

Chapter 4

Supply, Maintenance, and Field Services

The Army's tasks stem from its primary mission to organize, equip, train, and sustain Army forces for the conduct of prompt and sustained combat operations on land. The implied logistics tasks in support of this mission are to establish reserves of equipment and supplies, to provide for expansion of peacetime components, and to develop, supply, equip, and maintain bases and other installations.

SUPPLY

Supply operations involve the storage, distribution, requisition, protection, maintenance, and salvage of supplies. The flow of supplies into an operational area must begin prior to or concurrently—and be carefully synchronized—with the flow of units and personnel. Geography, availability of HNS and/or local procurement, the seasons, the threat, and many other factors influence supply operations. For example, desert operations require increased water and Class IX support, and an NBC threat requires increased capabilities for Class II and water. Supporting commanders, in coordination with the supported commander's senior logistics commander, must estimate supply requirements and initiate supply shipments to the operational area. This is commonly referred to as a *push* system. As time allows, the supported commander begins to submit demand-based requisitions for supplies, referred to as a *pull* system.

SUPPLY SUPPORT

Under management of the senior supporting MMC, their basic loads and positioned stocks will support units during the initial stages of an operation. The senior engineer commander will coordinate closely with the MMC for Class IV (Construction Materials), which are generally bulky and heavy and are oftentimes available in the theater. If possible, they will be obtained locally, either from HNS or contingency contracting. Initially, Classes H, III (Package), and N supplies that cannot be obtained locally are *pushed* to the theater of operations. These supplies are shipped as far forward as possible

to a GS or DS supply unit. Customer units place requirements on the DS supply unit designated to provide support and that unit either fills the request or passes a requisition to its supporting MMC. If the request cannot be satisfied from theater GS stocks, a requisition is passed to the appropriate NICP in CONUS. As the supply situation stabilizes or the theater transitions to the sustaining phase, supply support from the strategic level will shift from the *push* to *pull* system.

Requisition/Flow

Generally, units place demands for supplies and equipment on a designated supply support activity (SSA) responsible for providing DS either on a unit or area basis. In CONUS, the SSA could be organic to a TOE DSU or a TDA activity such as the installation supply division. In forward-presence locations, the SSA will normally be organic to a TOE DSU. In all cases, the SSA will either fill the demand or generate a requisition, which is passed to the supporting MMC or to the appropriate CONUS NICP. If the requisition is passed to the supporting MMC, it may be filled from MMC-managed assets, passed to the NICP, or rejected. If passed to an NICP, the requisition will be filled or placed on back order. Regardless of the level at which a requisition is filled, items are packaged for delivery as far forward as practical. Ideally, they will be delivered directly to the unit that initiated the demand.

In CONUS, supplies generally are moved from a variety of storage locations to the container consolidation point (CCP) at the defense depot that services the requisitioner's

geographic region. Some orders may be shipped from a CONUS depot directly to the requisitioner. For instance, ammunition and general supplies that involve full container loads to a single consignee, that require special handling, or are oversized may bypass the CCP. Emphasis will be placed on packaging supplies in CONUS in unit configuration for direct delivery as far forward as possible. This will minimize the handling of the supplies as they move through the distribution system.

Consolidated or containerized loads maybe designated for single or multiple consignees. A consolidated load is shipped to the appropriate level SSA in the theater. If the container contains multiple consignees, it will be packed to maintain consignee integrity, and documentation will be inside the containers. ITV is enhanced by the use of electronic documentation transfer coupled with coded machine-readable documentation on the outside of containers and packages. This affords supply managers TAV, allowing them to track supplies from origin to final destination. TAV affords flexibility and responsiveness to the distribution system by enabling the rerouting of supplies due to higher priority requirements or a consignee move to a different location.

ALOC-eligible supplies (Class IX and maintenance-related Class II) will be routinely airlifted into the operational area based on aircraft availability. Heavy tonnage Class IX materiel, such as track, track pads, and roadwheels, is normally moved by surface means unless a validated urgency of need (IPG- 1) dictates airlift.

Stockage

CONUS SSAs will not maintain wartime stocks. Forward-presence SSAs in DSUs at echelons above division (EAD) are authorized to establish the combat authorized stockage list (ASL) and other stockage requirements for commodities required during the initial stages of war.

Forward-presence GSUs will maintain a level of combat-essential repair parts to satisfy high-priority requisitions and to account for interruptions in the distribution system. The number of items maintained must be based on

anticipated wartime usage rates. Beginning with the transition-to-war phase, the number of items maintained will be adjusted to the wartime demand.

Adequate APA, AWRS, or intermediate support-base capabilities must be maintained to meet the force projection needs of the theater until SLOC can establish resupply from CONUS. AWRS can be positioned in the COMMZ or other designated area, while additional supplies and materiel should be positioned within the corps areas to meet immediate needs at the onset of war. This dispersion of stocks also reduces vulnerability.

In multinational operations, each nation is responsible for its own logistics and administrative support. If multinational operations are anticipated, alliance directives or bilateral agreements may specify stockage objectives. The President or Congress must approve these objectives if support is to be provided to another nation as part of a coalition force. A properly developed LPT plan should identify these types of requirements soon enough to allow for approval lead time. The plan should identify mutual support requirements and capabilities. Formal peacetime agreements should be established between member nations detailing the logistics support, as well as HNS, that will be provided during the transition and sustaining phases of war. Such agreements, along with a thorough risk assessment, will provide a basis for logistics planners to adjust stockage and the logistics force structure.

LOGISTICS BASE

A logistics base (log base) is any grouping of logistics elements—DS, GS, or LSE—formed for a specific purpose. It can be formed from a single, small, specialized organization to one made up of various units. For instance, if a unit is required to make a long movement prior to launching an attack, the logistics commander may elect to establish a log support base at an intermediate point along the route of movement. This base could be tailored to provide supplies that are expected to be consumed during the movement, such as Classes I and III and water. If the moving unit is expected to test-fire its weapons during

movement, Class V could be included. If the movement is over an exceptionally long distance, more than one log base may be required, based on time/distance factors.

A log support base may be established for an entire theater of operations. In this case, it could be composed of a wide variety of DS, GS, and LSE organizations. A theater log base would have the responsibility for receiving all supplies, personnel, and units moving into the theater and preparing them for onward movement to their ultimate destinations.

PHASES OF SUPPLY

Supply operations are viewed in four phases: peacetime, transition to war, sustainment, and reconstitution. Actions taken during each phase directly impact subsequent phases.

Phase I - Peacetime

During times of peace, planning is continuous. The peacetime focus is on readiness. The CSS planner examines all potential areas of operation and develops a plan for the LPT, which becomes the framework to determine where, when, and how to deploy limited resources. The purpose of LPT planning is to minimize the logistics impact on the strategic lift required to project the force. During peacetime, both CONUS-based and forward-presence activities are supplied primarily from the CONUS support base. Units focus on refining and maintaining their basic loads and prescribed load lists (PLLs), while supply support activities focus on developing and refining the ASL used to support customer demands. More information on LPT is in Appendix B.

Phase II - Transition To War

The transition to war begins with advance warning of an impending crisis and continues through the initial stages of war when forces have been deployed and resupply operations from CONUS have been established and stabilized. During this period, the primary source of supply shifts to AWR and unit stocks with emergency resupply through the ALOC. As AWRs and ASL items are issued, operational-level CSS personnel must prepare

for the continued sustainment of the force by—

- Calling forward CONUS Army reserve stock and preplanned supplies.
- Preparing to receive and distribute CONUS-based Army reserve stock.
- Preparing to receive units and subsequently move them forward.
- Initiating cancellation action, at the direction of the MMC, on any outstanding requisitions deemed nonessential for combat or for individual health and welfare.
- Establishing the surface LOC from the PODS forward to the tactical level of CSS.
- Initiating theater wartime requisitioning procedures and management of theater-controlled stocks.
- Initiating split-based operations for the management and distribution of materiel.
- Ensuring the capability to screen nonstockage list (NSL) items so that only combat-critical items are requisitioned from CONUS.
- Ensuring the capability of the appropriate level MMCs to continue requisitioning ALOC items directly from CONUS sources.
- Providing the capability for acquiring, repairing, maintaining, and constructing facilities or obtaining from the HN those facilities required to establish LOCs.
- Calling forward portions of the LSE to assist in receiving, processing, storing, and transporting materiel and personnel for sustained combat operations.
- Providing the capability for essential field services.

During the transition phase, force projection forces will deploy with sufficient supplies and equipment to sustain themselves until resupply operations can be initiated in the operational area. Supporting commanders, in coordination with the supported commander's senior CSS command, must estimate supply requirements and initiate *push* shipments of supplies to the theater.

The requisition flow will be the same during the transition to war as in peacetime. The appropriate level materiel manager will continue to screen high-priority non-mission-

capable supply (NMCS) requisitions for availability and fill. Requisitions that cannot be filled from within the theater will be passed to the appropriate NICP in CONUS. The transition phase ends when the SLOC has been established, operating supplies are being received from CONUS, and the necessary support structure is in place to support the deployed force. This also begins the sustainment phase.

Phase III- Sustainment

During sustainment, the requisition and supply/materiel flow will continue as described in the transition phase. The SLOC and ALOC have been established and replenishment requisitions are based on anticipated requirements, the demand history, the overall campaign plan, and the commander's intent. During this phase, the senior supporting MMC will continue to be the principal manager for supplies and materiel entering the theater or operational area.

Supplies, other than throughput shipments, flow primarily to operational/theater GSUS. As directed by the supporting MMC, the GSUs will provide supplies/materiel to DSUs and other GSUs. DSUs issue supplies and materiel to their customers, the ultimate users.

Materiel managers work closely with movement managers to insure that supplies and equipment are moved according to priority. This close relationship, coupled with the improved automation and communications that enable TAV, including ITV, is the genesis of the emerging theater distribution system and total distribution system (TDS). When fully implemented, the TDS requires fewer stockpiles, reduces layering and handling, and improves the overall responsiveness of the distribution system. See Appendix C for more information on the TDS. AR 710-2 contains additional information on wartime supply stockage levels,

Phase IV- Reconstitution

Consideration must be given to establishing a requisition flow, increased requirement projection, and accountability for a surge on the supply system based on reconstitution. A detailed inspection of

equipment is made and components are replaced if unserviceable due to extensive use or environmental impact. In many cases, the LSE will perform this phase.

CLASSES OF SUPPLY

In accordance with the CINC's logistics priorities, the MMC and LSE provide direction for receipt, storage, and issue of theater stocks. When the required stocks are not available or stock replenishment is required, the senior supporting MMC passes requirements to the appropriate CONUS NICP. When practicable, arriving shipments will be throughput from the port directly to the requisitioning GSUs/DSUs. Otherwise, shipments will be directed to one of the operational-level GSUs with the appropriate storage capacity. At the operational level, the supporting MMC manages Class I, II, III (Package and Bulk), IV, V, VI, VII, and IX supplies, unclassified maps, and water. Appendix E provides a quick reference to classes and subclasses of supply.

