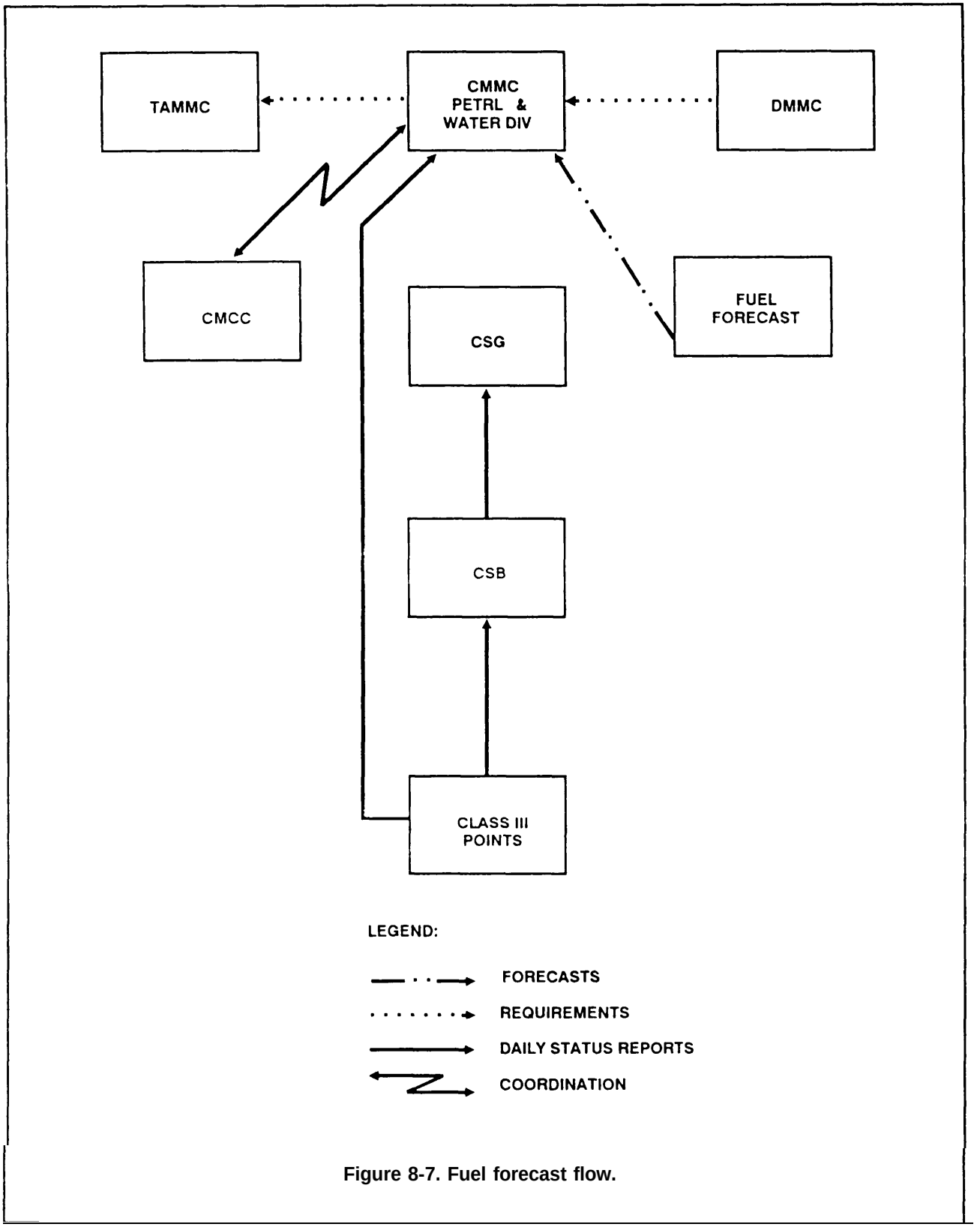


Figure 8-7. Fuel forecast flow.

Table 8-2. Sample forecast of bulk fuel requirements.

(Classification)

SUBJ: BULK PETROLEUM REQUIREMENTS AS OF (DTG)

204TH CSB, MA858655

ON HAND

PART I - OVERALL PRODUCT STATUS AND REQUIREMENTS

PRODUCT	GALLONS	LOCATION	RECEIPT
JP-4	19,273		72,000
JP-8			
MOGAS	18,281		56,000
DIESEL	29,090		72,000

REQUIREMENT (GALLONS)

	5 NOV DAY 1	UNIT ID& LOCATION	6 NOV DAY 2	UNIT ID& LOCATION	7 NOV DAY 3	UNIT ID& LOCATION	RECV UNIT
JP-4	70,000		68,000		70,000		
JP-8							
MOGAS	53,000		55,000		50,000		
DF	72,000		75,000		73,000		

PART II - RECEIPTS LAST 24 HOURS

PART Ill - REMARKS

(Classification)

NBC CONCERNS

A nuclear blast can damage fuel equipment as well as cause injury to Class III supply point personnel. Thermal radiation from nuclear explosives can ignite combustible fuel stocks. The air blast can overturn fuel pumps, filter separators, and tank vehicles. It can hurl debris which can crush IFSSP equipment. Electromagnetic pulse damages electrical equipment by increasing voltage in excess of normal operating levels. Residual nuclear radiation can affect the health of Class III supply point personnel.

Defense measures include —

- Hardening the Class III supply point position. Unit personnel need to tie down or anchor loose or shock-sensitive equipment or shield it with sandbags or earth.
- Piling sandbags around power generators.
- Establishing entry and exit procedures to limit the spread of contamination.
- Decontaminating those portions of mission essential equipment which supply point personnel touch.

CHAPTER 9

Fixing the Force

Success on future battlefields may depend on which side can recover, evacuate, repair, and return damaged and disabled weapon systems to the fight faster. Where opposing forces possess parity in the number and destruction capability of weapon systems, the force which can repair and return the greater number to battle gains the advantage. For this to happen, maintenance units need to maintain sufficient stocks of the right repair parts. Maintaining stockage of high demand items ensures immediate response to supported customers. Maintaining critical replacement end items helps ensure combat readiness when maintenance cannot repair items within established time limits.

CONTENTS

DS MAINTENANCE SUPPORT ORGANIZATION

DS maintenance units repair and return equipment to the using unit. The number and types of units supported affect the number of DS maintenance units attached to a CSB. They also impact on the number and type of repair teams augmented to support unit-unique equipment. Figure 9-1 shows a group's DS maintenance support organization.

NONDIVISION DS MAINTENANCE UNITS

Nondivision DS maintenance units (TOE 43209L000) provide DS maintenance and repair parts supply. They support nondivision units on an area basis. They also provide reinforcing maintenance support to division maintenance units. This includes augmenting FSB and MSB maintenance units which provide support to corps FA, corps air defense, and corps engineer battalions. Augmentation includes MSTs with appropriate skills and tools and additional maintenance personnel to offset work loads or operate additional MCPs. These MSTs form a habitual support association with FA battalions.

The company normally maintains an ASL of approximately 5,000 lines of repair parts. This includes about 500 lines of reparable items. The ASL supports the combat PLLs of supported units. It serves as the principal source of parts replenishment of PLL stocks. Supported units pick up repair parts and reparable items at the supporting maintenance company.

The theater commander may attach a classification and collection element to the corps from a COMMZ C&C company. Until then, DS maintenance companies operate a C&C point in addition to a maintenance collecting point.

The CSG attaches DS maintenance units to CSBs in forward and rear CSGs. They provide area support for units within or passing through their assigned support area. They also make up for shortfalls in the organic DS maintenance capability of divisions. For

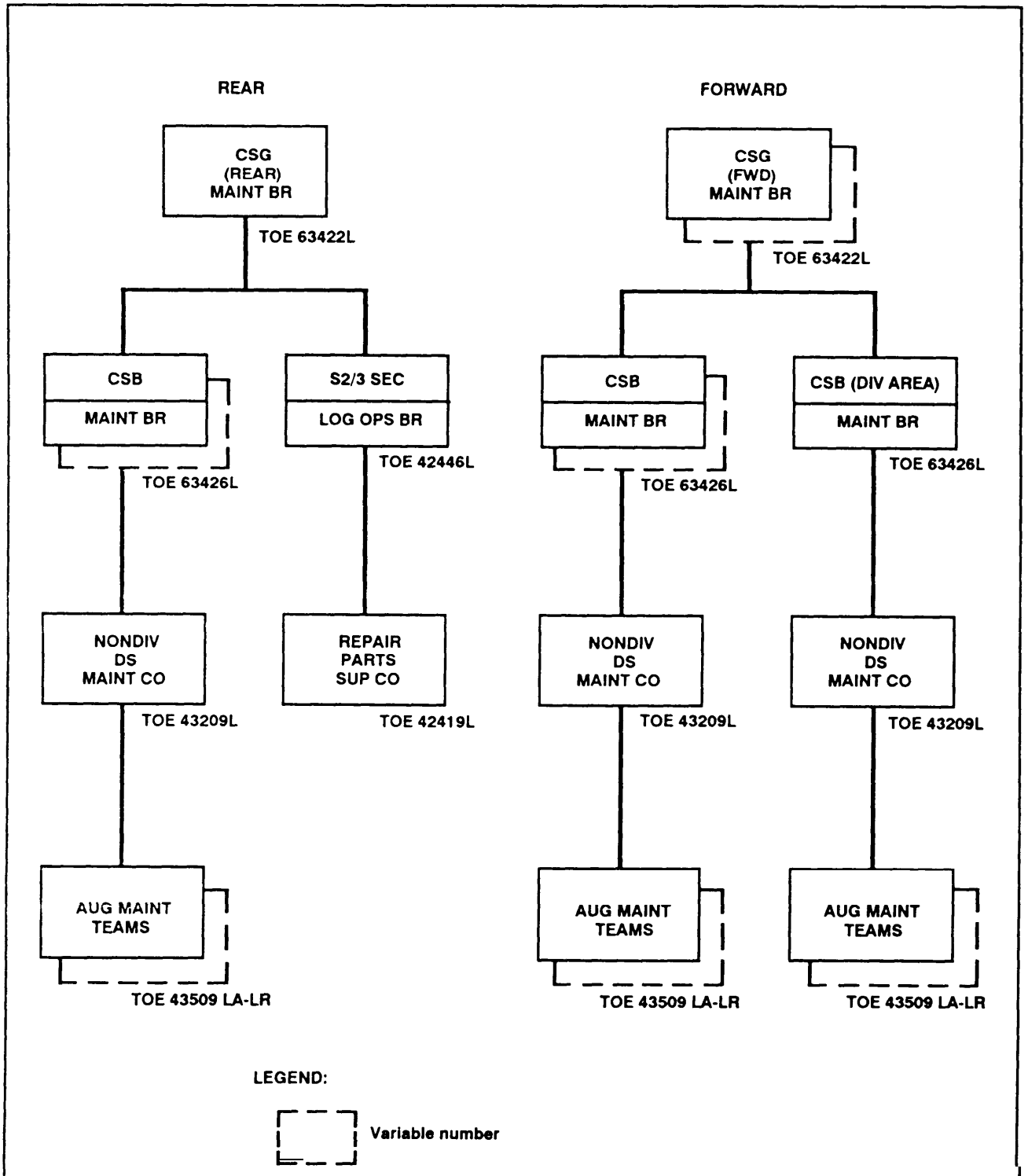


Figure 9-1. CSG DS maintenance organization.

more information, refer to FM 43-11 and the DS maintenance unit MTP.

MOBILE MAINTENANCE TEAMS

Each DS maintenance unit has four organic MMTs. These teams perform on-site malfunction diagnosis and battle damage assessment. Their primary objective remains rapid forward repair by component replacement. However, MMTs also adjust, align, repair, and replace modules and end items. They can repair selected items. Examples include wheeled vehicles, power generation equipment, small arms, and field radios.The Class IX stored in each of the team's repair parts vans may be designed to support peculiar equipment or specific CS units on site at remote areas.

Depending upon work loads, a mobile maintenance team (TOE 43509L0) may be allocated, in addition to the four MMTs authorized in the base company, to perform essential maintenance on automotive, communications, small arms, and power generation equipment for corps FA, ADA, and engineer battalions required to maneuver in divisional forward areas.

The CSB tailors these teams to meet the specific needs of the unit requesting support. MMTs may be task organized as MSTs to support single organizations for the duration of specific operations. MMTs may be employed intact or tailored to support unique requirements or a specific mission and deployed as MSTs. For example, an MMT could be tasked to provide reinforcing support at a FSB maintenance unit in support of additional work loads from corps forces in the brigade area. MMTs could be tailored to provide support at a forward logistics element. They could also accompany a task force to support corps forces employing in a non-US Army corps or in support of an ally or sister Service.

When repairing on site, team personnel depend on the supported unit for security, rations, and quarters. The supported unit also provides Class III supplies and lift capability. The parent unit continues to provide administrative support.

AUGMENTATION MAINTENANCE TEAMS

Maintenance teams (TOE 43509LA00-LR00) augment nondivision DS maintenance units. They provide maintenance on low-density equipment. They also support units deploying forward into division areas. The number and types of repair teams augmented depend upon the density and types of low-density equipment supported.

Employment also depends on the tactical situation. Augmentation maintenance teams support from either the base DS maintenance company area, an MCP in the corps or division area, or on site at the supported unit's position. They may employ as far forward as the BSA. The supported unit provides ration, fuel, and billeting. The CSB employed in the division area provides a central point of coordination for teams employed in a division sector.

When the supported unit moves out of the supporting DS maintenance unit's area, the CSG can attach the team to another supporting DS maintenance unit. The MST draws support from the maintenance unit to which they are attached. The gaining DS maintenance unit provides Class IX repair parts for the repair team.

MST assets are established by TOE/MTOE. They may be augmented by the supporting logistics commander based upon METT-T. Equipment transferred with the team includes those items authorized to that particular team. General shop sets or the set of special tools or test equipment used by base shop personnel would not go with the team. The MST uses the base shop assets of the nondivision maintenance unit in the new AO.

If the supported organization is deployed out of sector, the accompanying MST receives Class IX supply support from the nearest DS maintenance unit, to include the nearest FSB maintenance unit. Prior coordination between supported corps brigade S4s and COSCOM support operations staff ensures that unique repair parts for supported unit systems are added to the ASL of the nondlvision maintenance unit in the new AO. The pace of offensive operations requires that the COSCOM plan to use air transportation to replenish unique repair parts required by MSTs.

REPAIR PARTS SUPPLY COMPANY, GS

The Repair Parts Supply Company, GS (TOE 42419L000) provides GS repair parts and maintenance related Class II items to division and nondivision DS maintenance units. Situation dependent, it maintains a 15-day stock of Class IX for ALOC units and 30 days of Class II (maintenance related) and Class IX for ALOC units. The TOE lists mission

capabilities. FM42-119 describes field operations. The unit's MTP covers critical mission tasks.

The COSCOM normally attaches the repair parts supply company to the rear CSG'S S&S battalion. Since it remains far less mobile than most corps units, this company could set up operations in factory buildings or warehouses in built-up areas. It could also setup in HN commercial storage facilities.

AVIM SUPPORT ORGANIZATION

AVIM ensures the maximum number of flyable aircraft to support combat forces. Aircraft density and anticipated percentages of passback from division AVIM units determine the number of AVIM units attached to the rear CSG's aviation maintenance battalion. They also affect the number of aircraft repair parts supply platoons attached to a repair parts supply company. Figure 9-2 depicts the rear CSG's AVIM support organization.

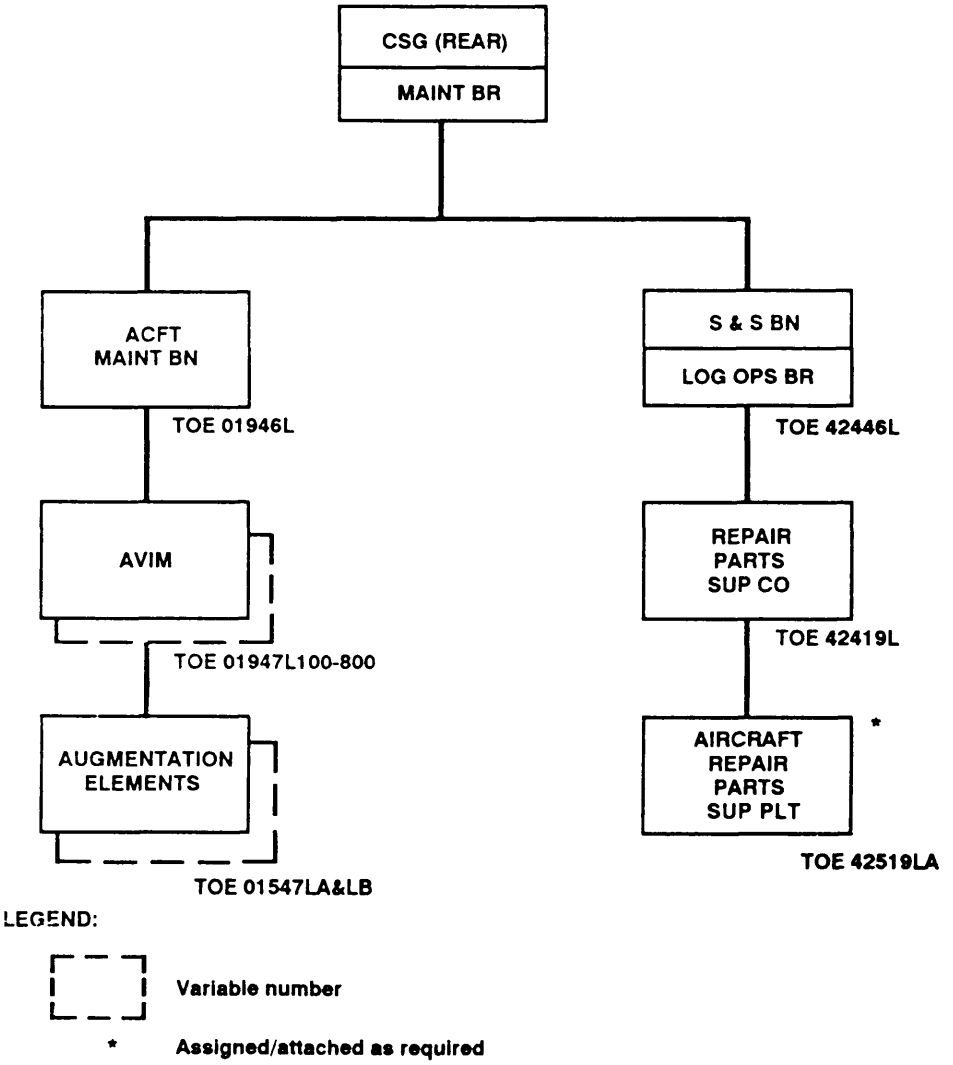


Figure 9-2. Rear CSG's AVIM support organization.

AVIATION COMPANIES (AVIM)

Aviation companies (AVIM) (TOE 01947L100-800) provide aviation intermediate maintenance for corps assigned aircraft. They also provide reinforcing AVIM support for division aircraft maintenance companies.

Each heavy division AVIM company may transfer 25 percent of its work load to a supporting nondivision AVIM company. Light infantry division AVIM companies pass back even greater percentages. FM 1-500 describes how AVIM units provide this reinforcing support. AVIM battalion maintenance officers cross-level work loads between nondivision AVIM units or request augmentation. Units evacuate avionics equipment which exceed corps AVIM unit capabilities to maintenance facilities in the COMMZ or CONUS.

Nondivision AVIM units employ in the corps rear area, normally in or adjacent to an instrumented landing facility. As needed, the AVIM battalion task organizes elements from AVIM units into maintenance, repair, or recovery teams. These teams perform specific missions, usually for a short period of time. At the end of the mission. the teams return to the AVIM unit.

AVIM companies also provide aviation DS repair parts supply support to corps aviation units. This includes aircraft armament and avionics. AVIM companics also provide reparable items for selected high usage components required by AVIM units.

TOE 01947L100 lists mission capabilities. The unit's MTP describes its mission tasks in detail.

AUGMENTATION ELEMENTS

The group may attach augmentation elements (TOE 01547L000) to the AVIM unit. This depends on the type of units and equipment requiring support. These elements do not normally employ forward into the division's AO. However, they can help to reduce division AVIM backlogs. Development of combat maintenance/battle damage repair kits and procedures help streamline repair and recovery procedures.

AIRCRAFT REPAIR PARTS SUPPLY PLATOON

When augmenting a repair parts supply company, the Aircraft and Repair Parts Supply Platoon (TOE 42519 LA) provides GS level supply of aircraft repair parts. The platoon maintains a 15-day stock of Class IX aircraft repair parts. The platoon can receive, rewarehouse, and ship 22 STONs of aircraft repair parts per day. It has a total handling capability of 66 STONs a day. Allocation is one platoon per AVIM battalion.

To reduce dependence on corps transportation assets to deliver aircraft repair parts, the platoon may collocate with an AVIM company normally operating near an airfield. The AVIM company provides C2, ADP, communications support, food service, unit supply, and unit maintenance support to the platoon.

DS MISSILE MAINTENANCE SUPPORT ORGANIZATION

Missile maintenance elements attached to a CSB vary depending on the type and density of missile systems supported. FM 9-59 describes the missile maintenance company organization. Figure 9-3 shows a CSG's missile maintenance organization.

ORDNANCE MISSILE SUPPORT COMPANY

The missile support company is organized under TOE 09428L000. It provides DS missile maintenance and missile repair parts for air defense and land combat support systems, except HAWK and PATRIOT missile systems. Repair consists primarily of replacement or exchange of reparable items.

ORDNANCE MISSILE MAINTENANCE AUGMENTATION TEAMS

Based on the type of supported battalions and the density of missile systems supported, the CSG assigns these teams to the missile support company. TOES 09528LB-LV and 09510LA list the mission capabilities for each team. The teams go forward to perform BDAR and on-site repair and replacement. They may accompany MLRS battalions that deploy in support of divisions. Others may go forward to the brigade trains area to provide reinforcing support to divisions. Some teams perform DS missile maintenance in the base shop.

The teams depend on the missile support company for specific support. This includes technical supply, maintenance quality control, and major TMDE shop sets. The supported unit provides unit level administration, field feeding support, unit supply, and unit maintenance.

HAWK DS MAINTENANCE COMPANY

An Ordnance Company (DS), HAWK (Corps) (TOE 09497L000) maybe attached to the rear CSG's CSB. This company provides DS maintenance to a HAWK battalion for HAWK-peculiar equipment.

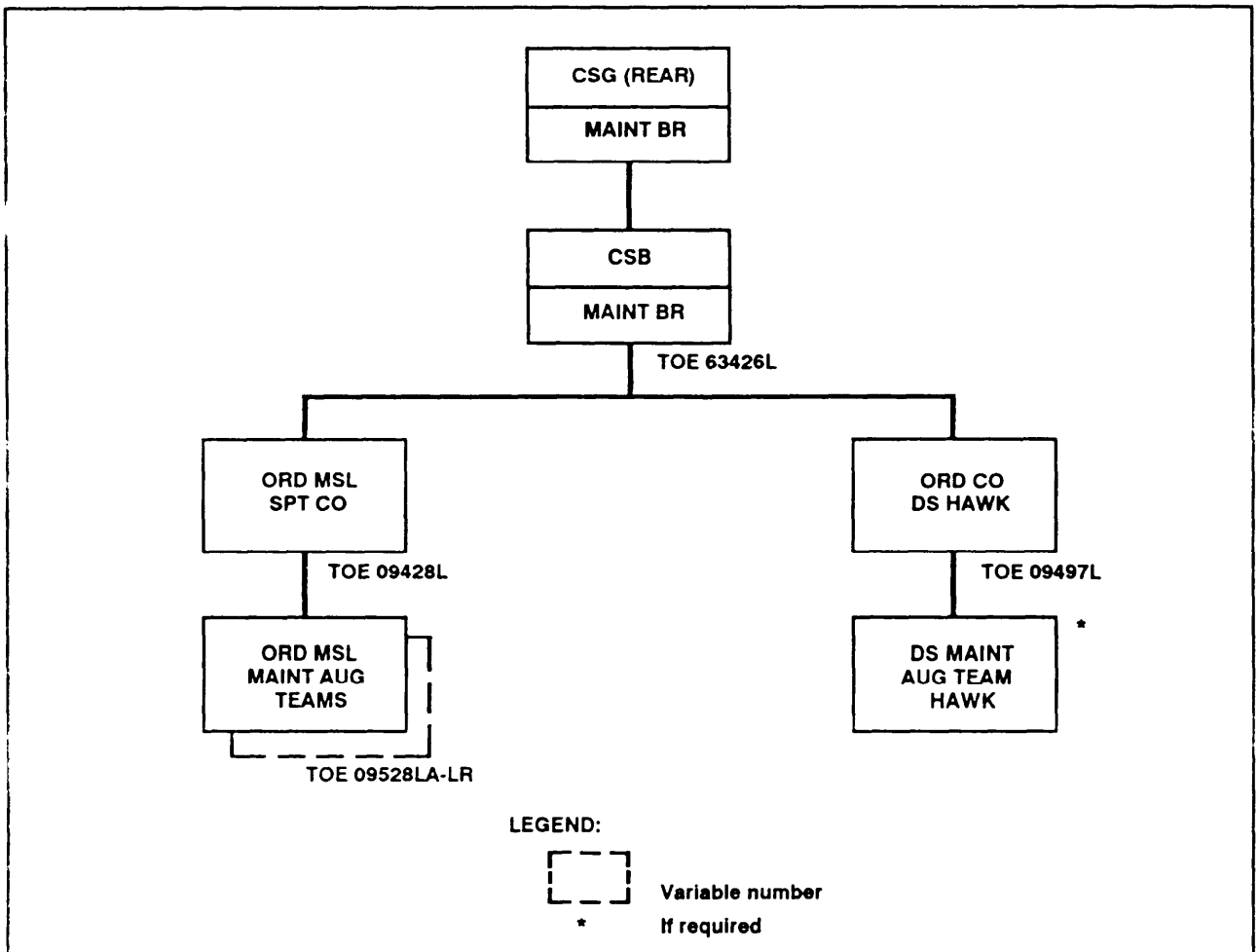


Figure 9-3. CSG missle maintenance organization.

The unit can requisition, receive, store, and issue 5.000 lines of repair parts for the HAWK missile system. This includes reparable items and associated air defense identification friend or foe systems. It also includes associated power generation and air-conditioning equipment.

As needed, this company provides MSTs to supported units. If required, a HAWK maintenance augmentation team (TOE 09529LU) can provide GS maintenance support for HAWK missile system peculiar equipment.

PATRIOT DS MAINTENANCE COMPANY

The PATRIOT maintenance company, organized under TOE 43607L000, provides DS maintenance and Class IX repair parts supply to a PATRIOT ADA battalion. A PATRIOT missile system (DS/GS) augmentation team (TOE 09529LX) can provide additional MSTs and maintenance support to PATRIOT missile-peculiar equipment.

OTHER COMMODITY MAINTENANCE SUPPORT

Conventional ammunition companies perform conventional ammunition maintenance. Airdrop equipment repair and supply companies repair airdrop equipment. However, CSGs depend on other organizations for maintenance of COMSEC materiel, office machine equipment, rail materiel, and watercraft.

CONVENTIONAL AMMUNITION MAINTENANCE

DS and GS conventional ammunition companies perform conventional ammunition maintenance. This ensures that ammunition stocks are serviceable and restores unserviceable stocks to a serviceable condition.

Both DS and GS conventional ammunition companies perform DS maintenance and limited modification on conventional ammunition, components, and containers. Maintenance functions include—

- Repairing containers.
- Removing rust.
- Cleaning, restenciling, reboxing, and rcpalletizing.
- Performing limited modification.

Ammunition requiring more extensive maintenance may need to be demilitarized, destroyed, disposed of, or evacuated to an appropriate maintenance activity.

Due to their focus on ammunition issue and receipt operations, forward employed DS conventional ammunition companies may perform only limited packaging and preservation functions. They clean, paint, and remark containers or replace broken banding on packages. FM 9-38 describes unit operations.

AIRDROP EQUIPMENT REPAIR

The COSCOM may attach an Airdrop Equipment Repair and Supply Company (TOE 10449L100-200) to the rear CSG's S&S battalion. This company provides DS maintenance on airdrop equipment. Maintenance personnel repair cargo parachutes, personnel parachutes, airdrop containers, harnesses, slings, and other textile airdrop items.

When organized under TOE 10449L100, the company supports a Quartermaster airdrop supply company and other corps units requiring airdrop equipment support. When organized under TOE 10449L200, it provides airdrop equipment maintenance in support of an airborne division and attached units. FM 10-400 describes how to set up maintenance support operations.

COMSEC MAINTENANCE

Nondivision DS maintenance units can provide C-E equipment repair. However, CSG units depend on supporting signal units for additional COMSEC DS maintenance support. The corps area signal company has a C-E maintenance section. The CSG C-E officer coordinates requirements for COMSEC maintenance between the corps area signal company and maintenance units attached to the group's subordinate CSBs.

OFFICE MACHINE EQUIPMENT REPAIR

Office Machine Equipment Maintenance Teams (TOES 42550LA, LB, and LC) may augment CSB DS maintenance companies. These teams perform DS repair on office machines, except electronic calculators and accounting equipment.

RAIL MATERIEL MAINTENANCE

The HN or transportation rail companies attached to a railway battalion provide maintenance for rail equipment. The Railway Equipment Maintenance Company (TOE 55228H800) performs repairs on locomotives and rail cars. The Railway Engineering Company (TOE 55227H800) performs repairs on rail track, bridges, and structures.

WATERCRAFT MAINTENANCE

Requirements for watercraft maintenance depend on the use of ports, harbors, inland or coastal waters, or open seas. A Floating Craft GS Maintenance Company (TOE 55157H600) attached to a transportation terminal battalion provides GS maintenance on amphibians and landing craft and DS and GS maintenance on harbor craft used in waterborne tactical operations or joint amphibious operations. It also issues marine peculiar repair parts.

MAINTENANCE SUPPORT OPERATIONS

Maintenance operations increase the combat readiness of supported units. Weapon systems damaged in battle must be repaired and returned to the battle as soon as possible. Sufficient repair parts need to be on hand to support the combat PLLs of supported units and support DS level maintenance without resulting in excessive deadlined equipment and backlogs.

Figure 9-4 depicts a maintenance support structure on a battlefield.

