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(Formerly MCWP 4-6)

MAGTF Supply Operations



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E R R A T U M

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MCWP 4-11.7

MAGTF SUPPLY OPERATIONS

1. For administrative purposes the publication short title has been reidentified. Change "MCWP 4-6" to read: "MCWP 4-11.7" of February 1996 wherever it appears in the Manual.

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DEPARTMENT OF THE NAVY
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FOREWORD

1. PURPOSE

Marine Corps Warfighting Publication (MCWP) 4-6, *MAGTF Supply Operations*, provides guidance governing the principles and concepts of supply and the organization, planning, and execution of supply support for a MAGTF in an expeditionary environment (afloat/ashore). This publication also provides essential information concerning supply sources and options available internally and externally to sustain the MAGTF during predeployment and deployment.

2. SCOPE

This publication is intended primarily for MAGTF commanders and their staffs to expand their knowledge and understanding of the supply process during a peacetime environment and the supply mission area in an expeditionary environment. It concentrates on the ground and aviation supply functions and operations necessary to sustain MAGTF operations.

3. SUPERSESSION

None.

4. CHANGES

Recommendations for improving this manual are invited from commands as well as directly from individuals. Forward suggestions using the User Suggestion Form format to—

COMMANDING GENERAL
DOCTRINE DIVISION (C 42)
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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5. CERTIFICATION

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

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Record of Changes

Change No.	Date of Change	Date of Entry	Organization	Signature

User Suggestion Form

From:

To: Commanding General, Doctrine Division (C 42), Marine Corps Combat Development Command, 3300 Russell Road Suite 318A, Quantico, Virginia 22134-5021

Subj: RECOMMENDATIONS CONCERNING MCWP 4-6, *MAGTF SUPPLY OPERATIONS*

1. In accordance with the Foreword to MCWP 4-6, which invites individuals to submit suggestions concerning this MCWP directly to the above addressee, the following unclassified recommendation is forwarded:

<u>Page</u>	<u>Article/Paragraph No.</u>	<u>Line No.</u>	<u>Figure/Table No.</u>
Nature of Change:	☐ Add		
	☐ Delete		
	☐ Change		
	☐ Correct		

2. Proposed new verbatim text: (Verbatim, double-spaced; continue on additional pages as necessary.)

3. Justification/source: (Need not be double-spaced.)

Note: Only one recommendation per page.

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Chapter 1

INTRODUCTION

One of the primary logistic concerns of a MAGTF commander is to have the requisite supplies, equipment, and repair parts on hand to sustain the mission. If this is not possible, the concern of the MAGTF commander then becomes the timely acquisition of the required items. This manual is structured to provide the MAGTF commander with supply support options that sustain a MAGTF operation.

1001. MAGTF Overview

The Marine air-ground task force (MAGTF) is a task-organized unit consisting of elements from the Marine division, Marine aircraft wing, and the Marine force service support group formed into an air-ground-logistics team under one commander. In a MAGTF operation, each MAGTF is task organized according to the mission as a self-contained unit that has the necessary logistic support to sustain itself for varying periods of time. The mission of an operation determines the size of the MAGTF and the amount of time that the MAGTF will be deployed. Prior to deployment, a MAGTF has a basic load of supplies. Based on the recommendations from the CSSE commander and the MAGTF staff, the MAGTF commander makes decisions on supplies required beyond its basic load. Throughout the operation, the MAGTF commander will find it necessary to adjust his supplies.

The degree of supply support will vary with the size of the MAGTF. The different types of MAGTFs that require supply support are a MEU, MEF forward, and a MEF. A Marine expeditionary unit (MEU) normally deploys with the logistic capability to sustain itself with some classes of supply for up to 15 days, a brigade-sized MAGTF (MEF forward) for up to 30 days, and a Marine expeditionary force (MEF) for up to 60 days. The combat service support element (CSSE) commander in each MAGTF provides combat service support to include supply support to the MAGTF commander. When a MAGTF participates in protracted land operations involving joint forces, a well-established logistic pipeline for sustainment will eventually

be required. The joint force commander (JFC) will normally be responsible for coordinating this logistic support. MAGTF combat service support elements must be prepared to function with or integrate into the joint force logistic support pipeline.

1002. Supply Relationship to Combat Service Support

Combat service support (CSS) is logistics for the tactical level of war. The objective of combat service support is to sustain all elements of an operating force (MAGTF) in an area of operations. Supply is one of the six functional areas of combat service support. See figure 1-1. The overall effectiveness of combat service support is dependent on a sound supply system. Although all CSS functions are important, supply support has the greatest potential impact on the MAGTF commander's ability to integrate essential elements of firepower, mobility, and



Figure 1-1. CSS Functional Areas

sustainability. More failures in the other CSS functional areas occur due to failure of the related supply system than any other single cause.

1003. Combat Service Support

A primary concern of the MAGTF commander is to have flexible and responsive combat service support that will support a variety of operations. Commanders who have responsibility for structuring and organizing CSS elements and organizing CSS operations use the seven principles of logistics to provide this flexibility. Like the principles of war, the CSS principles are guides for planning, organization, management, and execution. Identifying the principles which have priority in a specific situation is essential to establishing effective logistic support. See figure 1-2.