Class I Supplies

Class I supplies consist of both perishable and semiperishable subsistence items—or rations. Gratuitous health and welfare items are also included. Subsistence items are packaged as individual or group meals. While the provisioning of subsistence items is a supply function, the system for preparing and serving meals is classified as a field service. The supply function is discussed here, and food preparation and serving under the field services section of this chapter.

Class I items are initially *pushed from* CONUS or other sustaining locations to the theater or operational area. The mix of perishable and semiperishable rations will depend on the CINC's feeding policy, the arrival dates of units capable of handling Class I items, and the availability of refrigerated storage, both at the PODS and at forward locations. When the situation stabilizes and the stockage levels have been met, a pull system will be effected. In both the *push* and *pull* systems, Class I supplies arriving in the theater will be moved to a GS or a DS supply unit capable of handling them. GS supply units will issue to other GS units, but primarily to DS supply units. DS supply units will issue Class I

items to their customers, the consuming units. They will stock Class I supplies based on unit strength reports submitted by the units they support. Currently, the supply point method is used to issue Class I items to supported units. See FMs 10-1 and 10-23 for more details on Class I supply operations.

Individual meals. Deploying units carry meals ready-to-eat (MREs), which are generally the individual operational rations. They are best suited for intense levels of combat or when soldiers are in transit. Individual meals are used any time group meals are not feasible. Supplemented with fresh fruit and milk, they will sustain unit personnel until the capability to provide, prepare, and serve group meals is established.

Group Meals. Group meals are made up from A-, B-, or heat-and-serve rations. They can be prepared by the heat-and-serve method (heat-and-serve rations) or the full-scale, raw food preparation method using a combination of A- and B-ration components.

Classes II, III (Package), and IV

Classes II, III (Package), and IV represent a broad range of general supplies that are less visible than other commodities. Nevertheless, they contribute significantly to the support of the mission. Class II consists of items such as clothing, individual equipment, tentage, organizational tool sets and kits, hand tools, maps, and administrative/housekeeping supplies and equipment. Class III (Package) consists of packaged POL products that can be handled in basically the same manner as dry cargo. Class IV consists of fortification, barrier, and construction materials.

Class III (Bulk) Supplies

The responsive supply of Class III (Bulk) is critical to battlefield success. The senior supporting MMC centrally manages, controls, and allocates it in accordance with the ASCC's priorities. The operational-level commander, in coordination with the senior CSS commander, is responsible for providing bulk petroleum to US land forces. Support to multinational forces is based on established agreements.

Petroleum Operations. The availability of fuel depends on the location of the theater of operations. If operations are in an industrialized area, initial supplies may be obtained from HN or contractor support. Tanker ships will bring in subsequent supplies through marine petroleum terminals. In an undeveloped area, Air Force aircraft may effect the initial resupply. In these "emergency" type situations, the fuel bladders may be discharged directly into the operating units' support vehicles. As soon as practical, the Navy's offshore petroleum discharge system will provide bulk fuels in over-the-beach operations. The Navy is responsible for providing fuel to the high-water mark on the beach. The Army then assumes responsibility for the fuel through its tactical petroleum terminals.

Petroleum Organization. The senior petroleum unit commander—the primary petroleum distribution operator—is responsible for all aspects of theater-level petroleum distribution and related supply operations. Distribution planning is the basis for the design, construction, and operation of the theater petroleum distribution system. The petroleum unit is also responsible for quality surveillance and liaison with the senior supporting MMC as well as with the supported multinational forces. It will distribute fuels based on ASCC-established priorities and senior supporting MMC directives. Stockage policy is covered in AR 710-2. Additional information on petroleum operations and organizations is in FMs 10-1 and 10-67.

Distribution. Operational-level petroleum units (petroleum pipeline and terminal operating) will establish the petroleum support base for receiving, temporarily storing, and moving fuels to the GS petroleum supply units. These units, located at the operational and tactical levels, deliver fuels to the divisional and nondivisional SSAs. Movement may involve various modes of transportation. Pipelines—the most efficient mode—will be used to deliver the product as far forward as practical, usually to the division rear area. Air bases and tactical airfields are serviced by pipeline when feasible. Pipeline distribution is supplemented primarily by tank vehicles, with

rail cars and barges being used when available. Figure 4-1 depicts Class III (Bulk) requirements and supply flow in a theater of operations.

Joint Petroleum Office (JPO). A unified commander may establish a JPO to provide staff management of petroleum at the theater level. Subarea petroleum offices (SAPOs) may be established at the subunified command level to provide in-country staff responsibilities for all services. More information on the JPO can be found in DOD 4140.25-M.

Class V

The mission of the ammunition system is to provide the right ammunition to the force where and when needed. Providing this support to a CONUS-based force projection force in a new theater presents various new challenges along with those associated with

supporting a forward deployed force. While the quantity and volume of stocks will likely be less than those required in the past, the enhanced lethality of our modern weapons systems requires that Class V be intensively managed to ensure availability and combat readiness. Additionally, the joint, coalition, and contingency response nature of future military operations requires that the supporting Class V logistics system be highly tailorable, deployable, and flexible.

The ARFOR commander establishes priorities for theater Class V supplies, giving priority to the most common and critical types of ammunition. The highest level army MMC in theater coordinates the shipment and delivery of stocks from CONUS in accordance with the CINC's logistics support plan. Shipment will be by either surface ships or air delivery. To immediately support rapid deployment forces, initial shipment will likely be by air followed by

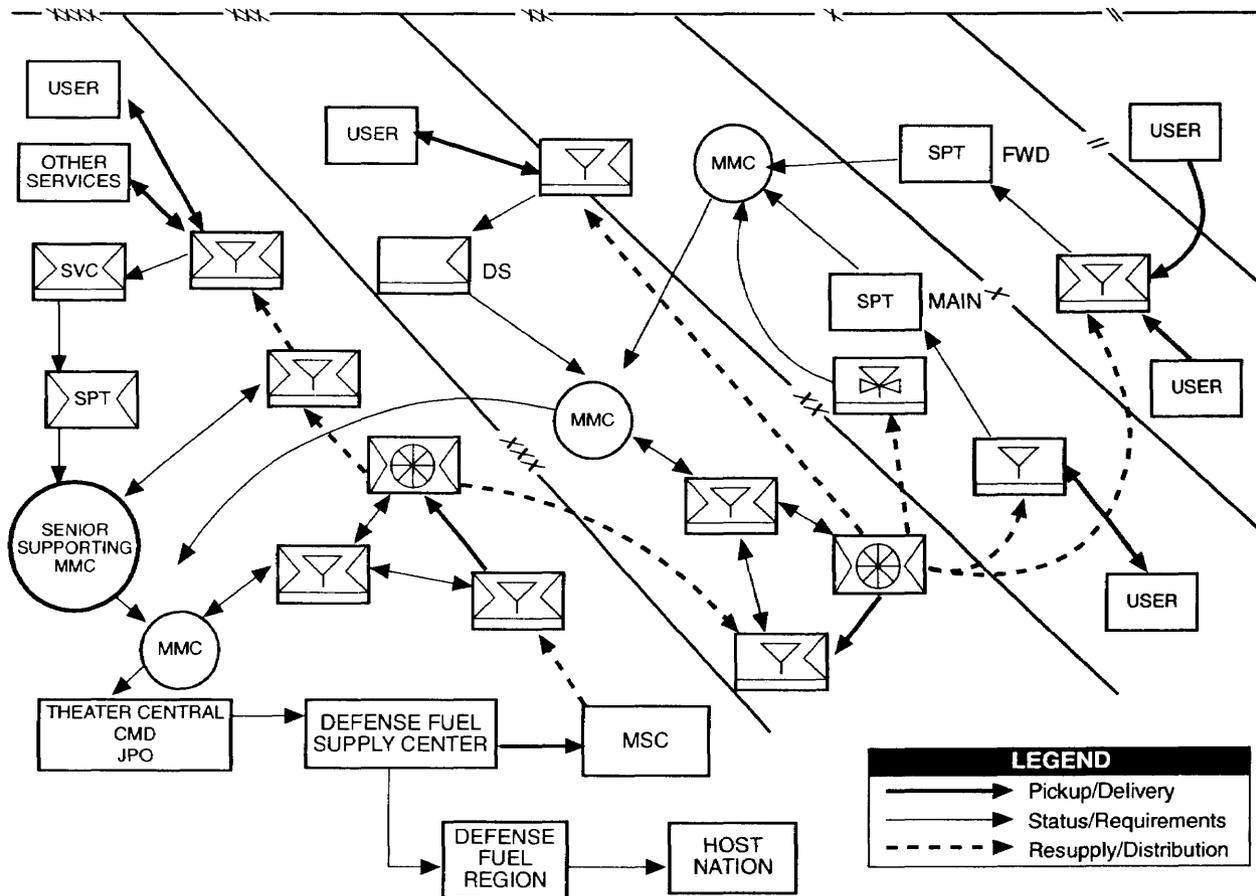


Figure 4-1. Bulk Petroleum Distribution in a Theater of Operations

AWR-3 ships and then surge shipping. The ARFOR and CINC logistics planners must consider total force ammunition requirements in a contingency response environment when planning for the movement of stocks and support forces. The CINC cannot request containerized ammunition for rapid deployment and throughput unless sufficient container handling units are in theater to handle and reconfigure it. Ammunition support initiatives designed to improve logistics projection into and the sustainment of the theater include:

- Ammunition accountability detachments (port)—small, rapidly deployable teams of highly skilled quality assurance specialists, ammunition surveillance, and LSE personnel whose mission is providing initial Class V management and accountability at aerial and sea PODs.

- Small rapidly deployable autonomous platoon-size modular ammunition units, which can provide either container or noncontainer ammunition lift support for the force. If sufficient modular units are deployed, a C² headquarters can be deployed to realign these modular units into a company-size element.

FM 9-6 details current ammunition distribution doctrine, which is a maneuver-oriented ammunition distribution system with palletized loading system (PLS)(see Figure 4-2). This system reflects full mature theater support with theater, corps, division, and brigade formations in a linear battlefield, utilizing a combination of containerized and BB stocks, combat-configured loads (CCLs), and non-PLS and forward PLS distribution to combat using battalions.