- MSTs employ as far forward as possible. The CSG attaches MSTs to corps units to perform BDAR and on-site repairs using replacement modules. Habitually assigned MSTs for a corps FA battalion accompany the battalion to a new division

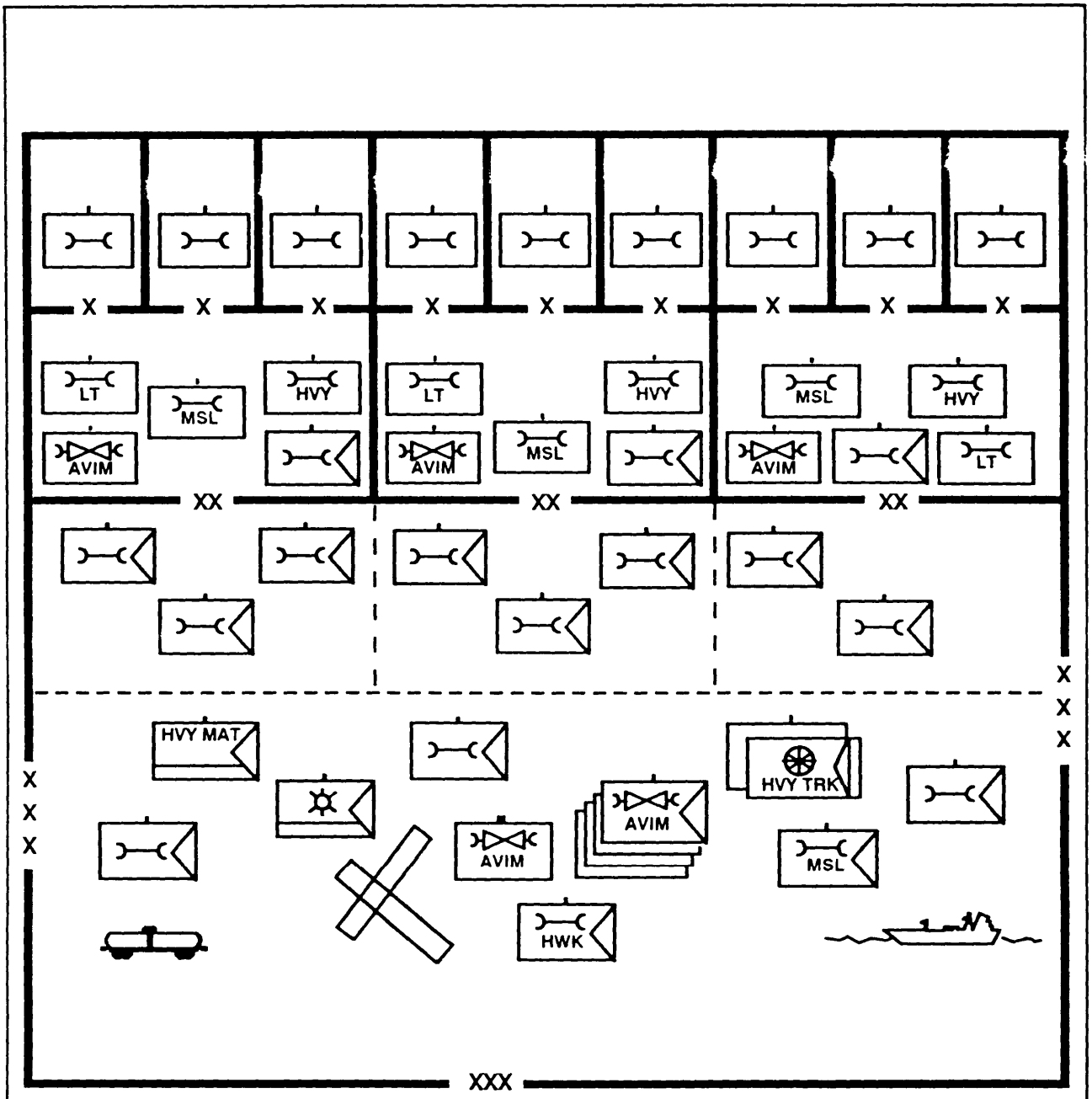


Figure 9-4. Sample battlefield employment of a maintenance support structure.

area and out of sector. The actual composition of habitually assigned MSTs are derived by MARC data in the Total Army Analysis process. Depending upon the type of supported unit artillery systems and work loads, accompanying MSTs may include—

- ☐ Track vehicle repair tcam, TOE 43509LC00
- ☐ Self-propelled FA turret/fire control repair team, TOE 43509LD00.
- ☐ TACFIRE repair team, TOE 43509LQ00.
- ☐ Mobile maintenance team, TOE 43509L000.

- Situation dependent, the forward CSG liaison officer coordinates reinforcing support for corps FA, air defense, or engineer battalions from FSB maintenance units.
- CSBs along the route of march provide maintenance support and recovery assist ante.
- Nondivision DS maintenance and AVIM units provide reinforcing maintenance and recovery and evacuation assistance to divisional maintenance and AVIM units.
- The repair parts supply company provides repair parts resupply for DS maintenance companies.
- Replacement end items from the heavy materiel supply company help ensure combat readiness when maintenance cannot occur within established time limits.

FORWARD MAINTENANCE

Repairs occur as far forward as the tactical situation allows. This helps minimize recovery and evacuation time and reduces the drain on transportation assets. A nondivision maintenance unit employs in the division area to support corps units. Repair teams from that unit may augment FSB and MSB support to corps forces, providing BDAR on site or at the MCPs in the BSA or DSA.

BATTLEFIELD DAMAGE ASSESSMENT AND REPAIR

Repair teams employed in forward battle areas perform BDAR. They assess battle damage and the amount of repairs and repair time required to return mission essential items to combat. If possible, they fix the essential items as quickly as possible. They jury-rig components to restore minimum essential systems. CSG maintenance branch personnel ensure that BDAR efforts focus on the critical equipment or weapon systems required for a specific combat mission.

MAINTENANCE COLLECTING POINT

Each maintenance unit establishes an MCP. The MCP should be easily accessible to supported units. CSB maintenance branch personnel recommend locations for the MCP operated by the nondivision DS maintenance unit. Supported units recover the item to the nearest MCP. Corps FA, air defense, and engineer battalions recover items to the MCP operated by the nearest FSB maintenance unit. Inspection personnel at the MCP determine whether repairs can be performed by the FSB maintenance unit or supporting CSB maintenance unit within set time limits.

VEHICULAR RECOVERY

Units recover items to a location where repairs can be made or evacuation begins. The owning unit or unit which finds abandoned equipment has primary responsibility for recovery. Using units authorized recovery assets recover inoperable or abandoned items to an MCP or along an MSR. As time and the tactical situation permit, DS maintenance units clear the MSR of inoperable or abandoned vehicles. When required, DS maintenance units provide limited, reinforcing vehicular recovery following procedures in FM 20-22.

If the DS maintenance unit provides reinforcing recovery, the owning unit needs to provide information on the —

- Type of equipment recovered.
- Extent of damage.
- Location of the item.

When specific location information is not available or friendly lines are undefined, the supported unit needs to provide ground guides.

AIRCRAFT RECOVERY

Supporting AVIM units provide reinforcing aircraft recovery support to AVUM platoons. FM 1-500 prescribes aircraft recovery responsibilities, recovery methods, and safety precautions.

EVACUATION

Evacuation efforts depend on the time and resources available and the availability of damaged and unserviceable equipment. Truck units evacuate equipment to the correct level for repairs. CSGs lateral truck assets to ease evacuation efforts in sectors where damaged equipment is creating backlogs on MSRs. To ensure the most efficient use of limited unit recovery or battalion

evacuation assets, the COSCOM support operations officer establishes priorities for evacuation.

CSG maintenance branch personnel ensure that units evacuate reparable weapon systems and other urgently needed items first. The CMMC provides disposition instructions for items which either exceed repair time guidelines or are not economically reparable at the DS level. It coordinates evacuation requirements with the CMCC.

Unless the situation prevents it, units complete unit level maintenance before evacuating the item to the DS maintenance unit. The accompanying maintenance request form indicates whether repair parts were still due out at The time of evacuation.

DS maintenance units help supported units evacuate unserviceable items to an MCP or property disposal facility, as appropriate. They evacuate unserviceable items beyond DS maintenance capability to the supporting GS maintenance unit in the COMMZ. To prevent damage to the item intransit, both using units and DS maintenance units evacuating unserviceable reparable material need to provide adequate packaging and preservation.

Before evacuating items for GS maintenance, CSG maintenance branch officers coordinate with the CMMC to verify that the item is on the theater army list as reparable at GS maintenance. CMMC maintenance materiel managers provide disposition instructions. They indicate the maintenance effort required prior to evacuation of items for overhaul or salvage. The extent of maintenance performed depends on the tactical situation and time available.

AIRCRAFT EVACUATION

AVUM platoons evacuate aircraft to the supporting AVIM unit only as a last resort. Instead, AVIM teams go to the aircraft to perform repairs beyond the AVUM level. Evacuation from AVUM platoon to AVIM units occurs when aircraft require extensive airframe repair. The CMMC coordinates the evacuation of aircraft between supporting maintenance activities.

REPARABLE MANAGEMENT

AR 710-2 and DA Pamphlet 710-2-2 prescribe reparable management, stockage criteria, and procedures. Customer units turn-in unserviceable reparable to their supporting DS maintenance or AVIM unit and request serviceable replacements. The maintenance unit forwards a copy of the receipt document to the CMMC for posting to accountable records.

Maintenance units maintain replacement reparable as part of their ASL. DS maintenance units maintain up to 550 lines of reparable items. AVIM units maintain up to 750 lines. Depending on stock availability, the DS maintenance or AVIM unit issues a serviceable for unserviceable reparable as an immediate over-the-counter issue.

Customer units need to have a valid reason why an unserviceable turn-in is not available. Possible valid reasons include—

- Initial issue.
- Increased stock levels.
- Lost or damaged items.
- Temporary loan to allow the customer unit to obtain packing material to use to return unserviceable items.

When serviceable or substitute reparable are not available to fill a low priority request, the maintenance unit work orders the unserviceable reparable to maintenance. It processes the request as a due-out. When returns from repair or dues-in can not meet the customer unit's required delivery date, maintenance units process a high priority request. They can also work order the unserviceable item to maintenance as a high priority.

If necessary, the maintenance unit ships the unserviceable reparable to the maintenance unit designated on the CMMC reparable items return list. The CMMC issues repair instructions. Maintenance unit personnel report repaired items to the CMMC. They report items which they cannot repair to the CMMC for disposition instructions.

MAINTENANCE FLOAT

AR 750- 1 prescribes maintenance float policy, procedures, and controls. Maintenance floats help maintain the readiness posture of units during peacetime. They replace like items turned in by using units which need an immediate replacement. They help maintain an acceptable level of materiel readiness during peacetime. Both DS maintenance and AVIM units may maintain an ORF of selected Class VII items.

Upon outbreak of general hostilities, the CMMC directs that nondeployed units use ORF items to enhance equipment readiness or fill shortages in specific combat units. ORF items fill initial battle losses.

CSG OPLANs include procedures for accepting ORF assets during mobilization. Plans include provision for augmenting DS maintenance units with an ORF Maintenance Team (TOE 43509LL).

CONTROLLED EXCHANGE

Controlled exchange consists of the removal of serviceable parts, components, assemblies, and subassemblies from unserviceable, economically reparable items to restore a like item to a mission capable condition. To ensure a complete end item, maintenance personnel reinstall unserviceable parts and components on the unserviceable reparable item.

Units perform controlled exchange on an exception basis. CSG/COSCOM maintenance support branch personnel determine that DS maintenance units cannot obtain required parts either through the supply system, lateral supply, or local procurement. Maintenance personnel check the supply suspense file to ensure that parts are not due in within the time frame indicated by the PD on DA Form 2407. The DS maintenance or AVIM unit shop officer authorizes controlled exchange in coordination with the owning unit. CSG maintenance branch personnel monitor controlled exchange to prevent abuse.

CANNIBALIZATION

Cannibalization refers to the authorized removable of serviceable parts from items authorized for disposal. Units cannot cannibalize an item until disposition instructions from the CMMC direct or permit cannibalization. CSG maintenance branch staff ensures that cannibalization activities support priorities and comply with CMMC disposition instructions.

Like controlled exchange, cannibalization supplements supply support or reparable management actions when parts are not immediately available. Cannibalization provides a source of supply for —

- High priority requirements when the supply system cannot meet the RDD.
- Authorized low mortality or difficult to obtain repair parts, components, and assemblies.
- Items not stocked in the supporting unit ASL.

The corps G4 establishes wartime cannibalization policy. For example, materiel destroyed to prevent enemy capture should first be cannibalized. The COSCOM and CSG OPORDs restate the corps policy on limited cannibalization. Based on the combat situation, the COSCOM may require that the group establish decentralized cannibalization points. AR 710-2 and DA Pamphlet 710-2-2 prescribe policy and procedures for setting up and operating cannibalization points.

REPAIR PARTS SUPPLY SUPPORT

For the force to remain combat ready, maintenance units need to maintain sufficient stocks of repair parts. They maintain an ASL of repair parts (including reparables) to issue to supported units for unit level maintenance.

CSG supply and service branch personnel monitor the repair parts supply system for items in short supply. They ensure compliance with issue priorities, As necessary, they recommend cross-leveling repair parts within subordinate units and expedite repair parts deIivery.

STOCKAGE

Repair parts stockage depends on criteria in AR 710-2. The ASL depends upon demands, mission changes, order ship time, and equipment fielding. The ASL serves as the source of parts for replenishment of PLL stocks. It covers supported units' combat PLLs. Because of a low demand for certain items during peacetime, maintenance units maintain certain combat load ASL items without demand.

If attachments of units require that supporting DS maintenance units support different types of equipment, the CMMC needs to identify the density of this equipment and the required Class IX support. The CMMC needs to load this data into the management system to preclude rejection of requisitions.

LOCAL PURCHASE

Local purchase provides an alternate source of supply for repair parts. CSG procurement personnel approve local purchase of repair parts to satisfy the following conditions:

- To support contingency operations when the operation is imminent or in progress.
- When the expected delivery date will not satisfy requirements.
- When the repair part is not listed on the AMDF.
- For rejected requisition items with a status code of CW or CP.

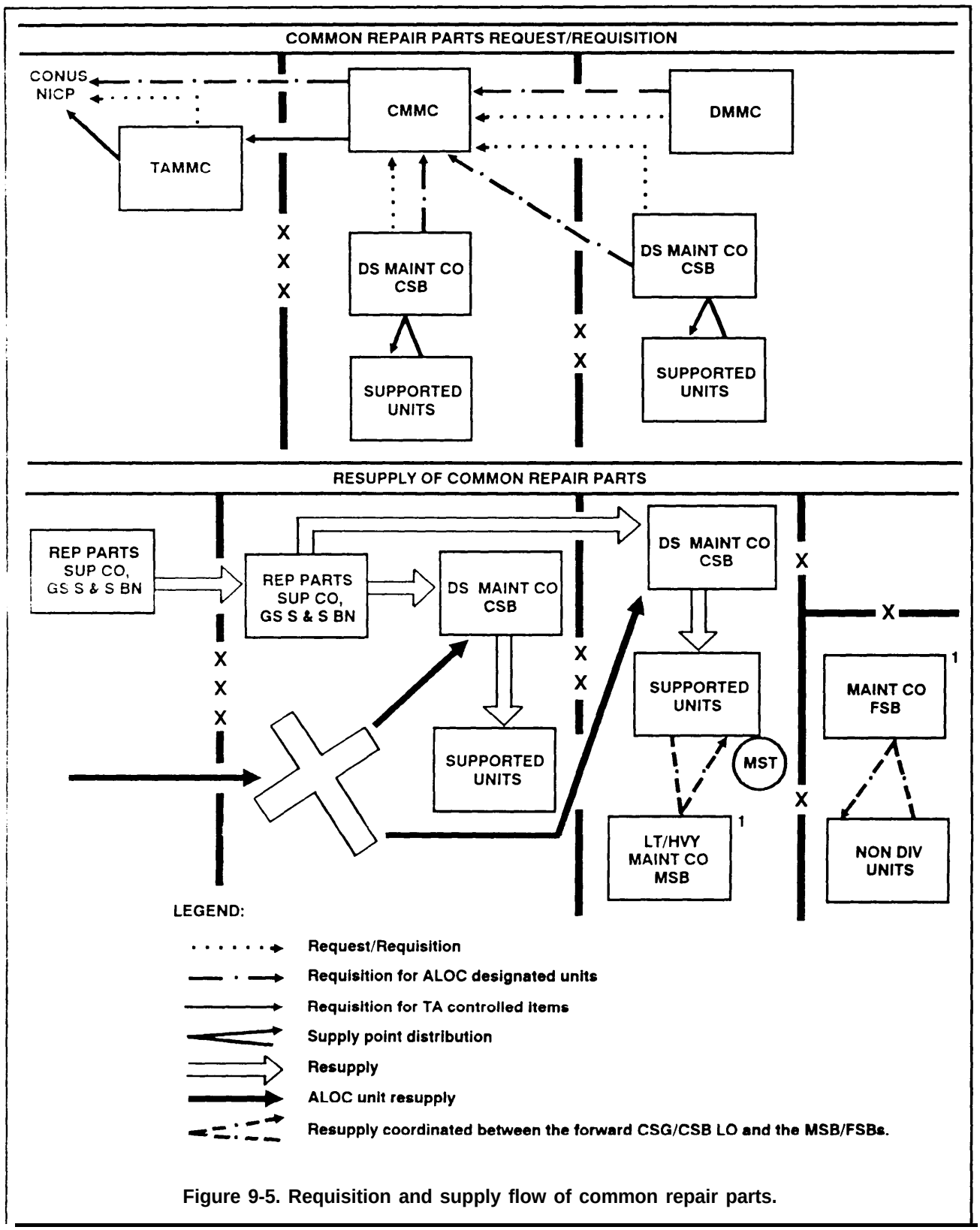


Figure 9-5. Requisition and supply flow of common repair parts.

COMMON REPAIR PARTS

The term "common repair parts" refers to those repair parts which are not used to repair aircraft or missiles. As shown by Figure 9-5, the requisition and distribution flow for common repair parts depend on whether the repair parts are —

- TA controlled.
- For DA-designated ALOC units.
- Not airlift eligible due to weight or size.

Request/Requisition

Units submit DA Form 2765-1 requests to their supporting DS maintenance unit. If the DS maintenance unit cannot fill the request, it transmits a requisition to the CMMC. DS maintenance units also submit a requisition to the CMMC when the reorder point is reached.

The CMMC receives requisitions from DMMCs as well as from DS maintenance units. The CMMC searches its stockage lists to determine if the part exists in the corps rear area. When the part is available, the CMMC cuts an MRO directing the repair parts supply company to issue the item to the supporting DS maintenance unit. When the part is not available, it transmits a requisition to the TAMMC. The CMMC transmits requisitions for ALOC designated units to the applicable CONUS NICP. It transmits requisitions for TA controlled repair parts to the TAMMC.

Distribution

For DA-designated ALOC units, Class IX and Class II maintenance-related air-eligible items are shipped via ALOC. Army air clearance authority approves items for air shipment. CONUS consolidation and containerization points consolidate and containerize items for each ALOC DS and GS activity. Once ALOC is fully established, repair parts arrive almost daily at aerial ports of debarkation. Repair parts are delivered directly to the DS maintenance unit for issue to the requesting unit.

Oversized and heavy Class II and IX items are transported by rail and truck from seaports. Surface delivered repair parts are transported from a TAACOM repair parts supply company to either the corps' repair parts supply company or the supporting DS maintenance unit. The postal system may even be used to supplement delivery of repair parts. If repair parts are urgently needed, the CMCC arranges to have high priority repair parts delivered by air.

Issue

The supporting DS maintenance unit informs the supported unit that the repair part is available for issue. Supported unit supply personnel drive to the DS maintenance unit's supply platoon site for the repair part. When corps organizations move to another area, the ship to DODAAC can be changed to the new supporting maintenance unit. That maintenance unit could be an MSB Light or Heavy Maintenance Company or FSB Maintenance Company. Forward CSG's liaison officers coordinate support arrangements.

AIRCRAFT AND MISSILE REPAIR PARTS

Figure 9-6 depicts the requisition and distribution flow of aircraft and missile repair parts. The flow depends on whether the parts are controlled by TA, required by DA-designated ALOC units, or delivered by surface means.

Request/Requisition

Units submit requests to their supporting AVIM unit, missile support company, or DS HAWK company. If the part exists in the supporting unit's ASL, and is not TA controlled, the supporting unit issues the part. Supported unit personnel go to the AVIM or missile support company to get the part. Aircraft or missile maintenance augmentation teams could also deliver repair parts to supported units in the division sector.

When the part is not available, the supporting maintenance unit transmits a requisition to the CMMC. Depending on whether the repair part is controlled or an air eligible item, the CMMC –

- Transmits a requisition for TA controlled items to the TAMMC.
- Transmits a requisition to the applicable CONUS NICP for air eligible items requested by ALOC designated units.
- Cuts an MRO directing the applicable company to issue the aircraft or missile repair part.

Distribution

Aircraft and missile repair parts are distributed to the applicable AVIM unit, missile support company, or DS maintenance HAWK company.

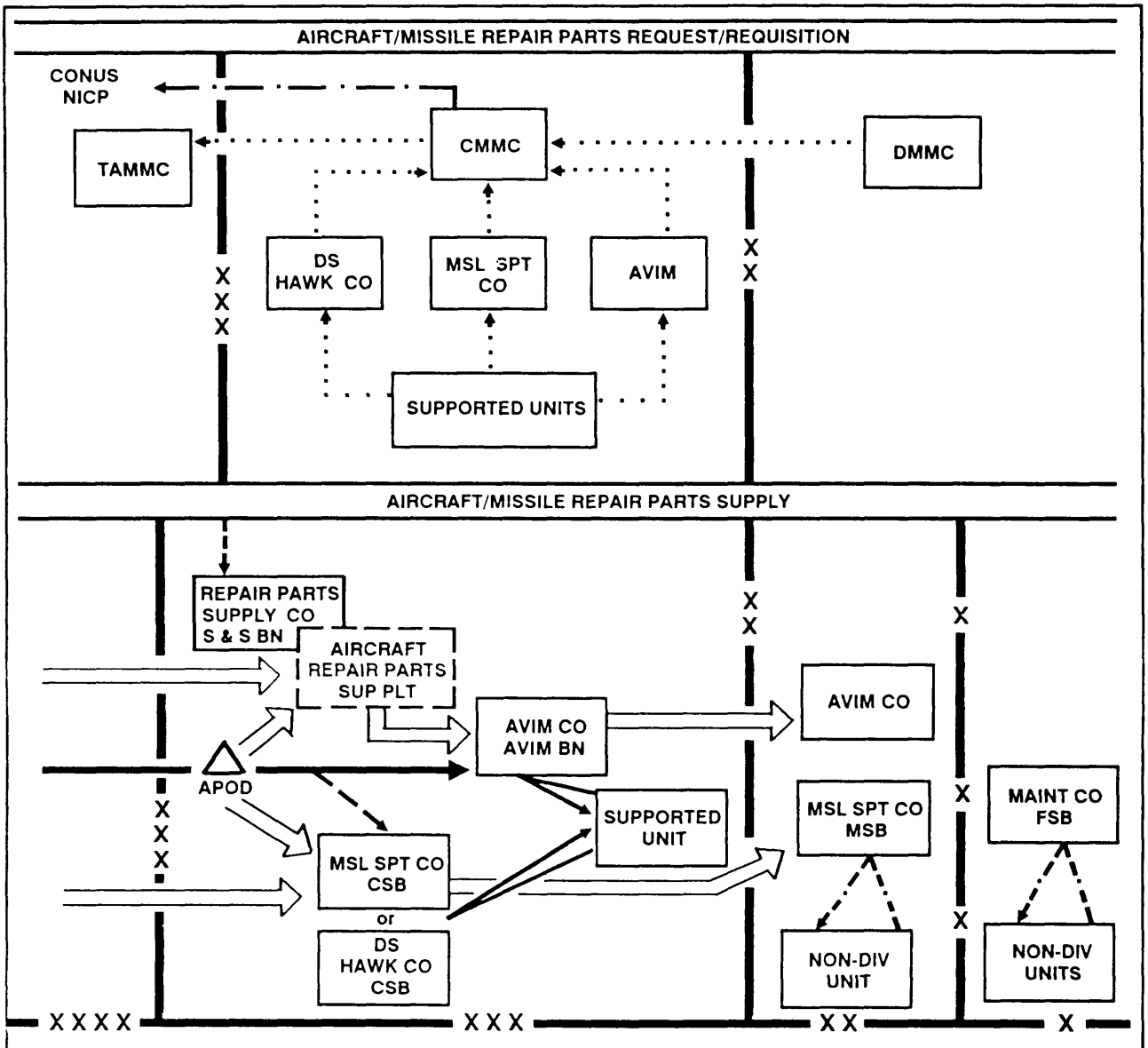


Figure 9-6. Requisition and supply flow of aircraft and missile repair parts.

Corps units may receive support from an MSB Missile Support Company or FSB Maintenance Company's Missile Maintenance Repair Section. The forward CSG's liaison officer coordinates support arrangements with the MSB/FSB.

REPLACEMENT END ITEMS

There are times when maintenance units cannot repair damaged end items within set time limits. Efforts to replace combat equipment losses or unserviceable end items depend on how the CMMC processes the items. The CMMC processes end items under normal Class VII replenishment and distribution or as intensively managed items. Figure 9-7 depicts the requisition and distribution flow for Class VII end items.

COMMAND CONTROLLED END ITEMS

The logistics annex to the CSG/COSCOM OPORD lists corps and TA controlled Class VII items. Requests for intensively managed items require command approval. Units request command approval concurrently with submission of their requests. Requests flow through command channels.

After command approval. the CM MC prepares an MRO directing the heavy materiel supply company or DS supply company to release the item. The CMMC coordinates with the CMCC for movement support. The GS supply company or DS supply company coordinates transportation support requirements with the supporting MCT.

Battalion and group support operations supply staff monitor the number of command controlled Class VII items issued, due out, remaining, and due in.

NONCONTROLLED END ITEMS

Request/Requisition

Nondivision units submit requests for Class VII items to their supporting DS supply company Class II, IV, and VII point.To facilitate the flow of Class VII major end items, units can submit off line battle loss reports to the CM MC. The CMMC initiates a requisition and tracks the requisition to ensure it is issued against the unit. Current TOEs/MTOEs serve as the requisitioning authority.

If the end item is on hand, the DS supply company issues the item. When the end item is not on hand, the DS supply company forwards a requisition to the CMMC.

The CMMC receives requisitions from DMMCs and separate brigade and regiment MMCs as well as from DS supply companies. The CMMC performs a lateral search to determine if the end item is available within the corps rear area.

If the end item is on hand, the CMMC cuts an MRO directing issue from the heavy materiel supply company attached to the S&S battalion. If the item is not on hand, the CMMC passes the requisition to the TAMMC. The TAMMC either directs issue from a TAACOM heavy materiel supply company or transmits the requisition to the appropriate CONUS NICP.

Receipt and End Item Processing

The heavy materiel supply company's processing sections deprocess incoming combat-tactical vehicles at or near the port of entry. Battalion supply staff officers ensure that enough MHE is available to process shipments. They relay guidance on the priority of equipment to be processed.

Processing section personnel visually inspect incoming vehicles to determine if damage occurred during shipment. Items which cannot be repaired by the heavy materiel supply company's unit level repairers are evacuated to a DS maintenance unit.

Processing section personnel install, inspect, and test any communications equipment mounted on combat-tactical vehicles or special-purpose vehicles.

Ready-for-Issue

Heavy materiel supply company personnel process end items ready-for-issue to the supporting DS supply company or link-up point. This means that they install ancillary equipment. They lubricate equipment and provide a full fuel load. They ensure that basic issue items are onboard all vehicles and equipment.

Ammunition specialists assigned to the equipment storage platoon determine the amount and type of basic ammunition load required. They request and pick up or arrange for delivery of basic load ammunition for combat vehicles.

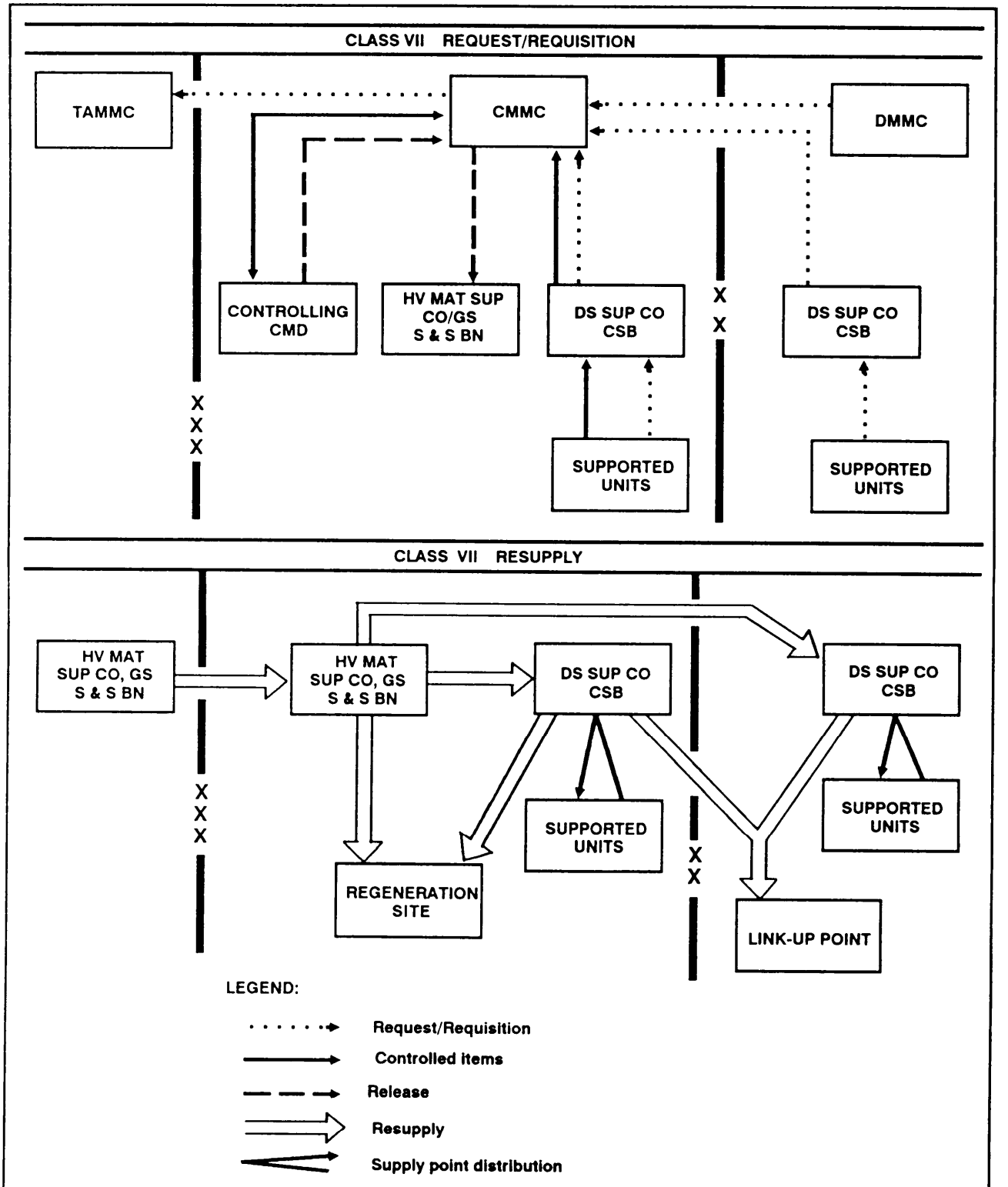


Figure 9-7. Request and distribution flow for Class VII end items.

Distribution

When items are ready for shipment, the heavy materiel supply company's supply operations office notifies the CMMC. The CMMC informs the CMCC of transportation requirements. The supporting MCT coordinates pick up and delivery to the supporting DS supply company or to a link-up point in the division support area. The heavy materiel supply company ensures that towed vehicles are attached to the appropriate prime movers and that they are in proper convoy position when shipped. A regeneration task force MCT coordinates movement to a regeneration site.

Nondivision units pickup Class VII items at their supporting Class VII supply point. The CSB LO arranges for corps FA, corps air defense, or corps engineer organizations in the brigade area to pickup Class VII items at the FSB's Class VII yard. There is no stockage of Class VII items at the FSB. Class VII items are delivered to the FSB on an on-call, marked-for, and ship-to basis.