1004. Supply

The CSSE commander's primary concern is providing the MAGTF commander with initial supplies when deployed and resupply when supply requirements change. Supplies are defined as all material and items used in the equipment, support, and maintenance of military forces. Supply consists of the procurement, distribution, maintenance while in storage, and salvage of supplies, including the determination of kind and quantity of supplies. Supply consists of two phases — the producer phase and the consumer phase. The producer phase extends from determination of procurement schedules to acceptance of finished supplies by the military Services. The consumer phase extends from receipt of finished supplies by the military Services through issue for use or consumption.

a. Classes of Supplies. All supply activities in support of MAGTFs are concerned with the management of supplies. For planning, management, and administrative purposes, modern logisticians have divided supplies into ten categories known as classes of supply. These classes of supplies are universal to all U.S. military Services. Figure 1-3 illustrates the classes of supplies and their subclassifications.

b. Subfunctions of Supply. Supply requires the longest forward planning and the most detailed planning data system to sustain the MAGTF's throughput requirements. Supply also has more tasks, concepts, terms, and

RESPONSIVENESS

Responsiveness is providing the right support at the right time and in the right place. Among the principles of combat service support, the principle of responsiveness is considered the most important. For the supply process to be responsive and flexible, it will take close coordination of supply and transportation.

SIMPLICITY

CSS operations should be conceptually, structurally, and procedurally simple. Simplicity is achieved through use of mission-type orders and reliance on well-understood, standardized procedures. The same can be said for supply operations. However, there needs to be an awareness of keeping supplies moving.

FLEXIBILITY

Flexibility is the ability to adapt CSS structures and procedures to changing situations, missions, and concepts of operation. The principle of flexibility also includes the concepts of alternative planning, anticipation, reserve assets, redundancy, and echelons. See Responsiveness.

ECONOMY

Economy is the prudent and austere use of available CSS assets. Economy is used to provide support with the least amount of resources available and with only the support necessary to accomplish the mission. The goal of supply operations is to provide quantities of supplies that correspond to consumption requirements to ensure economy.

ATTAINABILITY

Attainability is providing minimum essential supplies and services required to begin combat operations.

SUSTAINABILITY

Sustainability is the ability to maintain support throughout the period during which that support is required. To sustain the using units throughout the operation, supply-related limitations on support must be minimized. It will take aggressive and innovative action to provide sustainability.

SURVIVABILITY

Survivability is the inherent capacity of the organization to prevail in the face of potential destruction. Without supplies, there may be no battle of tomorrow.

Figure 1-2. Principles of Logistics as They Relate to Supply.

CLASS OF SUPPLY	SUBCLASSIFICATIONS
Class I. Subsistence. This category is strictly defined to include the basic requirements to sustain life and health on a temporary basis.	A - air (in flight rations) C - combat rations R - refrigerated subsistence S - nonrefrigerated subsistence
Class II. Clothing and Individual Equipment. Aside from uniforms and combat equipment, this class also includes tentage, tool sets and tool kits, administrative/cleaning equipment and supplies.	B - ground support material E - general supplies F - clothing and textiles M - weapons T - industrial supplies including cable, chain, bolts, etc.
Class III. Petroleum, Oils, and Lubricants (POL). All basic oils are included here to include preservatives, liquid and compressed gases, chemical products, coolants, deicing, and antifreeze compounds.	A - air W - ground
Class IV. Construction Materials. This includes all construction items, installed equipment, and fortification and barrier materials such as: wood, wire, sandbags.	NONE
Class V. Ammunition. Includes all types of ammunition (chemical, biological, radiological, and special weapons) along with fuzes, detonators, pyrotechnics, and associated items.	A - air W - ground
Class VI. Personal Demand Items. This includes various nonmilitary health, comfort, and recreational items that are sold to personnel through the Marine Corps exchange system.	NONE
Class VII. Major End Items. This category includes all items that are end products and are considered principal items (e.g., tanks, vehicles, mobile machine shops, etc.).	A - air B - ground support material D - administrative vehicles G - electronics K - tactical vehicles L - missiles M - weapons N - special weapons
Class VIII. Medical/Dental Supplies. This category includes all medicines, drugs, major and minor pieces of equipment.	NONE
Class IX. Repair Parts. This includes repair parts for all nonconsumable end items. The only exceptions are class VIII supplies that have both end items and repair parts listed together.	A - air B - ground support material D - administrative vehicles G - electronics K - tactical vehicles L - missiles M - weapons N - special weapons T - industrial supplies
Class X. Non-military Programs. This includes all material used to support non-military/civic action programs such as agricultural and economic development. This category also includes all items which were not included in classes	NONE

Figure 1-3. Classes of Supplies.

documents than other CSS functional areas. Every unit and individual has some involvement in a functional area of supply. The six subfunctions of supply are *determination of requirements, procurement, storage, distribution, salvage, and disposal*.

(1) Determination of Requirements. In logistic/CSS terms, supply requirements are the needs for those

commodities essential to begin and sustain combat operations. The three types of supply requirements are routine, preplanned, and long-range.

(a) Routine Requirements. Routine requirements support normal daily operations. The CSSE supports routine requirements with available sources or through redistribution of assets within the MAGTF.

(b) Preplanned Requirements. Preplanned requirements pertain to support for special missions or operations. Since there is not enough time to obtain new resources during these types of operations, the CSSE supports these requirements with available resources or through redistribution of assets within the MAGTF.