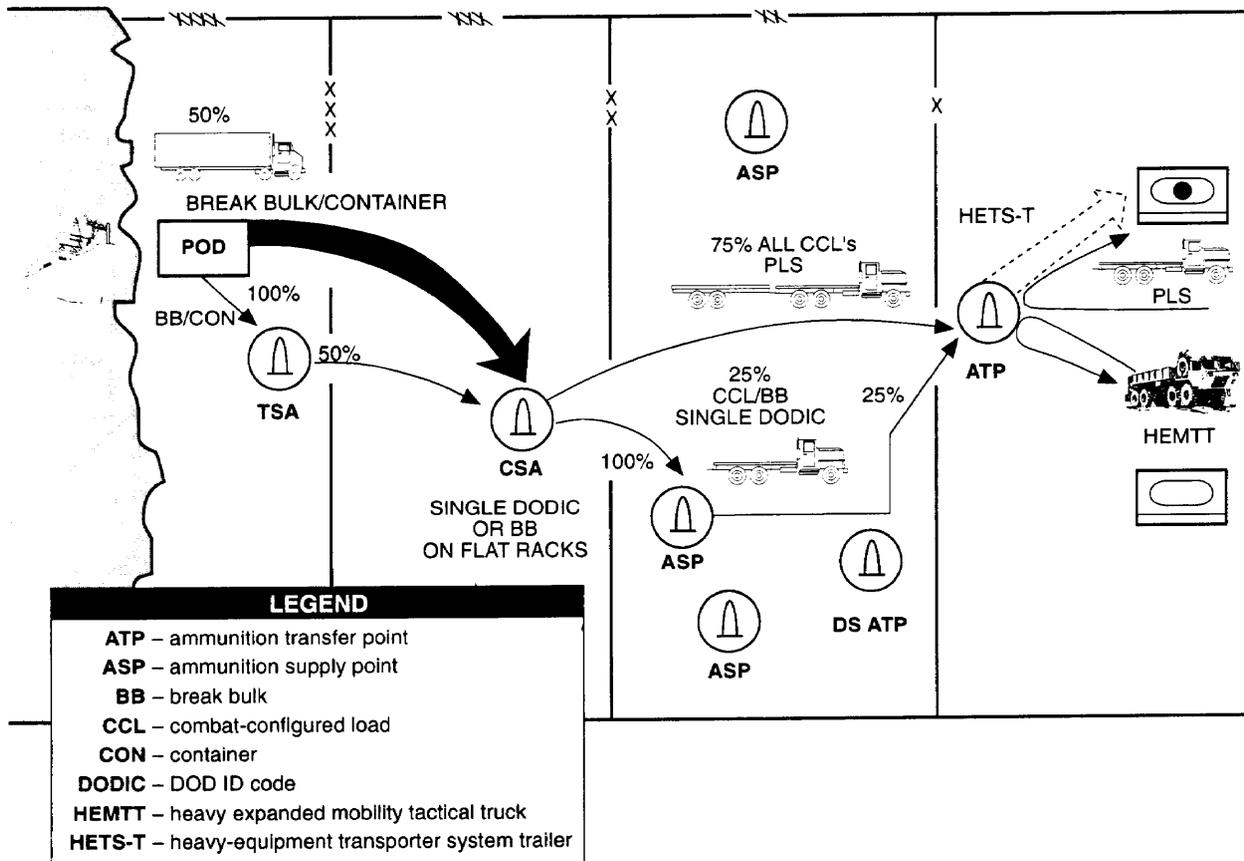


Figure 4-2. Conventional Ammunition Supply in the Theater

Theater ammunition sources include ammunition basic loads (ABL), AWR3 afloat, AWR stocks, sustainment base production stocks, and other sources such as compatible multinational force ammunition available in theater or shipped from OCONUS sites.

Ammunition Basic Load. The ABL is those stocks carried by the forces and their organic equipment. Designated by the ASCC within each unified command based on METT-T, it should be sufficient to sustain operations until supply can be established. The two types of ABL are to-accompany-troops (TAT)—that Class V that can be deployed directly with the force—and non-TAT, such as high-explosive munitions—that is, grenades, AT-4, mortar ammunition—that, for safety or lift reasons, cannot be carried as the force deploys to the theater.

Army War Reserve 3 Afloat. AWR3 afloat includes ammunition preconfigured on logistics ships that is available for discharge into the theater to provide rapid initial support to a deploying force.

Army Reserve Stocks. Pre-positioned assets are available on a regional basis as follows:

- AWR.1 (formerly AR1) in CONUS consists of AWRS and AWROP stocks only.
- AWR2 (formerly AR2 and POMCUS) in Europe consists of AWRS, AWROP, and AWRPS.
- AWR3 (formerly AR3) afloat consists of AWRS, AWROP, and AWRPS afloat.
- AWR4 (formerly AR4) in the Pacific region consists of AWRS, AWROP, AWROPS, and WRSA-k.
- AWRPS-Korea is planned for the near future.
- AWR5 (formerly AR5) in SWA Region will consist of AWRS, AWROP, and AWRPS.

Sustainment Base Production Stocks. These are stocks that, if required, the CONUS industrial base produces and ships into the theater.

Note: Ammunition is no longer managed by days of supply. The current reference is combat load, which is measured by the amount of Class V a unit can carry into combat on the combat weapons system. In the case of field artillery, the reference is battalion load, which is the amount of Class V that an artillery battalion can move with its organic and armored resupply vehicles and can upload on weapons systems.

Class VI

Sales teams operating fixed-area facilities and tactical field exchanges may establish essential post exchange (PX) services at the operational and tactical levels of CSS. In the early stages of war, essential exchange stocks may be turned over to the theater supply system. The ASCC can request health and comfort packages and female sundry packages, which will be issued gratuitously with Class I supplies. Health and comfort packages contain health and sanitation items—such as toothbrushes, toothpaste, and razors—and personal demand items. The female sundry packages contain additional health and comfort items for female soldiers. As the theater matures and conditions permit, exchange activities can be established or expanded and a wider variety of items can be sold. Class VI items forwarded to the theater are based on personnel strength figures. See FM 10-27 for more details.

Class VII

Class VII supplies consist of major end items such as launchers, tanks, mobile machine shops, and vehicles. Major end items are a final combination of end products that are ready to use. They represent a low percentage of the total line items but a high percentage of the total dollar value of the Army inventory. Because of the high dollar cost and their overall importance to combat readiness, major end items are usually controlled through command channels; otherwise, the senior supporting MMC controls them. The requisitioning, distribution, maintenance, and disposal of these items are intensely managed at each support level to ensure visibility and operational readiness. Major items are

controlled and distributed in accordance with carefully developed theater distribution plans and directions. Figure 4-3 depicts Class VII requisition and materiel flow.

The intensity of future battles will produce heavy losses of both personnel and materiel. Weapon systems complete with on-board spares, a basic load of ammunition, and a trained crew will have to be replaced quickly and efficiently. This operation is referred to as weapons system management, which is controlled by an appointed weapons system manager (WSM), normally at the tactical level of supply (division and corps). The operational level of supply (COMMZ) is responsible for issuing a weapon to the corps or division in a ready-for-issue condition. All ancillary equipment will have been installed, the vehicle

fueled, and basic issue items placed on board. The appropriate level WSM will, when appropriate, link the ready-for-issue weapon to its basic load of ammunition and a trained crew, requiring the WSM to coordinate replacements with personnel managers. The ready-for-issue weapon is now a ready-to-fight weapon system. More details on WSM are in FM 63-3.

Class VIII

Units deploy to the AO with their combat unit basic load (UBL). DS and GS units deploy with their ASLs. In all cases, stockage will be consistent with the nature of the contingency mission, the threat, climate, geography, and other factors associated with the AO. See Chapter 7 for more details.

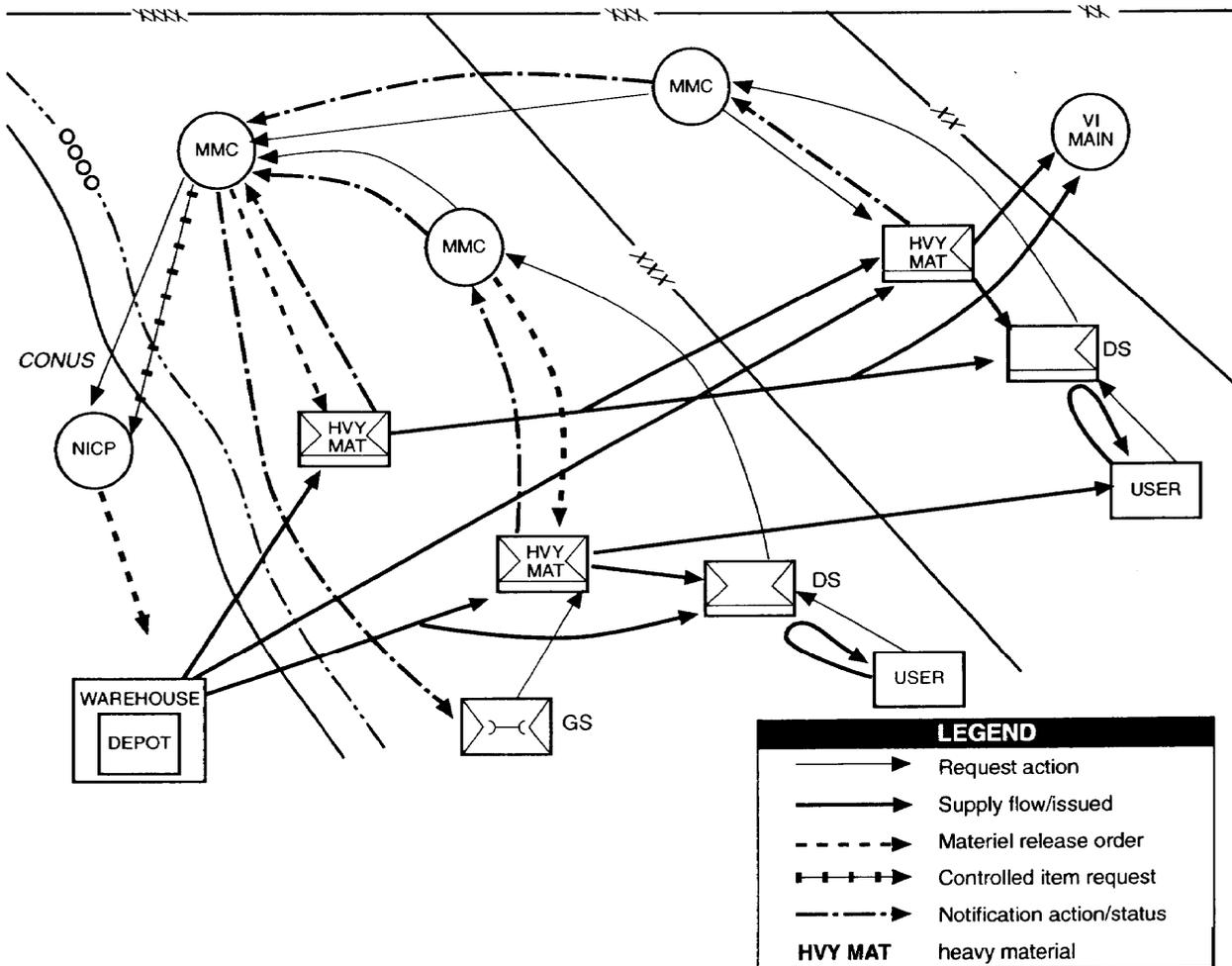


Figure 4-3. Class VII Requisition and Supply Flow

Class IX

Class IX items—repair parts—consist of any part, subassembly, assembly, or component required in the maintenance or repair of an end item, subassembly, or component. They support the maintenance and repair functions performed throughout the theater on all materiel except medical.

The MMC at the appropriate level manages Class IX supplies. The degree of management is generally proportional to the contribution repair parts make to the operational readiness of the end items they are supporting. Items, such as major assemblies, that directly affect the ability of the end item to operate in combat receive particular attention. Another factor affecting management is the item's dollar value. Combat-essential and high-dollar-value items are intensely managed at all levels. Low-cost, noncombat-essential items may be managed within the established parameters of the automated systems at the various echelons of supply, thereby allowing the manager to concentrate on fewer items.