The receiving unit provides the driver and crew for replacement vehicles. However, it is less desirable to have combat-tactical vehicles or special-purpose vehicles driven under their own power. The preferred method is to use HETs to transport weapon systems and end items to a link-up point. This ensures that systems arrive operationally ready. Less fuel is consumed en route. Crews arrive rested and prepared to fight.

SUPPORT OF TACTICAL OPERATIONS

Table 9-1 lists areas which CSG maintenance branch personnel should consider when planning maintenance support of offensive, defensive, and retrograde operations.

OFFENSIVE OPERATIONS

CSG maintenance branch personnel need to identify commonalities among vehicles and equipment. This helps them to later assess the possibility of cross-leveling repair parts and performing expedient repairs to restore mission capability or enable equipment to move to an assembly point.

Maintenance policy should require that task force elements carry additional tow bars to help in recovery operations. Units recover items one terrain feature back or to the nearest MSR.

MSTs set up an MCP to provide rapid repairs before the maneuver unit crosses the line of contact. CSG maintenance branch personnel tailor MSTs and adjust the reparable items which MSTs take with them to the equipment in the attacking force. Orders limit repairs to rapid repair and replacement of components. They can increase sup port of offensive operations through approving maximum use of controlled exchange and authorizing cannibaliza tion.

DEFENSIVE OPERATIONS

For defensive operations, the focus shifts to evacuation and repair. Maintenance units sometimes extend repair times. The CMMC and CSG can change the maintenance priority of affected units. For example, repair priorities may shift [o support the tactical combat force organized to counter a Level III threat.

CSG S2/S3 and maintenance branch staff officers try to ensure that repair teams avoid entering areas where units are in contact. They also ensure that repair teams avoid using roads prioritized for the TCF or MP response force.

With ground LOCs secure, corps truck assets throughput repair parts to the lowest level able to receive supplies. CSG maintenance officers request that the CMMC expedite requisitions for critical repair parts.

RETROGRADE OPERATIONS

During retrograde operations, DS maintenance and AVIM units deploy to the rear before combat forces. CSG transportation branch personnel arrange for evacuation of unserviceable reparable items on railcars (if available) or trucks. Time permitting, CSG maintenance branch officers direct that maintenance personnel cannibalize items which need to be abandoned or destroyed in order to prevent enemy use.

SUPPORT CONCERNS

Excessive maintenance backlogs remain perhaps the predominant concern. CSG maintenance branch personnel monitor ASL size and depth. They assess its effect on mobility, demand satisfaction, and equipmentdeadlines They also need to monitor the misuse of replacement end items to resolve maintenance support problems.

Table 9-1. Supporting tactical operations.

OFFENSIVE OPERATIONS	• Screen accompanying PLL items of subordinate units. • Estimate probable combat losses. • Establish and enforce guidelines for repair times. • Establish and enforce an evacuation policy. • Enforce repair priorities. • Establish or change the maintenance priority of supported units. • Change customer support lists. • Designate maintenance repair teams to accompany or follow attacking elements. • Identify the type, number, and location of recovery and evacuation assets. • Plan for increased vehicular maintenance resulting from rough terrain. Direct that units maintain combat-essential PLL and ASL stocks up loaded on repair parts vans and stake and platform trailers. • Task teams to assess battle damage and repair on site. • Recommend that units recover equipment one terrain feature back or to the nearest MSR. • Alert DS maintenance units of increased passback and reinforcing support requirements. • Emphasize repair of critical items as far forward as possible or at the lowest level possible. • Recommend that units recover reparable vehicles only as far as necessary to repair, normally to the MCP set up by DS maintenance units. • Direct that, in very fast-moving offensive operations, units either merely report unserviceable reparable items or recover them no farther than the MSR for further evacuation by follow-up mainten ante elements. • Set up guidelines to prevent uncontrolled cannibalization of seriously damaged vehicles.
DEFENSIVE OPERATIONS	• Employ on-site maintenance procedures. • Focus maintenance priority to support critical combat or CS units. • Change supported customer lists. • Direct that maintenance teams continue to repair as far forward as possible.
RETROGRADE OPERATIONS	• Identify which units posses recovery vehicles and cranes. • Monitor evacuation of critical reparable weapon systems. • Plan to use the rail system to evacuate as much inoperable reparable equipment as possible.

Table 9-1. Supporting tactical operations. (Continued)

RETROGRADE OPERATIONS (continued)	**• Determine which weapon systems can be abandoned after rendered useless to the enemy.** **• Authorize cannibalization.** **• Identify additional transportation assets needed to deploy maintenance elements to the rear.** **• Concentrate maintenance efforts on returning critical reparable weapon systems to battle in the least time possible.** **• Increase repair times prior to evacuation to the next level.**

Movement of supported units into or out of the maintenance unit's geographic support area results in imbalanced work loads and maintenance backlogs.

When indicators warrant concern, CSG maintenance branch personnel conduct daily site visits to subordinate maintenance units. They assess problems or trends and recommend corrective actions to group and battalion support operations staff. To help resolve maintenance backlogs, CSG maintenance branch personnel recommend —

- Changing customer lists.
- Reinforcing FSB maintenance units with mechanics, tools, and recovery assets.
- Using truck assets in the CSB to push major assemblies forward to FSB MCPs for pickup by MSTs.
- Cross-leveling repair parts.
- Local purchase of tools and repair parts.
- Using controlled exchange,
- Authorizing cannibalization.

ASL SIZE AND DEPTH

ASL size and depth should provide responsive support to customer units yet not impede mobility. CSG units can maintain the following ASL:

- Nondivision DS maintenance units maintain up to 5,000 lines of repair parts.
- AVIM units maintain aviation unique repair parts.
- The missile support company maintains up to 4,500 lines of missile repair parts.
- HAWK DS maintenance units maintain up to 5,000 lines.
- Repair parts supply companies maintain up to 20,000 lines of common repair parts.

ASL Depth

Maintenance units support on an area basis. Therefore, their ASL needs to support a diversity of type of units employed in or moving through their area. The CMMC adjusts deployment ASLs to cover the combat PLLs of supported units. The CMMC adjusts ASLs when the corps pulls supported units off-line for reconstitution and another type unit takes its place.

Peacetime stationing of maintenance units with FA brigades ensures that the ASL reflects maintenance requirements to maintain and repair unique major weapon systems – 155-mm towed howitzer, 155-mm self-propelled howitzer, and MLRS. Establishing this peacetime habitual relationship depends on the Capstone trace and TPFDL.

CSG maintenance branch personnel periodically review ASL change lists to ensure that subordinate maintenance units stock only essential items. They review deletions recommended-due to low demands in view of requirements for unit unique items, future operations, and seasonal changes.

ASL Mobility

All DS maintenance and AVIM units should maintain 50 percent mobility. Units store combat essential ASL lines on repair parts vans. Using railroad boxcars to transport storage bins of repair parts reduces the shortfall of prime movers.

DEMAND SATISFACTION

CSG supply staff continually assesses demand satisfaction. AR 710-2 recommends that supporting units strive for 70 to 80 percent demand satisfaction. Monthly supply performance reports produced by current automated systems list the percent of demand satisfaction. Separate pages cover common repair parts, aircraft repair parts, and missile repair parts. Supply performance reports alert CSG S&S branch staff to problem areas. These may include —

- Warehouse denials.
- ASL lines at zero balance with dues-out.
- ASL lines at or below safety level.
- Overuse of high PDs.

EQUIPMENT DEADLINES

CSG maintenance branch personnel resolve critical equipment deadlines by –

- Verifying that subordinate units transmitted a high priority NMCS request to the CMMC.
- Coordinating lateral issues among subordinate units.
- Recommending obtaining parts by using local purchase or controlled exchange procedures on a like item
- Directing units to cannibalize unserviceable end items to obtain required parts.

MAINTENANCE CONTROLS

To control maintenance support, maintenance branch personnel recommend and revise maintenance priorities. Repair priorities help ensure that maintenance units repair critically needed items first. CSG maintenance branch personnel also control support by ensuring that maintenance units comply with repair time limits. They monitor maintenance support by analyzing status reports and performing assistance visits and staff inspections.

REPAIR PRIORITIES

The corps G4 sets repair priorities. CSG/CSB maintenance branch personnel ensure that subordinate maintenance units comply with repair priorities. First priority normally goes to repair and return critical weapon systems to combat units. Normally, maintenance units repair combat vehicles before tactical vehicles.

When recovery and evacuation assets are limited, CSG maintenance branch personnel recommend that COSCOM maintenance support branch staff officers revise priorities. They allow backlogs of nonessential items in order to concentrate repair efforts on critical items.

REPAIR TIME

The theater commander prescribes wartime maximum repair time limits. To help prevent maintenance backlogs, repair time guidelines are set for each level of maintenance. The COSCOM support operations officer establishes repair time limits for corps maintenance units. Repair times appear in the service support annex to the OPORD. The CSG maintenance management officer recommends that the COSCOM maintenance support branch adjust repair times based on the –

- Tactical situation.
- Maintenance backlog.
- Availability of repair parts.
- Order ship time.

CSG and CSB maintenance branch personnel continually monitor repair times. This helps to ensure that maintenance units evacuate jobs which may exceed the prescribed time limits.

A suggested guideline for repair in the DSA is 36 hours. The suggested time for the corps area is 96 hours. If authorized, controlled exchange and cannibalization help keep repairs within time guidelines. Use TB 43-0002-3 to help control the extent of maintenance performed on specific Army aircraft items.

MAINTENANCE SUPPORT STATUS REPORTS

Status reports enable CSG and CSB maintenance branch personnel to monitor the adequacy of maintenance support in their area. Each maintenance unit reports on —

- Recovery assistance capability.
- Evacuation capability.
- Shortage of maintenance MOSS.
- Backlog (in man-hours).
- Status of critical items awaiting repair.
- Critical repair parts.

Table 9-2. Sample battalion work load summary.

PREPARED E + 1 DAY PCN AHE-009 REPORT PERIOD ENDING 2400

	TOTALS			BACKLOG STATUS						BACKLOG TYPE				BACKLOG AGE					
EQ Category	Items Rec	Items Comp	Items O/H	Await Insp	D/L Parts	Await Shop	In Shop	Final Insp	Evac Other	Rep	Cal Insp	MWO	Other	0-30	31-60	61-90	Over 90	Def	Rep AWP
04 Tent & Tarp	2	6	2			2				2				2					2
08 Tool & Mach	3	1	4			1	2	1		4				4					
11 Small Arms	13	2	16	5		3	7	1		13	3			16					1
18 Fire Control	8	2	6			1	4	1		2	4			6					
19 WPN Comp & Asy	11	5	10	2		1	3	4		10				10					
21 Armed Carrier	32	12	36	10	4	11	9	2		36				34	2				4
22 Artillery (SP)	16	5	12	1	1	6	4			10	2			12					
33 Tact Vehicle	94	51	118	23	21	20	38	16		118				110	8				12
38 Tac Com & Asy	83	94	10		2	1	6	1		10				10					
39 Misc Veh Pts	27	18	11		2		9			11				11					

- Quantity of items requiring evacuation.
- Overall mission capability.
- Problem areas.

CSG and CSB maintenance branch personnel monitor backlog data and recommend ways, to include HNS and local purchase, to eliminate excessive backlogs and resolve shortages of repair parts.

BATTALION WORK LOAD SUMMARIES

Battalion work load summaries provide a means to monitor and control backlogs in maintenance units. Table 9-2 provides a sample. CSG and CSB maintenance branch personnel review battalion work load summaries to assess potential problems created by personnel and equipment shortages. To reduce backlogs, the CSG maintenance management officer recommends cross-leveling work loads or evacuating to another DS maintenance unit.

EQUIPMENT TRANSFER

Laterally transferring equipment between subordinate maintenance units helps control maintenance backlogs and reduce repair times. Equipment transferred between maintenance units or subordinate battalions should meet the equipment transfer standards prescribed in AR 750-1.

ASSISTANCE VISITS

CSG maintenance branch personnel visit supported and supporting units to provide technical assistance and resolve maintenance support concerns. Subjects discussed during these visits may include –

- Problems encountered in obtaining or providing required support.
- Future operations which may increase requirements for DS maintenance and repair parts supply.
- Adequacy of repair parts supply procedures.
- Adding reparable items.
- Adjusting the ASL to cover the combat PLL of new customer units.
- Requirements for technical assistance.
- Ways to hold reports to a minimum.
- Current priorities.
- Projected needs for replacement mechanics, augmentation maintenance teams, and special tool sets.

STAFF INSPECTIONS

CSG and CSB maintenance branch personnel conduct staff inspections of maintenance support operations in DS maintenance units. During staff inspections, maintenance branch personnel review files to determine the number, type, and frequency of repairs. They discuss repair times and ensure that supporting maintenance units correctly report maintenance status,

MAINTENANCE MANAGEMENT SYSTEMS

CSG and CSB maintenance branch personnel continually monitor maintenance work loads and requirements to ensure that they do not exceed the maintenance capability of subordinate maintenance units. They concentrate on determining the cause for backlogs and recommending corrective actions to ensure timely maintenance support.

THE ARMY MAINTENANCE MANAGEMENT SYSTEM

TAMMS records prescribed by DA Pamphlet 738-750 provide a potential source of managerial data. SAMS forms and procedures replace some TAMMS forms. CSG/CSB maintenance branch personnel should highlight areas on each form which they want to check on during site visits.

STANDARD ARMY MAINTENANCE SYSTEM

As shown by Figure 9-8, SAMS-1 supports maintenance reporting requirements at DS maintenance, AVIM, and DS missile maintenance units. It tracks work orders, repair parts, and processes requests from supported units. SAMS-2 collects and retrieves maintenance data from SAM S-1 sites. It allows maintenance staff at CSBS, CSGs, the COSCOM and CMMC to analyze and coordinate maintenance work loads, DA Pamphlet 738-750 describes SAMS forms and procedures.

Interfaces

SAMS-1 interfaces with ULLS for maintenance request reporting. SAMS-1 also interfaces with SARSS-1. This enables DS level maintenance unit supervisors to monitor Class IX repair parts supply.

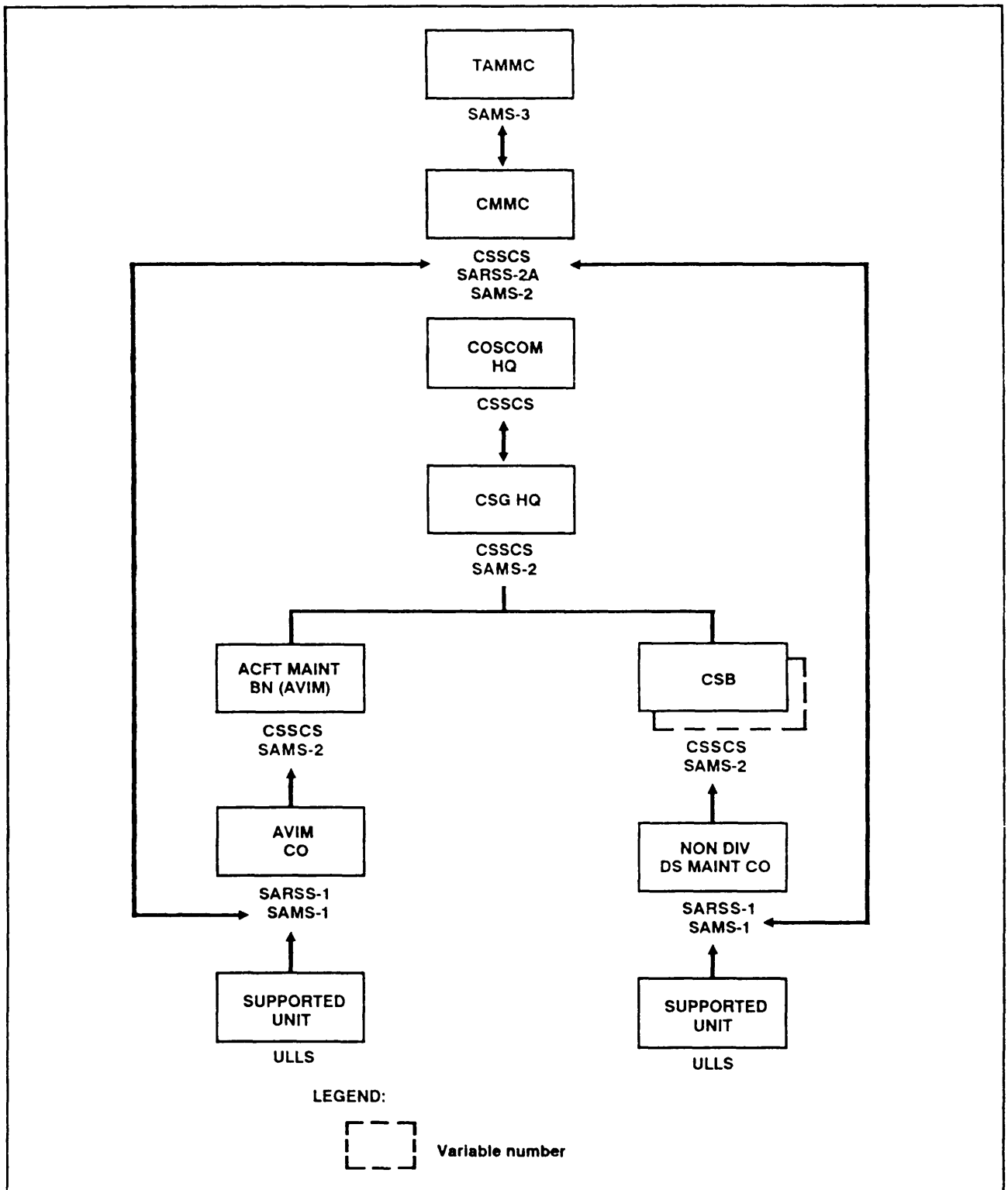


Figure 9-8. Standard army maintenance system interface.

ble equipment, equipment backlogs, and maintenance/asset performance reports.

The interface between SAMS-2, SARSS-2A, and CSSCS, enables CMMC managers and CSG repair parts technicians to obtain data on Class IX requisition status and make management exception decisions.

SAMS-2 enables CSB maintenance branch personnel to monitor maintenance shop performance and manage reparable and shop stock or bench stock. CSG maintenance branch personnel use the CSSCS interface with SAMS-2 to –

- Monitor and adjust maintenance work loads and backlogs.
- Identify repair sections with a higher than acceptable backlog.
- Monitor NMCS work requests.
- Pinpoint problem areas.
- Analyze causes for deadline equipment.
- Determine materiel status and materiel readiness.
- Monitor the responsiveness of the repair parts
- supply system.
- Monitor the adequacy and use of reparable items.
- Determine the status of MWOs.
- Monitor urgent MWOs which influence materiel readiness.
- Monitor calibration.

NBC CONCERNS

To continue to provide maintenance support in an NBC environment, subordinate DS maintenance units need to avoid or contain contamination. CSG and CSB S2/S3 section personnel provide staff assistance on ways for subordinate maintenance units to avoid or contain contamination and protect recovery and maintenance personnel.

CONTAMINATION CONTROLS

Maintenance efforts are constrained by contamination and the requirement to work in MOPP gear. In an NBC environment, subordinate maintenance units need to set up an inspection point, contaminated equipment holding area, and contaminated as well as clean MCP areas. SOPS set forth inspection procedures, contamination controls, and protection measures.

RECOVERY AND EVACUATION

Owning units decontaminate items prior to recovery and evacuation to a subordinate DS maintenance unit. Units use contaminated vehicles to recover contaminated equipment to a decontamination site or contaminated MCP. Onboard decontamination apparatus should be used to spray those surfaces which recovery personnel need to touch. CSB maintenance branch personnel need to request deliberate decontamination assistance from COSCOM/corps chemical units.

CONTAMINATED EQUIPMENT

DS maintenance personnel should treat all equipment as contaminated. Vehicles and equipment decontaminated to a negligible risk level for operators and crews can still be a hazard to mechanics. Chemical contamination becomes trapped in closed assemblies, bolt threads, and petroleum products. Hazardous vapor collects in air filters. The chemical agent alarm or chemical agent monitors authorized by TOEs alert maintenance persomel of the presence of vapor hazards and trapped chemicals.

INSPECTION POINT

To contain contamination, all vehicles, equipment, and personnel pass through an inspection point before entering the maintenance area. Inspectors send uncontaminated equipment to the clean MCP area. They direct contaminated equipment to a contaminated holding area.

DECONTAMINATION

Corps decontamination organizations perform deliberate decontamination operations. The CSG NBC officer arranges for corps chemical units to provide hasty and deliberate decontamination support.

Maintenance personnel should assume that equipment known to have come from a contaminated area is contaminated. FM 3-5 describes decontamination techniques in general. FM 1-102 provides specific guidance for aircraft decontamination.

PROTECTIVE CLOTHING

It is difficult to decontaminate equipment to present only minimal risk to mechanics. They should wear MOPP4 gear to repair previously contaminated vehicles. Oil, grease, and dirt degrade the protective qualities of chemical overgarments. Therefore, CSB S4 staff need to ensure that extra MOPP gear is on hand. Fuel handlers' aprons, field expedient rubber

qualities of chemical overgarments. Therefore, CSB S4 staff need to ensure that extra MOPP gear is on hand. Fuel handlers' aprons, field expedient rubber sheets, and wet weather gear help keep MOPP gear clean. However, they increase heat buildup.

CONTAMINATED MCP AREA

Depending on criticality of need, maintenance personnel in MOPP4 gear may need to repair some contaminated end items. DS maintenance unit supervisors set aside an area for repair of contaminated items. Contaminated tools and equipment remain in the contaminated MCP area.

CSB maintenance branch personnel ensure that supervisors schedule periodic withdrawal of maintenance personnel from the contaminated MCP area to the clean MCP area.

CLEAN MCP AREA

Maintaining an MCP area free of contamination provides a place where maintenance personnel can work in reduced MOPP gear. This provides relief from the psychological and heat stress associated with wearing MOPP gear. Modified MOPP1 or 2, in which the gloves are worn, may be appropriate.

CHAPTER 10

Moving the Force

The transportation system provides the key link between dispersed supply units and frequently moving supported units. It enables CSGs to move supplies, equipment, and personnel on the AirLand Battlefield in support of the corps commander's battle.

The biggest challenge is moving ammunition and bulk fuel from the corps rear area to the DSA or BSA if necessary. Habitual support relationships exist between truck units and ammunition and petroleum supply companies. Trucks transport thousands of tons of ammunition and hundreds of thousands of gallons of bulk fuel each day. Committed divisions may consume from 500,000 to 900,000 gallons of bulk fuel per day. Ammunition requirements may average 3,000 to 4,000 tons per division per day.

CONTENTS

CSG TRANSPORTATION SUPPORT ORGANIZATION

The COSCOM assigns a mix of light-medium, medium, and heavy truck companies and cargo transfer companies to its CSGs. Figure 10-1 depicts a typical CSG transportation support organization. Forward CSGs attach light-medium, medium, and HET truck companies to its CSBs. Based on requirements, the rear CSG may attach medium and/or heavy truck companies and cargo transfer companies to a transportation battalion. Attachment depends on the—

- Scope and duration of supported operations.
- Availability of HNS equivalent units.
- Requirements to transport supplies, equipment, and units.
- Distribution pattern.

LIGHT/MEDIUM TRUCK COMPANIES

Light/mediumtruck companies (TOE 55719L100/200) are in the force on the basis of one per division to accommodate that work load that is beyond the capability of the MSB's organic truck company. They are attached to the CSB located in the division area to transport supplies from the CSB supply company to MSB main supply points and FSB forward supply points to reinforce their support of corps forces in the DSA and BSAs. They also support maneuver brigade operations, moving troops or cargo as required.

TOE 55719L000 lists mission capabilities. FM 55-30 covers truck unit operations. The unit MTP lists critical tasks.

MEDUIM TRUCK COMPANIES

Based on organic equipment authorization, medium truck companies (TOE 55728L100-L300) move containerized or general cargo, bulk fuels, or refrigerated cargo. A medium truck team GC (TOE 55540H500) may augment truck unit capabilities.

Medium truck companies provide line haul transportation for delivery of cargo via direct haul or semitrailer relay. They transport stocks from CSAs to ASPS and ATPs. They also transport general supplies to DS supply companies. When possible, they throughput supplies as far forward as possible. They also provide express or rapid delivery of high-priority cargo. Whenever possible, they retrograde or return loads from forward areas to the corps rear area.

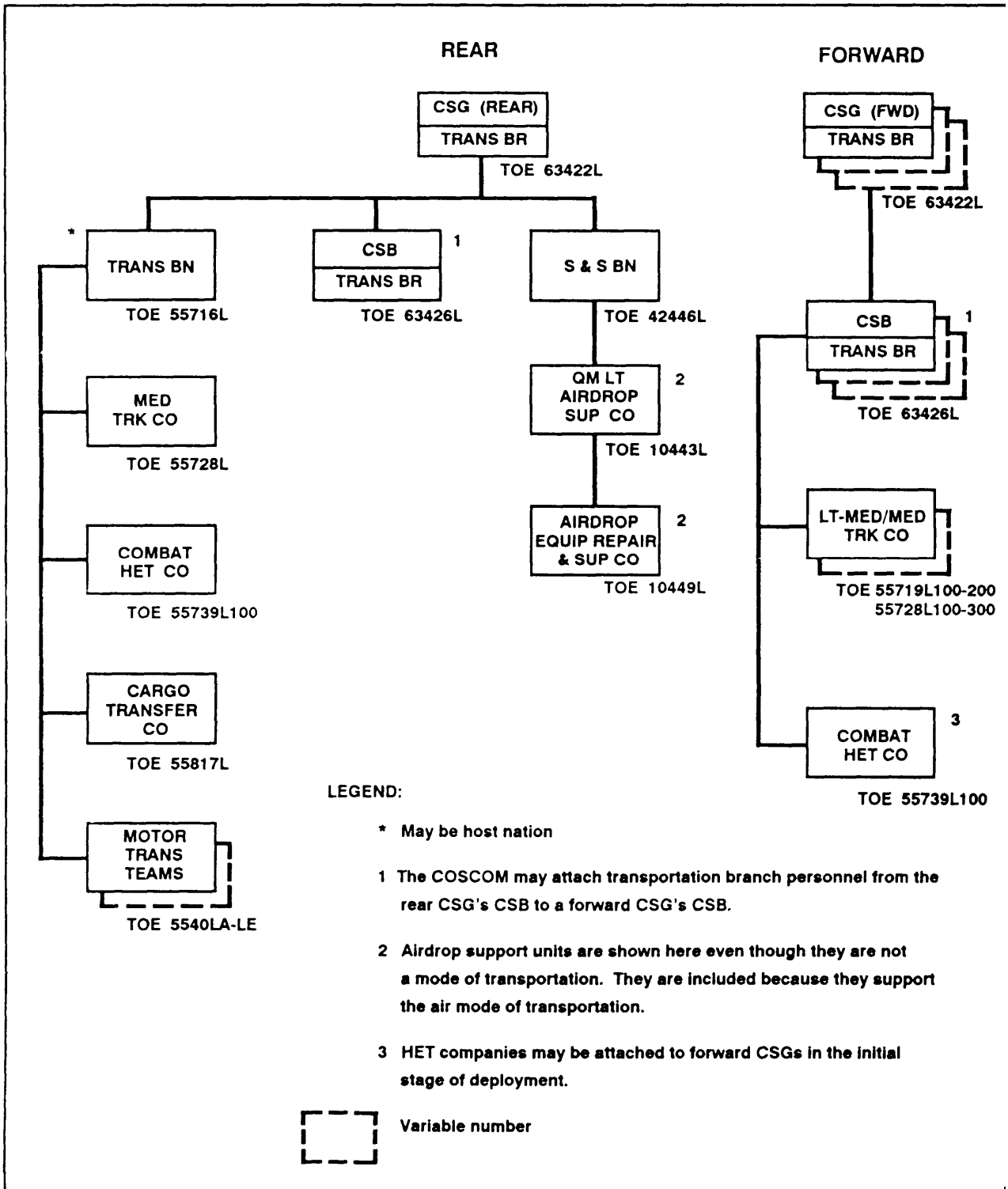


Figure 10-1. CSG transportation support structure.

Based on routine habitual support requirements and the distribution pattern, at least two medium truck companies should employ near a CSA. They transport ammunition from the CSA to the ASPS and ATPs. Another medium truck company employs near the GS supply company. Medium truck companies (petroleum) provide dedicated support to the GS petroleum supply company.

HEAVY EQUIPMENT TRANSPORTER COMPANIES

A reevaluation of the tactical advantage for the maneuver commander to relocate maneuver units resulted in development of TOE 55739L100. The combat HET company's primary role is to relocate tracked combat vehicles in support of a heavy maneuver force. Combat HET companies deploy in the early stages of theater buildup. Their evacuation role becomes secondary.

Relocating and transporting tracked vehicles to the battle on HETs provide a significant advantage over road marching tracked vehicles. Tracked vehicles arrive fully fueled, armed. and operational, with rested crews. Weapon systems arrive functional and less fuel is consumed.

The basis of allocation is four combat HET companies per corps. Four companies are needed to move an armor brigade with support slice in a single lift. Combat HET companies will normally be assigned to the transportation battalion. However, they maybe assigned to forward CSGs during initial deployment if the transportation battalion has not yet deployed. Spreading the HET companies across the corps defeats their mission to relocate a brigade task force in a single lift.

CARGO TRANSFER COMPANIES

Cargo transfer companies (TOE 55817 L100-200) transship cargo at air, rail, and motor terminals. Unit personnel redocument transshipped cargo, as required. They have a limited capability for stuffing and unstuffing containers. TOE 55817L100-200 lists mission capabilities. Units under TOE 55817L200 can operate three separate terminals.

Cargo transfer units are sequenced early in the deployment flow. They initially operate at arrival airfields, sup porting combat units in the off-load and marshaling of unit equipment and unit supplies. As the operational area is expanded, cargo transfer units are echeloned forward to conduct cargo handling operations at forward mode transfer points and/or to augment division or corps logistics operations with attached cargo handling elements tailored to the mission.

TRAILER TRANSFER DETACHMENT

Trailer transfer detachments (TOE 55540LE00 operate trailer transfer points, in conjunction with line haul operations. Detachment operations include –

- Receiving, segregating, assembling, and dispatching loaded or empty semitrailers for convoys.
- Maintaining fuel dispensing facilities to refuel operating equipment.
- Servicing inspecting, and, if required, making emergency repairs to incoming vehicles.

HNS EQUIVALENT UNITS

WHNS terminal transfer companies can operate terminal transfer points in support of US forces within the corps area. Using HN transport for local hauls, such as moving cargo from a rail terminal to a rear storage site, frees US truck assets to support forward area operations. CSGs attach HN truck companies to CSBs and the transportation battalion. The CSG transportation branch coordinates requirements and use of HN truck lines and truck terminals with the CSG HNS branch and CMCC/MCT. The CMCC commits HN transportation resources.

CELLULAR LOGISTICS TEAM

Theater dependent, the COSCOM can attach a US transportation HNS team (TOE 55510LA00) to a CSG. The terminal transfer CLT provides the liaison and interface between the CMCC and WHNS terminal transfer units. Figure 10-2 depicts this liaison and the coordination of mission taskings between the CMCC/MCT and HN transportation units. The CMCC/MCT tasks the HN battalion through the CLT. Personnel from the terminal transportation CLT collocate with the WHNS transportation battalion headquarters and HN terminal transfer companies. They serve as the HN battalion's logistics operations setion and as staff on the HN terminal transfer company's operations section. Terminal transportation CLT personnel—

- Maintain visibility of intransit US shipments and supplies.
- Consolidate and forward transportation status reports from HN units to the group and CMCC.
- Assist cargo documentation personnel in preparing US documentation.