(c) Long-Range Requirements. Long-range requirements involve unusual or high-cost items. If this type of support is not correctly determined and programmed in a timely manner, resources may not be available.

(2) Procurement. In the consumer phase, procurement relates to those supplies and items of equipment which the commander determines he needs to begin and sustain operations. The Marine Corps, like the other Services, will be given special funds for the purchase of Class VII (major end items) or be given the items themselves as an initial issue. From this point on, the acquisition of repair parts and maintenance supplies required for these items will be the responsibility of the Marine Corps. Most secondary items are purchased through stock funds (operating budget funds). Supply will procure these items through the General Services Administration (GSA), Defense Logistics Agency (DLA), or from civilian manufacturers and contractors for the Marine Corps. These items are then stored in warehouses for eventual purchase by using units.

(3) Storage. Storage is the safekeeping of supplies and equipment in a ready-for-issue condition. The storage function includes the process of receipting for supplies and equipment from a source and the responsibility for maintaining accurate inventory controls. Storage of class I, II, IV, VII, IX, and X items can usually be provided by the using unit. Packaged food supplies, clothing, construction materials, major end items and repair parts basically require simple shelter and security. However, perishable food supplies do require refrigeration. Most medical supplies stored at the force service support group's (FSSG's) medical logistics (MEDLOG)

(ammunition) supplies generally have some special or unique storage requirements because of their potential to be hazardous.

(4) Distribution. For the MAGTF, distribution is the issue of supplies and equipment to using units or to intermediate supply points for future issue. The distribution process has two steps. The first step is to requisition. A requisition identifies the user's needs and the priority of the requirement. The second step is to issue items. The supply activity issues supplies and equipment based on the commander's priorities and availability of the item.

(5) Salvage. The salvage process encompasses the recovery, evacuation, receipt processing, storage, reclamation, and reissue of material, to include captured material. Salvage is property that has some value beyond that of its basic material content, is not economically repairable, and can no longer be used for its intended purpose. Salvage collection points (SCPs) are established points which receive salvage items, usually from the disposal collection points, for reissue. SCPs are managed by detachments of the CSSE.

(6) Disposal. Disposal is the process of eliminating excess, obsolete, or unserviceable property. Disposal may include transfer, donation, sale, or abandonment. It does not include redistribution or reissue. Consumable supplies are disposed of by the local using unit. When a unit is deployed, controlled, serialized, and major end items must be sent to SCPs for disposal. In an exercise or contingency environment, vehicles used to bring in supplies can be used to send disposal items to the rear. Many times items such as clothing and canvas can be reclaimed by laundering and renovation. More durable items have scrap metal value, and certain items may contain radioactive and/or other controlled substances which must be forwarded through salvage channels to a property disposal unit.

have special considerations such as shelf life and/or refrigeration requirements. Class III (POL) and class V

Chapter 2

MARINE CORPS SUPPLY PROGRAMS

Current U.S. military strategy is directed towards a smaller, more flexible force capable of responding to a broad spectrum of regional contingencies, particularly in the third world littoral areas of the globe. U.S. forces stationed overseas will be reduced and the forward presence and response of the MAGTF will be enhanced. This “operational maneuver from the sea” (OMFTS) concept means that our war reserve materiel program must be able to support —

- Sustained operations ashore by the MAGTF.
- The conditions for the introduction of other forces.
- A successful continental operation, if required.

2001. War Reserves

a. War Reserve Materiel Requirement (WRMR). The WRMR represents the total requirement of War Reserve Materiel (WRM) to sustain forces in combat based on the requirements of the individual MEF units committed to distinct major regional contingencies. For these specific MAGTFs, the sustainment requirements for on hand supplies could vary by as much as 60 days per MEF. This requirement is based on Class VII principal end items (PEIs), mission-essential Class IV construction and fortification material, Class V ammunition, and OPLAN specific guidance received from the supported commander in chief (CINC).

b. The Marine Corps War Reserve Program. War reserves today not only represent sustainment stocks (supplies needed to support a particular operation), but the entire comprehensive sum of materiel needed to train, equip, and sustain our forces in their daily operations. WRM stocks consist of the peacetime operating stocks (POS), training stocks (TRNG), core war reserves (CWR), and the contingency retention war reserves (CRWR). This breakdown is illustrated in figure 2-1.

(1) Peacetime Operating Stocks (POS). POS are everyday Marine Corps operating supplies. The major/PEIs and secondary items of POS are allocated to the various tables of equipment (T/Es) (FMF and supporting establishment). T/Es represent the table of authorized material (TAM). The TAM consists of three types: I - Required Items; II - Local Allowances; and III - Environmental Items. Type I are required items such as 782 gear and weapons. Type II are local allowances authorized by commanders such as encampment and garrison equipment allowances to be on hand for unit/commands to support their assigned missions. Selected units are also authorized TAM Type III environmental items such as cold weather, desert, and tropical equipment. A more complete discussion on various T/E allowances and their maintenance can be found in MCO 4400.150 (*Consumer Level Supply Policy Manual*) and MCO 4400.172 (*T/E Allowance Change Procedures*).

(2) Training Stocks. Training stocks are those secondary consumable items (normally classes I, II, V [W], and IX) that are procured to support the programmed annual training requirements of the Marine Corps. Upon crisis or mobilization, the training stocks will be

Figure 2-1. Marine Corps WRM.

used to support the increased training levels of active/ reserve units prior to their deployment.