The operational level of Class IX supply focuses on providing a GS level of supply that provides a safety level for all repair parts and a level of stockage for the items that will not be sent to the theater via ALOC. Easing these supply requirements are the serviceable assets that GS maintenance repair of line replaceable units will generate. These theater-generated assets can offset the requirement to support from the strategic level of supply.

ALOC cargo will arrive daily at predetermined in-theater aerial ports. Most Class IX ALOC items will be delivered directly to the requesting SSA, normally organic to a maintenance unit. The remaining Class IX ALOC items will be delivered to a repair parts supply company at the GS level, either corps or EAC. Air-eligible Class IX support begins when the ALOC is established, but non-ALOC support—except for emergency situations—must await SLOC establishment. FM 10-1 and FM 10-27 contain additional information on Class IX supply. Figure 4-4 depicts Class IX requisition and materiel flow.

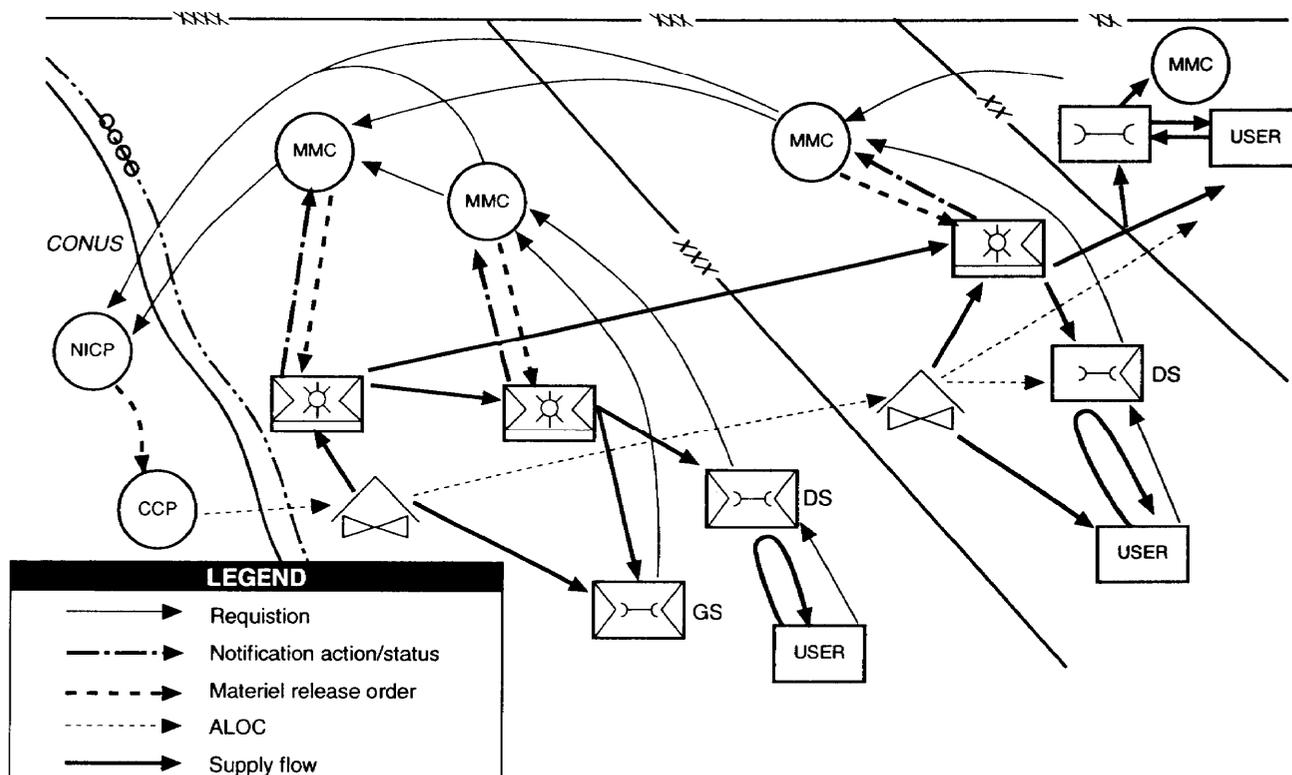


Figure 4-4. Class IX Requisition and Supply Flow

Class X Supplies

Military sources may provide some supplies to the civilian population if the territory's resources are inadequate. In addition, civil agencies of the US government and private charitable organizations may provide supplies for civilian consumption that may or may not be distributed through military channels. Military forces may also be required to plan and provide humanitarian assistance to host nations or other foreign countries. This assistance will require extensive coordination with the HN government to ensure the development and building of their national structure. For details on CA supply, see FM 41-10.

Maps

Unclassified maps will be handled in the same manner as Class H items. However, at the GS level, supply units will require augmentation due to the volume of maps received, stored, and issued. Requesting units will place demands on the supporting DS supply unit and, if the requested maps are on

hand, the DS unit will issue them. If not, the DS supply unit will manually requisition the supporting MMC. If the requested maps are available in theater GS stocks, the MMC will direct their issue. Otherwise, a requisition will be passed to the DMA, which provides standard maps. Classified maps will be requested through operational channels. Figure 4-5 depicts Classes II, III (Package), and IV and map requisition and supply flow in a theater of operations.

Water

The senior CSS planner on the ASCC's staff develops the water distribution plan for the theater and supervises the commander's priorities and allocation procedures. The senior-level MMC monitors water priorities and allocation procedures and provides the commander with supply information.

Water is a critical combat commodity that may require intensive management and control. In addition to drinking and cooking, it

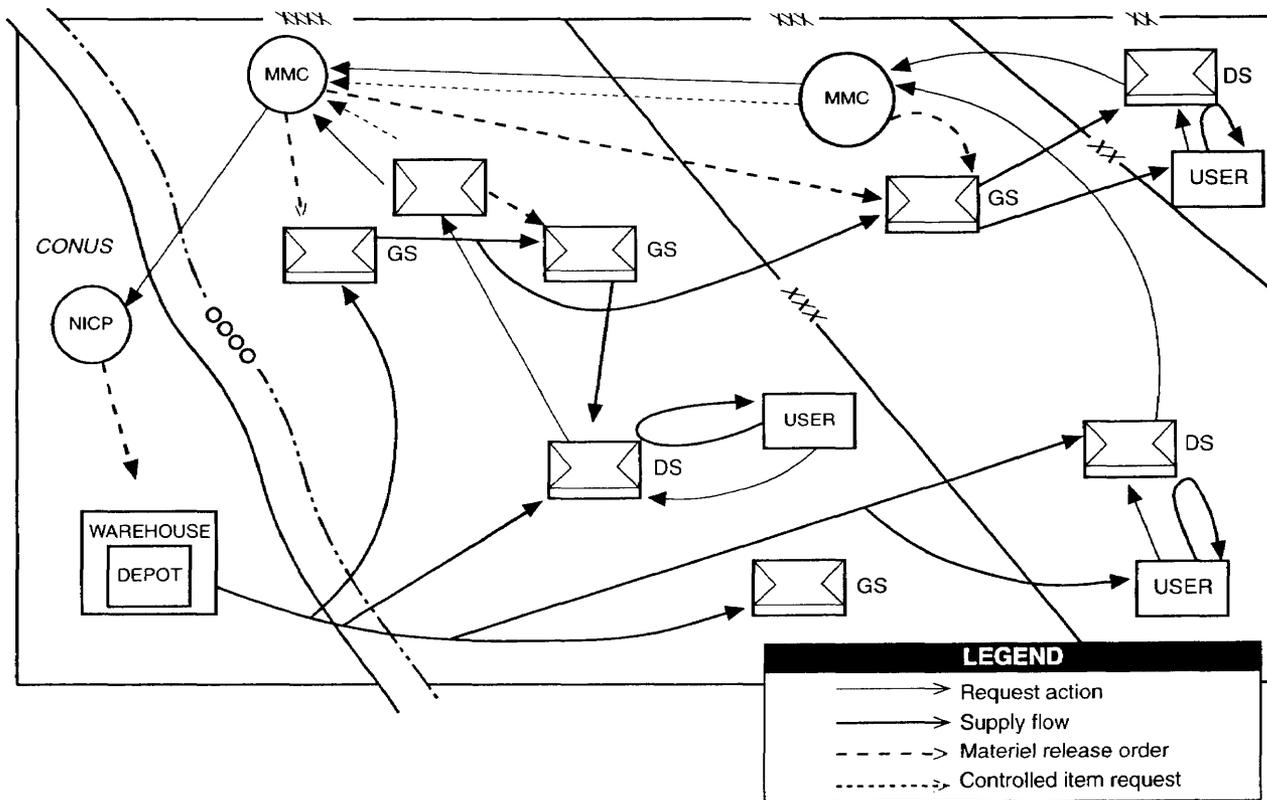


Figure 4-5. Class II, III (Package), and IV, Map Requisition, and Supply Flow

is required for sanitation, construction, decontamination, and maintenance. The amount of water required depends upon the regional climate and the type and scope of operations. Water purification is considered a field service function, and storage and distribution a supply function.

In most regions of the world, surface water is readily available and DS purification, storage, and distribution capabilities are sufficient. However, when well drilling is necessary, the senior engineer command in the theater will assist CSS personnel by locating and then drilling in the most appropriate places. Divisional units have organic DS purification, storage, and distribution capability. Nondivisional units receive DS water support from an echelons-above-division DS supply company that has purification, storage, and distribution capability. These DS units provide support on a unit or area basis. In

those cases where surface water is readily available, no GS water support is normally required. Figure 4-6 depicts water support operations in nonarid regions.

In an arid environment, available water sources are limited and widely dispersed. Surface fresh water is almost nonexistent, and the availability of subsurface water varies within geographic regions. This lack of water sources mandates extensive purification, storage, and distribution. GS water units provide this capability. Once a suitable water source is found, it must then be treated through a process of reverse osmosis before it becomes a routine item of supply. For that reason, water purification has been identified as a field service function. Figure 4-7 depicts water support operations in an arid region. FMs 10-1 and 10-52 contain additional information on water support operations.