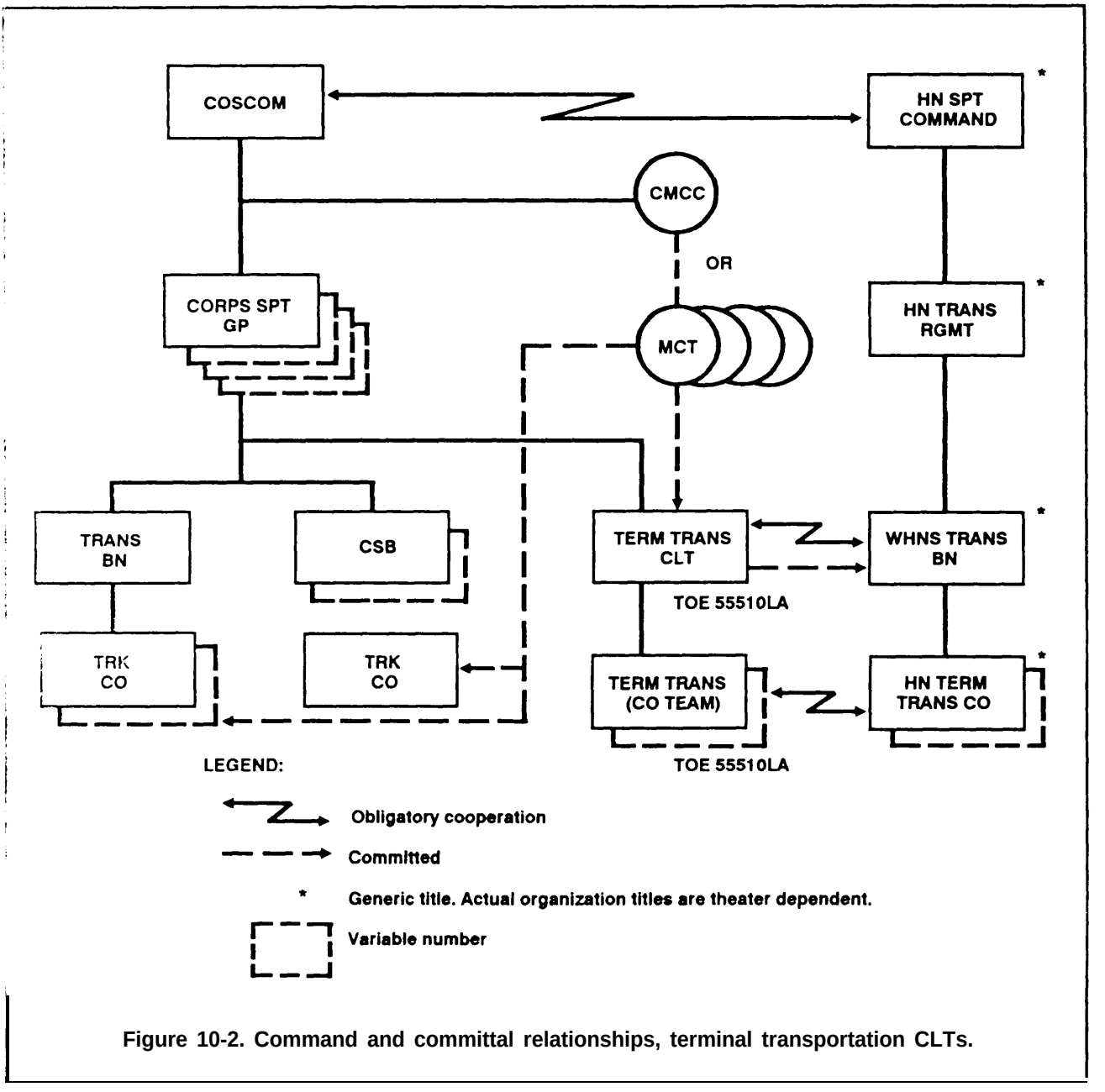


Figure 10-2. Command and committal relationships, terminal transportation CLTs.

- Provide technical guidance on proper loading of US unique equipment.
- Divert cargo when directed to by the CMCC.

TRANSPORTATION SUPPORT OPERATIONS

Transportation support operations focus on a continuous flow of loaded trucks or semitrailers from GSUs to DSUs or forward areas. Empty or return-loaded trucks and semitrailers move rearward to load up and move forward again to supported units. Trucks move cargo in line hauls, local hauls, or semitrailer relays. PLS equipment will enhance loading and off-loading operations. Support requirements necessitate express operations, area support operations, or container operations.

Whenever possible, vehicles return loaded with retrograde items from forward areas.

BATTLEFIELD EMPLOYMENT

Figure 10-3 depicts a sample employment of transportation elements on a battlefield, to include those which manage and integrate ground, air, water, and rail movement. Depending on METT-T, the following transportation support elements operate in a CSG AO:

- MRTs to regulate the movement of authorized traffic over road networks or at critical transportation nodes.
- An MCT which collocates with each CSG headquarters to commit, monitor, and report on truck use in the CSG's AO. It coordinates transportation requirements beyond the CSG's organic capability.
- A HET company or platoon to provide maneuver unit relocation. HETs move tracked combat vehicles from the assembly area to the tactical assembly area. Light-medium truck companies move the remainder of the maneuver force. The maneuver commander determines the sequence and priority of moves. The CMCC regulates the highways and issues clearances.
- Habitually supporting truck units which operate in a direct support role, supporting the conventional nondivision DS ammunition unit in the division area.
- Medium truck companies which provide corps-wide transport of critical GS supplies.
- A cargo transfer company which operates near off-loading points and logistics facilities in the corps rear area.
- A medium lift helicopter company and the airdrop supply company and airdrop repair and supply company which provide a means of support when ground LOCs are interrupted or when surface transportation will not meet required delivery date and time.

HABITUAL SUPPORT RELATIONSHIPS

The CSG attaches medium truck units to CSBs to habitually support conventional ammunition companies or general supply companies. This parallels medium truck company (petroleum) support to the petroleum supply company.

This habitual support relationship enables forward CSGs to provide continuous, responsive GS distribution system support. It allows the corps commander to use logistics to weight the battle. It also allows the CMCC to focus on major corps redeployment, major changes in distribution patterns, and exception requirements out of sector. The COSCOM reallocates truck units from one CSG to another.

To support routine, recurring daily logistics support missions, the MCT preassigns a block of TMRs. This is considered to be a programed move. Refer to Figure 10-4. The truck company coordinates movement requirements with the supply company which it habitually, supports. The truck company then requests convoy clearance.

The CMCC, through its MCTs, commits the truck assets that have been identified for their habitual support relationship if there are higher priorities. Priorities for movement are established by corps OPLANs or fragmentary orders published by the corps G3. Based corps priorities and changes in the tactical situation, the MCT can rescind its TMRs and assign other missions to truck units. If the MCT/CMCC reduces the number of truck assets available to move supplies, transportation battaIion and CSG/CSB transportation branch personnel need to reassess priorities of support against remaining truck assets.

OTHER SUPPORT REQUIREMENTS

Units submit movement requirements which are beyond their organic truck capabilities to the MCT serving their area. For other than habitual support requirements, the MCT transmits commitments to subordinate truck units through the CSG/CSB transportation branch or transportation battalion S3 section. Refer to Figure 10-4 The truck units request movement clearance through their transportation branch to the supporting MCT.

CSB transportation branch personnel keep CSG transportation branch staff informed of subordinate truck unit ability to support missions when the CMCC/MCT diverts truck assets for other than daily support missions. Based on local procedure, truck asset status should be reported to the supporting MCT or CMCC.

When the CSG/COSCOM forms a task force to support corps forces, such as corps FA, air defense, or corps engineer, supporting outside of the Army AO in support of a sister Service or an ally, corps truck assets move accompanying support, to include custom munition: and ASL. The CMCC establishes a responsive transportation network to maintain a LOC to support the task force for the duration of the support operation.

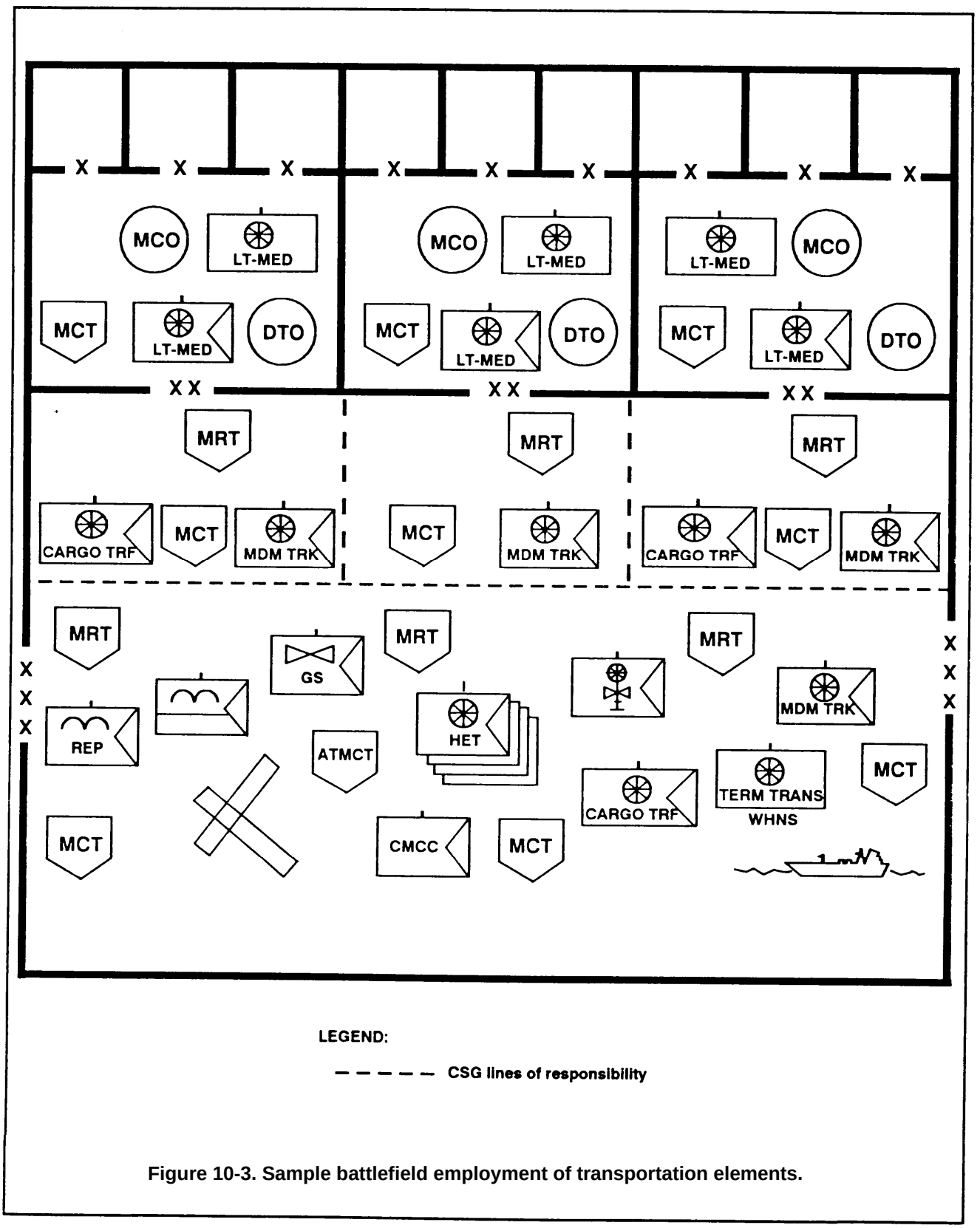


Figure 10-3. Sample battlefield employment of transportation elements.

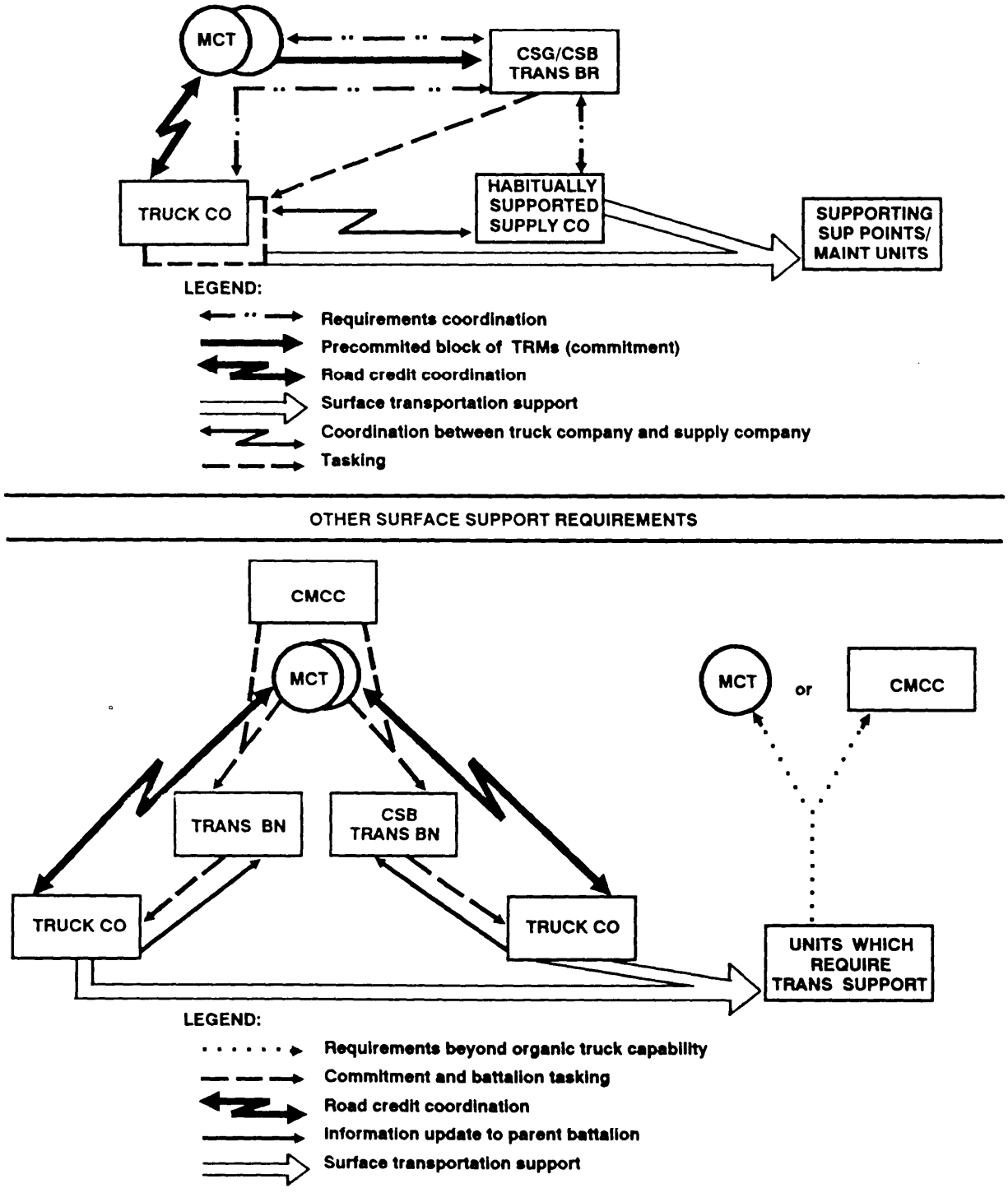


Figure 10-4. Surface transportation request and commitment flow.

SURFACE TRANSPORTATION REQUEST

Units submit a transportation request to the supporting MCT They need to submit the request at least 48 hours prior to cargo or passenger availability date. For specialized HN equipment, allow a lead time of 72 hours.

The CMCC commits transportation assets based on corps priorities for movement established by the corps G3 and G4. MCTs issue TMRs for planned movement requirements based on the corps movement program or to meet unprogrammed movement requirements. They identify the transportation needed to fill the requirement and notify CSG/CSB transportation branch staff of the mission. CSB transportation branch personnel coordinate and task truck companies.

LINE-HAULS AND LOCAL-HAULS

Truck operations may be line-haul or local-haul. Local-haul is short distance operations which allows two or more round trips per a 10-hour shift. Line-haul constitutes operational distances allowing only one round trip per a 10-hour shift. Trailer transfer points are required to connect line-haul legs to throughput cargo long distances.

To reduce prime mover turnaround time, CSG transportation branch personnel recommend that truck tractors drop semitrailers at a destination when—

- Sufficient semitrailers are available.
- Turnaround times or tonnages are critical.
- The tactical situation permits drop off of loaded semitrailers.

SEMITRAILER RELAYS

Truck tractors use a semitrailer relay technique to throughput supplies from the COMMZ into division areas. One or more trailer transfer points may need to be set up at intermediate points along the route of travel. CSG transportation branch personnel establish formal procedures to account for trailers in their AO and report status to the transportation support branch of the COSCOM support operations section.

EXPRESS OPERATIONS

Express operations provide faster delivery of critical, high-priority cargo than regular line haul operations. CSG transportation branch personnel recommend that subordinate truck units set up express operations to provide rapid movement of high-priority cargo. To ensure that critical supplies arrive within a given time frame, CSG transportation branch personnel request that the CMCC assign a higher movement priority for express hauls. They also need to request road clearance for movement of oversize loads.

CONTAINER OPERATIONS

Containers permit packaging small or loose cargo items into a single unit for security and ease of handling. They are managed in accordance with AR 56-1. Cargo may be loaded into a container in CONUS or in the COMMZ. With the exception of CCL ammunition loads on a PLS flatrack or retrograde shipments, containers are not stuffed at the corps level. Trucks move containers in either local- or line-hauls.

CSG transportation branch personnel synchronize and control container operations to ensure that containers are promptly offloaded and returned to the transportation system. They coordinate with the supporting MCT to determine inbound time and container weight and size. They estimate the requirements for and determine the availability of container handling equipment to download containers or MHE to unload containers. The CSG S4 ensures that sufficient portable ramps, cargo handling equipment, and MHE are available in subordinate units. Based on work load, the CSG support operations officer reallocates container handling equipment to meet operational requirements.

PALLETIZED LOAD SYSTEM

PLS enhances loading and off-loading operations. PLS cargo trucks have a hydraulic pick-up unit. This unit can load and unload flatracks of palletized or containerized cargo directly from the ground, PLS trucks pull a cargo trailer with a flatrack payload, Some PLS vehicles have an on-board material-handling crane. The crane loads and offloads standard palletized loads. The vehicle driver can perform all loading and unloading operations from inside the cab, often in less than one minute.

PLS vehicles were initially designed to help speed the loading and off-loading of heavy ammunition loads. However, they also transport containers, ribbon bridges, C2 shelters, evacuated items, and bulk cargo.

AIRLIFT RESUPPLY

Airlift supports either preplanned or immediate requirements to provide resupply. Airlift is routinely used to deliver low density, high dollar, high lethality munitions. FMs 55-40 and 100-27 describe preplanned and

immediate airlift request flows. The corps and COSCOM FSOP prescribe request procedures.

Preplanned Airlift Resupply

Support operations staff officers project requirements for airlift resupply as part of developing the movement program. The CMCC consolidates airlift requirements and forwards them to the corps G4 for consideration to have airlift allocated for CSS air movement operations. The CMCC is the committal authority for aircraft allocated for CSS air movement operations.

If air resupply items process through one CONUS airport, a knowledgeable officer must remain at the airport to prioritize all of the 01 priorities for CSG and subordinate unit mission support equipment. That same individual recommends removal of equipment or supplies from loads because airloads were estimated or the USAF changed lift capabilities. The quantity removed needs to be reported to the unit whose equipment or supplies were removed. If an Army representative does not remain at the airport, the USAF will prioritize shipments.

Immediate Airlift Resupply

Unanticipated, urgent, or priority requirements may necessitate immediate airlift resupply. Requests are sent to the corps TOC. The corps TOC diverts or cancels preplanned missions or generates a standby capability.

Sling Loading

CSG OPLANs designate the units responsible for preparing loads for external transport. The plans designate the quantity of slings each unit should bring with them as well as sling return procedures and responsibilities.

AIRDROP SUPPORT OPERATIONS

Airdrop serves as the primary means of responding to immediate requests for ammunition, fuel, rations, water, blood, plasma, or other critical supplies when forces become isolated. Airdrop provides an alternative means of resupply when threat forces disrupt ground LOCs or the air battle makes air-landed supply operations impractical. CSGs coordinate airdrop support operations through the MCT. The CMCC validates Army use of USAF airlift and airdrop.

Airdrop services include both rigging loads for airdrop and maintaining the equipment needed for airdrop. Air delivery provides an expedient means to bypass contaminated areas. Requirements for airdrop related services increase significantly in an NBC enviroment.

SUPPORTING UNITS AND TEAMS
Airdrop Supply Company

A Quartermaster Airdrop Supply Company (TOE 10407L000) could be attached to the rear CSG's S&S battalion. Company personnel can rig 200 tons of supplies and equipment a day in support of special forces and division and nondivision units. Based on CMMC determinations, the company maintains a small stock of prerigged high-priority supplies, such as ammunition, medical supplies, and rations, with which to provide more timely response to emergency requests. Airdrop office personnel submit requests to the supporting MCT for trucksto move rigged loads to departure airfields. As required, airdrop operating platoon personnel help load supplies and equipment into aircraft for airdrop. They also assist in the recovery and evacuation of airdrop equipment. FM 10-400 describes unit operations

Airdrop Supply Team

An Airdrop Supply Team (TOE 10510LA) can be attached to the airdrop supply company to increase that company's mission capability by 25 percent. Team personnel can receive, store, and prepare 50 tons of selected supplies and equipment a day for airdrop. They can also provide personnel parachutes for 500 parachutists.

Light Airdrop Supply Company

Because most supplies can be airdropped in containers rather than by airdrop platforms, a Quartermaster Light Airdrop Supply Company (TOE 10443L000) will replace the airdrop supply company organized under TOE 10407L000. The light airdrop supply company can receive, store, and prepare 120 tons of selected supplies or equipment a day for airdrop. However, this company rigs only those supplies and equipment that can fit in single or double A-22 containers. Airdrop requests for items which cannot be rigged in A-22 containers are passed to a Quartermaster Heavy Airdrop Supply Company (TOE 10643L000) assigned to a TAACOM S&S battalion.

Airdrop Equipment Support Company (Airborne Corps)

For the airborne corps, a Quartermaster Airdrop Equipment Support Company (Airborne Corps) is attached to the S&S battalion to provide deployment support to airborne elements. This company can provide 200 tons per day of follow-up supply for a 10-day period.

Airdrop Equipment Repair and Supply Company

An Airdrop Equipment Repair and Supply Company (TOE 10449L000) can be attached to the rear CSG's S&S battalion to support the airdrop supply company. This company requests, receives, stores, and issues airdrop equipment to support the airdrop supply company or an airborne division's airdrop equipment support company. Personnel perform DS and GS maintenance on airdrop equipment, cargo parachutes, and airdrop platforms. FM 10-400 describes unit operations.

Airdrop Equipment Repair and Supply Team

An Airdrop Equipment Repair and Supply Team (TOE 10510LC) can increase the mission capability of the airdrop equipment repair and supply company by 25 percent.

Airdrop Equipment Repair and Supply Company (Airborne Corps)

For the airborne corps, a Quartermaster Airdrop Equipment Repair and Supply Company (Airborne Corps) is attached to the S&S battalion to provide airdrop equipment supply and maintenance support. This company supports the airborne division airdrop equipment support company, the airborne corps airdrop equipment support company, and the light airdrop supply company.

Parachute Packing and Maintenance Team

A Parachute Packing and Maintenance Team (TOE 10510LE) can be attached to the S&S battalion to inspect, pack, and maintain personnel parachutes in support of one thousand parachutists. Team personnel can perform unit, DS, and GS maintenance on personnel parachutes.

RESPONSIBILITIES

The CSG's airdrop operations NCO provides technica assistance on airdrop, rigging, or maintenance of airdrop equipment. COSCOM transportation support branch staff officers have staff responsibility for airdrop services. FM 10-500-1 provides doctrinal guidance for staff officers on airdrop support operations in a theater of operations. It covers airdrop requests procedures, recovery and evacuation procedures, and planning considerations.

Supporting Unit Responsibilities

Personnel assigned to the QM airdrop supply company—

- Rig supplies and equipment for airdrop. (FM 10-500 series manuals describe rigging procedures.)
- Assist in loading supplies and equipment into the aircraft.
- Release supplies and equipment from the aircraft in flight.
- Provide technical assistance int he recovery and evacuation of airdrop equipment.

Supported Units' Responsibilities

Units requesting airdrop support assume the responsibility for securing, marking, and controlling the drop zone. Supported units also recover and evacuate airdrop equipment to the airdrop equipment repair and supply company for classification, repair, and return to stock.

AIRDROP RESUPPLY METHODS

Supplies can be airdropped to units until routine resupply occurs as a result of normal requisitioning and issue procedures. During the follow-up stage, supplies can be airdropped by the following resupply methods:

Preplanned Resupply

The airdrop support unit rigs supplies for scheduled airdrop. Supplies can be stored at the airdrop unit site or at the departure field until the preplanned delivery date.

On-Call Resupply

The airdrop support unit prerigs supplies or holds them in bulk until supplies are called for on short notice. Assigning load-unique numbers facilitates the request.

Emergency Resupply

Emergency resupply applies only to deployed Special Forces. It is used to deliver mission-essential equipment and supplies to restore the operational capability and survivability of Special Forces. An emergency resupply is airdropped when deployed Special Forces fail to make radio contact within a predetermined time or to maintain scheduled radio contacts.

REQUEST CHANNELS

FMs 100-27 and 10-400 describe the request channels for immediate and preplanned airdrop requests. Units send immediate airdrop requests through command channels to the corps TOC. The corps G3 determines if alternate delivery means could better meet the requirement. Once approved, the CMMC coordinates shipment of supplies to the airdrop supply unit that will rig them for airdrop. The CMCC coordinates movement of rigged loads to the departure airfield. The CMMC sends a request for aircraft support to the TA MCA or joint force commander's agent who validates the request. CSG transportation branch personnel notify the MCT when rigged supplies are ready for movement to the airfield. Preplanned airdrop differs in that nondivision units request airdrop from the MCT, since air assets have previously been validated and committed.

NBC CONCERNS

Airdrop equipment as well as contaminated supplies need to be decontaminated prior to shipment. Items which cannot be decontaminated must be marked with the standard NBC marker. If rigging takes place in a contaminated area, all supplies and airdrop items must be marked and the air crew notified of the contamination.

SUPPORT OF TACTICAL OPERATIONS

To support the supply system, transportation personnel need to compute transportation requirements. They need to analyze how those requirements change as CSG units support offensive, defensive, and retrograde operations. Table 10-1 lists areas/actions CSG transportation branch personnel should consider.

OFFENSIVE OPERATIONS

Forward delivery results in large numbers of corps transporters in division areas as corps trucks deliver fuel to the MSB and FSB Class III points and ammunition to ATPs. Cargo vehicles, petroleum tankers, and ammunition carriers are thin-skinned vehicles, vulnerable to small arms fire. Small enemy ground or air forces can easily decimate corps transportation assets.

Extended supply lines increase delivery and turnaround time. CSGs should increase throughput of ammunition and petroleum. Despite breakdowns in communications, vehicles can continue to transport preplanned or preconfigured push packages. CSGs need to request helicopter airlift or airdrop of critical supplies to support units in areas not accessible by surface transport means.

DEFENSIVE OPERATIONS

Delivery and turnaround time decrease as truck units move stockpiles of supplies to successive fallback defensive positions. While fuel requirements decrease, ammunition expenditures increase. Trucks also need to transport increased quantities of barrier and fortification materials.

RETROGRADE OPERATIONS

Truck units evacuate all but the most essential supplies and equipment early. They move supplies and equipment to planned fallback points along withdrawal routes. The MCT coordinates with the CMCC to keep supply and evacuation routes open.

Nonessential CSG units move to the rear early. This provides more room for combat elements to delay and withdraw. CSGs coordinate with supporting MCTs to ensure that withdrawing CSG units keep out of the way of withdrawing or repositioning combat elements.

CSG transportation branch personnel monitor possible retrograde requirements from subordinate units. This includes reparable equipment at maintenance collecting points. They also ensure that subordinate companies submit transportation requests in a timely manner.

TRANSPORTATION CONTROLS

Centralized movements control and highway regulation prevent congestion and conflicting movements over ground LOCs. CSGs interface with transport ationmovement control and highway regulation elements to accomplish their logistics missions and movement requirements.

Table 10-1 supporting tactical operations.

OFFENSIVE OPERATIONS

- Upload as much materiel as possible.
- Plan for increased consumption of petroleum.
- Request highway movement priorities and clearances on controlled routes.
- Analyze the threat's capability to interdict road networks.
- Identify alternate routes and transportation modes.
- Plan for increased airlift and airdrop of critical supplies.
- Identify possible traffic choke points that could delay resupply.
- Move supply stocks forward.
- Arrange for throughput distribution from corps storage sites as far forward as possible.
- Identify resupply points along the roadnet.
- Maintain helicopter lift capability data.
- Identify maintenance and casualty collecting points along each roadnet.

DEFENSIVE OPERATIONS

- Plan to support patient evacuation requirements with available truck assets.
- Arrange to transport ammunition stocks to successive defense positions.
- Redirect shipments to support units at probable points of threat attack.
- Plan for increased retrograde loads.
- Move damaged equipment from MCPs to appropriate maintenance facilities.
- Plan and regulate movement to minimize refugee congestion.

RETROGRADE OPERATIONS

- Identify evacuation routes.
- Request unit movement priorities.
- Plan to evacuate at night.
- Publish unit movement schedules.
- Transport forward only those essential supplies needed to support the delaying force.
- Divert shipments of supplies to new positions from which to support counterattacks.
- Plan to evacuate patients, medical units, and nonessential CSS elements and equipment to the rear as early as possible.
- Evacuate supplies and equipment to preplanned fallback points along withdrawal routes.
- Evacuate major items of heavy mission essential equipment rearward via HETs maintained under central control of the CMCC.
- Coordinate with the supporting MCT to avoid traffic congestion on evacuation routes.
- Request that MP provide battlefield circulation control.
- If available, use rail and waterways to transport supplies and equipment rearward, thereby freeing roads for movements to support the counterattack.
- Use HNS assets to free transportation assets to support priority movements.

CORPS MOVEMENT CONTROL CENTER

The CMCC (TOE 55604L000) determines and coordinates transportation movement requirements within the corps area. It receives movement data from the MCA on vehicle clearances for entry into the corps area. It transmits requirements which exceed corps transport capability to the MCA. It coordinates work load requirements that cross CSG boundaries, exceed another CSG's transportation assets, or are required for a specific operation. The CMCC also—

- Prepares the corps movement program, based on movements requirements submitted by the CMMC.
- Prepares movement plans and annexes in support of logistics or contingency plans.
- Plans, routes, and schedules movements on road nets, according to priorities established by the corps G3/G4.

FMs 55-1 and 55-10 describe CMCC functions and organizational structure.