(3) Core War Reserves (CWR). CWR makes up both the accompanying supplies and the resupply for MAGTFs. Thus, CWR provides the fundamental sustainment capability to the MAGTF. This category of supplies may be held in stores, aboard maritime prepositioned ships (MPS), or with integrated materiel management (IMM) activities. For purposes of control, CWR is further divided into the categories of starter and swing stocks. **Starter stocks** are war reserve materiel stocks prepositioned in or near a theater of operations to last until resupply at wartime rates is established. These supplies are normally held by the forces aboard prepositioned ships. **Swing stocks** are war reserve materiel

stocks prepositioned ashore or afloat for meeting war reserve requirements of more than one contingency in more than one theater of operations.

(4) Contingency Retention War Reserves (CRWR). CRWR are supplies and equipment already in the military inventory that exceed the core war reserve materiel requirement. They represent a stock retention objective only and typically contain items not currently being manufactured or ones that would be procured from a dedicated foreign source. CRWR are used for force reconstitution, expansion, or war reserve support to allies.

(a) Reconstitution. As stockage objectives are met in CWR, assets may become excess. Before these stocks are disposed of, a determination will be made

if they are viable for storage in support of the planned reconstitution force. The Marine Corps may focus more on reconstituting individual units, vice a whole force, which would augment or reinforce the capabilities of existing MAGTFs.

(b) Norway Airlanded MEB Stocks (NALMEB). Previous agreements between the United States and Norway, have established prepositioned stocks (NALMEB) which are part of the CRWR. These stocks are used for regional contingencies and are maintained at the same level as maritime prepositioning force (MPF) assets in the CWR, to include necessary modernization.

(c) War Reserve Stocks for Allies (WRS-A). WRS-A is a DOD program that the Marine Corps supports for specific Allied countries using USMC-owned stocks. Its primary focus is to provide for an initial sustainment capability for the Allied country where the stocks are stored. These stocks can be, but are not normally, used for MAGTF support.

2002. Operational Readiness Float

The operational readiness float (ORF) contains PEIs of equipment maintained to ensure continuous readiness of the FMF. ORF assets are managed separately from WRMR but may be applied against WRMR deficiencies during routine operational deployments and in response to contingency commitments of deployed units. The ORF allowances are CMC-directed and based on formal T/E densities and on replacement, maintenance, and historical factors. The maintenance battalions of FSSGs and logistic

bases hold ORF equipment. ORF assets held by the FSSG belong to the force commander who approves withdrawal and use of these assets based on operational needs of units. For further information regarding the ORF program, refer to MCO P4400.150.

2003. Repairable Issue Point

The repairable issue point (RIP) is the focal point for management of repairable items. Its operation is described as a pool of repairable components located in an area to ensure immediate availability for consumers. It is operated on a direct exchange (unserviceable item exchanged for a serviceable item) basis. The RIP serves as the intermediary between consumer and supporting repair facilities. These organizations are approved by HQMC and given their own activity address code. Figure 2-2 shows the structural relationship of the RIP within the Marine Corps. There are two classifications of RIPs — *main RIPs* and *using unit issue points*.

(1) Main RIPs. The main RIPs are operated to support multiple major commands and categorized as intermediate level supply accounts. Main RIPs are authorized and established by HQMC to support particular units and maintenance activities.

(2) Using Unit Issue Points. The using unit issue points are operated to support a single unit and categorized as consumer-level supply accounts. They are established, as required, and are responsible to the main RIP. Figure 2-3 shows the relationship between the main RIP and using unit issue points.

Figure 2-2. RIPs Within the Marine Corps.

Figure 2-3. Main RIP and Using Unit Issue Point.

Chapter 3

MARINE CORPS SUPPLY SYSTEM

The Marine Corps supply system (MCSS) provides the MAGTF commander with the necessary materiel for conducting combined arms operations. As a result, supply management and readiness must be emphasized at all levels of command to ensure an effective, responsive, and flexible supply program. The MCSS is often considered the “cornerstone” for all support activity. An example of the broad base of supply support is the sophistication of combat-essential equipment. This sophistication has increased the emphasis on equipment readiness to support mission functions. As a result, the supply system has become a vital link in a commander’s maintenance program.

Section I. Marine Corps Supply System Management Elements

The mission of the MCSS is to provide and manage those items necessary for the equipment, maintenance, and operation of the FMF and supporting establishments. When MAGTFs are deployed, the MCSS makes every attempt to forecast requirements so that necessary on-hand stocks are maintained. The availability of these stocks is often reduced due to shipping constraints, extended distances from resupply points, and a lengthened administrative time to process supply requisitions. Depending on situations and conditions, the requisition process may be prolonged if the actual source of supply changes. Whether the supply system is working to provide repair parts or initial issues of new equipment, reconciliation of the supply system is necessary. Special emphasis should be placed on supply requisitions that have adverse impacts on the mission. *The customer should never assume his requisitions’ status is being monitored.*

The MCSS consists of three essential managerial levels — Headquarters Marine Corps (HQMC), the in-stores, and the out-of-stores functional elements. The systems extend from HQMC down to the user. Concepts, policies, and guidance emanate from HQMC; distribution is performed by the in-stores system; and the ultimate user is the out-of-stores element.