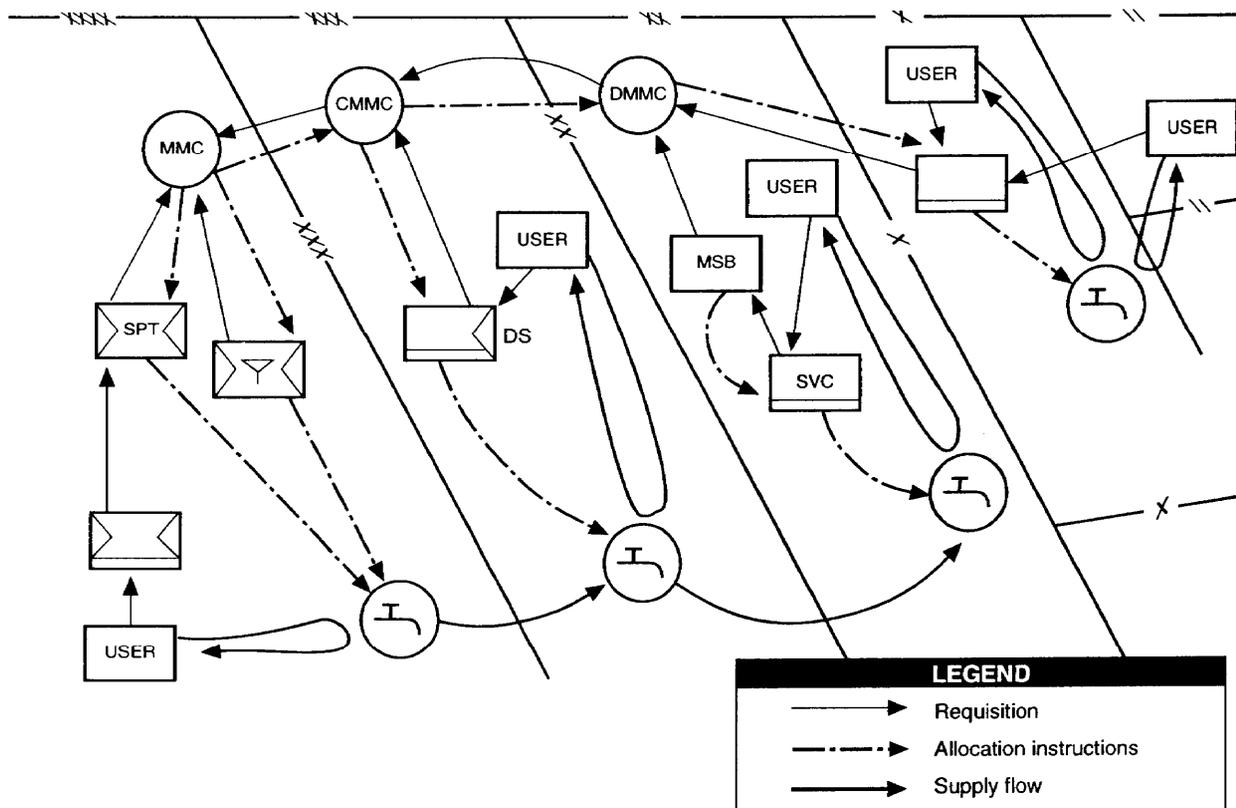


Figure 4-6. Water Support in Nonarid Regions

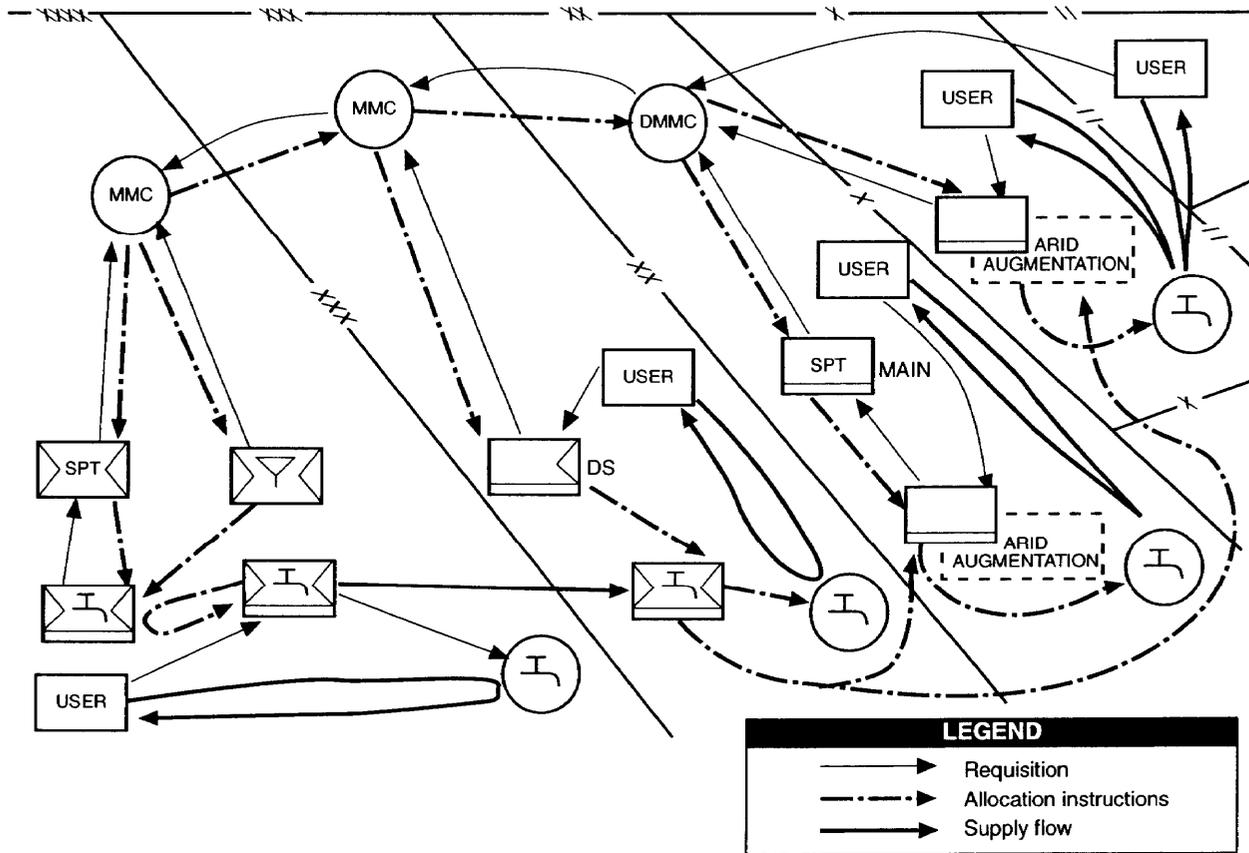


Figure 4-7. Water Support in Arid Regions

MAINTENANCE

During the transition phase, all maintenance resources are concentrated on repair and return of systems to operational condition. Operational maintenance resources will be prepared to supplement and back up corps units. The LSE and commodity facilities, equipment, and maintenance personnel that are not moved forward will concentrate on repair of major items and assemblies.

The fundamental principle of maintenance in a theater of operations is to minimize the time required to return operational equipment to combat forces by fixing items as far forward as possible. This is accomplished by—

- Extensively using DS maintenance elements with support teams and GS maintenance elements to classify and repair items in forward areas. Collection and classification companies inspect and determine the serviceability status of reclaimed combat-

damaged equipment and preserve and dispose of serviceable and unserviceable Class VII and IX and similar foreign materiel. The integration of the LSE into the maintenance scheme will also provide a total spectrum of maintenance, diagnostics, and repair.

- Repairing by replacement—making maximum use of repairable and controlled exchange or cannibalization when authorized—at maintenance collection points when repair parts are not readily available.
- Performing only combat-essential repairs when units are in contact and deferring other services until time and the tactical situation allow.
- Having the organization that can return the item to a serviceable condition in the least

time perform repairs at the breakdown or damage site.

- Recovering damaged and failed equipment as quickly as possible.

Maintenance of critical systems will normally be emphasized. Operational maintenance must be designed to support the initial stages of an operation and, at the same time, establish a base designed to perform the more detailed maintenance required as the operational force matures.

The senior MMC manages maintenance capabilities in the area of operations. It sends maintenance support teams (MSTs) forward to establish forward repair activities. The MSTs work with tactical maintenance elements to repair forward. The LSE also sends MSTs to forward activities to form a seamless maintenance structure. The forward repair

activities remove and evacuate components that cannot be repaired forward back to operational-level GS repair facilities. The theater maintenance support system is shown in Figure 4-8.

OPERATIONAL-LEVEL MAINTENANCE

At the operational level, the maintenance capability is organized to provide DS and GS maintenance to units in and passing through the COMMZ, to provide DS maintenance support to backup tactical-level organizations, and to provide GS maintenance support. Conditions imposed by the integrated battlefield may limit formation of large, consolidated maintenance facilities that are vulnerable to attack. However, situations may arise where clustering of some facilities maybe

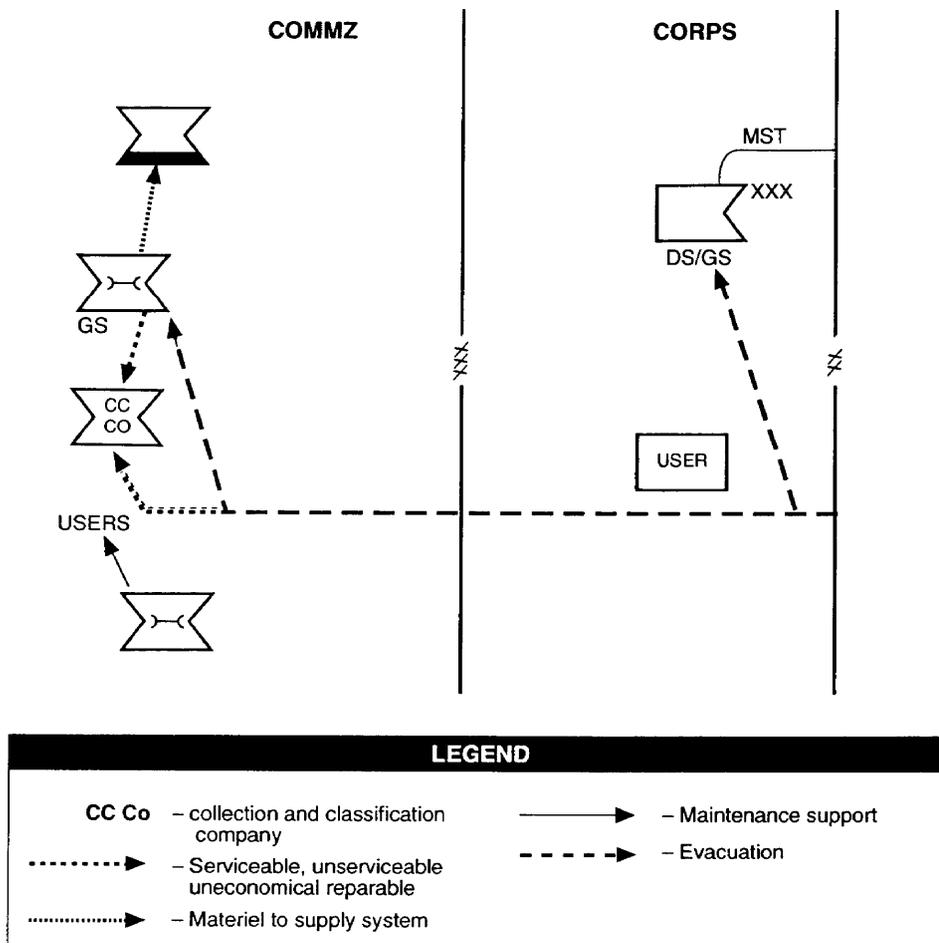


Figure 4-8. Theater Maintenance Support

necessary and possible. Operational-level organizational principles for maintenance support are designed to-

- Conserve resources within the scope of mission accomplishment.
- Have the survivability, mobility, and communications necessary to support on the battlefield.
- Reduce the maintenance burden on forward elements.
- Concentrate on rapid return of equipment to the user and the supply system.
- Allocate critical maintenance skills to support requirements that contribute the most to operational availability.
- Balance the approach to total system support and requirements determination. (Contaminated equipment will add to the time assessment for repair.)
- Establish procedures to obtain maintenance support, as needed, from LSE or HN maintenance organizations and civilian contractors.