MOVEMENT CONTROL TEAMS

All MCTs (TOE 55580H7) within the COSCOM area of operations are assigned to the CMCC. An MCT collocates with each CSG support operations section to provide movements control support, The MCT work loads subordinate CSG transportation assets. Depending on the immediate situation, MCTs perform the following movement control functions:

- Process movement requests and arrange transport of personnel and materieI in compliance with movement priorities.
- Commit the transportation truck battalion and CSBs for truck support.
- Maintain communications with transportation mode operators, shippers, receivers, and, if applicable, HN movement control elements.
- Keep status data on the location of supported units, transportation requirements, and general transportation movements situation in their area.
- Recommend truck terminal sites.
- Monitor and report on the use and disposition of controlled vehicles and containers.
- Maintain surveillance of accountable containers and chassis for other services.

MOVEMENT REGULATION TEAMS

The COSCOM assigns or attaches MRTs (TOE 55580H7LH) to the CMCC. MRTs report on road and convoy status. MRTs also relay instructions to convoy commanders concerning route changes, halts, and convoy diversion. Because MRTs operate remote from their headquarters, they must be equipped with reliable long range communications capability with the CMCC.

If MP assets are not available, MRTs perform traffic control measures. If HNs perform highway regulation, MRTs may provide liaison to the HN.

MOVEMENT SUPPORT STATUS REPORTS

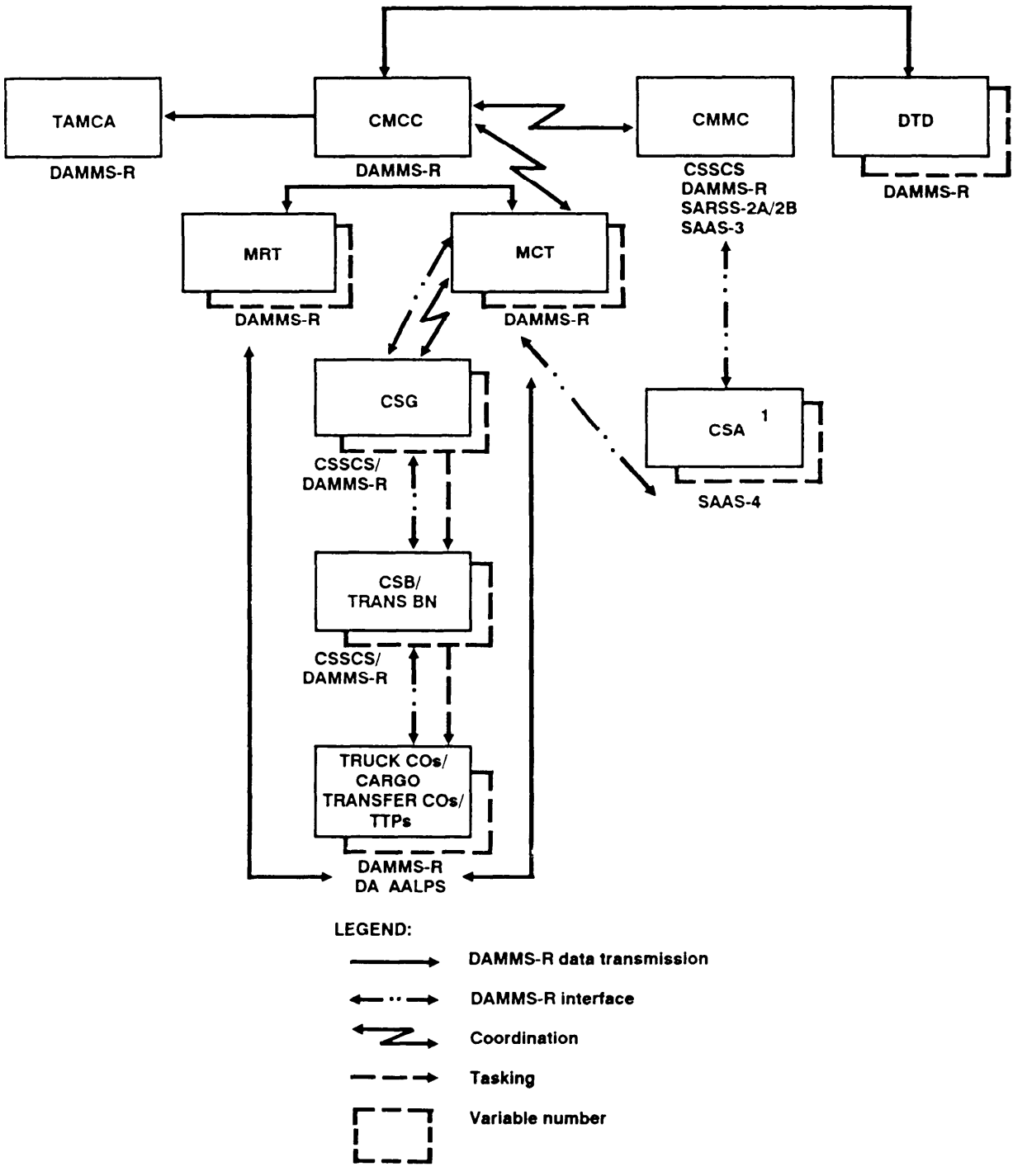
In order to report on movement support capability and the impact of transportation shortages, CSG and battalion transportation branch staff need to be kept informed of changes in subordinate truck unit mission support capability. Changes in movement or lift capability result from intransit losses, redirection of truck assets by the CMCC, additional contracted support, and HN and allied support agreements.

CSG and battalion transportation branch staffs need to track the status of –

- Main supply routes and alternate routes and of reasons for delays on these routes.
- HETs, PLS vehicles, and petroleum tankers, (committed, available, or not operational).
- Trailers (on hand, loaded, short, and deadlined due to maintenance).
- Containers (commercial and MILVANs).
- Terminal operations and reasons for bottlenecks.
- Rail or barge supplemental support capability, if applicable.

AUTOMATED TRANSPORTATION MANAGEMENT SYSTEMS

Figure 10-5 depicts the corps automated transportation management system and its interface with SAAS and SARSS automated supply systems. The interfacebetweenDAMMS-RandCSSCSenablesCSG transportation branch staff to monitor transportation activities of subordinate units.



1 FORECASTED AMMUNITION TRANSPORTATION REQUIREMENTS INTERFACE (SAAS-4 TO DAMMS-R)

Figure 10-5. Objective corps automated transportation system.

AUTOMATED MOVEMENT MANAGEMENT SYSTEM

DAMMS-R software supports the operational and management functions of the transportation system. It interacts with supply and deployment systems to provide information essential to wartime movement control and physical distribution. DAMMS-R automates the following functions:

- Shipment management—provides in-transit visibility and traces, holds, diverts, and/or expedites shipments.
- Mode operations—tasks commitments and management assets.
- MCT operations—automates interfaces with shippers and transshippers.
- Addressing—locates units on the battlefield and assist with surface distribution plans.
- Highway regulation—schedules, routes, and deconflicts movements.
- Operational movement programming—allocates assets against command priorities.
- Convoy planning—plans convoy movements and submits movement bid.

Truck companies, cargo transfer platoons, and freight consolidation and distribution teams process and transmit DAMMS-R movement data to MCTs or MRTs on a microcomputer device. MCTs and MRTs will then transmit DAMMS-R movement requirements and control data to the CMCC on their TACCS or ACCS common hardware devices.

The transportation battalion and CSBs use the DAMMS-R interface to monitor vehicle requirements, availability, and commitments.

The CMCC processes movements requirements and control data on its TACCS device. It uses DAMMS-R programs to develop movement plans, assess the adequacy of transportation resources, and monitor the status of movements.

Movements officers use the DAMMS-R interface with SAAS-3 and SAAS-4 to obtain data on forecasted or pending ammunition transportation requirements. They use the DAMMS-R interface with SARSS-2A and 2B at the CMMC to obtain transportation forecasts and data on supply movement requirements.

AUTOMATED AIRLOAD PLANNING SYSTEM

AALPS automates load planning in the three stages of air movement:

- During contingency planning, AALPS permits the movements staffs to build and save preplanned force packages in a database. It assists them in determining airlift requirements for the force packages and producing reports.
- During deployment planning, the planners are able to tailor and prioritize force packages based on mission requirements. AALPS enables planners to determine precise airlift requirements with a significant reduction in man-hours.

  In the execution phase, movements personnel automatically make real-time adjustments to the loads through the use of interactive graphics, AALPS produces cargo manifests acceptable for loading aboard US Air Force cargo aircraft.

NBC CONCERNS

CSG transportation branch personnel plan for operations in an NBC environment. They coordinate with NBC staff in the CSG S2/S3 section to assess the impact of NBC attacks on transportation operations. They provide advice and assistance on ways to continue support while containing the spread of contamination.

IMPACT ON OPERATIONS

Nuclear Attack

As a result of a nuclear attack, –

- EMP disrupts communications.
- Fallen trees block routes.
- Radioactivity makes areas impassible.
- Movement control elements may be destroyed

Countermeasures include—

- Having a subordinate CP assume C2 for a higher headquarters.
- Planning alternate routes.
- Diverting cargo.
- Extending MCT support areas.

Chemical Attack

Chemical attacks decrease the availability of transporters until decontamination can be performed. With approval of the receiving unit, trucks deliver

contaminated cargo or leave cargo at a location for decontamination.

CONTAMINATED ROUTE INTELLIGENCE

CSG transportation branch personnel need current information on NBC incidents to inform subordinate units about contaminated routes. They analyze whether organic vehicles need to drive around nonpersistent agents. CSG transportation branch movement specialists maintain current road net data. The sector RAOC, S2/S3 officers, NBC reconnaissance elements, and MPs provide information on contaminated routes.

CONTAMINATED CARGO

Contaminated units may accept similarly contaminated cargo. Receiving unit commanders and the CSG support operations officer coordinate delivery of contaminated cargo. The CMCC determines the route. MRTs monitor the movement of contaminated convoys.

Contamination In-Transit

If contamination occurs while vehicles are in transit, vehicle operators need to contact the MCT that assigned the mission. If this communication is not possible, operators contact any MCT for disposition instruction. MCTs contact the CSG support operations officer to determine if the cargo should be delivered to the requesting unit. If the MCT knows that the receiving unit is contaminated, it contacts the unit to determine if trucks can deliver contaminated cargo of critical stocks.

Containment Controls

CSG transportation branch personnel recommend the following measures to help contain contamination:

- Avoid moving contaminated cargo over clean routes.
- Reroute trucks to bypass contaminated areas.
- Reconfigure cargo to separate clean from dirty cargo.
- Decontaminate cargo.
- Arrange to airlift critical supplies.

Decontamination Responsibility

Detailed decontamination remains a unit responsibility. Supported units need to assist in decontamination. The CSG support operations officer needs to coordinate deliberate decontamination for vehicles supporting out-of-sector. FM 3-5 prescribes NBC decontamination policy and procedures.

Transfer Points

To reduce the number of uncontaminated vehicles entering contaminated areas, CSGs establish transfer points where cargo can be transloaded onto contaminated vehicles. Setting up such transfer points may require two sets of MHE — one clean and one contaminated.

The decision to set up transfer points where contaminated and uncontaminated cargo haulers remain separate depends on the critical need for the cargo. It also depends on the availability of bypass routes or airlift assets. Nonpersistent chemical agents preclude the need to reroute cargo, set up transfer points, or decontaminate vehicles and cargo.

CHAPTER 11

Protecting the Support System

The enemy plans to disrupt the ability of logistics units to support tactical operations. C2 headquarters and critical CSG elements are targets. Threat forces attempt to—

- **Destroy CPs.**
- **Disrupt communications and automation networks.**
- **Interdict LOCs.**
- **Disrupt supply distribution systems.**
- **Degrade the capability of CSG units to sup port tactical operations.**
- **Target regeneration sites.**

The challenge for CSG and battalion commanders will be to balance mission requirements against survivability. To protect support operations, group and subordinate battalion staff need to plan how to –

- **Minimize enemy interference with C2, communications, and automation support.**
- **Defeat Level I threats and respond appropriately to Level II and III threats.**
- **Protect critical supply points or essential logistics facilities.**
- **Prevent or reduce disruption of support missions.**
- **Shift support to provide continuity of operations.**

CONTENTS

PROTECTION CHALLENGES

The depth of the corps rear area and requirements for dispersion complicate protection of logistics support assets and support operations. CSG and subordinate battalion commanders have to accept risks if support is to be responsive. Commanders need to challenge soldiers to employ additional self and unit protection initiatives.

CORPS REAR AREA DEPTH

The corps rear area extends from division rear boundaries to the forward edge of the COMMZ. Though terrain constrains the size of the corps force, the actual expanse of the corps rear area may exceed several hundred square miles. Except for the corps reserve and degraded units undergoing regeneration, it will usually be void of combat units.

TERRAIN MANAGEMENT

Terrain management helps maintain freedom of movement and minimize fratricide. The corps G3 is the corps terrain manager. The corps rear CP operations cell positions units in the corps rear area through its subordinate RAOCs. RAOCs normally collocate with the CSG HHC. RAOCs position or reposition units within their area of responsibility. The rear CP operations cell coordinates with the corps G3 on positioning of units undergoing regeneration.

CSG units have unique terrain requirements. For example, they require storage space, an adequate road network, hardstand, and access to existing or improvised air strips, railheads, and water sources. Table 11-1 lists some sample positioning requirements for representative units or elements. CSG HNS branch personnel obtain information on terrain and existing facilities from CA and HN personnel.

The CSG support operations officer submits terrain mission positioning requirements to the sector RAOC. If necessary, the COSCOM support operations officer coordinates with the CSS cell of the corps rear CP to resolve terrain conflicts with the terrain managers in the operations cell.

Table 11-1. Approximate terrain requirements of representative units or elements.

UNIT/ELEMENT	ESTIMATE (Meters)	OTHER REQUIREMENTS
Ammo Supply Point	3000 X 2000 (5 to 6 KM square)	Near MSR Defensible Ammo Sling-out Area
Corps Storage Area	6000 X 7000 (40 KM square)	Near MSR or Railheads Defensible
Petroleum Supply Co	1600 X 900	Near MSR Hard surface roads Level terrain Well drained
Petroleum Lab Team	10 X 50	Water supply
Mortuary Affairs Coll Co	700 X 400	Water supply Well drained terrain
Repair Parts Supply Co	450 X 1000	Near MSR
Heavy Materiel Supply Co	1500 X 1000	Hard surface roads Defensible
DS Maint Co, Nondiv	800 X 900	Near MSR
Trans Med Truck Co	400 X 500	Hard surface roads
Trailer Transfer Point Team	100 X 100	Hard surface roads
AVIM Co	450 X 200	Near airfield

Units coordinate positioning assignments and terrain requirements with the sector RAOC when they first enter the area. The DTO and CMCC/MCT inform the RAOC of units moving into the area from adjacent divisions, corps, or the COMMZ. MPs and MCT/MRT report locations of previously unknown units and ensure that all units enter the rear operations net.

DISPERSION REQUIREMENTS

Group and subordinate commanders have to balance the need for security against the need for dispersion. Distances between units depend on—

- Habitual mission relationships.
- Type of terrain and defense capability,
- Existence and condition of road nets.
- Accessibility of supply points to customers and resupply vehicles.
- Disposition of other troops in the AO.
- Probability of an attack by air versus artillery or small units.

Dispersion helps avoid catastrophic damage from air, artillery, and mass destruction weapons. CSGs and subordinate battalions position logistics units to provide redundancy. In an integrated battlefield, CSG units disperse to avoid destruction and reduce or contain NBC contamination. Terrain restrictions limit dispersion of units, even when an NBC threat exists. However, too much dispersion reduces mission support.

RISK ACCEPTANCE

To provide responsive logistics support, group and battalion commanders have to accept risks. RAOC clustering of logistics elements reduces their vulnerability to ground attack but increases their vulnerability to air or NBC attacks. Locating supply points and MCPs away from MSRs reduces vulnerability. It also reduces their accessibility to supported units. Dispersing fuel and ammunition stocks reduces the risk of loss, but it also reduces distribution responsiveness.

SELF-PROTECTION

Economy of force means that subordinate units basically defend themselves against disruption of support operations. Thus, all soldiers need to become proficient in basic tactical skills and development of defensive positions. All bases provide their own local security against Level I threats.

MK-19s enable a crew to engage threat forces and suppress lightly armored vehicles at ranges to 1500 meters. SAWs provide heavy volume automatic fires to repel close assaults at ranges up to 600 meters.

REAR AREA THREATS

Threats have been identified for specific regions. Depending upon the level of conflict, CSG units may encounter threats which range from terrorist agents to an exploitation force. Threat forces attempt to destroy CPs. They will also try to disrupt supply distribution systems and degrade the capability of CSG units to support tactical operations.

Forces which may operate in a CSG's AO include agents or sympathizers. They may also include special operations forces, ground exploitation forces, and airborne forces. Deep operations into the corps rear area may be supported by air, artillery, radio electronic combat, and NBC weapons.

LEVELS OF RESPONSE

Rather than focus on the size or type of threat, units need to focus on the level of response required to defeat the threat. Levels of response are planned and assigned based on threat Levels I, II, or III.

- Level I threats can be defeated by base defense forces.
- Level II threats are beyond the capabilities of base defense forces but can be defeated by response forces, normally MP.
- Level III threats require a corps command decision to commit a tactical combat force.

Subordinate battalion staff may operate a BCOC. BCOCs determine the level of threat and issue prearranged alerts to their bases. The threat level serves only as a guide for planning. It does not restrict response. Units often face one or more threat levels at one time.

CSG and subordinate battalion S2/S3 staff officers assess threat doctrine, tactics, organizations, and weapon systems capabilities. FMs 100-2-1, 100-2-2, and 100-2-3 describe threat forces, doctrine, tactics, and weapons. S2/S3 staff officers build an extensive data base for potential areas in which the CSG may operate. IPB products described in FM 34-130 can help them analyze threats which subordinate units may face.

AGENTS, SYMPATHIZERS, OR TERRORISTS

Agents, sympathizers, or terrorists try to penetrate CPs and logistics facilities. They may listen in on the CSG's command operations net to gather data on support operations. That net could provide threat forces with data on the movement and position of supported and supporting units.

Base or base cluster self-defense measures help defeat these Level I threats. CSG units use physical security defense and COMSEC and OPSEC measures to deny agents and sympathizers access to facilities and communications and automation networks. Typical response actions include –

- Manning OPs fully.
- Increasing guards.
- Spot-checking vehicles.
- Alerting defensive perimeter personnel.
- Increasing protection of key facilities.

FM 100-37 and TC 19-16 describe how to counter terrorism.

SPECIAL OPERATIONS FORCES

Special operations force missions include reconnaissance and sabotage. They interdict ground LOCs and raid CPs and critical logistics facilities. CSG and subordinate battalion commanders need to identify named areas of interest,

Primary targets in a CSG's AO include –

- Command posts.
- Corps storage area.
- Class III and VII supply points.
- Critical supply convoys.
- Main supply routes.
- Area RAOC.

CSGs rely on timely intelligence collection and dissemination of intelligence. S2/S3 staff use the IPB process to help determine the impact of the enemy on operations.

Level II type forces are beyond base or base cluster self defense capability. Units can only fix and contain these forces. A response force, normally M P with supporting fires, is needed todefeat this threat force. BDOCs or BCOCs may require –

- Controlled access to all areas.

Reinforced perimeter defense.

OP withdrawal.

Reaction force be alerted.

EXPLOITATION FORCES

Exploitation forces might drive the depth of the corps rear area as early as day two or three of the offensive. They try to disrupt distribution systems. Objectives may be to contain reserve forces; destroy key C2 facilities; and gain control of airfields, bridgeheads, or key terrain. Exploitation forces could also disrupt CSG support to deep and close operations and interdict MSRs.

Level III forces cannot be defeated by a response force. A command decision commits the corps' combined arms TCF to counter this threat.

CSGs rely on intelligence officers to identify enemy maneuver units which could employ in the CSG's AO. Subordinate units need to try to determine the size and intent of exploitation forces. They report their presence to the supporting RAOC. In addition, the BDOCs/BCOCs may require that –

- l OPs withdraw.
- l Reaction forces be committed.
- l Support operations cease.

AIRBORNE FORCES

Threat airborne forces might paradrop or airland forces deep in the corps rear area. Airborne missions may be to seize airfields, destroy nuclear delivery means, and disrupt logistics operations.

Forward CSG units or elements operating in the division area may encounter heliborne inserted forces. CSG units in the corps rear area may encounter enemy forces airlanded in the corps rear. CSG units rely upon early warning of airborne threats.

The IPB identifies probable targets (key terrain, bridges, river crossing sites, and blocking positions). IPB products also identify possible drop zones or landing zones in the CSG's area.

AIR FORCES

Once threat forces destroy priority targets, threat aircraft could attack the CSG's GS support base. Clustering logistics elements increases their vulnerability to air attacks. CSG rear operations defense plans include fire support request procedures.

NBC THREATS

Use of NBC weapons remains an ever present threat. Threat forces regard both nuclear and chemical weapons as weapons of mass destruction. However, they consider chemical munitions as conventional weapons and retain the right of first use.

NUCLEAR THREAT

Threat fire plans for echelons above division include contingency plans for nuclear strikes. Threat forces plan to use nuclear strikes to create holes in defense forces. This would allow breakthroughs into forward CSG AOs. Nuclear weaponry targets nuclear and chemical ammunition storage sites and reserve or regenerating forces in CSG sectors.

CHEMICAL THREAT

Nearly all conventional weapon systems have the ability to deliver chemical munitions. Initially threat use of chemical weapons may require the same level of decision as nuclear weapons. However, threat commanders use them more freely following the initial release authority.

Threat forces might use nonpersistent chemical agents against targets along the axis of approach, MSRs, and critical supply points. While nonpersistent chemical agents seriously disrupt rear area resupply and reinforcement, they leave forward supply points intact for later use by attacking forces. In contrast, threat forces could use persistent agents to contaminate the CSG's GS support base.

BIOLOGICAL THREAT

Biological warfare can target objectives in the corps rear area. Targets may include Class I points, water sources, troop concentrations, and supply convoys. Threat forces might also try to introduce biological agents "into the food chain or water supply sources before hostilities begin.

NBC DEFENSIVE MEASURES

Survival of CSG personnel depends upon the protective measures existing at the time of the attack. It also depends on following SOP. Basic NBC defensive measures against NBC threats include contamination avoidance, individual and collective protection measures, and decontamination.

Contamination Avoidance

Avoiding contamination reduces requirements to take protective measures and decontaminate. FM 3-3 prescribes contamination avoidance measures.

Protective Measures

FM 3-4 prescribes NBC protective measures. Subordinate unit commanders user to FMs 3-4 and 3-100 to determine MOPP level. S2/S3 staff personnel assess vulnerability to chemical and biological hazards and evaluate NBC defense capabilities.

Decontamination

FM 3-5 prescribes decontamination procedures. Personnel decontamination is an individual responsibility. However, each subordinate unit performs decontamination operations to minimize contamination. Hasty decontamination is primarily a battalion responsibility.

The CSG S2/S3 requests assistance from chemical decontamination companies to perform deliberate decontamination. In an emergency, the CSG S2/S3 directs CEB teams to augment the hasty decontamination efforts of subordinate units.

Deliberate decontamination requires teams from a chemical decontamination company. Units report the toxic agent and estimate the scope of decontamination assistance required. Subordinate battalion S4s request deliberate decontamination support. S2/S3s request route clearance to the decontamination assembly area. They report requirements for large scale decontamination to the CSG NBC officer,

The Corps Chemical Decontamination Company (TOE 03017J300) provides equipment decontamination support to units in the corps rear area. This company supports CSG units within a given sector.

LOGISTICS SUPPORT CONCERNS

EMP could completely disrupt CSS automation support systems. All automated systems should have a manual backup. CSGs need to prepare to operate in a decentralized management mode, without CMMC management. Supply distribution systems continue to push critical supplies forward, based on corps priorities. Alternate or backup procedures need to exist for each type of logistics function.

As appropriate, Chapters 6 through 10 identify NBC concerns for each class of supply and field service. They also relate concerns relative to maintenance and transportation support on an integrated battlefield.

REAR OPERATIONS ORGANIZATION

Rear operations missions are controlled through the tactical chain of command. As shown by Figure 11-1, command lines of communication flow from the rear operations commander, normally the deputy corps commander. The corps rear CP operations cell controls terrain management and rear security operations. The CSS cell coordinates support for corps operations. RAOCs extend that control over bases and base clusters. RAOCs provide tactical administration of rear operations within their assigned area.

CORPS REAR CP OPERATIONS CELL

The corps rear CP operations cell (TOE 52403L000) plans, coordinates, and directs corps rear operations. Its primary protection functions include—

- Planning and controlling rear security operations.
- Managing terrain in the corps rear area.
- Synchronizing CSS operations in the corps rear area with the rear CP CSS cell.
- Coordinating the rear IPB.
- Monitoring close, deep, and adjacent rear operations.

Appendix C of FM 100-15 provides a complete list of functions performed by the operations cell.

CORPS REAR CP CSS CELL

The corps rear CP's CSS cell collects and analyzes CSS situation information. Staff personnel perform the following functions:

- Recommend positioning of CSS units in the corps rear area.
- Identify key CSS units and activities which require priority protection.
- Synchronize CSS planning with maneuver planning to support the concept of operations.

REAR AREA OPERATIONS CENTERS

Duc to the expanse of the corps rear area, the corps rear CP operations cell delegates execution of rear operations to subordinate RAOCs It designates an area of responsibility within the corps rear area to each RAOC. Units entering or relocating within that area will coordinate with the sector RAOC. The RAOC makes sure that their desired location does not conflict with projected rear operations positioning or movement priorities.

RAOCs position units, form bases, and assign bases to base clusters. They designate base and base cluster commanders. In addition, they provide the following protection functions:

- Provide a technical base for development of base defense plans.
- Review base cluster defense plans.
- Transmit information on operations in their area to the corps rear CP's operations cell.
- Provide air defense alert status to base/base clusters within their area.
- Execute rear security operations.

BASE AND BASE CLUSTERS

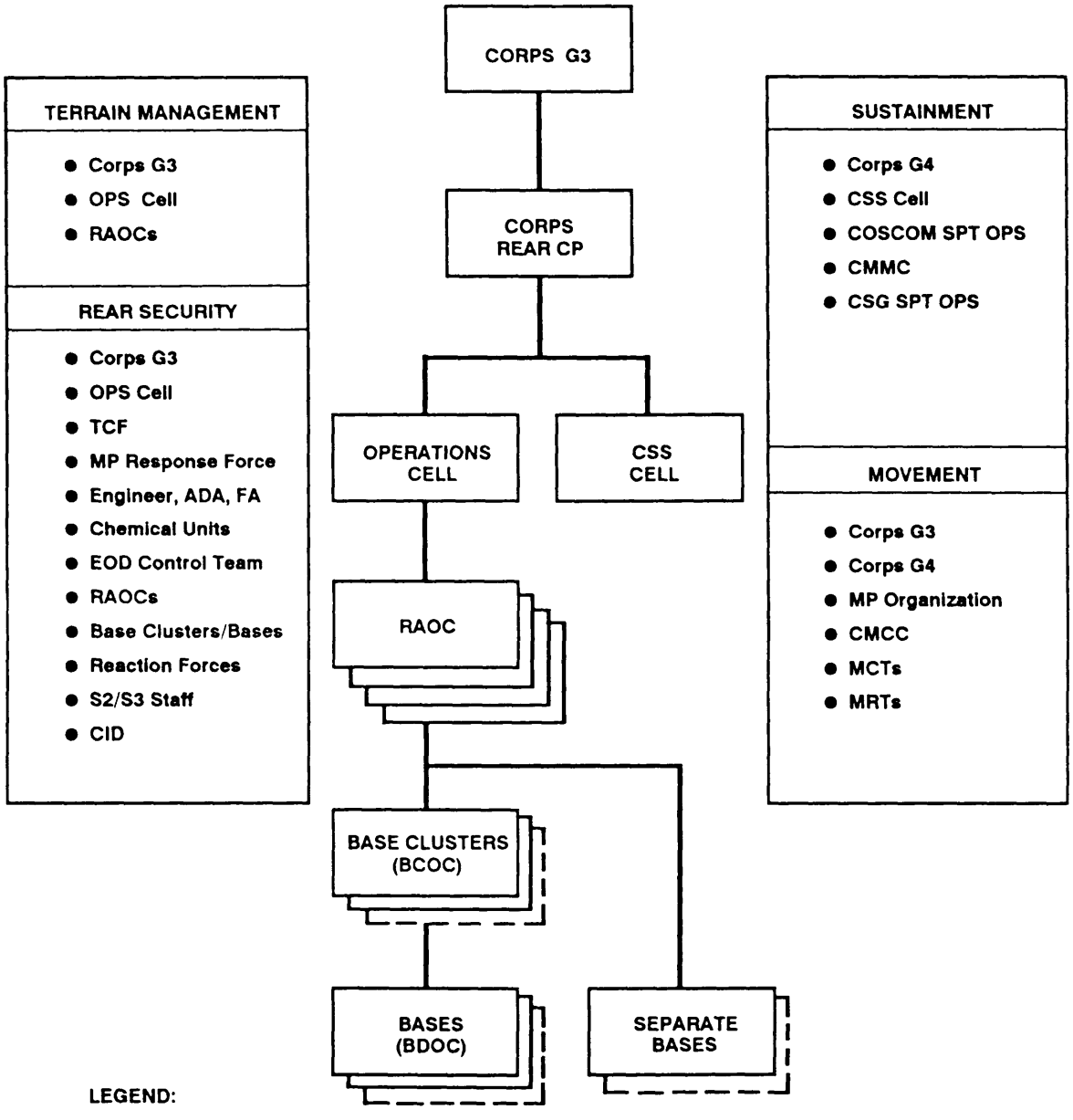
For mutual security and support, RAOCs assign units to a base or base cluster. RAOCs assign up to five units, company or detachment size, to a base. For security, bases maintain clearly defensible perimeters with established access controls. RAOCs group five bases within a base cluster, for a maximum of 25 units. From two to six base clusters may report to a RAOC. For rear operations, bases and base clusters are under the OPCON of the corps rear CP and its subordinate RAOCs.

Bases and base clusters are responsible for –

- Securing critical facilities and likely landing areas.
- Establishing communications in the rear operations tactical net.
- Defeating all Level I threats.
- Preventing or minimizing enemy disruption, ensuring continuous support of tactical operations.
- Detecting and delaying enemy incursions.
- Performing ADC.
- Surviving a Level II or III threat until commitment of response forces or a TCF.

Sector RAOCs designate base or base cluster commanders. RAOCs could designate CSG battalion commanders or subordinate unit commanders as base commanders. Base commanders establish a BDOC to plan, coordinate, and supervise base defense operations. The base commander draws personnel and equipment from tenant units to form the BDOC. Table 11-2 lists BDOC tasks.

RAOCs will not designate group and higher headquarters commanders as base and base cluster commanders. However, RAOCs could designate CSG subordinate battalion commanders as base cluster



NOTE: RAOCs could designate subordinate battalion commanders as base cluster commanders and subordinate unit/battalion commanders as base commanders.

2-6 BASES (5 company or detachment size units per base)
2-6 BASE CLUSTERS (with 5 bases or an average 20 units per cluster)
4 RAOCs within the corps rear area (with an average of 100 units within each RAOC area of responsibility)

Figure 11-1. Corps rear operations missions and organization.

Table 11-2. Base defense operations center tasks.