3101. Headquarters Marine Corps

a. The Commandant of the Marine Corps (CMC). The CMC is directly responsible for the total performance of the supply system, including requirements, efficiency, readiness, and operation. Assisting the CMC with these responsibilities is the function of the Headquarters staff.

b. The Deputy Chief of Staff Installations and Logistics (DCS I&L). The DCS I&L is the principal staff advisor to the CMC in supply matters and is responsible for management of the supply system. The DCS I&L is also the principal logistician on the general staff of the CMC. He is responsible for logistics and CSS policies, materiel program objectives, and programs relating to materiel readiness. He plans and establishes requirements

for research and development efforts in the area of logistics and combat service support and is responsible for the ground materiel equipment required for support of operations.

3102. The In-Stores Element

The in-stores element includes those assets and management functions pertaining to financial and/or centralized item accountability and control. The in-stores element also serves as an initial distribution point of finished supplies for users. The in-stores element is managed under the Marine Corps Unified Materiel Management System (MUMMS).

a. MUMMS. This system consolidates management functions normally associated with the MCSS into a single integrated system. It uses advanced management technology and automatic data processing and incorporates all standardized requirements of the Department of Defense (DOD). The system is compatible with interfacing systems of the Defense Logistics Agency (DLA), General Services Administration (GSA), and other military Services through the use of standardized formats. MUMMS operational policy emanates from HQMC under the auspices of DCS I&L. MUMMS organizational support consists of the DSSC activities and a single ICP located at one of the two Marine Corps logistics bases (MCLBs).

(1) Direct Support Stock Control (DSSC) Activities.

Marine Corps installations operate DSSC outlets. These outlets are operated as a direct support function for the in-stores supply system of host and tenant units alike. The accounts maintained through these outlets are self-service centers, retail clothing outlets, subsistence accounts, ammunition accounts, and petro- leum/oils and lubricant accounts. The stocks of these outlets belong to, and are under technical control of MCLB, Albany, and the DSSC subsystem in the MUMMS.

(2) Inventory Control Point (ICP). MCLB Albany, Georgia serves as the Marine Corps' ICP, the central supply processing point, and the technical direction agency for the operation of MUMMS. As such, this logistics base controls the actions required in the acquisition, availability, and the disposal of materiel assets in the supply system. The Commanding General, MCLB, Albany, is responsible for the inventory control of all centrally managed and centrally procured items (other than subsistence and commissary items) under the

Marine Corps stock fund, plus the majority of appropriation stores' account items (excluding ground ammunition).

b. Marine Corps Logistics Base (MCLB). There are two logistic storage activities in the Marine Corps stores distribution system — MCLB Albany, Georgia, and MCLB Barstow, California. These activities are geographically located nearby the FMF units they serve and are able to support deployed units from either coast of the United States. Each storage activity is a part of the base in which it is located. The base commander exercises all aspects of command over the storage activities, except in the area of technical direction for the entire system, which is under the cognizance of the Commanding General, MCLB, Albany.

(1) Responsibilities. MCLB Albany, Georgia and MCLB Barstow, California oversee the supply functions for the Marine Corps. They are also responsible to DCS, I&L for —

- Implementing war reserve policies/procedures.
- Directing the FMF in the computation and validation of war reserve requirements in the stores system.
- Managing the storage, maintenance, care in-stores, and physical distribution of all war reserve stock.
- Monitoring the automatic data processing (ADP) system and requisitioning supplies.
- Monitoring the operational requirements requested by the MEFs against in-stock assets and Marine Corps stocks held by the IMM activity.
- Maintaining/monitoring Class VII major end items and their fifth echelon (depot level) repairs.
- Management control for the DOD CWR supplies for which the Marine Corps is the responsible integrated materiel manager.
- Coordinating with the DLA all transportation requirements for movement of in-stores WRM to designated ports of embarkation (POEs)/stations of initial assignment (SIA), as appropriate.

(2) Functions. The general functions conducted at these storage activities are warehousing, materiel

management customer service, physical distribution control, and complete management of locally controlled items. The remote storage activities function primarily in direct support of the FMFs by providing depot level repair and rebuild, and by serving as the principal storage sites for prepositioned mobilization stocks of both major and secondary items. In addition, they stock and issue items for which the Marine Corps is the integrated materiel manager. In general, IMM responsibility is assigned to the service or agency which purchases the most of a certain item (e.g., U.S. Army is the integrated materiel manager for M-1 tanks, USMC is the integrated materiel manager for LAVs/AAVs). Appendix B lists some of the IMM activities that the Marine Corps uses.