The appropriate MMC identifies materiel on which repair efforts are concentrated. Maintenance units provide backup recovery support and coordinate the evacuation of customer equipment that exceeds the DSU's repair timelines, capability, or capacity. Normally, if the DSU cannot repair the equipment within a specified time, it is transferred to a supporting DSU, serviced by a maintenance support team, or evacuated to a maintenance unit in the rear. The senior logistics organization MMC may direct that equipment be evacuated to a GS maintenance unit in the COMMZ.

ELECTRONIC MAINTENANCE

The technical design and tactical employment concept determine the CSS concepts for air defense and surface-to-surface missile systems. Complexity varies among missile systems and demands system-unique support structures for supply and maintenance. DS maintenance is built on the principle of the MST and the base maintenance facility. These maintenance assets are allocated and accompany the supported units

throughout the theater, based upon the commander's tactical plan.

GS and depot repair activities are also located at operational level and provide support to all missile DS maintenance units in the theater. GS and depot maintenance provide the same basic functions and are addressed as one type of maintenance—GS and depot. GS and depot missile system maintenance units maintain the theater ASL for all supported missile systems and provide missile parts supply for the theater. The LSE may also perform depot-level missile maintenance.

Missile systems have a high degree of technological diversity. The maintenance support must be specifically tailored for each weapon system. Refer to FMs 9-59, 44-71, and 44-94, and AR 750-1 for additional information.

SPECIAL MATERIEL MAINTENANCE

Organic signal support units support the TSC(A)'s organic C-E/communications security (COMSEC) equipment. They provide DS and GS maintenance support to operating sites and mobile maintenance support teams to extend off-site maintenance support capabilities forward to operating sites. The COMSEC logistics support facilities accomplish COMSEC maintenance beyond the capability of the area maintenance and supply facilities (AMSFS).

Maintenance support to chemical units presents a considerable challenge to the logistics planner. Low-density and unique equipment increase this challenge. NBC reconnaissance units equipped with the M93 NBCRS (FOX) and the MM1 (mass spectrometer) present additional maintenance considerations. In the theater of operations, the M93, MM1, the protective mask, the validation system (M41), and the Biological Identification Detection System (BIDS) are contractor supported.

AVIATION MAINTENANCE

The aircraft maintenance system uses a three-level concept: aviation unit maintenance (AVUM), aviation intermediate maintenance (AVIM), and depot maintenance. Each aviation unit is responsible for performing AVUM on its assigned aircraft, including organizational-

level aircraft system and subsystem maintenance and servicing, combat emergency temporary battle damage assessment and repair (BDAR), and aircraft recovery and evacuation.

Divisional and nondivisional AVIM units provide a one-stop or intermediate level of maintenance between the operating units (AVUM) and depot. Nondivisional AVIM units are employed on an area basis and assigned to the appropriate (tactical or operational) level CSS organization. AVIM units are tailored to support specific aviation organizations, normally those assigned to a specific aviation brigade or group. Because AVIM units are tailored to support the mix of aircraft in an aviation brigade, they mirror the changes in the aircraft density/type that occur within the theater over time. An AVIM unit designed to support a specific aviation brigade cannot be employed to support a different aviation brigade without risk of serious disconnects in manpower and equipment. Current aircraft fielding plans for the air assault division, corps aviation brigade, and operational-level aviation structure have sufficient aircraft densities to require support from an AVIM battalion. An AVIM company supports other divisions and unique aviation requirements. AVIM units are responsible for—

- Specific repairs on aircraft systems and subsystems for return to user.
- Repair of certain assemblies, components, and parts for return to stock.
- Quick-response maintenance support, technical assistance through the use of mobile maintenance support teams, and backup AVUM, BDAR, and aircraft recovery and evacuation.

An aviation assistance team or an aviation classification and repair activity depot (AVCRAD) may provide the maintenance support above AVIM in theater. The AVCRAD provides selected depot-level support and backup AVIM within the theater. Should operational-level activities require Army aviation support, an operational-level AVIM organization will be assigned; however, the operational mission may be inconsistent with the mission for which the AVIM was specifically designed. When appropriate,

alternatives may include assigning the mission to the LSE AVCRAD, contracting with commercial maintenance facilities, or making cross-service arrangements.

As with ground equipment structures, aircraft depots perform major and overhaul type maintenance on end items and components for return to the supply system. Refer to FM 1-500 for additional aviation maintenance information.

MARINE MAINTENANCE

A marine maintenance capability may be required to support deployed watercraft. This capability must be located afloat or at water's edge. A DS maintenance capability for all watercraft is integrated into organic unit maintenance, with exception of the hovercraft units, which have organic DS/GS capability. Floating craft maintenance elements of the transportation group provide GS maintenance to all other Army watercraft. The owning unit will normally recover watercraft. Evacuation will be by specialized watercraft, such as the large tug. Depot-level maintenance may be obtained through the LSE.

RAIL MAINTENANCE

The Army's rail maintenance capability is limited. Therefore, rail units will perform limited maintenance and repair of track, bridges, buildings, and structures of a railway area. Railway equipment maintenance companies will inspect, providing servicing and running repairs to diesel-electric locomotives and rolling stock. The HN, under MOU or MOA, or a commercial contractor will provide rail assets, recovery, evacuation, and major repairs.

AIRDROP EQUIPMENT MAINTENANCE

An airdrop equipment repair and supply company, located in the airborne corps and at the operational level of CSS, performs airdrop equipment maintenance—technically classified as a field service. In the airborne corps, this unit provides GS supply support and DS/GS maintenance support of airdrop equipment—such as personnel parachutes, cargo parachutes, suspension slings, and airdrop platforms—in support of the multiple

airdrop support units organic to the airborne corps—such as the airborne division airdrop equipment support (AES) company, the airborne corps AES company, and the light airdrop supply company. At the operational level, this company provides similar support to the operational-level heavy airdrop supply company and to the light airdrop supply company in each corps (other than the airborne). This company responds to the appropriate level MMC for both supply and maintenance. Additional information on airdrop equipment maintenance is in FMs 10-1 and 10-500-1.

INTELLIGENCE AND ELECTRONIC WARFARE (IEW) MAINTENANCE

Military intelligence (MI) units are equipped with low-density and classified intelligence collection, processing, and dissemination systems requiring specialized maintenance and components. The sustainment challenge is to employ logistics (maintenance) to support subordinate units that are widely dispersed forward in the main battle area but are not attached to the maneuver unit in whose area they are operating.

Currently, maintenance of IEW equipment is performed within the four-tiered system: unit, DS, GS, and depot. However, due to the transformation from a forward deployed to a force projection Army, MI is moving toward the two-tiered field and sustainment system with the rest of the Army. Unit and direct support are under the field tier; the sustainment tier includes GS and higher. The goal is rapid repair as far forward as tactically feasible. Due to low-density and different generations of IEW equipment in the field, the transition from four to two tiers will not occur at the same rate for each type of equipment.

The MI commander is responsible for both unit and DS-level maintenance of IEW systems/equipment, GS and depot-level maintenance organizations perform maintenance and repair of these systems/equipment that exceeds the capability of the MI commander's organic assets. In keeping with the concept of forward support, unit maintenance teams attempt to repair IEW

equipment as far forward as possible to reduce the time required to return the equipment to the mission.

GS-level maintenance is accomplished off site at semi-fixed and fixed facilities. At this level, maintenance soldiers repair defective circuit card assemblies and modules, Battle-damaged boxes (end items) may also be repaired if repair cannot be accomplished at lower level maintenance. The decision to repair the component, return it to the depot, or categorize it as uneconomic to repair depends on cost analysis. Depot-level maintenance is performed at fixed facilities and supports the supply system. While normally production oriented, the LSE provides the flexibility and capability to project forward depot repair and below.

IEW logistics planners must contend with the following challenges that are in some ways peculiar to IEW equipment:

- Beyond the year 2010, MI will conduct operations utilizing equipment that covers three generations of technology. The IEW logistics manager must be able to support all of these equipment variants as they exist in the inventory. Failing this, certain items must be identified as nonsupportable and removed from the inventory so that scarce resources will not be diverted to nonproductive ends.
- Combined with low-density equipment, the per-unit cost of most repair parts and components for IEW equipment is higher than for normal Army items purchased in greater numbers, regardless of complexity. This lends urgency to the requirement to intensively manage both end items and support packages from the strategic to the tactical level of logistics.
- For some systems, technical competence to repair/replace may only exist at the original equipment manufacturer (OEM) level. As the technological levels attained are continually rising, more and more IEW equipment will be nonreparable or even nondiagnosable at the unit or perhaps anywhere below the OEM level. This will lead to disposing of equipment without repair or direct exchange with the manufacturer.

AUTOMATION MAINTENANCE

Automation is a critical factor in providing logistical support to ARFORs. Sustainment operations addressing supply, maintenance, and transportation rely extensively on a series of microcomputers and minicomputers and associated software. Medical automation maintenance management is discussed in Chapter 7.

At the operational level, the corps/theater automatic data processing (ADP) service center - phase II (CTASC-11) is allocated to the appropriate level MMC and movement control agency (MCA) to support logistics operations. In these and other units, such microcomputers as the personnel computer—commercial off-the-shelf (PC-COTS) provides support of logistics systems. At unit level, for example, the motor pool commercial hardware is focused to support unit-level logistical functions. CTASC-11, the Tactical Army CSS Computer System (TACCS), and commercial hardware provide the bulk of automation support.

The CSS automation management offices (AMOS) located in the senior CSS organizations provide support for the software systems operating on the microcomputer. They coordinate the installation and synchronization of the standard Army management information systems (STAMIS), along with assisting units with CBS automation planning.

Military or contractor personnel perform on-site DS/GS maintenance on computer hardware or it is evacuated to a DS maintenance facility. Civilian contractors provide most of the maintenance support.

TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE) MAINTENANCE

During the transition phase, USAMC provides theater TMDE maintenance and calibration support, which is controlled through the LSE. Operational control of the in-theater TMDE calibration and repair support capability may pass to the ARFOR commander. Command of TMDE support activities remains with USAMC. This service provides for one-step calibration and repair of general-purpose TMDE and calibration of selected special-purpose TMDE to ensure the proper degree of materiel readiness. Refer to AR 750-43 for more information.

Mobile TMDE support teams are attached to deployed corps elements. Additional teams deploy with operational-level maintenance units as required. The maintenance company provides calibration and repair support to TMDE on a mission-critical/priority basis.

FIELD SERVICES

Quartermaster specialists serving in a variety of units in forward and rear areas provide field services that cover many varied services and functions. Military personnel provide the preponderance of field services at the tactical level, with HNS or contractors providing only a very limited amount. Conversely, at the operational level, HNS or contractors provide a great deal of field service support. In the past, bakery and salvage were classified as field services. This is no longer the case since field bakeries will no longer be in the force. Bakery products will be issued through the supply system (pouch bread) provided by HNS or civilian contract, and field feeding equipment can produce a very limited quantity of baked goods. Salvage is simply a function of

supply and will be discussed in the appropriate supply publications. Field feeding and water purification have been recently added as field service functions.