- **Determine base vulnerabilities.**
- **Designate perimeter sector responsibilities.**
- **Establish a wire net to base units.**
- **Select primary and secondary fighting positions.**
- **Establish LP, OP, and sectors of fire.**
- **Coordinate and test the perimeter plan, early warning system, and reaction force plan.**
- **Ensure that overlapping fields of observation and fire exist, preventing gaps in the defense.**
- **Develop or modify the base defense plan and submit it to the base cluster commander and RAOC for review and coordination.**
- **Disperse and harden facilities to reduce the possibility of extensive damage.**
- **Designate alternate operational sites.**
- **Train and control base reaction forces.**
- **Designate rally points for reaction forces.**
- **Organize, train, and equip damage control teams for fire fighting and NBC monitoring, surveying, and decontamination.**
- **Coordinate mutual support from nearby bases.**
- **Authorize contamination surveys and decontamination.**
- **Maintain a personnel roster for each facility or activity to expedite casualty rescue or search operations.**
- **Keep the BCOC and sector RAOC informed of changes in location and status.**
- **Adjust base defense to changing threats.**
- **Coordinate with local MP patrols.**
- **Request EOD assistance, as needed, from the sector RAOC.**
- **Evacuate patients and casualties.**

commanders Base cluster commanders establish a BCOC to coordinate security for approximately five bases, encompassing from 20 to 25 units. Table 11-3 lists BCOC tasks.

For rear operations, the BCOC is the next higher tactical C2 headquarters over approximately 20 to 25 units. The BCOC establishes and maintains communications with its bases and the sector RAOC. It coordinates base defense operations and plans. The BCOC positions units within the base cluster. If the RAOC placed a hospital or other HSS unit within the cluster, the BCOC needs to plan how to provide security to these units.

Depending on corps priorities for support, the COSCOM coordinates with the corps rear CP to relieve staff in critical CSG battalions from being tasked to operate a BCOC. For example, the conventional DS/GS ammunition battalion or petroleum supply battalion should not be tasked to operate a BCOC.

Table 11-3. Base cluster operations center tasks.

- **Conduct a vulnerability analysis of the cluster.**
- **Plan base cluster defense.**
- **Integrate base defense plans into the base cluster defense plan.**
- **Prepare ADC contingency plans, to include alternate locations.**
- **Ensure compatibility of base ADC plans with the cluster ADC plan.**
- **Integrate overlapping fires, obstacles, and fire support.**
- **Establish a rear operations network.**
- **Direct reaction forces from subordinate bases within the cluster.**
- **Integrate MP patrols into the defense plan.**
- **Coordinate with MP and other available response forces in planning initial response against Level II and Ill threats.**
- **Plan employment of wire, mines, and demolitions.**
- **Keep the RAOC and command channel informed of the situation and all incidents.**
- **Keep subordinate bases informed of changing threat conditions.**
- **Adjust defense plan to changing threats.**
- **Coordinate all ADC related activities within the cluster.**

PROTECTION CONTROLS

Intelligence on enemy capabilities and early warning of incursions are critical. Once landed and dispersed, the enemy poses a greater threat. Sensors and ground surveillance radars provide early warning. ADA target acquisition systems provide early information on incoming enemy aircraft. The corps rear CP operations cell sends early warning information and IPB data through subordinate RAOCs which locate near each CSG HHC. In addition to IPB and LPB products, vulnerability analysis, and base/base cluster defense plans help protect support systems.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD

IPB products provide a continuous analysis of the effects of enemy capabilities. Staff officers use IPB products to analyze threat vulnerabilities and intentions. They also use IPB products to analyze the effects of terrain and weather on operations. IPB products provide information on usable terrain, road and water networks, and utilities and key facilities. FM 34-130 describes the IPB process.

The corps rear CP operations cell develops IPB templates and distributes IPB products through sector RAOCs Subsequent IPB products developed by S2/S3 staff in group and battalion headquarters focus on their area and the named areas of interests. They should include —

- Enemy avenues of approach in their area of responsibility.
- Likely air avenues of approach.
- Possible objectives in their area of Level II forces.
- Likely size of Levels II and III threat forces.
- Named areas of interest.

LOGISTICS PREPARATION OF THE BATTLEFIELD

COSCOM and CSG support operations staff officers develop LPB products based on IPB products. LPB products enable logisticians to ensure continuous support to maneuver forces despite threat operations in the corps rear area.

Group and battalion support operations staff officers need to assess the impact of the following areas on mission operations:

- Locations of landing zones and airfields in the AO.
- Friendly and enemy air corridors.
- Forest and tree cover for concealment.
- Natural obstacles.
- Cover from ground observation.
- Avenues of approach,
- Overlays of built-up and congestion areas.
- Threat force units and composition.
- Threat weapon systems and their ranges.
- Likely threat courses of action.
- Names areas of interest or high priority targets within their AO.

VULNERABILITY ANALYSIS

If designated a base cluster commander, CSG battalion commanders analyze base defense capabilities and vulnerabilities. Damage assessment reports and situation reports provide input to the vulnerability analysis. RAOC personnel establish priorities based on this analysis.

RAOC operations personnel coordinate with CSG support operations staff and supporting MCTs to develop an MSR vulnerability analysis. This analysis needs to identify choke points, bypass routes, and lengths. The RAOC then identifies the most vulnerable choke points.

CRITICAL ASSET LIST

CSGs determine critical logistics assets within their AO. They prioritize and prepare a critical asset list for submission to the sector RAOC and COSCOM. The list should include key civilian assets important to support operations. Table 11-4 provides a sample list.

CID LOGISTICS SECURITY

CID special agents help monitor the logistics pipeline and run an antiterrorism effort. While MPs pull security and reconnoiter MSRs, CID agents investigate lost or stolen equipment and supplies. They help make sure that logistics assets do not get borrowed through friendly unit diversions or siphoned off to the black market.

Table 11-4 Sample critical asset list.

Asset/Facility	Priority
MILITARY	
Communication Network	
CSAs and ASPS	
Class III Point	
Hospitals	
Airbase/Airfield	
MSRs	
Bridges/Tunnels	
Pipelines	
CIVILIAN	
Airports	
Ports	
Power Generation Plant	
Petroleum Storage Facility	
Hospitals	
Rail yards	

BASE/BASE CLUSTER DEFENSE PLANS

The base commander develops a base defense plan. lf designated as a base cluster commander, CSG battalion commanders integrate all base defense plans into a base cluster defense plan. BCOC personnel can use base cluster defense planning work sheets like those at Table 11-5 to aid them in planning and preparing their base cluster defense plan. The base cluster commander submits the base cluster defense plan to the supporting RAOC for approval and recommendations. The RAOC reviews and coordinates all defense plans.

Table 11-5. Base cluster defense planning work sheets.

CLUSTER INFORMATION

Base Cluster: _____ Date: _____

Cluster Commander: _____

BCOC Location: _____

Bases Within Cluster

Base:	Base Commander:	Location of BDOC:	Number of Units:

RAOC INFORMATION

Location: _____

Switchboard/Number: _____

CLUSTER COMMUNICATIONS

Base:	Switchboard/Number:	Type Comm Within Base:

Designated Report Times – Base To BCOC: _____

BASE DEFENSE REACTION FORCE

Base:	Size:	POC:	Weapons-Type/Number

MP RESPONSE FORCE

Base:	MP Unit:	Location:	Switchboard/ Designator/Number	Coordination Date:

In addition to the areas covered by the defense plan, the RAOC may require that base/base cluster defense plans also identify—

- Composition of response forces.
- Critical missions and facilities
- Critical roads, bridges, rail lines, airfields, and ports.
- Location of hasty protective minefields.
- Area landing zone and drop zone coordinates.
- Enemy avenues of approach.
- Security and patrol activities.

Table 11-5. Base cluster defense planning work sheets. (Continued)

ADC RESPONSE FORCES

Base:	Size:	POC:	Special Equipment:

NBC MONITORING/DECONTAMINATION TEAMS
(List team size and special equipment.)

Base:	Radiological:	Chemical:	Decontamination:

PRIORITY TARGETS LOCATED WITHIN CLUSTER

Target:	Location:

INDIRECT FIRE SUPPORT AVAILABLE WITHIN CLUSTER AREA

Unit:	Weapons:	How Contacted:	Last Coordination:

HOST-NATION SUPPORT (CLUSTER LEVEL):

POC:	Support Available:	Last Coordination:

ADJACENT BASE/CLUSTER COORDINATION:

Base/Cluster:	Location:	Last Coordination:

- Provision for protection of forward employed teams and elements.

Forward CSG commanders coordinate with the division ADC-S to ensure that the division's defense plan covers CSB units and teams employed in the division area. Forward CSG rear operations planning needs to interface with division rear operations planning.

DUAL REPORTING

Timely and dual reporting of incursions and strikes is imperative. Companies assigned to bases and base clusters submit reports through both tactical and technical chains of commands.

As shown by Figure 11-2, subordinate units assigned to a base or base cluster report incursions and strikes to the RAOC in their sector. Subordinate units also report

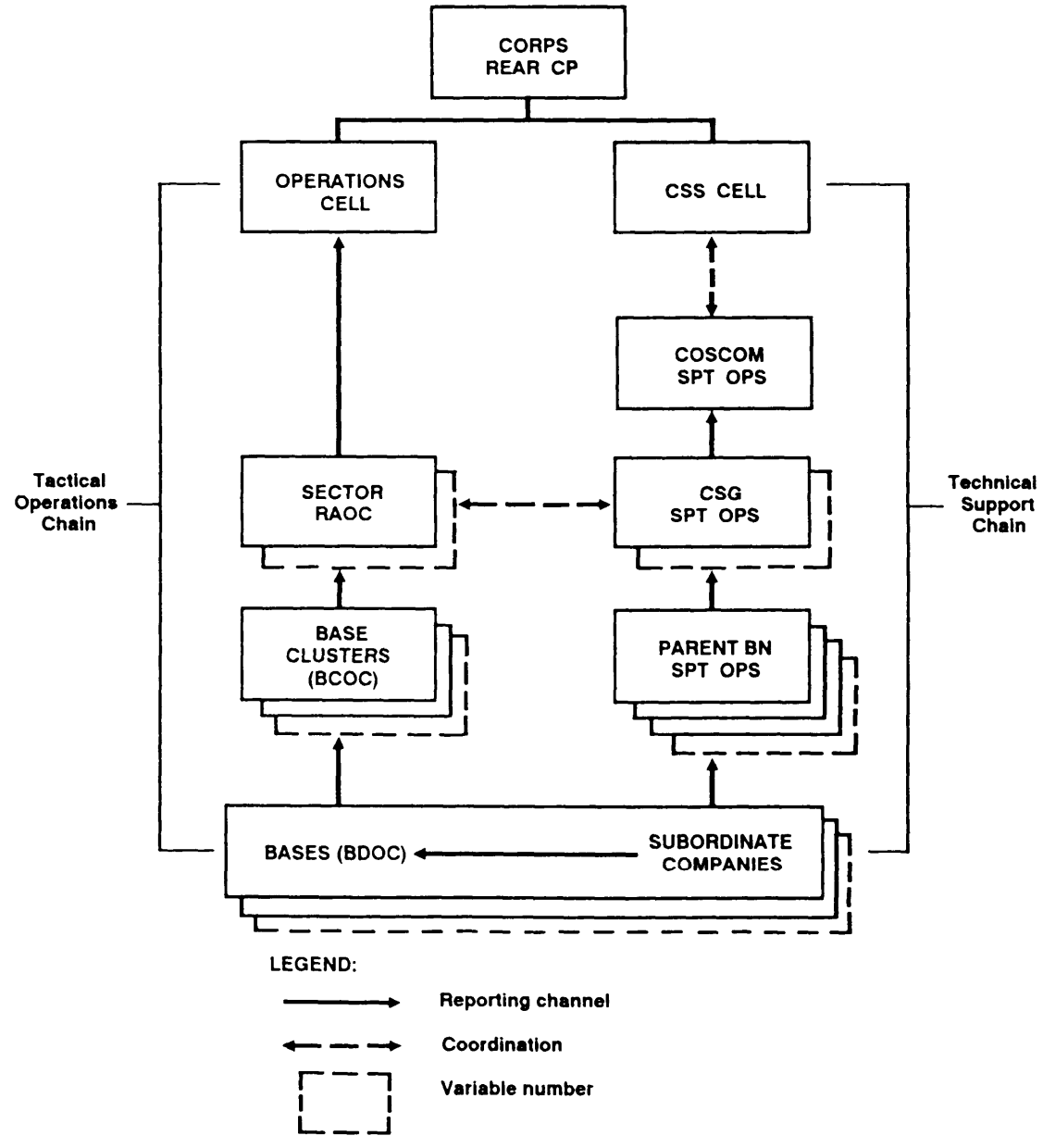


Figure 11-2. Dual reporting channels.

how attacks impact on their support mission through their technical chain of command. This ensures the continuation of support to supported units. Reports flow through the parent battalion, group, and COSCOM support operations sections to the rear CP CSS cell. Support operations officers at all levels need to receive rear operations situation reports to plan support to or around areas where fighting is taking place. CSG support operations staff officers analyze the impact. They determine logistics requirements and alert supporting units of changes in support.

BATTLEFIELD DECEPTION

CSG units use battlefield deception measures to distort, conceal, or falsify unit dispositions and support capabilities. Deception operations force the enemy to hold in place or commit too early or too late, They might also cause the enemy to commit inappropriate forces at the wrong time and place. Deception planning needs to bean integral part of CSG S2/S3 and support operations staff planning.

INTELLIGENCE REQUIREMENTS

To conduct effective deception, CSG intelligence officers need to identify CSS intelligence collection threats. They then assess the group's vulnerabilities to those threats and recommend countermeasures. To ensure that threat forces view deception countermeasures as plausible and authentic, intelligence officers need to know—

- What the threat relies on to get his intelligence.
- Where the threat's information collection capabilities are.
- What type of deception information might the threat accept.

CORPS BATTLEFIELD DECEPTION CELL

The corps BDC plans the deception story and provides deception planning support. Under staff supervision of the corps G3, it prepares the deception annex to the corps OPORD. Corps BDC personnel determine the deception signature (communications and visual), deception devices, and methods to employ.

Based on the corps deception plan, the corps rear CP may task CSG units to execute events using deception devices and decoys. CSG S3 and support operations staff officers recommend ways to deceive the threat as to support operations of subordinate units. FMs 34-60 and 90-2 provide specific information on staff responsibilities in support of battlefield deception plans.

SIGNATURE MANAGEMENT

Signature management focuses on reducing key unique signatures associated with the intended course of action while exploiting signatures associated with a second COA.

CSG units use electronic deception techniques to augment or mask signatures. The deception objective may be to mislead the threat about the size, activity, and location of supported as well as supporting units. Electronic deception techniques which CSG units use to support the corps deception plan include –

- Transmitting false information on support capability in planned messages.
- Creating an impression of unusual unit activity.
- Observing periods of radio silence to create the impression of forthcoming unit movements.
- Using dummy codes in valid LOGSIT messages.
- Changing the length of formatted messages.
- Routing messages to other stations in the CSG command operations net. This creates the impression that all units in the net appear equally committed.
- Projecting unit signatures from a false location, while suppressing signatures from actual locations.
- Rerouting threat message traffic on another net frequency. This misleads the threat into thinking his forces have the wrong frequency.

DECEPTION TECHNIQUES

The size and vehicular movement associated with receipt, storage, and issue operations of subordinate CSG units make logistics facilities difficult to conceal. CSG units need to continually attempt to hide the real and display the false.

Hide the Real

Ways for CSG units to conceal logistics operations include —

- Using trains, houses, factory buildings, subway tunnels, and buses for storage, maintenance, and transportation operations.

- Using civilian trucks, converted buses, and civilian cars to transport supplies.
- Building dummy peasant huts or grass shacks over CPs and OPs.
- Disguising packages and containers to look like those used by local civilians.
- Setting up supply points in unorthodox positions
- Screening logistics support activities with smoke.
- Using night or periods of limited darkness to hide logistics operations.
- Reporting or tracking false supply movement on supply routes.

Display the False

Ways to lead the threat to believe CSG logistics activities operate where in reality none exist include—

- Using fuel drums and empty ammunition boxes to represent supply points.
- Portraying indicators normally associated with unit activity. They include latrines, trash, concertina wire, tentage, laundry, and foot and vehicle tracks.
- Using smoke to obscure a dummy supply point or simulate activity.
- Spraying surplus fuel around a dummy Class III point to display the presence of fuel storage.
- Using tapes of noises associated with CSG units during periods of limited visibility to simulate the presence or movement of support activities. Tapes can be made while on training exercises. The corps deception cell arranges with S3 staff for loud speaker sets.
- Simulating the evacuation, abandonment, or destruction of supplies and equipment.

NOTE: Units must not perform any of the above techniques in isolation. Each activity forms part of the corps deception plan.

DECOYS

CSG units use decoys to deceive the threat. Decoys force the threat to use some of its intelligence assets. They help divert his attention from real operations. Units might use unserviceable items, salvage, or combat loss items as decoys. Manufactured plastic or inflatable decoys may be used. The corps BDC determines which specific decoys and devices to use to support the G3's deception plan.

APPENDIX A

Deployment Planning Checklist

This checklist assists CSG support operations staff officers plan support both prior to deployment and while deployed in theater. No checklist can be ail inclusive, since the peculiar requirements of each operation cannot be identified. However, the questions can be used during planning sessions to help clarify guidance and directives from COSCOM or task force staff regarding requirements and the specific support which CSG subordinate units provide.

If tasked to support a low-intensity operation, staff officers need to refer to the contingency checklist in FM 63-6. If the CSG forms the largest logistics support element in theater, staff officers need to refer to the deployment planning checklist in FM 63-3.

OPERATIONS PLANNING

- ☐ Is there a concise statement of purpose and commander's intent?
- ☐ What doctrinal, policy, or procedural publications, FSOP annexes or overlays apply?
- ☐ Are there any existing plans that apply?
- ☐ What is the classification guidance relative to logistics plans, unit deployment, and map requisitions?
- ☐ What will be the CSG AO?
- ☐ Are applicable maps available and listed?

RESPONSIBILITIES

- ☐ What will be the initial customer list? How will that list change as units deploy?

Are the responsibilities for support to the following clearly stated?

- ☐ Units or teams providing logistics and medical support.
- ☐ Units or teams providing personnel services support, postal support, and finance support within the CSG AO.
- ☐ Special operating forces, if operating in the CSG AO.
- ☐ AMC agencies.
- ☐ Army and Air Force Exchange Service personnel/teams in the CSG AO.
- ☐ Defense Logistics Agency personnel, if operating within the CSG AO.
- ☐ Department of State or American Embassy personnel. if within the CSG AO.

CONCEPT OF LOGISTICS SUPPORT

- ☐ Does the COSCOM OPORD or other guidance describe how supply, maintenance, transportation, and field service support will be provided?
- ☐ Does the COSCOM OPORD identify the forces to be supported and the logistics elements which will provide the support?
- ☐ Have interservice support requirements been identified?
- ☐ What HNS will be available in the AO?
- ☐ What support will be provided by or received from the HN, allies, or other Services?
- ☐ Have interservice support requirements been identified?
- ☐ What support will be provided by the HN, allies, or other Services?
- ☐ How much maintenance, petroleum. and transportation support will be provided by HN forces?
- ☐ Will cellular logistics teams be in theater?
- ☐ Does logistics planning complement the tactical plan?
- ☐ Have terrain and enemy intelligence data been analyzed to determine the impact on logistics support requirements and support capabilities?
- ☐ Has the deployment flow been properly analyzed to determine time-phasing for introduction of logistics elements?
- ☐ Have maps been requested and distributed among subordinate units?

LOGISTICS SUPPORT

- ☐ Is supply distribution procedural guidance provided?
- ☐ Are in-country DODAACs required at supply support activity or unit level?

- ☐ Are changes to the DODAAC required, such as “ship-to” address?
- ☐ Have DODAAC changes been initiated for deploying and deployed units to ensure correct routing of requested supplies?
- ☐ Is a temporary force/activity designator upgrade required?
- ☐ Is a project code required?
- ☐ Which subordinate support activities are designated as ALOC or DSS?
- ☐ Are provisions made for contracting and local purchase?
- ☐ Are stockage objectives specified for each class of supply?
- ☐ Is a known or estimated order ship time provided?
- ☐ Will automated or manual procedures be used?
- ☐ Is the communications transceiving capability provided compatible with the automated systems being deployed?
- ☐ Do subordinate and supported units possess the same version of software change packages?
- ☐ Are procedures described for cancellation or diversion of materiel inprocess or intransit at the termination of the operation?
- ☐ Are retrograde procedures for excess and unserviceable items spelled out?
- ☐ Have unit movement officers updated their unit equipment list?
- ☐ Have deploying units requested augmentation support from AMC major subordinate commands and headquarters DLA to assist in preparing equipment for deployment?
- ☐ How will ASL stocks be sequenced in deployment schedules?
- ☐ Are adequate packing materials on hand?
- ☐ Is the control of intensively managed aviation items addressed?
- ☐ Are provisions made for emergency resupply within the theater?
- ☐ Are provisions made for logistics support of civilians and prisoners of war within the CSG AO?
- ☐ Is there covered storage in the CSG AO to protect supplies from the elements? If not, what can be done to protect supplies?
- ☐ What MHE capability exists within subordinate units?
- ☐ Is sufficient rigging materiel available for airdrop within CSG AO?
- ☐ Is sufficient sling materiel available in CSG units.

SUSTAINING THE SOLDIER

CLASS I

- ☐ What is the basic load?
- ☐ What is the stockage objective?
- ☐ Are the ration cycles and type of ration support described by phase?
- ☐ Are cash meal payment procedures going to be established?
- ☐ What method of distribution will be used (unit or supply point distribution)?
- ☐ Are field bakery services required? Can the HN satisfy the requirement? What are the request procedures?
- ☐ Are veterinary personnel adequate for the subsistence support requirements to ensure that local fresh fruits and vegetables meet US standards?

- ☐ Are hospital rations addressed?
- ☐ Are chill and freeze reefer requirements for field feeding operations and Class I DS/GS supply points addressed?
- ☐ Are EPW capture rates included in subsistence requirement planning? Who will provide rations and EPW field feeding?

HEALTH AND COMFORT ITEMS

- ☐ Are deploying personnel provided guidance on personal demand items?
- ☐ Are ration sundry packs available? If not, what procedure will be followed?
- ☐ Is a tactical field exchange considered?

If TFE support is required –

- ☐ Has Headquarters, AAFES (Plans), been notified?
- ☐ Have requirements for TFE staffing, stock assortment, security, facility, transportation, and communications been identified and coordinated?
- ☐ Is finance support for the TFE identified?
- ☐ Has the policy on rationing field exchange items and check cashing to purchase items at a tactical field exchange been determined?

WATER/ICE

- ☐ What planning factors apply for the theater?
- ☐ What are water support requirements versus subordinate unit water support capabilities?
- ☐ Is water available from local systems, surface, or wells?
- ☐ Is water fresh, brackish, or salty?
- ☐ What type of water purification unit is required (Erdlator or ROWPU)?
- ☐ Have sufficient quantities of ROWPU overpack items (chemicals, falter elements, repair parts, and tools) been deployed to maintain ROWPUs for a given period of time?
- ☐ Has the MACOM authorized arid augmentation packages of additional water storage and distribution assets?
- ☐ Are chillers required?
- ☐ What is the water planning factor?
- ☐ What are the treatment, storage, distribution, and cooling requirements? Are they satisfied by deploying unit capability?
- ☐ Are containers available in the event water is to be airdropped?
- ☐ Will ice be provided by the engineers or HN?
- ☐ Are potable ice considerations covered? What is the requirement planning factor?

CLASS II

- ☐ Have requirements for individual clothing, CTA 50-900 items, and mission essential consumables been identified?
- ☐ What are DS and GS stockage objectives?

Are there any items that require special consideration, such as:

- ☐ Tentage and tentage repair kits?
- ☐ Folding cots?

- ☐ Insect bars and mosquito netting?
- ☐ Banding materiel and tools?
- ☐ Water purification chemicals and test kits?
- ☐ Insect repellent and sun screen?
- ☐ Field laundry or hospital laundry supplies?
- ☐ Bath supplies?
- ☐ Field feeding facility supplies, to include paper and plastic products?
- ☐ Trash disposal supplies?
- ☐ Vector control equipment and supplies?
- ☐ Latrine chemicals and supplies?
- ☐ Batteries?
- ☐ Cold weather clothing and cold weather equipment?

☐ Have provisions been made for replacement of damaged protective clothing?

☐ How will return to duty soldiers receive their CTA 50 items?

HEALTH SERVICE SUPPORT

☐ Are medical treatment locations identified?

☐ Are medical personnel available to certify ice as potable?

☐ How can nonmedical transportation assets offset shortages in ground evacuation operations?

FIELD SERVICES

☐ Are laundry, bath, and clothing renovation and exchange requirements addressed?

☐ How many days of personal hygiene items should be deployed with soldiers?

☐ Which units are to receive priority of support?

☐ What are mortuary affairs estimates? What mortuary affairs capability exists within the CSG AO? Will a forward collection platoon be attached or placed OPCON to the DISCOM?

☐ Have units been informed relative to the mortuary affairs supplies with which they are to deploy?

☐ When are post exchange services to be provided?

☐ Is fire protection provided for aviation, ammunition, and petroleum operations?

☐ Are procedures for trash collection and disposal addressed?

☐ Are there provisions for local procurement or contracting of services?

☐ What is the expected turnaround time for laundry support?

☐ Will there be sufficient backup field expedient shower equipment on hand until field or contract shower systems become available?

ARMING THE FORCE

CLASS IV

☐ What are the DS and GS stockage objectives?

☐ Are unique requirements for construction and security materiels addressed?

☐ Is in-country procurement considered?

☐ Will the use of prepositioned materiel stocks be permitted?

☐ Which items have been designated as controlled?

CLASS V

- ☐ How will unit basic loads be deployed?
- ☐ Are units deploying with training ammunition for initial zero and weapon systems checks upon arrival in the AO?
- ☐ What are the DS and GS stockage objectives?
- ☐ How will the CSG's subordinate organizations support Class V requirements?
- ☐ Do ammunition storage facilities or sites need to be constructed or improved?
- ☐ What are projected storage, handling, shipping, security, and safety requirements?
- ☐ What are the RSR and CSR?
- ☐ What type of combat configured loads will subordinate units prepare?
- ☐ How will EOD team support be obtained?
- ☐ What are the commercial port restrictions on ammunition shipments?

FUELING THE FORCE

BULK FUEL

- ☐ What fuel planning factors apply based on the theater terrain and projected level of combat?
- ☐ Are gallons per day requirements established for each type product for each supported service and unit?
- ☐ What jet fuels are available in theater?
- ☐ What commercial diesel fuels are available in theater and are they usable in ground equipment?
- ☐ Is there an existing pipeline distribution system within the CSG AO?
- ☐ What are the pipeline and storage capabilities within the CSG AO?
- ☐ Are bulk fuel tankers to deploy empty or with a full load?
- ☐ Is the use of contractor or HN provided bulk fuel supply considered?
- ☐ Will HN fuel specifications increase requirements for filter separator elements?
- ☐ Are accountable officer requirements addressed?
- ☐ Are refuel-on-the-move sites required?
- ☐ Are remote refueling sites required?
- ☐ Are interservice support billing and reimbursement procedures specified?
- ☐ Have quality assurance procedures been established?
- ☐ Is laboratory test capability available in theater?
- ☐ Are required test kits on hand?

PACKAGED PRODUCTS

- ☐ What are the DS and GS stockage objectives?
- ☐ Are any unique packaged product requirements addressed?
- ☐ What engine oils, transmission fluids, hydraulic fluids, brake fluids, and greases are recommended for ground vehicle or equipment operation?
- ☐ What engine coolants or antifreeze are recommended based on the operating environment?
- ☐ What products help prevent microbiological growth in fuel tanks?
- ☐ Are industrial gases requirements/capabilities addressed?
- ☐ Are containers available in the event that packaged Class III has to be airdropped?

FIXING THE FORCE

- ☐ What are requirements and capabilities for DS maintenance, missile maintenance, and AVIM?
- ☐ Which units are to receive priority of support?
- ☐ How does weather impact on repair requirements?
- ☐ How will NBC threats impact on repair capabilities?
- ☐ What will be the DS level repair time limit?
- ☐ How will TMDE repair be provided?
- ☐ How will classification and collection be performed?
- ☐ How will reparable be evacuated?
- ☐ What major critical shortages exist?
- ☐ What will be the cannibalization policy?
- ☐ Have special power requirements been identified for maintenance facilities (voltage, phase, frequency, anticipated load)?
- ☐ How will salvage collection, evacuation, and disposal be covered?
- ☐ How will hazardous materiels, such as lithium batteries, be disposed of?

CLASS VII Replacement ITEMS

- ☐ What is the authorized stockage level?
- ☐ Have OPLANs identified controlled items?
- ☐ How will weapon systems be replaced?
- ☐ How many HETs are available in subordinate units to move critical weapon systems?
- ☐ Can critical shortages be filled by cross-leveling or by the redistribution of excess from nondeploying units?

REPAIR PARTS SUPPLY

- ☐ What are combat PLL requirements and capabilities within CSG subordinate units?
- ☐ What are ASL requirements and capabilities?
- ☐ What is the stockage objective for ALOC and non-ALOC items?
- ☐ What special storage requirements will be needed for dry batteries, classified repair parts, high dollar pilferables, etc?

TRANSPORTING THE FORCE

- ☐ What highway, rail, air, and waterway net exists within the CSG AO? What are their capabilities and limitations? What impact will the weather have on these?
- ☐ What will be the intratheater, intertheater, and in-country movement system for personnel and cargo?
- ☐ What type and number of truck and cargo transfer units will be required?
- ☐ Will refrigerated transportation be required?
- ☐ What transportation support will be provided by the HN, allies, or other Service?
- ☐ Have the sea/aerial port of debarkation and embarkation been specified?
- ☐ Are procedures addressed for shipping supplies and equipment that arrive at the home station after the unit(s) have deployed?
- ☐ What preparations are required to transport fuel, ammunition, and other hazardous material?
- ☐ What transportation funding arrangements exist?

AIRFIELDS

- ☐ What airfields exist to support logistics missions?
- ☐ Has a coordinating headquarters been designated for all logistics airlift support?
- ☐ What airfield departure and arrival controls exist?
- ☐ What is the current usage of the airfield?
- ☐ What units or contract/HN personnel and equipment assets are available to assist in arrival and departure operations?
- ☐ Have transportation movement priority and account codes been provided?
- ☐ What are the characteristics and capabilities of the roads that access the airfields?

AIRDROP

- ☐ Is airdrop resupply capability provided commensurate with expected requirements?
- ☐ Are prerigged projects available for on-call delivery. Are call forward procedures specified?

MAIN SUPPLY ROUTES AND ALTERNATE SUPPLY ROUTES

- ☐ What are the characteristics and capabilities of the routes available in the CSG AO?
- ☐ What are convoy restrictions along routes?
- ☐ What are the dimensions of tunnels along the routes?
- ☐ What are the dimensions and classifications of bridges along the routes?
- ☐ What capability does the HN have to repair damaged segments of routes?
- ☐ What segments of the routes are heavily used by the civilian populace?
- ☐ What are the most likely routes fleeing refugees will use?