3103. The Out-of-Stores Element

The third portion of the MCSS is the out-of-stores element. It consists primarily of the assets that have been issued to the user, i.e., units of the FMF (divisions, aircraft wings, CSS support units) and non-FMF (posts, camps, stations, and recruiting and reserve districts).

a. Materiel Control. Materiel in the out-of-stores element is not centrally managed except for those stocks of the FMF that are managed by the Supported Activities Supply System (SASSY). Stockage objectives are based on actual usage or on mandatory T/E allowances published for each unit by HQMC. Currently in the FMF, all phases of supply accounting (ammunition excepted) at the organic or using unit are performed under the rules of the SASSY. This system serves to eliminate most of the manual accounting by the use of a centralized, computer management system. However, the Marine Corps is currently working to replace SASSY with the Asset Tracking for Logistics and Supply System (ATLASS). See chapter 10 for information on the ATLASS.

b. Intermediate Supply Support. Within each FMF are intermediate supply support elements called Supported Activities Supply System Management Units (SMUs). They are mechanized in their accounting function, but they are not mobile as an entity and do not

usually deploy with major troop units. The SMUs stock the materiel necessary to support the major units for prescribed level of operations. These intermediate supply support elements perform their own inventory accounting through standard computerized procedures controlled by HQMC. The using units requisition materiel from the SMU's general accounts (i.e., the account which controls the inventory for the geographical region that the SMU supports), and their demand is either filled, back-ordered, or procured locally by open purchase contracts, through interservice support agreements (ISSA), or passed to the integrated materiel manager. SMUs are the connecting link between unit level supply accounts, the MCLBs, and the IMM activities.

c. Materiel Requests. The interrelated actions produced by a customer's request for materiel illustrate the overall operation of the out-of-stores system. Essentially, the using unit/customer places demands (requisitions) on the system in two ways — the *informal (non-requisition) demand* and the *formal demand conforming to the Military Standard Requisition and Issue Procedure (MILSTRIP)*

(1) Informal Demands. These demands are processed within the DSSCs and through outlets such as the self-service center or retail clothing store using a charge card. Informal demands are also placed on the maintenance float system employed by the Marine Corps, whereby unserviceable but repairable components are exchanged for serviceable assets.

(2) Formal Demands. These demands generally start as materiel requests by using units forwarded to the SMU. The SMUs submit formal requisitions directly to the appropriate integrated materiel manager via the automatic digital network, if available, or by mail or message. When the integrated materiel manager is the Marine Corps, the logistics base processes the requisition against the assets of the in-stores system and transmits a materiel release order directing a storage activity to release the materiel. If the materiel is not in stock, the requirement is placed on back-order and procured from a commercial source for direct delivery to the requisitioner. Procurement priority is in accordance with the urgency of the priority assigned to the requisition.

Section II. MCSS Within FMFs and Bases

In addition to HQMC direction and MCLB overview, the MCSS is comprised of warehouses, SMUs, and self-service stores residing in the major bases/within the FSSGs. These warehouses are the using unit's first step in obtaining their required supplies. The warehouses' usual stocks include class I, II, IV, VIII, and IX items. Major end items (class VII) are ordered by the units directly from the MCLBs. Class V ammunition and POL, because of their combustible/hazardous nature, are stored at specialized sites on bases. Class VI personal demand items are those which are sold through base exchanges, ship stores, and tactical field exchanges (TFE). Most personal demand items are not stocked by the MCSS, but are ordered, stocked, and sold by the morale, welfare, and recreation (MWR) program. During deployment, the MWR/exchange system will support the MAGTF with class VI supplies either as a gratuitous issue of basic health and comfort or purchasable goods in the exchanges/TFEs.

Chapter 4

SOURCES OF SUPPLY

After anticipated sustainment requirements have been determined for a MAGTF, they are sourced from available assets within the MEF or within the stores system. Sustainment shortfalls which cannot be sourced from in-Force or in-stores assets are directed toward interservice support, North Atlantic Treaty Organization (NATO), or host nation support (HNS) resources. The MAGTF should use nonorganic sources to the fullest extent possible in order to conserve its organic logistic and supply capabilities.

4001. Interservice Support

Interservice support is support provided to the MAGTF by another Service. This is a primary source of external support for the MAGTF commander. However, the MAGTF commander cannot expect to receive support from other Services without first negotiating in peacetime the support that will be required in time of war. Interservice support is arranged through memorandums of agreement (MOAs), memorandums of understanding (MOUs), and interservice support agreements (ISSAs). MAGTF supply and logistic planners must be aware of MOAs, MOUs, and ISSAs already in effect and include them in their supply/logistic planning.

- **Interservice Support Agreement (ISSA).** An ISSA is a formal, legal, and binding funding document that specifies actions and responsibilities to be performed by the Service provider and the receiver.
- **Memorandum of Agreement (MOA).** An MOA is an “action officer precise” document that details the same actions and responsibilities as an ISSA, but is not considered a funding document.
- **Memorandum of Understanding (MOU).** An MOU is a document which specifies actions and responsibilities to be performed by the provider and receiver but only in general terms. An MOU should be backed by an ISSA.

a. Dominant User Concept. A dominant user is generally the principal peacetime consumer within a geographical area that is designated to plan for, provide, or arrange common logistic support to U.S. forces in peacetime and times of war. MAGTFs with supply and logistic planning requirements for dominant users should provide clear and complete common logistic support requirements in advance. The updating and validation of these requirements occur every two years by the MAGTF.

b. Common-Item Supply Support. Common-item is defined as any item of materiel which is required for use by more than one activity. Specified component commanders are usually assigned common-item supply support to all U.S. Forces and other U.S. agencies in a region. Generally this support involves classes I, III (packaged), V, and VIII supplies. The MAGTF must establish direct liaison with the prescribed component/ agency to ensure that required common-item supply support is received. The component/agency will furnish the MAGTF with implementing plans, programs, and operating instructions to provide common-item support required.

c. U.S. Navy Support. The Chief of Naval Operations (CNO) provides materiel support to Marine units for Navy furnished materiel, equipment, and ammunition through the various systems commands. These commands formulate and issue policies, determine methods of procurement, and perform contracting functions and production, procurement, and distribution of naval materiel,

equipment, and ammunition that are under CNO cognizance.