Field services are required for health, sanitation, welfare, and morale of the force. In the past, field services were divided into primary and secondary classifications. This is no longer the case. Instead, the decision as to which of the field services is more critical is left to the ASCC in the theater. The ASCC influences priorities through the Total Army analysis process and through the time-phased force deployment list. Field services consist of field feeding; mortuary affairs; airdrop—including parachute packing, air item maintenance, and airdrop rigging for both

initial insertion and resupply operations; laundry, shower, and clothing and light textile repair; water purification; and Force Provider.

FIELD FEEDING

Unit commanders are ultimately responsible for the overall field feeding operation. The three main elements in the Army field feeding system (AFFS) are the feeding standard, rations, and the area feeding concept.

The Feeding Standard

The AFFS feeding standard is that soldiers will be fed three quality meals daily, to include one A/B meal per day, depending on METT-T. Deploying units will initially consume MREs. As quickly as practical, the standard will change to allow soldiers to consume a variety of group feeding rations.

Rations

Rations are packaged as individual meals or group meals. The MRE is the general individual ration. It is supplemented with the individual ration heating device. It may also be heated by using the new mounted water/ration heater for vehicles. Group meals (A-, B-, and heat-and-serve rations) are best used when units are located in more stable or uncontested regions. Bread or bread-like components are essential components of AFFS. When using the MRE, pouch bread will be the primary source. It will always be the initial bread source in the theater of operations. As tactical and logistical situations permit, HNS or commercial vendors (contracted) may provide fresh bread.

Area Feeding

Feeding schedules are based on established operations orders and timelines established by the commander. When units are operating in an area with no food service capabilities, they will either subsist on MREs or be serviced by other units in the area. Before the latter will occur, careful coordination must ensure that adequate rations are available through the supply system.

MORTUARY AFFAIRS

The American public expects, as a tenet of faith, that the Army will take proper care of

deceased personnel. The Mortuary Affairs Program is a broadly based program used by the military services to provide the expected level of care for deceased personnel. The unified commander develops implementation plans based on joint staff policy, the force structure, and doctrine.

The Mortuary Affairs Program consists of three subprograms: the current death, graves registration, and concurrent return subprograms. The current death subprogram provides full mortuary services for permanent disposition of remains and personal effects. It operates around the world in peacetime. It may continue in areas of conflict depending on the logistical and tactical situations. The graves registration subprogram provides for search, recovery, initial identification, and evacuation of remains for temporary interment. The concurrent return subprogram provides for search, recovery, and evacuation of remains to a mortuary. It provides for the positive identification, embalming, and disposition of remains as directed by the next of kin. The CINC decides which of these subprograms will be used. Figure 4-9 depicts the three subprograms. Regardless of the subprogram in effect, remains are evacuated through a series of collection points located throughout the theater. If no temporary cemeteries or mortuaries are located in the theater, all remains will be processed through the theater mortuary evacuation point for evacuation to a CONUS port-of-entry mortuary. FMs 10-1, 10-63, and 10-63-1 contain additional information on mortuary affairs.

AIRDROP

The three types of specialized airdrop support units/companies that provide this field service are:

- Airdrop equipment support companies—airborne division and airborne corps.
- Airdrop supply companies—a light company at the corps tactical level; a heavy company at the operational level.
- Airdrop equipment repair and supply companies—one in the airborne corps and one or more at the operational level of CSS.

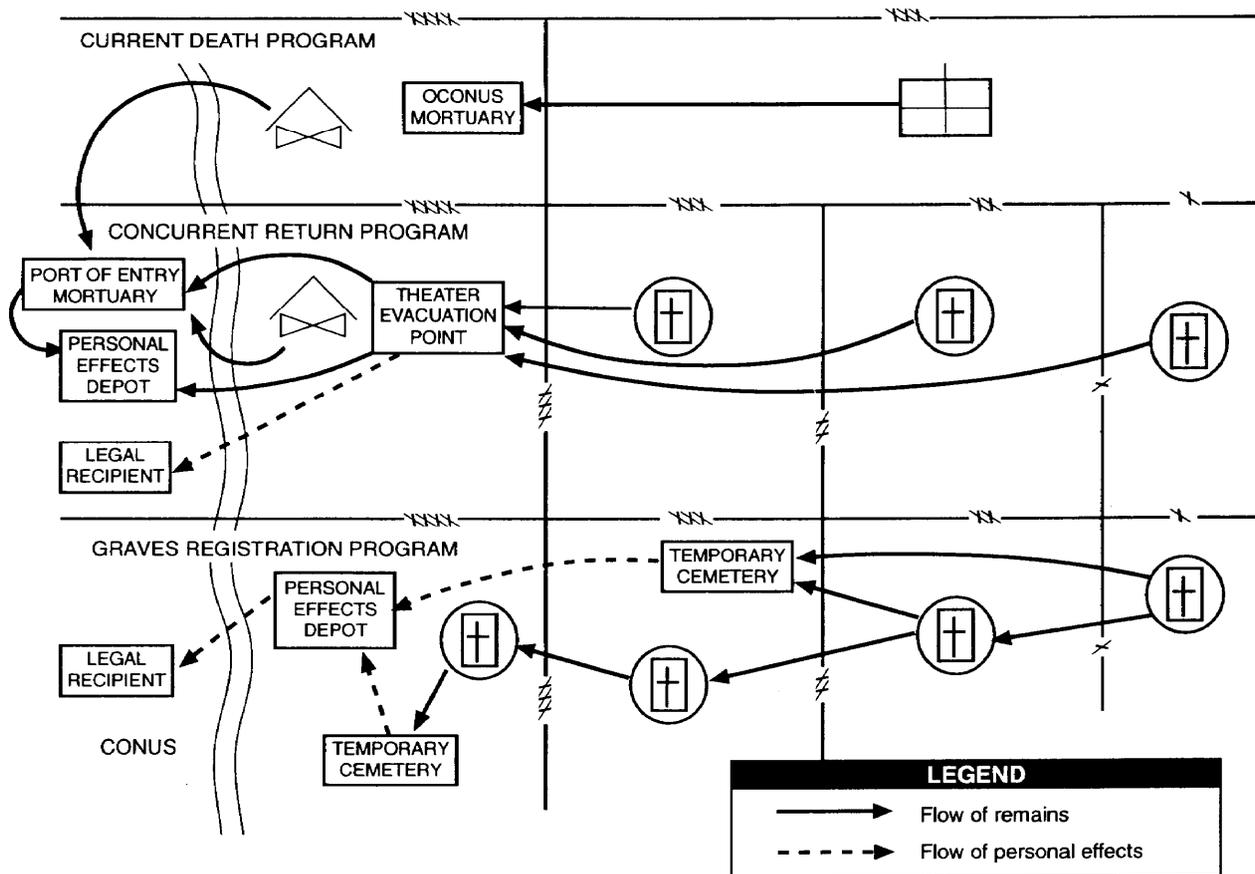


Figure 4-9. Wartime Concept of Operations for Mortuary Affairs in the Theater

Airdrop equipment support companies provide support to an airborne insertion. This entails packing parachutes (personnel/cargo), rigging loads for airdrop, and performing organizational maintenance on the unit's airdrop equipment. Airdrop supply companies provide airdrop resupply support to the force, primarily to combat units engaged in the vicinity of the FLOT. Airdrop equipment repair and supply companies provide DS/GS supply and maintenance support in support of other airdrop support units. Airdrop responsibilities at the operational level are to provide backup airdrop resupply support and airdrop equipment supply and maintenance support to tactical-level airdrop units.

LAUNDRY, SHOWER, CLOTHING, AND LIGHT TEXTILE REPAIR

The need to provide the soldier with clean, serviceable clothing and a shower has long been recognized as essential for hygiene and morale purposes. This field service will be

provided at the tactical and operational levels of CSS. The standard is to provide at a minimum a weekly shower to each soldier and, also on a weekly basis, to launder, make minor repairs, and return his own individual clothing to him within a 24-hour period. The weekly shower is even more important if individuals have had to wear NBC defense clothing for any length of time. This field service will be provided only in the DS mode. At the tactical level this support will be provided almost exclusively by field service units; at the operational level, by a mixture of field service units, HNS, and civilian contract. If a laundry and renovation GS capability is required, it must be provided from HNS or civilian contract. More information on laundry and shower support is in FM 10-280.

WATER PURIFICATION

Water purification capabilities are found at both the DS and GS levels. When the need for water for decontamination is critical,

reprioritizing it from such sources as laundry and bath may become necessary in order to temporarily meet needs. Purified water enters the GS water distribution system from onshore or offshore purification points. GS water purification teams and detachments operate these purification points using reverse osmosis water purification units (ROWPU). Purified water is stored in collapsible fabric tanks at a base terminal storage facility. It is distributed to other terminals in the operational level and to the tactical level by the Tactical Water Distribution System (TWDS) or semitrailer-mounted fabric tanks (SMFT). The water assets at the operational level come under the

C² of the petroleum group; at the tactical level they come under the corps support command (COSCOM). When the GS water system is implemented, both corps and division require augmentation with additional storage and distribution capability. Additional information on water purification is discussed under water supply earlier in this chapter and in FM 10-1, FM 10-52, and FM 10-52-1.

FORCE PROVIDER

Force Provider (see Figure 4-10) is an air-transportable, modular collective support system that provides creature comforts rarely