RAIL

- ☐ What rail nets exist within the CSG AO?
- ☐ What rail assets will be available? What are the capacities, dimensions, and age of typical rolling stock in service?
- ☐ What are the locations and capacities of the rail terminals, rail yards and marshaling yards within the CSG AO?
- ☐ What are the number and length of track in each rail yard?
- ☐ Are loading ramps available at rail yards and terminals?
- ☐ What are the location and lifting capacity of railway cranes in the CSG AO?

INLAND WATERWAYS

- ☐ What inland waterways exist within the CSG AO?
- ☐ What are the capabilities and limitation of the inland waterways?
- ☐ What inland terminals exist along the waterways?
- ☐ What are the characteristics and capabilities of the inland terminals?
- ☐ What is the present usage of the inland waterways?
- ☐ What is the enemy's capability to interdict the waterways?
- ☐ How accessible are the inland waterways to roads and rail lines?
- ☐ What effect does weather have on waterway operations?

CONTAINERS

- ☐ What is the container policy?
- ☐ What is the capability of ports and subordinate units to handle container shipments?
- ☐ What HN personnel or civilian contract and equipment assets can assist in container operations?

COMMUNICATIONS SUPPORT

- ☐ Have communications frequencies been cleared with the HN?
- ☐ Have details been worked out for transmission of documents to higher echelons?
- ☐ Have arrangements been made for telephonic assistance after deployment?
- ☐ Are phone books for the country or local area available?

AUTOMATION SUPPORT

- ☐ Have backup master files been established and prepared for shipment separate from primary master files?
- ☐ Are sufficient copies of user manuals on hand and current?
- ☐ Are sufficient disks available to provide software updates or change packages to arriving units or units within the CSG AO?
- ☐ Has a backup courier system been established to carry disks between subordinate units and the CMMC?
- ☐ Have subordinate units removed nonessential files to avoid system abort due to overfull disks?
- ☐ Have appropriate parameter changes been made in the automated systems (for example. signal and overseas deployment codes)?
- ☐ Are security procedures in place to prevent introduction of software viruses?
- ☐ Has coordination been made with the CMMC for catalog update, reconciliation schedule, and loading of supported unit DODAACs?

LOCAL PROCUREMENT

- ☐ Are local currencies authorized for local procurement?
- ☐ Have local currency acquisition points been identified?
- ☐ Have contracting/ordering officers and imprest fund cashiers received instructions concerning interface and coordination with the servicing finance support command?
- ☐ What is the source of funding for Class X supplies?
- ☐ Have logistics requirements been costed?
- ☐ Has an account processing code been established for contracting support/local purchase?
- ☐ Are there adequate numbers of contracting officers with the proper warrant?
- ☐ Is finance support available to the contracting officer?
- ☐ Are linguists available to support contracting/local purchase requirements?

MISCELLANEOUS

- ☐ Are provisions made for LOGSTAT reporting?
- ☐ Is site preparation required?
- ☐ What is the electrical power/cycles of the country? Are transformers required?
- ☐ If Class X materiels are required, what are their sources?

- ☐ Is trash/waste disposal available?
- ☐ Are there provisions for maneuver or war damage reparation resulting from logistics operations?

APPENDIX B

Sample CSG OPORD and Service Support Annex

This appendix provides a sample CSG OPORD and sample service support annex. The samples are meant to serve only as a guide.

The OPORD provides subordinate battalions the CSG commander's intent and his concept of how to accomplish the CSG's support mission. It includes sufficient detail to ensure continuous support and appropriate action by subordinate battalions in carrying out their support mission in the absence of additional instructions. To ensure clarity, subparagraphs of the execution paragraph prescribe specific support tasks to be accomplished by each battalion. They tell subordinate battalions what support they will provide, where they will provide support, how they will provide support, and the priority of support.

The service support annex covers CSS for subordinate units. It tells subordinate units how they are supported and how they obtain their support. It serves as the basis for directions of subordinate battalions to their units.

FM 101-5 and NATO STANAG 2014 prescribe OPORD format. Both use the same format. They differ from the format prescribed by QSTAG 506 only in the use of time zone and the title for paragraph 4. Both FM 101-5 and NATO STANAG 2014 use the time zone applicable to the AO. Both use Service Support as the title of paragraph 4. In contrast, QSTAG 506 uses Greenwich Mean Time throughout the order and Administrative and Logistics as the title of paragraph 4.

(Classification)

Copy no ___of___ copies
2d Spt Gp (COSCOM)
South Island
071330Z Aug XX
Message reference number

OPERATION ORDER 100 -- 2d CSG

References:

a. Map, series _____; sheets _____; edition _____; scale 1:50,000.

b. 6th COSCOM OPORD 100.

c. 6th COSCOM FSOP.

Time Zone Used Throughout the Order: ZULU.

Task Organization: Annex A (Task Organization)

1. SITUATION

6th (US) Corps will conduct a two-phase operation. Phase I begins when 6th (US) Corps moves southward to defeat enemy forces east of Ranglora, relieves 3d Allied Corps on line, and assumes mission of 3d Allied Corps. Phase II begins when 6th (US) Corps defends in sector. On order, the corps will continue the attack as part of a general offensive . . . .

Enemy Forces. See Current INTSUM and Annex B (Intelligence) to 6th COSCOM OPORD 100.

b. Friendly Forces.

(1) 6th COSCOM provides logistics support to 6th (US) Corps units and other US and allied forces as directed.

(2) 3d TAACOM provides reinforcing DS and GS logistics support as directed by joint force commander.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(3) South Island provides HNS as requested.

(4) 6th Corps rear CP operations cell plans and coordinates rear operations and ADC in the corps rear area.

(5) 2d Allied Tactical Air Force supports joint forces.

(6) 4th Chemical Bn provides NBC reconnaissance, decontamination, and smoke support on request.

(7) 8th MP Bde provides MP support.

(8) 18th Signal Bde provides signal support.

(9) 6th Corps Finance Group provides finance support.

(l0) 6th Corps Personnel Group provides personnel services, postal support services, and morale support activities.

c. Attachments and Detachments.

(1) Forward collection platoons from 16th Mortuary Affairs Collection Company, 3d S&S Bn, attached to 1st CSB HHD and 29th Field Semites Company, 2d CSB.

(2) CEB and laundry teams from 29th Field Services Company, 2d CSB attached to 1st CSB HHD.

(3) Repair Teams LA, LC, and LF attached to 19th DS Maint Co, 1st CSB, and teams LA and LC attached to 28th DS Maint co, 2d CSB.

(4) Petroleum Platoon from 24th Petroleum Supply Company, 2d CSB attached to 40th DS Sup Co, 3d CSB.

(5) 40th Msl Maint Co from 2d CSB becomes attached to 3d CSB HHD.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

d. Assumptions.

2. MISSION

a. Provide command, control, staff planning, and supervision over the lst, 2d, and 3d CSBS. Develop plans, policies, and procedures, and formulate and implement FSOP and orders for execution. Coordinate base defense planning.

b. Provide logistics support (less Class VIII) to include DS supply and field services to nondivision units on an area basis. Provide GS supply and corpswide field services to 3d Mech Div in sector and to the 7th ACR. Provide DS maintenance to nondivision units on an area basis. Provide reinforcing DS maintenance support to 3d Mech Div and 7th ACR, with priority to the 7th ACR. Provide on-call logistics support to units passing through the area. Provide support to other Services and allies as directed. Provide life support for the 2d RAOC and 7th MCT.

3. EXECUTION

a. Commanders Intent. Provide support to units within 2d CSG area of responsibility in a manner that efficiently facilitates operations toward successful accomplishment of 6th COSCOM mission.

b. Concept of Operation. Execute 2d CSG mission with three CSBs. Provide DS and GS supply, field services, transportation, and DS maintenance for nondivision forces operating in 2d CSG area of responsibility. Provide GS supply, field services, and reinforcing DS maintenance to 3d Mech Div and 7th ACR, on order. See Appendix C (CSS Operations Overlay) to Annex C (Operation Overlays) to 6th COSCOM OPORD.

(1) Support Locations.

(a) 1st CSB locates in the 3d Mech Div rear area, near Richfield, vic ND3456. 1st CSB coordinates exact locations with and provides the division rear CP and 2d CSG support operations officer with a support overlay depicting support locations and operating times.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(b) 2d and 3d CSBs locate behind the 3d Mech Div rear boundary near Ada, vic MD1677, and Kerr, vic MD4189, respectively. 2d and 3d CSBs coordinate exact locations with the 2d RAOC and provide 2d CSG support operations officer with a support overlay identifying locations and operating times.

(c) All CSBs keep the division rear CP/2d RAOC and 2d CSG support operations officer informed of changes in support locations and operating times.

(2) CSB Support Missions.

(a) 1st CSB Support Mission.

1. Provide DS supply of Classes I, II, III, IV, VI, and VII to nondivision elements in 3d Mech Div sector.

2. Provide Class V supply through ASP and ATP operations in 3d Mech Div sector.

3. Provide DS maintenance and Class IX items to nondivision units in the 3d Mech Div sector.

4. Provide reinforcing DS maintenance and Class IX items to 3d Mech Div and 7th ACR as required.

5. Provide reinforcing or augmenting assets to FSBs and MSB to enable them to provide support to nondivision forces in the brigade and division area.

6. Establish CEB and laundry support for nondivision and division soldiers in 3d Mech Div sector.

7. Establish MA collection points throughout 3d Mech Div sector to receive remains and perform initial identification.

(b) 2d CSB Support Mission.

1. Provide DS supply of Classes I, II, III, IV, VI, and VII to nondivision elements in 2d CSB area of responsibility.

2. Provide GS bulk petroleum supply to nondivision DS supply units, 3d Mech Div MSB and FSBS, and 7th ACR support squadron.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

3. Provide DS maintenance and Class IX items to nondivision units in 2d CSB area of responsibility.

4. Provide DS missile maintenance support (less HAWK) to nondivision units in area of responsibility and reinforcing DS missile maintenance to 3d Mech Div.

5. Provide DS field services (CEB, laundry, and textile renovation) to troops in 2d CSB AO.

6. Provide four collection points throughout 2d and 3d CSB AOs to receive remains and perform initial identification.

(c) 3d CSB Support Mission.

1. Provide DS supply of Classes I, II, III, IV, VI, and VII to nondivision elements within 3d CSB area of responsibility.

2. Establish a CSA within 3d CSB area of responsibility to resupply ASPS and ATPs.

3. Provide GS level general supplies (Classes I, II, III (Pkg), and IV) to DS supply units, 3d Mech Div MSB and FSBs, and 7th ACR support squadron.

(3) Soldier Support.

(a) The tactical and logistical situation allows for T Rations as well as MREs.

(b) Class I DS stockage objective is _____.

(c) Though commands deployed with 30 days of ration supply sundries, sundry packs have now been tailored for operations in South Island. Provide tailored supplement packages with ration issues.

(d) Water consumption factors have been increased to _____ for operations in South Island.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(e) Provide bath and clothing exchange every _____ days.

(f) Priority of CEB support to combat and CS units.

(9) Conventional ammunition units and Class III points will prepare sling load areas to facilitate airdrop of munitions and fuel.

(h) The COSCOM ACofS G1 and G5 will request local labor and HN personnel to supplement mortuary affairs support operations.

(i) Class X humanitarian relief support must be approved by corps G4 in coordination with the G5. Submit request through CSG HNS branch.

(4) Munitions Support.

(a) Unit distribution in effect for FSB ATPs .

(b) DS stockage objective is _____.

(c) CSR for items in critical supply or intensively managed items will be identified in the-daily LOGSTAT report. For all other items, the CSR is the RSR.

(d) Priority of support is to: _____.

(e) Initially, the CSA, ASPs, and the DS ammunition company ATP will locate near the following locations:

ATP AA vic ND1237.
ASP BA vic ND4032.
ASP BB vic ND5802.
ASP BC vlc ND7003.
CSA DA vic MD1749.

(f) Class IV DS stockage objective is _____.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(9) The following Class IV controlled items must be requisitioned through command channels:

NOMENCLATURE	NSN

(5) Fuel Support.

(a) Establish Class III points in the following general locations:

1st CSB ND2113
2d CSB MD1743
2d CSB Petri Sup Co MD1989
2d CSB Petri Sup Co MD2435
3d CSB MD4218

(b) DS stockage objective for bulk fuels:

1. JP8 _____ days.
2. DF _____ days.
3. MOGAS _____ days.

(c) Unit distribution of MOGAS and DF to 3d Mech Div MSB and FSBs and to 7th ACR support squadron Class III supply point is prioritized as follows:

(d) Unit distribution of JP8 to the following users (not prioritized) :

(e) Emergency distribution to medical ambulance units and to other medical elements.

(f) Quality surveillance will be provided by mobile lab team JC, 245th Petroleum Supply Bn, 4th CSG.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(9) DS stockage objective for package products: _____.

(6) Maintenance Support.

(a) Priority of maintenance to supported units in Phase I. Priority of support for main battle tanks, fire control, radios, and C2 vehicles.

(b) Cannibalization for missile parts authorized only at the 35th Msl Maint Det, 3d CSG.

(c) Cannibalization for return to the supply system performed only by the 19th, 28th, and 51st DS maintenance and the 76th and 79th AVIM companies, 49th AVIM Bn.

(d) Repair parts stockage objective is --

_____ for nonair eligible items.
_____ for air eligible items.

(e) Major critical shortages exist in repair parts and replacement components for the following end items:

END ITEMS	REPAIR PART(s)
1. 10,000 forklift	
2. 20,000 crane	
_____	
_____	

(f) The following Class VII replacement items are controlled by corps:

_____
_____

(7) Transportation Support.

a. CSG transportation branch personnel task trucks to facilitate habitual support between subordinate truck units and supporting units.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

b. 6th CMCC coordinates corpswide transportation support requirements.

c. 6th CMCC requests new routes from the HN as the situation dictates.

(8) Regeneration Support.

a. 3d CSB prepare to expedite regeneration of 3d Mech Div battalion elements from _____ percent equipment and supply levels to ___ percent mission capable as designated by the regeneration task force commander.

b. Upon completion of Phase I, 3d CSB will send forward appropriate teams to the designated link-up area to assist in the initial assessment and provide essential services.

c. 1st CSB will set up refuel-on-the-move operation to assist attrited units in moving to the link up point.

d. On call, 3d CSB will position forward or upload for movement forward Classes I, bulk III, VII and IX.

e. 3d CSB HHD personnel prepare to provide the command and control structure for the logistics elements of the RTF at the regeneration site.

f. 2d and 3d CSBs prepare to attach maintenance support teams ___ and ___ and CEB teams ___ and ___ to the regeneration task force.

g. 2d and 3d CSB transportation branch personnel coordinate with 7th MCT to verify the locations and capacities of usable road, rail, water, and air terminals.

(Classification)

(Classification)

OPORD 100 -- 2d CSG

(9) Protection Support.

(a) Subordinate unit/battalion commanders will be prepared to function as a base/base cluster commander, if so designated by the 2d RAOC or the division rear CP.

(b) Subordinate units located within a base or base cluster will comply with defense and area damage control procedures established by the BDOC/BCOC, 2d RAOC, and corps rear CP operations cell. (Annex C, Rear Operations)

(c) Elements tasked for ADC response will plan and coordinate directly with, and respond to, 2d RAOC for ADC operations. (Annex C, Rear Operations)

(d) MOPP 1 for chemical is in effect. MOPP levels will be the decision of battalion commanders.

(e) Friendly chemical and nuclear employment is not expected. However, conventional ammunition units must be prepared to receive, transport, store, and issue chemical weapons.

(f) The corps deception story is in effect upon receipt of this order. (ANNEX G - Deception)

c. Coordinating Instructions.

(1) Maintenance support teams, CEB teams, and laundry teams will coordinate with 2d DISCOM/division rear CP, brigade rear CP and 22d FSB CP as well as with the DTO before crossing division or brigade boundaries.

(2) Report captured enemy materiel through CSG S2 channels to the 21st MI Bn.

(3) Submit reports IAW Annex Y, 6th COSCOM FSOP.

4. SERVICE SUPPORT

See Annex F service Support).

(Classification)

(Classification)

OPORD 100 -- 2d CSG

5. COMMAND AND SIGNAL

a. Command.

(1) 2d Spt Gp (COSCOM) CP vic _____.

(2) 2d RAOC vic _____.

(3) Alternate CP -- 3d CSB CP vic _____

b. Signal.

(1) Current SOI are in effect.

(2) Minimize in effect until lifted.

Acknowledge.

CDR
Rank

Authentication.

Annexes:
A Task Organization (omitted)
B Operations Overlay (omitted)
C Rear Operations (omitted)
D Operation Security (omitted)
E NBC and Mass Casualty Defense (omitted)
F Service Support
G Deception (omitted)

Distribution:

(Classification)

(Classification)

Copy no ___ of ___ copies
2d Spt Gp (COSCOM)
South Island
081900Z Aug XX
Message reference number

ANNEX F (SERVICE SUPPORT) to OPORD 100 -- 2d CSG
References: Maps, Service Support Overlay
Time Zone Used Throughout the Order: ZULU

1. GENERAL

This annex covers CSS for subordinate units. CSG units are supported by DS supply, maintenance, field services and health service support units, all of which provide support on an area basis. Support will be coordinated and obtained per 2d CSG FSOP except as specified in this annex.

2. MATERIEL AND SERVICES

a. Supply .

(1) Class I.

(a) Rations are issued by a supporting DS Supply Company on a _____ cycle. Menu is T/MRE/T, but can convert to B Ration menu when operations stabilize.

(b) Supply point distribution from supporting DS supply company's Class I point. Supply point locations are shown on Appendix 1 (Semite Support Overlay) .

(2) Classes II, IV, and VII.

(a) Supply point distribution from the supporting DS supply company's Class II, IV, and VII point. Supply point locations are shown on Appendix 1 (Service Support Overlay).

(b) Requisition the following Class IV controlled items through command channels:

Asphalt -- NSN
Barbed tape -- NSN
Cement, portland -- NSN

(Classification)

(Classification)

ANNEX F (SERVICE SUPPORT) to OPORD 100 -- 2d CSG

(c) Submit requests for thefollowing controlled Class VII items through S2/3 channels to the 6th CMMC.

NOMENCLATURE	LIN

(3) Class III. supply point distribution of MOGAS and DF from supporting DS supply company's Class III point using organic tank vehicles.

(6) Class V.

(1) Supply point distribution from nearest ASP or from CSA if nearer. See Appendix 1 (Service Support Overlay).

(2) CSR will be reported through daily LOGSTAT reports.

(3) Submit request for EOD support through assigned BDOC/BCOC to the 2d RAOC.

(7) Class VI.

(a) After D+45, sundry packs will be issued gratuitously through supporting DS supply unit's Class I point.

(b) Special health and comfort items for South Island have been approved and will be provided by Class I points to supplement sundries packs.

(8) Class VIII. 9th Area Spt Med Bn vic _____ provides medical supply support.

(Classification)

(Classification)

ANNEX F (SERVICE SUPPORT) to OPORD 100 -- 2d CSG

(9) Class IX.

(a) Major critical shortages exist in repair parts and replacement components for the following end items:

END ITEMS	REPAIR PART
_____	_____
_____	_____

(b) Cannibalization will not be performed by units of this command.

(10) Water. Water consumption factor has been increased to _____ gallons per soldier per day for operations in South Island.

b. Transportation.

(1) Follow Appendix 2 (Road Movement Plan).

(2) Submit movement requirements to the 7th MCT.

(3) Provide transportation control number of the shipment when submitting requests to the 7th MCT for tracing, follow-up, or status of shipments.

c. Field Services.

(1) CEB, laundry, and renovation will be provided on an area basis by CEB and laundry teams from the 29th Field Services Company. Locations shown on Appendix 1 -- (Service Support Overlay).

(2) Four collection points established to receive remains and perform initial identification. Locations shown on Appendix 1 -- (Service Support Overlay).

d. Maintenance. Repair teams LA, LC, and LF attached to the 19th DS Maint Co, 1st CSB, and teams LA and LC attached to the 28th DS Maint Co, 2d CSB to provide item unique maintenance support.

(Classification)

(Classification)

ANNEX F (SERVICE SUPPORT) to OPORD 100 - 2d CSG

3. MEDICAL EVACUATION AND HOSPITALIZATION

a. Evacuation Support. Provided as indicated below:

EVAC BATTALION	SUPPORTS
62d Med Evac Bn	Units in 2d CSB AO

b. Hospitalization and Dispensary Care. 29th Med Co, FSB or 23d Med Co, MSB provide medical support for soldiers in the 3d Mech Div sector. Mobile Army Surgical Hospitals or Combat Support Hospitals provide emergency care or resuscitation on an area support basis in the corps rear area. For locations, see Appendix 1 (Service Support Overlay).

c. Medical Logistics. Provided by 81st Area Spt Med Bn.

4. PERSONNEL

a. 112th 114th and 119th Personnel Service Companies provide personnel services support on an area support basis.

b. 14th, 28th, and 34th Finance Support Commands provide finance support on an area basis.

c. DS postal platoons provide DS postal service support.

d. All subordinate commanders arrange for morale, welfare, and recreation activities.

5. CIVIL-MILITARY COOPERATION. Annex M (Civil Affairs) to OPORD 100.

6. MISCELLANEOUS

CDR
Rank

(Classification)

(Classification)

ANNEX F (SERVICE SUPPORT) to OPORD 100 - 2d CSG

Authentication.

Appendixes: 1 - Service Support Overlay
2 - Road Movement Plan

Distribution:

(Classification)

APPENDIX C

Sample CSB OPORD and Service Support Annex

This annex provides a sample CSB OPORD and service support annex. The sample OPORD prescribes the specific support tasks to be performed by subordinate units. It provides sufficient detail to ensure continuous support by subordinate units in the absence of additional instructions. The sample service support annex describes how subordinate CSB units obtain CSS and who provides that support.

Because of the diversity of CSB organizations which may result from being task organized to support a specific operation, these samples serve only as a guide. FM 101-5 prescribes the format for OPORDs and service support annexes.

(Classification)

Copy no__of __ copies
2d CSB
South Island
071330ZAugXX
Message reference number

OPERATION ORDER 101 -- 2d CSB

References:
a. Map, series _____, sheets: _____, edition _____, and scale 1:50,000.

b. 2d CSG OPORD 100.

c. FSOPs.

Time Zone Used Throughout the Order: ZULU

Task Organization:

HHD, 2d CSB	Map Location
21st DS Sup CO	"
24th Petri Sup Co, GS	"
25th Med Truck Co (Petrl)	"
28th DS Maint Co	"
40th Msl Maint Co	"
29th Fld Svc CO	"

1. SITUATION

a. Enemy Forces. Current INTSUM and Annex B (Intelligence) to COSCOM OPORD 100.

b. Friendly Forces.

(1) 3d Mech Div defends in sector, vicinity _____.
(2) 1st CSB (to the South) near Richfield, vic ND3456, provides DS level supply, maintenance, and field services support to nondivision units in 3d Mech Div sector as well as reinforcing maintenance and field services support to 3d Mech Div and the 7th ACR.
(3) 3d CSB (to the East) near Kerr, vic MD4189, provides DS level supply and maintenance and GS level general supplies and munitions support as well as reinforcing support to the 3d Mech Div.

(Classification)

(Classification)

OPORD 101 -- 2d CSB

c. Attachments and Detachments.

(1) Forward Collection Platoon from 16th Mortuary Affairs Collection Company, 3d S&S Bn, attached to 29th Fld Svc Co.

(2) Repair Teams LA and LC attached to 28th DS Maint Co.

(3) Petri Platoon BD from 24th Petrl Sup Co detached to 40th DS Sup Co. 3d CSB.

(4) 40th Msl Maint Co attached to 3d CB HHD upon completion of Phase 1.

d. Assumptions.

2. MISSION. Displace 2d CSB to Ada, vic MD1677. Provide DS supply and DS field services to nondivision elements within designated area of responsibility. Provide GS bulk petroleum supply to nondivision DS supply units, 3d Mech Div MSB and FSBs, and 7th ACR support squadron. Provide repair parts and DS maintenance to nondivision units on an area basis. Provide reinforcing DS maintenance and field services support to 3d Mech Div and the 7th ACR on order. Be prepared to provide logistics support elements to the regeneration task force and to serve as the command and control structure for the logistics elements of the RTF.

3. EXECUTION

a. Commander's Intent. I want a coordinated move to our new location. Battalion headquarters will remain in control during movement. I want a forward LOC to go forward with the battalion advance party. Control passes to the forward LOC on my order. We will move on three routes under cover of darkness. All units will prepare to support from their new location NLT ___ hours after closing. Subordinate units will provide mission support to units within their designated area of responsibility to facilitate successful accomplishment of 6th COSCOM and 2d CSG missions.

b. Concept of Operation. 2d CSB moves southeast to Ada, vic MD1677, to execute support mission in area of responsibility.

(Classification)

(Classification)

OPORD 101 -- 2d CSB

(1) HHD, 2d CSB will provide a forward LOC to deploy with the advance party.

(2) All subordinate companies prepare to deploy IAW Annex ___ along designated routes to new location.

(3) 40th Msl Maint Co will remain in place and continue missile maintenance support mission. 40th Msl Maint Co attached to 3d CSB, 2d CSG, upon completion of Phase 1.

(4) Petrl Platoon BD, 24th Petrl Sup Co GS, detached to 40th DS Sup Co, 3d CSB.

(5) All remaining units/elements deploy to new location IAW Road Movements Appendix and Service Support Annex D.

(6) Each unit will coordinate exact locations with the 2d RAOC and provide 2d CSB support operations officer with exact locations and operating times.

c. 21st DS Sup Co Support Mission.

(1) Provide Classes I, II, III, IV, VI and VII supply in support of nondivision elements in 2d CSB area of responsibility.

(2) Produce potable water at MD 1974 and MD 2402 and treat NBC contaminated water.

d. 24th Petrl Sup Co GS Support Mission.

(1) Establish and operate Class III supply points at MD 1989 and MD 2435.

(2) Provide limited mobile filling station support at MD 1929 to units moving through 2d CSB's area of responsibility.

e. 25th Med Truck Co (Petrl) Support Mission.

(1) Distribute bulk petroleum to DS Class III supply points (to include 3d Mech Div MSB and FSBs and 7th ACR Spt Squadron).

(Classification)

(Classification)

OPORD 101 -- 2d CSB

(2) Distribute JP8 to airfields and hospitals as committed by the 7th MCT/6th CMCC.

f. 28th DS Maint Co Support Mission.

(1) Provide DS maintenance and repair parts to nondivision units in AOR on an area support basis.

(2) Provide reinforcing DS maintenance to 3d Mech Div and the 7th ACR.

g. 29th Fld Svc Co Support Mission.

(1) Provide CEB, field laundry, and textile renovation support on an area support basis for nondivision and division soldiers.

(2) Provide four collection platoons within 2d and 3d CSB areas to receive remains and perform initial identification.

h. Protection Support.

(1) 7th RAOC assigns units to BCOC/BDOC.

(2) MOPP 1 for chemical is in effect. Be prepared to change MOPP level on order.

i. Coordinating Instructions.

(1) This OPORD is effective upon receipt.

(2) All units will be fully operational within ____ hours after closure on new locations.

(3) Report any external lift requirements to the Bn S4.

4. SERVICE SUPPORT
Annex D (Service Support)

(Classification)

(Classification)

5. COMMAND AND SIGNAL

a. Command. 2d CSB CP vic _____.

b. Signal. Current SOI in effect.

Acknowledge.

CDR
Rank

Authentication.

Annexes:
A
B
C
D Service Support

Distribution:

(Classification)

(Classification)

Copy no ___ of ____copies
2d CSB
Place of issue
Date-time group
Message reference number

ANNEX D (SERVICE SUPPORT) to OPORD 101 -- 2d CSB
References: Maps, series _____, sheet _____, edition ____, scale 1:50,000.
Time Zone Used Throughout The Order: ZULU

1. GENERAL
This annex provides for CSS for units or elements assigned or attached to the 2d CSB. CSS operations will be conducted per 2d CSB FSOP except as specified in this annex.

2. MATERIEL AND SERVICES

a. Supply.

(1) Class I. All units deploy with a ___ day supply of MREs. Supply point distribution of MRE and T Rations from Class I supply point, 21st DS Sup Co. See Appendix 1 (Service Support Overlay).

(2) Class II. Supply point distribution from Class II point, 21st DS Sup Co. See Appendix 1 (Service Support Overlay).

(3) Class III. Supply point distribution from Class III point, 21st DS Sup Co. See Appendix 1 (Service Support Overlay).

(4) Class IV. Same as (2) above. Submit requests for controlled items through command channels to the 6th CMMC. Controlled items include:

Asphalt -- NSN
Barbed tape -- NSN
Cement, portland -- NSN

(5) Class V. Obtain basic load from ASP BA vic ND403212. See Appendix 1 (Service Support Overlay.)

(6) Class VI. Obtain South Island adjustment to sundry packs with Class I rations. See (1) above.

(Classification)

(Classification)

ANNEX D (SERVICE SUPPORT) to OPORD 101 -- 2d CSB

(7) Class VII. Submit request to 21st DS Sup Co Class VII point. Cite MTOE authority. Submit requests for the following controlled items through the 6th CMMC:

NOMENCLATURE	LIN
_____	_____
_____	_____

(8) Class VIII. Area support provided 9th Area Spt Med Bn vic _____.

(9) Class IX. Class IX repair parts and reparable items from the 28th DS Maint Co.

(l0) Class X. NA.

(11) Water. Obtain potable water from water point vic ND 590192 21st DS Sup Co. Obtain water purification tablets with rations at Class I point.

b. Transportation. Follow Appendix 2 (Road Movement Plan).

c. Field Services.

(1) CEB, laundry, and textile renovation support provided by 29th Fld Svc Co, DS. See Appendix 1 (Service Support Overlay).

(2) Mortuary affairs collection points provided at vic _____and _____. See Appendix 1 (Service Support Overlay).

d. Maintenance.

(1) The 28th DS Maint Co will provide backup recovery support.

(2) MSTs LA and LC attached to the 28th DS Maint Co provide support during move to new locations.

3. MEDICAL EVACUATION AND HOSPITALIZATION. Area support provided by 81st Med Evacuation Bn and 84th MASH vic ND409875.

4. PERSONNEL

a. 112th PSC provides personnel service support on an area support basis.

b. 19th DS Postal Platoon provides postal support.

c. 14th Finance Spt Command provides finance support.

(Classification)

(Classification)

ANNEX D (SERVICE SUPPORT) to OPORD 101 -- 2d CSB

5. CIVIL-MILITARY COOPERATION
Annex M (Civil Affairs) to OPORD 101.

6. MISCELLANEOUS

a. All vehicles will have one full 5-gallon can of water and two full 5-gallon cans of fuel.

b. Emergency destruction of supplies and equipment except Class VIII is authorized on order of the Bn Cdr to prevent capture.

CDR
Rank

Authentication.

Appendixes: l-- Service Support Overlay
2 -- Road Movement Plan

Distribution:

(Classification)

APPENDIX D

Reconstitution

Reconstitution is extraordinary action that commanders plan and implement to restore units to a desired level of effectiveness commensurate with mission requirements and available resources. It transcends normal day-to-day force support actions in that it requires a task force to support attrited units and it occurs in a relatively secure regeneration site. The major elements of the reconstitution process are reorganization, assessment, and regeneration.