(1) Aviation and Medical Support. Included throughout the Marine Corps are supplies provided by the Navy used to provide medical/dental support and support for Marine Corps aviation. See chapter 7 for additional information concerning U.S. Navy medical/dental support. Likewise, information concerning support for Marine aviation is located in chapter 8.

(2) Naval Construction Force (NCF) Support. MAGTFs are generally assigned NCF personnel to support any military construction requirements. A MEF-sized MAGTF is supported by a naval construction regiment (NCR). Based on the Navy policy and agreements between the two Services, the Marine Corps is responsible for logistic support of an NCF beyond its unilateral accompanying supplies level. The MCSS is primarily responsible for resupply of these units. However, this supply responsibility begins when the supporting NCF units and their equipment have been marshalled at the port of embarkation. Further information on NCF support/use can be found in FMFM 13-4, *Naval Construction Force Support of MAGTF Operations*.

(3) Religious Support. Religious services support to the Marine Corps is also provided by the Navy. It is sustained in the same manner as medical/dental support. For more information, refer to FMFM 3-61, *Ministry in Combat*.

d. U.S. Army Support. The theater Army headquarters (TAHQ) manages U. S. Army CSS operations. The TAHQ will establish priorities, assign missions, and allocate resources per the theater Army's concept of operations and the supported commander in chief's (CINC's) guidance. The TAHQ uses a materiel management center (MMC) to manage supply and maintenance. The theater Army commander will establish one or more theater

Army area commands (TAACOM) that will be supported by the theater Army materiel management center (TAMMC). MAGTF supply and logistic planners will need to make liaison with the supporting TAACOM(s) when the Army is responsible for providing any combat service support to the MAGTF.

4002. NATO/Host Nation Support

NATO and HNS resources should be used to enhance sustainability and support of MAGTFs. However, these resources should not be a total substitution for essential logistic planning and for combat service support. The MAGTF supply and logistic planners must have a broad perspective that encompasses critical interactions with NATO and HNS agencies. Once again, MAGTFs should use these resources to the fullest extent so that organic logistic and supply capabilities are conserved for employment purposes. Specific agreements are classified and can be found in the regional logistic support guide.

4003. Maritime Prepositioning Force

The Maritime Prepositioning Force (MPF) concept reflects brigade-sized unit deployment/MEF employment utilizing Military Sealift Command (MSC) chartered ships to preposition necessary supplies and equipment. Several MSC chartered ships of various capabilities deploy to form a single maritime prepositioning ships squadron (MPSRON). Equipment and supplies administratively embarked in each MPSRON are based on the T/E, individual materiel readiness lists, and/or the tables of allowances for units assigned to the MPF's geographical responsibility. Each MPSRON is designed to sustain one MEF (Fwd)-sized unit for 30 days in most classes of supply. Prior to employment, the MPF fly-in echelon comprised of personnel and essential air transportable equipment deploy to an airfield near a port or beach where ships of the MPSRON can be offloaded. When maritime prepositioned equipment and supplies (MPE/S) are unloaded, they are issued to the arriving units and personnel of the MAGTF.

Chapter 5

ORGANIZATION OF THE CSSE FOR SUPPLY OPERATIONS

The combat service support element (CSSE) is the MAGTF element which is task organized to provide a full range of combat service support to the MAGTF. See figure 5-1. The supply responsibilities for a CSSE include organic supply support for itself and direct/general supply support for the MAGTF. CSSEs vary in size from a combat service support detachment (CSSD) to a FSSG. Normally, there is only one CSSE in a MAGTF.

The CSSE/ACE commanders deal with the tactical and operational phases of supply which impact on the sustainability of the MAGTF. The CSSE commander and the MAGTF staff work together to make recommendations to the MAGTF commander on the control of supply support, distribution methods of supplies, and the replenishment systems (pull/push systems) in the supply operation. See chapter 7, *Supply Support Ashore*. They also initiate the action for supply support based on the MAGTF commander's decision.

5001. Types of MAGTF CSSEs

The designation, size, and composition of the MAGTF CSSE is a function of the mission, size, and composition of the MAGTF it supports. There are five basic types of CSSEs — *force service support group*, *combat service support group*, *Marine expeditionary unit service support group*, *combat service support detachment*, and *landing force support party*.

a. Force Service Support Group (FSSG). The FSSG is a permanently structured command whose mission is to provide combat service support to the MEF. Although it has eight permanent battalions, task organizations from those battalions normally support MEF-sized MAGTF operations over a large geographic area. As the CSSE of the MEF-sized MAGTF, it supports the MEF command element to include the surveillance, reconnaissance, and intelligence group (SRIG); a ground combat

element (GCE) comprised of one Marine division; and an aviation combat element (ACE) comprised of one Marine aircraft wing (MAW).

b. Combat Service Support Group (CSSG). The CSSE is task-organized from the permanent organization of the FSSG. Personnel and equipment are assigned to it from permanent battalions of the FSSG. This support group is organized to provide general and direct combat service support to designated brigade-sized units. If required, the brigade-sized service support group may be augmented by assets from the division and/or wing.

c. Marine Expeditionary Unit Service Support Group (MSSG). The MSSG is the task-organized CSSE of the MEU. Like the MEF (Fwd)-sized support group, the MSSG draws its personnel and equipment from the organic battalions of the FSSG. The MSSG will provide combat service support to the MEU. It may also contain assets from the division and/or the wing.