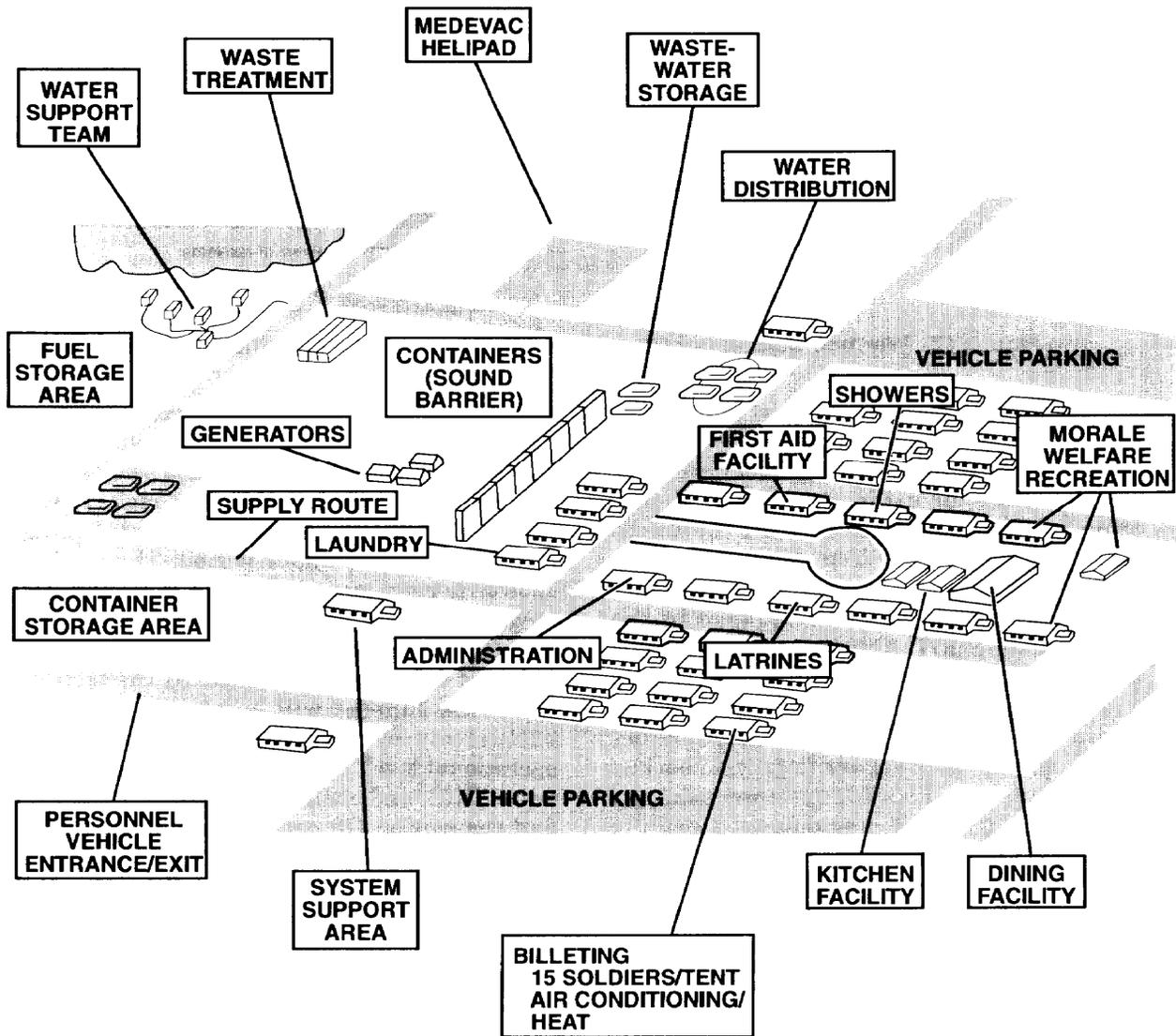


Figure 4-10. Force Provider

enjoyed by Army combat soldiers. It is containerized for easy air-land-sea transport, modular for operating in various tactical environments, mobile to follow troop movements, and offers a variety of services to improve soldier quality of life. Troop units can be rotated into Force Provider rest and refit, including hot meals and showers, laundry service, environmentally controlled tents, and a variety of morale, welfare and recreation activities. This concept supports a myriad of mission profiles, including soldier rest and refit, convoy support, theater reception, and intermediate staging base operations. Force

Provider can also be used to support humanitarian aid and disaster relief missions and peacekeeping operations.

Individual Force Provider modules supporting up to 550 soldiers can be combined to support brigade-size forces up to 3300 soldiers. Operated by a quartermaster Force Provider company, it includes organic power generation, water/waste distribution systems, and fuel storage. External transportation and water and engineer support are required to set up and operate Force Provider, which uses modern air-conditioned Army TEMPERs as its basic building block.

RECOVERY AND EVACUATION

The first step in the recovery process is battle damage assessment (BDA) and repair. Damaged equipment that cannot be repaired in the combat zone will be evacuated to an echelon capable of repairing it within an acceptable time frame. Serviceable and unserviceable equipment not required in the CZ will be evacuated to the collection and classification (CC) company or cell of a senior CSS organization. Recovery within the operational area will be to the most secure site where repairs can be made and items returned to service.

During operations in an NBC environment, materiel is decontaminated to the extent required to minimize exposure and provide timely recovery and evacuation. Equipment is identified and clearly marked as to the type, extent, and date of contamination.

CC personnel will report the damaged equipment to a commodity manager in the senior CSS organization MMC, which will accept accountability and provide instructions to the CC to ship items to the DRMO, a cannibalization point, or CONUS.

ARMY OIL ANALYSIS PROGRAM

The objectives of the Army Oil Analysis Program (AOAP) are to improve operational readiness of equipment, promote safety, detect potential failures, and conserve petroleum

resources by using *on-condition* oil changes.

The program objectives and policies are outlined in AR 750-1.

CONTRACTING

US forces are deployed on a contingency basis throughout the world in support of vital national interests. These contingency operations involve military and other public or allied elements. The G4/S4 determines whether to fill a supply or service requirement by using the military supply system, HNS, the LOGCAP, or contracting. Contracting can be an essential tool in support of these missions.

Properly used, contracting is an effective CSS force multiplier for deployed forces. It can increase existing CSS capability and provide a new source for critically required supplies and

services. Contracting for supplies and services can improve response time during the critical early stage of a deployment, freeing airlift and sealift for other priority needs. It can fulfill all of the following requirements that US forces would otherwise fill:

- Supplies: Class I, II, III, IV, IX (limited), and water.
- Services: Labor, mortuary (within specific parameters), laundry, shower, water purification, dining facility sanitation, and port operations.

- Other: Billeting, transportation, copying, maintenance and repair, equipment leasing, access to communication networks, temporary real property leasing, and limited minor construction.

Close cooperation and coordination with finance, CA elements, and the USACE are essential.

The operational situation determines when contracting personnel will deploy. In most contingency scenarios, an advance element of contracting personnel—along with supporting finance, resource management, and legal personnel—should precede the arrival of the main body of contracting elements. These elements—part of the various CSS headquarters involved in the operation—will be composed of warranted contracting officers and contracting support personnel. The contracting element at each command level derives its contractual authority from the Assistant Secretary of the Army (Research, Development, and Acquisition) through the head of contracting activity (HCA)—typically the MACOM commander. Ordering officers, although not a part of the contracting element, can purchase specific supplies or services within limits specified by the ordering officer appointing authority or by regulatory guidance. Finance units, while working closely with the contracting element, will be independent. The headquarters fielding the contracting element or the next higher headquarters containing a staff judge advocate (SJA) office will provide legal support.

JOINT OPERATIONS

Recently, Army forces have deployed as part of joint operations supporting contingencies in immature theaters. The trend of world events suggests such operations will reoccur, requiring the creation of joint contracting elements staffed by personnel from all services operating in the theater. A joint contracting office will normally be established by the theater or, if less than a theater, the highest level organization deployed. The Army portion of the joint office may include some or all warranted Army contracting officers in the theater. If separate services maintain parallel contracting organizations, cooperation and coordination among the service elements are

essential to preclude interservice competition for local supplies or services, to obtain more advantageous prices through consolidation of requirements, and to more effectively utilize scarce personnel resources.

PREDEPLOYMENT PLANNING

Prior to deployment, contracting organizations at all levels should establish a contracting support plan (CSP) and maintain contracting support kits. Unplanned deployments do not preclude planning for their support. Planning helps perfect the mechanisms and organization required to accomplish support with a minimum of time or effort.

Contracting Support Plans

The CSP is the mechanism for planning. It begins at the unified or specified command and is incorporated in each successive lower level of command. Through the CSP, the MACOM/ASCC assures that contracting plans and procedures are implemented, reviewed, and carried out. The CSS unit commander approves the plan, which assures that HNS and LOGCAP resources are fully utilized and that contracting solutions are considered in CSS planning for contingency deployments. Each MACOM/ASCC should assure that senior subordinate commands have a CSP to cover probable deployments of supported forces. Forces with requirements that may be met with HNS, LOGCAP, or contracting support must be made aware of the CSP and help the supporting contracting element develop procedures and plans to cover various contingencies. The supporting element provides copies of approved CSPs to supported activities, units, and functions. As a rule, the plan should include/address:

- Security and quality control aspects of contracting, including inspection of goods received to insure against sabotage, poisoning, and other terrorist-style actions.
- Planning for contract requirements established by the unit (or units) supported under various contingencies.
- Designating, deploying, and augmenting contracting elements and finance units.

- Contracting procedures, authorities, and deviations during various contingencies.
- Developing, maintaining, and using contracting support kits tailored for as many deployment locations and situations as possible.
- Operating procedures and responsibilities of contracting officers, ordering officers, contracting officer representatives, finance and accounting officers, and required activities during various contingencies.
- Participating in site surveys and exercises and conducting contingency contracting training.
- Ensuring that contracting and finance support are included in contingency OPLANS.

Contracting Support Kits

Each contracting element will set up and maintain contracting support kits containing enough required forms, general supplies, and equipment to support a contracting officer for a predetermined time at a remote deployment location. In addition, separate data bases for as many potential deployment locations as possible may be developed. Both the basic kit and the data base for the specific deployment

area will be taken with the contracting team. Data bases may include area studies, locally developed CSS support data, and recommendations from State Department foreign service personnel. Information also comes from US civilians or others familiar with the area. A thorough knowledge of existing LOGCAP and HNS agreements available in the area of operation is also necessary. Contracting element personnel must continually update this information. Help from supporting finance and CA units should be obtained.

TRAINING

Unit contracting officers may work in the directorate of contracting (DOC) at their installations to maintain qualifications as contracting officers and proficiency in contracting laws and procedures. In order to remain responsive to their units' requirements and procedures, they should participate in field exercises and training with their parent unit, including operational and CSS planning and execution. They also will cooperate with G4 and other staff elements to assure coordinated preparedness for deployment. Additional information on contracting for the Army in the field is in the Army Federal Acquisition Regulation Supplement Manual No. 2.

FORCE RECEPTION AND ONWARD MOVEMENT AND SUSTAINMENT

Operational-level CSS commanders, support elements, and advance parties for incoming units must ensure that augmentation forces are rapidly equipped and deployed to designated marshaling areas. The ASCC is responsible for receiving, equipping, and helping deploying units achieve an operational readiness posture.

As designated by the ASCC, elements of the senior CSS organization will provide supply, maintenance, and life support. The senior MCA will coordinate Army transportation and HN lift capabilities and movement assistance. The ASCC assumes operational command of all deploying US Army forces as they arrive at theater PODS. The AR FOR commander designates specific

elements to provide the following CSS support and services for each arriving ARFOR:

- Reception services at the POD. The unit advance party will coordinate requirements for reception services and designate activities to perform them with the ARFOR organization staff prior to arrival of the main body.
- Essential supplies and services until the unit achieves a normal operational posture.
- Supply support, including Classes I, II, III, IV, V, VIII, and IX relative to those units drawing pre-positioned supplies and equipment.
- Emergency medical, dental, and veterinary services.

Chapter 4

- Maps.
 - Reinforcing DS maintenance, recovery, and evacuation services.
 - Troop facilities within existing resources.
 - A single point of contact—marshaling area control group commander—for deploying units.
 - Limited communications services—radio, teletype, and FM radio--at each designated marshaling area site.
 - Appropriate tie-down materials for securing loads on modes of transportation for onward movement.
 - Essential administrative services until the unit achieves normal operational status.
- Coordination of all HNS services.
 - Programmed and coordinated transportation support, movement instructions, and movement assistance.
 - Replacements for units arriving in theater with critical personnel shortages.

When the ARFOR commander determines that deploying forces are fully operational, he submits a readiness report to the ASCC. The ARFOR commander issues movement orders or other guidance for support along the LOC. The ASCC continuously monitors ARFOR arrivals into the theater through the reception and equipping phase and as they move to their designated staging and operational areas.