The CSG role in reconstitution is to –

- **Assist in reorganization of subordinate units.**
- **Continue providing support to units undergoing reorganization.**
- **Assist in assessment of attrited units.**
- **Execute the logistics portion of regeneration.**

CONTENTS

CSG REORGANIZATION

Reorganization involves shifting organic resources within a degraded unit to increase its effectiveness until more extensive efforts can take place. It maybe either immediate or deliberate. Immediate reorganization is the quick and usually temporary restoring of degraded units to minimum levels of effectiveness. Deliberate reorganization is conducted when more time and resources are available. It usually occurs farther to the rear than immediate reorganization. CSG subordinate units continue to support elements undergoing reorganization to the limit of their organic capability.

Subordinate battalions, their units, and the CSG HHC could require reorganization to increase their effectiveness. Subordinate commanders continually assess unit effectiveness. The commander decides when his unit requires reorganization.

APPROVAL

The CSG commander approves the deliberate reorganization of subordinate battalions. Subordinate battalion commanders approve the immediate reorganization of subordinate units. If a viable chain of command exists, internal command of the attrited unit remains with the unit.

IMMEDIATE REORGANIZATION

Immediate battlefield reorganization normally occurs in position. Commanders take quick and temporary measures to reestablish the chain of command and restore attrited elements to minimum levels of effectiveness. Company commanders reorganize their attrited unit by combining squads, teams, and platoons. Battalion and group commanders quickly shift equipment and personnel between subelements. The CSG support operations officer cross-levels maintenance test equipment, replacement assemblies, or shop sets among DS maintenance units.

All subordinate unit FSOPs designate a succession of command. FSOPs include battle rosters, redistribution criteria, and contingency manning standards. They also outline procedures to reestablish the CP.

DELIBERATE REORGANIZATION

More time and resources must exist to conduct deliberate reorganization. With more time, equipment repair may be more intensive. Replacements may also become available. Subordinate battalions cross-level personnel, supplies, and equipment based on group/COSCOM directives and corps priorities. CSGs reorganize subordinate units by shifiing subelements within or between CSBs or by combining subordinate attrited units.

The CSG's reorganization plans specify the use of subordinate unit and battalion personnel to restore battalion and CSG staff elements. These plans also outline the use of CSG or COSCOM staff to restore succession of command.

CSG REORGANIZATION ASSISTANCE

The CSG's S3, S1, and support operations staff help assess the ability of subordinate units to continue their assigned missions.

CSG S1 staff identify personnel in subordinate units who have MOSS in mission essential areas. Group and battalion S1 staff prioritize replacement personnel to under strength subordinate units.

The CSG support operations officer changes the supported customer list to allow subordinate units time in which to reorganize and replenish their basic loads. As a result, supported customers obtain support from another DS supply, field services, or maintenance unit. The CSG support operations officer shifts repair priorities to speed the return of critical, mission essential equipment to the attrited unit.

ASSESSMENT

At the direction of the corps commander, the RTF commander dispatches assessment elements. Personnel and equipment assigned to each assessment element remain METT-T dependent.

Assessment elements travel to a link-up point to marshal unit resources and begin assessment. Assessment of areas listed on Table D-1 helps them to determine regeneration requirements. They arrange for degraded units to move to the regeneration site. If required, the RTF commander adds MCT personnel to the assessment element to help coordinate the move to the regeneration site. CSGs send MSTs forward to assist in assessment and on-site repairs.

Table D-1. Assessment considerations.

STATUS	ASSESSMENT CONSIDERATIONS
	• Percent of fill of command positions. • Losses in key command positions. • Losses in key NCO leadership positions. • Communications equipment authorized versus on hand.
Personnel Status	• Authorized versus on hand strength by grade, MOS, and quantity. • Mission essential equipment operators. • Essential mission MOSS. • Accumulated radiation dose. • Personnel decontamination requirements. • Discipline. • Morale and battle fatigue. • Physical condition.
Equipment Status	• Percent fill of command post vehicles. • Percent fill of CSS vehicles. • Crew served weapon systems on hand. • Individual weapon systems on hand. • Mission capable rate of vehicles on hand. • Mission essential equipment (maintenance shop equipment and test equipment). • Quantity repairable by unit maintenance personnel. • Quantity which needs to be transported to DS maintenance units. • Recovery assets on hand. • Recovery required beyond unit's capability. • Equipment decontamination requirements.
Supply Status	• Class I basic load. • Class II basic load (especially MOPP gear requirements). • Class III status. • Class V basic load. • Class IX status. • Loss of ASL stockage. • Loss of reparable assets. • Decontamination requirements.
Training Status	• Critical MOS skills required. • Crew training required.

REGENERATION SUPPORT

Regeneration may be required when normal operations or reorganization cannot sufficiently restore attrited units to the desired level of combat effectiveness. Regeneration may require –

- Replacing the chain of command.
- Assistance from higher echelon.
- Reestablishment of C2.
- Assessing unit effectiveness.
- Large-scale infusion of personnel, equipment, and supplies.
- Mission essential training.
- Time to reestablish unit cohesion.

FM 100-9 provides guidance to commanders and staff who provide CSS in support of regeneration operations. It describes reconstitution planning, decision making, and execution. The corps administrative/logistics order and COSCOM/CSG OPORD and logistics estimates provide more specific details on responsibilities and execution time lines.

REGENERATION CONTROL

The echelon commander, at least two levels above the attrited unit, with the resources to perform regeneration approves and controls regeneration. An uncommitted division could control regeneration of a battalion, provided significant corps assets augment the division RTF. However, when divisions are committed, the corps or TA commander controls regeneration of battalions. The corps needs TA assistance to regenerate a brigade. Even with TA help, it may not be able to regenerate certain types of brigades, such as an aviation brigade.

The corps G3 has overall staff responsibility for planning and coordinating regeneration. The corps commander may elect to not regenerate an attrited unit in order to use resources elsewhere in the corps. Once the corps issues the regeneration order, attrited units are attached to the corps. This prevents the parent division from cross-leveling critical assets from degraded units for use elsewhere in the division. The corps remains in charge of corps units during regeneration, regardless of where regeneration physically takes place.

REGENERATION TASK FORCE

Corps headquarters predesignates an RTF. The corps commander activates an RTF following his decision to regenerate units, battalion(s), or a brigade.

The corps commander and staff task organize the RTF. It includes both CSS elements and operations elements. The composition of the RTF remains METT-T driven. FM 100-9 lists a sample RTF.

CSG Elements to the RTF

While RTF operations elements focus on reestablishing C2 and conducting individual and collective training, CSG subordinate elements provide the required supplies, equipment, transportation, and services to regenerate attrited units. Those subordinate elements may also provide life support, to include rations, water, and power generation, for RTF elements at the regeneration site. CSGs could be tasked to provide the following elements to the RTF:

- DS Maintenance Elements/MSTs.
- TMDE Team.
- AVIM Forward Support Platoon or Teams.
- Medium Truck Platoon/Truck Company Assets.
- Trailer Transfer Team.
- HET Truck Platoon.
- Heavy Materiel Supply Platoon.
- DS Supply Company Elements.
- Ammunition Supply Platoon.
- GS Petroleum Supply Platoon.
- Medium Truck (Petroleum) Platoon.
- CEB Teams.
- Water Teams, if required.
- Mortuary affairs collection points.

CSG support operations section staff officers identify subordinate CSB elements whose mission work load declines when the units they support are pulled off line. These elements could be attached to the RTF CSG support operations staff officers help coordinate logistics support at the regeneration site.

CSB Role

Rather than piecemeal an ad hoc headquarters from various units, the corps commander could designate a CSB HHD to provide S-staff support for the RTF. The CSB's coordinating staff coordinate life support (rations, billeting, and perimeter security) for personnel and elements attached to the RTF. CSB OPORDs detail how CSB HHD staff support regeneration site operations.

CSB subordinate elements could form the nucleus of logistics regeneration assets. The CSB could require augmentation to perform the logistics portion of regeneration. While the CSB supports the regeneration mission, other missions performed by CSB elements is disrupted. The CSG support operations officer changes the customer support lists, directing that units obtain support elsewhere. He also coordinates with the CMMC and CMCC and servicing MCT on reconsignment of inbound cargo.

REGENERATION SITE

RTF assessment element staff and representatives assess and select regeneration sites. They plan and coordinate the evacuation of attrited unit assets to the site. RTF assessment personnel prioritize and develop time frames for the flow of supplies, field services, HSS, maintenance support, and replacement personnel to the regeneration site.

Depending upon regeneration requirements, established support areas could be selected as possible regeneration sites. Time and distance factors mayinfluence the RTF to select sites within the forward CSG AO. In that case, the rear CSG provides backup support. Rear CSG units throughput fuel, supplies, and equipment to the regeneration site, while forward CSG units establish supply points to receive and issue stocks. Forward CSGs also provide MSTs, CEB teams, and laundry teams, as well as movement support assets.

MSTs suggest field expedient repairs to enable recovery and evacuation of combat damaged equipment to the regeneration site. CSG elements also provide refuel-on-the-move and other critical assistance to degraded units at link-up points on the unit line of march to the regeneration site. For example, attrited units could obtain adequate munitions on their way to the regeneration site, either from their supporting ATP or from a nearby ATP or ASP. Other units provide support as attrited units move through the CSG's AO on the way to the regeneration site.

CSG SUPPORT OF REGENERATION

CSG support of regeneration depends on requirements, priorities, and time available. The corps G3 determines priorities of support. The RTF orchestrates its execution. Logistics elements in the RTF rearm, refuel, and refit attrited units. Once the RTF and attrited units reach the regeneration site, logistics support of regeneration is similar to normal support operations. Support differs only in the quantity of support required, the priorities of support, and the time available to provide support. As attrited units withdraw to regeneration sites, CSG support operations staff officers make trade-off decisions as they arrange to reallocate assets no longer providing support forward to those units.

SOLDIER SUPPORT

Field feeding personnel accompany the RTF advance party. They serve hot meals, preferably T, B, or A Rations and provide sundry pack comfort items, as attrited units arrive at the site. The RTF should have limited contract authority to arrange for Class I augmentation and ice from HN resources. Limited local purchase authorization should also be granted.

Class I points and water points provide rations, sundry packs, and water both to attrited unit personnel and to personnel of the RTF. The Class I point replenishes the unit basic load of MRE and T Rations. It provides Class VI items, if available in the theater. Water point personnel provide water purification and issue.

Class II points send MOPP gear and decontamination solutions to the initial rest site, if required. Assessment teams should have identified requirements for lost or damaged OCIE.

Field services units send teams to provide CEB and laundry support. These teams accompany the RTF advance party. The RTF coordinates the use of chemical latrines with the HN.

MUNITIONS SUPPORT

Attrited units obtain enough munitions from their supporting ATP, another ATP, or ASP to enable them to move to the regeneration site. Small arms munitions could also be issued at the link-up point.

RTF munitions staff submits requirements to the ASP or CSA. Requirements include sufficient munitions to secure the regeneration site and train on new weapon systems as well as replenish attrited unit basic loads.

The CMMC directs the issue or redistribution of stocks from a CSA or ASP to the regeneration site. The DAO, CMMC, and CMCC coordinate to redirect stocks which were to be moved to the ATP supporting units now removed from combat.

An element from a DS conventional ammunition company sets up at the regeneration site. Second shift personnel from an ASP or CSA could travel to the regeneration site to receive and issue munitions. The RTF coordinates MHE requirements. Munitions inspectors are needed to evaluate ammunition stocks brought back by attrited units.

FUEL SUPPORT

A subordinate Class III point may provide refuel-on-the-movesupport or arrange to provide bulk fuel at a predetermined link-up point.

RTF fuel personnel obtain fuel allocation instructions from the corps or TA. The area MCT redirects shipment of bulk fuels from DS stocks. The CMCC provides prioritized shipping instructions to move fuel to the regeneration site.

MAINTENANCE SUPPORT

The RTF/CSG directs subordinate units to provide assistance in assessing, recovering, and evacuating items to the regeneration site. The RTF establishes priorities for recovery repair, and cannibalization.

If required. AVIM forward support platoons or teams go forward to the attrited units to assess the airworthiness of aircraft. They perform expedient battle damage repairs using BDAR kits to bring damaged aircraft to a flyable condition. When this is not possible. ground and air assets assist in recovering and evacuating damaged aircraft to the rear. If large numbers of aircraft require repair, the regeneration site should be near an AVIM site, if feasible.

The RTF may send MSTs to the link-up point to perform immediate battlefield repairs. MSTs use expedient repairs to enable equipment to move to the regeneration site or a maintenance collection point.

DS maintenance units provide recovery assistance as well as master mechanics, tools, test equipment, components, and repair parts. Maintenance personnel set up a recovery/evacuation point at the regeneration site [o facilitate movement of reparable items. They replenish PLL items and perform controlled exchange. The RTF approves cannibalization of battle loss major end items.

COSCOM maintenance support branch staff/CMMC commodity managers need to recompute ASL/PLL packages to match the new mission and new organizational structure of the regenerated force. The CMMC performs intensive management of critical Class IX items. It performs a lateral search for needed repair parts and identifies substitutions. The repair parts supply company ships parts to RTF maintenance elements.

Maintenance companies already designated as a ALOC unit could receive shipments of critical repair parts by air. The CMCC coordinates for air movement of critical repair parts. The CMCC is the committal authority for Army aviation assets allocated for CSS air movement operations. It is also the validator for Army requirements for Air Force airlift.

WEAPON SYSTEMS REPLACEMENT

Regeneration focuses on returning weapon systems to battle. The RTF may have priority for corps war reserve stocks. When inoperable and battle-damaged equipment cannot be repaired within time limitations, heavy materiel supply company personnel need to offload and deprocess war reserve stocks. They prepare replacement items ready-for-issue. HETs or rail cars move the weapon systems to the regeneration site. Weapon systems arrive at the regeneration site fueled and with ammunition on board. Crews then boresight/zero weapons.

The weapon systems manager, COSCOM weapon systems support branch chief, coordinates weapons replacement with corps personnel group staff. The CMMC assists in locating items needed to make a complete system. These may include radios, thermal sights, communications security devices, machine guns, and basic-issue items.

TRANSPORTATION SUPPORT

Truck units provide truck assets to assist in recovery of attrited unit assets. They help move supplies, equipment, and personnel to the regeneration site. HETs may be needed to move replacement end items to the regeneration site.

A truck unit maybe part of the RTF to move equipment and supplies within the regeneration site. This unit also supports movement of attrited units after regeneration. The RTF forwards requirements for external lift assets through the supporting MCT to the CMCC.

The CMCC plans routes into and out of the regeneration site adequate to accommodate the anticipated volume and type of traffic. If routes are not adequate, the CMCC identifies requirements for upgrading and coordinates for engineer support. The CMCC coordinates requirements for transportation support and

commits transportation assets. It assists with movement regulation into and out of the site.

An MCT coordinates the move to the regeneration site. The area MCT forms the critical link between the CMCC, mode operator, shipper, and receiver. CSB transportation branch personnel coordinate movements within the regeneration site. If required, they coordinate with HN or allied nation transportation activities and requests additional support as needed. After regeneration is completed, they coordinate the onward movement of units with the supporting MCT. They also coordinate the retrograde of inoperable equipment.

REGENERATION OF CSG UNITS/BATTALIONS

Due to the lethality of modern battle and threat targeting of critical logistics sites, subordinate units and battalions may also require regeneration support.

CSG staff officers assist subordinate unit commanders in assessing regeneration requirements. They assess the impact which loss of transportation or maintenance units will have on supply distribution systems. The CSG support operations officer changes repair authorizations and supply stockage levels. CSG and subordinate battalion staff provide the RTF assessment element with status on the areas identified on Table D-1.

Subordinate battalions report C2 requirements through command channels. They assess the remaining mission capabilities of subordinate attrited units. They report supply and equipment status through S4 channels to the CSG's S3.

Once the corps G3 approves regeneration, subordinate elements withdraw to a designated regeneration site or safe site out of sector. The RTF coordinates with the CMCC for additional transportation assets to move units to the regeneration site. The RTF may need to request TA movement assistance. If necessary, the RTF coordinates for decontamination en route to the regeneration site.

Low density mission equipment is difficult to replace or repair. Class VII items are often available only in war reserves. Cross-leveling equipment provides a temporary means of returning units to acceptable levels. While there are multiple DS supply units, DS maintenance units, and truck units within a CSG or COSCOM, there are certain units which are one-of-a-kind units within each CSG. These include the –

- Heavy materiel supply company.
- Repair parts supply company,
- Mortuary affairs collection company.
- Ordnance missile support company.
- HAWK maintenance company.
- Airdrop supply company.
- Airdrop equipment repair and supply company.

Low density MOSs are difficult to replace. CSG and subordinate battalion personnel may help cross-train replacement personnel who have the critical MOS as a secondary MOSs.

Glossary

A

AAFES - Army and Air Force Exchange Service
AALPS - automated airload planning system
ABL- ammunition basic load
AC - Active Component
acc - air control center
ACCS - Army Command and Control System
ACofS - Assistant Chief of Staff
ACR - armored cavalry regiment
ADA - air defense artillery
ADC - area damage control
ADP - automatic data processing
admin - administrative
AFCT - aircraft
AG - adjutant general
ALOC - air lines of communication
AM - amplitude modulated
AMDF - Army master data file
ammo - ammunition
AO - area of operations
AR - Army regulation
armt - armament
ARTEP - Army Training and Evaluation Program
arty - artillery
ASL - authorized stockage list
ASP - ammunition supply point
ATCCS - Arrny Tactical Command and Control System
ATP - ammunition transfer point
ASG - area support group
asy - assembly
aug - augmentation
AVIM - aviation intermediate maintenance
AVUM - aviation unit maintenance
AWOL - absent without leave

B

BCOC - base cluster operations center
BDAR - battle damage assessment and repair
BDC - battlefield deception cell
bde - brigade
BDOC - base defense operations center
bn - battalion
br - branch
BSA - brigade support area
BSB - base support battalion

C

C2 - command and control
CA - civil affairs
cbt - combat
C&C - collection and classification
CBS-X - Continuing Balance System - Expanded
CCL - combat-configured load
cdr - commander
C-E - communications-electronics
CEB - clothing exchange and bath
CEWI - combat electronics warfare and intelligence
chem - chemical
CHEMWARN - chemical warning
CID - Criminal Investigation Division
CLT - cellular logistics team
CMCC - corps movement control center
cmd - command
CMMC - corps materiel management center
co - company
COA - course of action
comm - communication(s)
comp - component
COMMZ - communications zone
COMSEC - communications security
COOP - continuity of operations
CONUS - continental United States
COSCOM - corps support command

CP - command post

CS - combat support

CSA - corps storage area

CSB - corps support battalion

CSG - corps support group

CSR - controlled supply rate

CSS - combat service support

CSSAMO - combat service support automation management office

CSSCS - Combat Service Support Control System

CT - control team

CTA - common table of allowances

CTASC - Corps/Theater ADP Service Center

CTO - corps transportation officer

D

DA - Department of the Army

DAMMS-R - DA Movements Management System-Redesigned

DAO - division ammunition officer

det - detachment

DF - disposition form

DISCOM - division support command

div - division

DIVARTY - division artillery

DMMC - division materiel management center

DNVT - digital nonsecure voice telephone

DODAAC - Department of Defense Activity Address Code

DODAC - Department of Defense Ammunition Code

DODIC - Department of Defense identification code

DOS - days of supply

DS - direct support

DSA - division support area

DSU - direct support unit

DTG - date-time group

DTO - division transportation officer

E

EAC - echelons above corps

ECCM - electronic counter-counter measures

elm - element

EMP - electromagnetic pulse

engr - engineer

EOD - explosive ordnance disposal

EPW - enemy prisoner of war

equip - equipment

evac - evacuation

EW - electronic warfare

F

FARE - forward area refueling equipment

fax - facsimile

FEBA - forward edge of the battle area

FG - finance group

fld - field

FLOT - forward line of own troops

FM - field manual, frequency modulated

frag - fragmentary

FSB - forward support battalion

FSOP - field standing operating procedures

FSU - finance support unit

fwd - forward

G

G1 - Assistant Chief of Staff, G1 (Personnel)

G3 - Assistant Chief of Staff, G3 (Operations and Plans)

G4 - Assistant Chief of Staff, G4 (Logistics)

G5 - Assistant Chief of Staff, G5 (Civil Affairs)

gen - general

gp - group

gph - gallons per hour

GS - general support

GSU - general support unit

H

HET - heavy-equipment transporter

HHC - headquarters and headquarters company

HHD - headquarters and headquarters detachment

HN - host nation

HNS - host-nation support

HQ - headquarters

HSS - health service support

hvy - heavy

I

ICP - incremental change package

IFSSP - improved fuel system supply point

insp - inspection

Intel - intelligence

INSTUM - intelligence summary

IPB - intelligence preparation of the battle

ISEC - Information System Engineering Command

J

JAG - judge advocate general

JP-4 - jet propulsion fuel, type 4

JP-8 - jet propulsion fuel, type 8

K

KIA - killed in action

L

lab - laboratory

lb - pound(s)

LIN - line item number

LO - liaison officer

LOC - logistic operations center, lines of communication (logistic routes)

LOGMARS - Logistics Applications of Automated Markings and Reading Symbols

LOGSIT - logistics situation

LOGSTAT - logistics status

LOTS - logistics over the shore operations

LP - listening post

LPB - logistics preparation of the battlefield

lt - light

M

MA - mortuary affairs

math - machine

maint - maintenance

MARC - manpower requirements criteria

MASH - mobile Army surgical hospital

mat - materiel

MBA - main battle area

MCA - movement control agency

MCP - maintenance collecting point

MCT - movement control team

mech - mechanized

med/mdm - medium

METT-T - mission, enemy, terrain, troops, and time available

mgt - management

MHE - materials-handling equipment

MI - military intelligence

MIJI - meaconing, intrusion, jamming, and interference

MILVAN - military van

MLRS - multiple launch rocket system

MMC - materiel management center

MMT - mobile maintenance team

MOADS - maneuver-oriented ammunition distribution system

mob - mobility

MOGAS - motor gasoline

MOPP - mission-ori ented protection posture

MOS - military occupational specialty

MP - military police

MRE - meal ready-to-eat

MRO - materiel release order

MRT - movement regulation team

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 - modification table of organization and equipment

MTP - mission training plan

MWO - modification work order

N

NATO - North Atlantic Treaty Organization

NBC - nuclear, biological, chemical

NCO - noncommissioned officer

NCS - net control station

NEO - noncombatant evacuation operations

NICP - national inventory control point

NLT - not later than

nondiv - nondivisional

NMCS - not mission capable supply

NSN - national stock number

O

OCIE- organizational clothing and individual equipment

OP - observation post

OPFAC - operation facility

OPCON - operational control

OPLAN - operation plan

OPORD - operation order

ops - operations

OPSEC - operations security

ord - ordnance

P

PD - priority designator

pers - personnel

petri - petroleum

pkg - package(d)

PLL - prescribed load list

PLS - palletized load system

PSYOP - psychological operations

pt - point

PUL - preconfigured unit loads

PW - prisoner of war

PX - Army exchange

Q

QASAS - quality assurance/ammunition surveillance

QM - quartermaster

QSTAG - Quadrapartite Standardization Agreement

R

R&R - rest and recuperation

RAOC - rear area operations center

RDD - required delivery date

recv/recvd - received

rep - repair

reqd - required

rgmt - regiment

ROWPU - reverse osmosis water purification unit

RSR - required supply rate

RTD - return to duty

RTF - regeneration task force

RTOC - rear tactical operations center

S

S1 - Adjutant (U.S. Army)

S2 - Intelligence Officer (U.S. Army)

S3 - Operations and Training Officer (U.S. Army)

S4 - Supply Officer (U.S. Army)

SAAS - Standard Army Ammunition System

salv - salvage

SAMS - Standard Army Maintenance System

SB - supply bulletin

S&S - supply and service

SARSS - Standard Army Retail Supply System

SAW - squad automatic weapon

sec - section

sep - separate

SGM - sergeant major

sgt - sergeant

SIDPERS - Standard Installation/Division Personnel System

sig - signal

SIGSEC - signals security

SINCGARS - single-channel ground and airborne radio subsystem

SITREP - situation report

SOI - signal operating instructions

SOP - standing operating procedure

SP - self-propelled

SPBS-R - Standard Property Book System-Redesigned

spec - specialist

spt - support

STAMIS - Standard Army Management Information System

STANAG - Standardization Agreement

STON - short ton

sup - supply

svc - service

T

TA - theater Army

TAACOM - theater army area command

tac - tactical

TACCS - Tactical Army Combat Service Support Computer System

TACSAT - tactical satellite

TAMMC - theater army materiel management center

TAMMIS - Theater Army Medical Management Information System

TAMMIS-D - Theater Army Medical Management Information System-Division

TAMMS - The Army Maintenance Management System

TB - technical bulletin

TC - training circular

TCF - tactical combat force

TCMD - transportation control and movement document

TDA - tables of distribution and allowances

telecomm - telecommunications

term - terminal

TISA - Troop Issue Subsistence Activity

TLOC - tactical logistical operations center

TM - technical manual

TMDE - test, measurement. and diagnostic equipment

TMR - transportation movement release

TMT - transportation motor transport

TOC - tactical operations center

TOE - table(s) of organization and equipment

TOW - tube-launched, optically tracked, wire-guided

TPFDL - Time-Phased Force Deployment List

TRADOC - United States Army Training and Doctrine Command

trans - transportation

trk - truck

TSA - theater storage area

TWDS - tactical water distribution system

U

ULC - unit-level computer

ULLS - Unit-Level Logistics System

UMT - unit ministry team

US/USA - United States (of America)

USAF - United States Air Force

USACIDC - United States Army Criminal Investigation Command

V

veh - vehicle

VHF - very high frequency

W

WHNS - wartime host-nation support

wpn - weapon

X

XO - executive officer

References

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30-1	The Army Food Service Program
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40-5	Preventive Medicine
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60-10	Army and Air Force Exchange Service (AAFES) – General Policies
190-11	Physical Security of Arms, Ammunition and Explosives
190-40	Serious Incident Report
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611-101	Personnel Selection and Classification Commissioned Officer Classification System
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63-426-MTP	Headquarters, Corps Support Battalion
63-422-30-MTP	Headquarters Company, Corps Support Group and and Headquarters Detachment, Corps Support Battalion

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50-909	Field and Garrison Furnishings and Equipment
50-970	Expendable/Durable Items (Except: Medical, Class V, Repair Parts and Heraldic Items)

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2406	Material Condition Status Report
2407	Maintenance Request
2765-1	Request for Issue or Turn-In
3294-R	Ration Request/Issue/Turn-In Slip
3857	Commercial Deliveries of Bulk Petroleum Products Checklist

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600-8-2	Standard Installation Division Personnel System (SIDPERS) Personnel Service Center Level Procedures
710-2-1	Using Unit Supply System (Manual Procedures) (Unit Supply Update)
710-2-2	Supply Support Activity Supply System: Manual Procedures (Unit Supply Update)
738-750	Functional Users Manual for the Army Maintenance Management System (TAMMS)

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1-500	Army Aviation Maintenance
3-3	NBC Contamination Avoidance
3-4	NBC Protection
3-5	NBC Decontamination
3-100	NBC Operations
3-101	Chemical Staffs and Units
8-20	Health Service Support in a Combat Zone (Test)
9-6	Munitions Support in Theater of Operations
9-38	Conventional Ammunition Unit Operations
9-59	Unit Operations for Support of Missile and Air Defense Gun Systems
9-84	Special Ammunition (Nuclear) Direct and General Support Unit Operations
10-1	Quartermaster Principles Manual
10-18	Petroleum Terminal and Pipeline Operations
10-23	Basic Doctrine for Army Field Feeding
10-27-2	Tactics, Techniques, and Procedures for Quartermaster Direct Support Supply and Field Service Operations
10-27-3	Tactics, Techniques, and Procedures for Quartermaster Headquarters Operations
10-52	Water Supply in Theaters of Operations
10-52-1	Water Supply Point Equipment and Operations

10-60	Subsistence Supply and Management in Theaters of Operations
10-63	Handling of Deceased Personnel in Theaters of Operations
10-67	Petroleum Supply in Theaters of Operations
10-69	Petroleum Supply Point Equipment and Operations
10-70	Inspecting and Testing Petroleum Products
10-71	Petroleum Tank Vehicle Operations
10-72	Petroleum Surveillance: Laboratories and Kits
10-115	Quartermaster Water Units
10-200	Headquarters and Headquarters Units, Petroleum Distribution Organization
10-280	Mobile Field Laundry, Clothing Exchange, and Bath Operations
10-400	Quartermaster Airdrop and Airdrop Equipment Support Units
10-427	Petroleum Supply Company
10-500	Airdrop of Supplies and Equipment: Rigging Airdrop Platforms
10-500-1	Airdrop Support Operations in Theater of Operations
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12-6	Personnel Doctrine
14-7	Finance Operations
16-1	Religious Support Doctrine: The Chaplain and Chaplain Assistant
19-1	Military Police Support for the AirLand Battle
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20-22	Vehicle Recovery Operations
21-10	Field Hygiene and Sanitation
34-60	Counterintelligence
34-130	Intelligence Preparation of the Battlefield
41-10	Civil Affairs Operations
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43-11	Direct Support Maintenance Operations (Nondivisional)
54-23	Materiel Management Center, Corps Support Command
54-40	Area Support Group
55-1	Army Transportation Services in a Theater of Operations
55-10	Movement Control in a Theater of Operations
55-30	Army Motor Transport Units and Operations
55-40	Theater Airlift Operations
55-60	Army Terminal Operations
63-2	Division Support Command, Armored, Infantry, and Mechanized Infantry Divisions

63-2-1	Division Support Command, Light Infantry, Airborne and Air Assault Divisions
63-6	Combat Service Support in Low-Intensity Conflict
90-2	Battlefield Deception
100-2-1	Soviet Army Operations and Tactics
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100-2-3	The Soviet Army Troops Organization and Equipment
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100-9	Reconstitution
100-10	Combat Service Support
100-15	Corps Operations
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101-5-1	Operational Terms and Symbols
101-10-1/1	Staff Officers' Field Manual - Organizational, Technical, and Logistical Data (Volume I)
101-10-1/2	Staff Officers' Field Manual - Organizational, Technical, and Logistical Data Planning Factors (Volume 2)

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200G	Quality Surveillance Handbook for Fuels, Lubricants, and Related Products

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Standardization Agreements (STANAGs)*

2014	Operations Orders, Warning Orders and Administrative/Logistics Orders
2115	Fuel Consumption Unit
2156	Surface Transport Request and Surface Transport Reply
2961	NATO/US Classes of Supply

*STANAGs are available for DOD users from the Naval Publications and Forms Center, 5801 Tabor Avenue Philadelphia, PA 19120. (DD Form 1425 maybe used to requisition documents.)

Supply Bulletins (SBs)

710-2	Supply Control: Combat Consumption Rates for Armored and Aviation - Type Petroleum Products

Technical Bulletin (TB)

43-0002-3	Maintenance Expenditure Limits for Army Aircraft

Technical Manuals (TMs)

10-412	Index of Recipes: Armed Forces Recipe Service

Training and Doctrine Command Pamphlet (TRADOC Pam)

310-4	Reference Digest of Tables of Organization and Equipment (TOE)

Projected Publications

Projected publications are sources of additional information that are scheduled for printing but are not yet available. Upon print, they will be distributed automatically via pinpoint distribution. They may not be obtained from the USA AG Publications Center until indexed in TRADOC Pam 25-30.

Field Manuals (FMs)

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100-15-1	Corps Operations, Tactics and Techniques

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By Order of the Secretary of the Army:

GORDON R. SULLIVAN
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