Figure 5-1. CSSE in the MAGTF.

d. Combat Service Support Detachment (CSSD). A CSSD is task organized from a combination of sources. Its primary tasks are to rearm, refuel, and provide limited maintenance repair/supply for the supported force. CSSDs are created by the CSSE to meet the specific CSS mission at hand. For example, a CSSD usually supports a regiment, but one may provide direct support to a battalion conducting independent operations or to an aircraft squadron operating at a remote airfield. CSSDs can also be designated as mobile CSSDs. Mobile combat service support detachments (MCSSDs) are detachments with capabilities that mirror those of the CSSD but on a more reduced scale. These CSS elements are mobilized in order to be flexible enough to support the maneuvering element.

e. Landing Force Support Party (LFSP). This is a temporary organization that is normally dissolved when the CSSE phases ashore. The mission of the LFSP is to support the landing and movement of troops, equipment, and supplies across the beaches and into helicopter landing zones. The nucleus for this task organization is the landing support battalion, FSSG. The organization and mission of the landing force dictate the structure of the LFSP. Marine Corps elements of the LFSP may include units/detachments from the GCE, the ACE, and the CSSE. Naval elements may include detachments from the cargo handling and port group (CHAPGRU) and beach master unit (BMU).

Installations

Operational logistic installations are the source of most combat service support for the MAGTF. These installations are physical locations either aboard ship or ashore. Their number, location, and specific capabilities are dictated by the concept of combat service support which, in turn, is based on the MAGTF mission and concept of operations. The MAGTF's concept of operations must address the requirement to defend and protect these installations and facilities. The major types of CSS installations include the *force combat service support area*, *combat service support area*, *beach support area*, *landing zone support area*, *repair and replenishment point*, and the *forward arming and refueling point*.

a. Force Combat Service Support Area (FCSSA). At the MEF level, the CSSE establishes a FCSSA near a beach, seaport, and/or an airfield. From this location, which might contain the CSSE commander's command post, the FCSSA supports other CSS installations and provides greater support capabilities to the MAGTF than those available at forward installations. All six functional areas of combat service support, or any combination thereof, is resident within the FCSSA to include dumps and issue points for rations, fuel, ammunition, and the water. The central supply capability of the

5002. Combat Service Support

FSSG is normally retained in the FCSSA. CSSE commanders usually hold their recovery assets at the

FCSSA/CSSA where they can achieve a balance between economy and responsiveness.

b. Combat Service Support Area (CSSA). The CSSA is a forward support installation having less than the full spectrum of CSS capabilities. It provides minimum essential support to the elements of the MAGTF in any one, all, or any combination of the six functional areas of combat service support. The CSSA composition (dumps, issue points, etc.) will be determined by the CSSE commander based on the MAGTF concept of operations. Additionally, the CSSA will be supported by the FCSSA, when established.

c. Beach Support Area (BSA). The BSA is normally one of the first CSS installations established ashore during an amphibious operation. Established by the LFSP to facilitate initial throughput requirements, the BSA may expand to include the full spectrum of CSS functions or be designated as a CSSA. Also, it may eventually be dissolved or become the FCSSA. In some situations, the BSA may be the only CSS installation ashore; however, in other situations, it may be one of several. As with the CSSA, the BSA composition (dumps, issue points, etc.) will be determined by the CSSE commander based on the MAGTF concept of operations.

d. Landing Zone Support Area (LZSA). The LZSA is a CSS area established to support helicopterborne operations. It is normally developed from an existing helicopter landing zone (HLZ) which was established by a helicopter support team (HST). A HLZ is established when a CSS buildup beyond the helicopterborne unit's basic load of supplies and ammunition or organic CSS capabilities is required. When a CSS buildup in a HLZ commences, the control of the HLZ will normally transition from the helicopterborne unit's HST to a designated CSS unit and the HLZ is redesignated a LZSA. Although it can be expanded into a full-fledged CSSA, it is most often a short-term installation with limited capabilities. A LZSA normally contains dumps only for rations, fuel, ammunition, and water.

e. Repair and Replenishment Point (RRP). A CSSD normally establishes a RRP to support mechanized or rapidly moving forces. RRP's may be either a

preestablished point or a hastily selected point to rearm, refuel,

or to provide repair services to the supported force. Depending on the mission, a CSSD may establish multiple RRP's. Although the main body of the CSSD usually follows in trace of the advancing force, RRP's are normally in forward areas near the supported units' trains. The CSSD can also select RRP's further to the rear of the advancing force where they themselves can be resupplied. The handling of supplies should be minimized by directing vehicles from the CSSA in the rear to make deliveries directly to the users at forward RRP's.

f. Forward Arming and Refueling Point (FARP). The purpose of the FARP is to permit rapid refueling and rearming of combat aircraft. It is a temporary facility that is organized, equipped, and deployed by an ACE commander. The FARP is normally located in the main battle area closer to the area of operations rather than the aviation unit's CSSA. This location in or near the main battle area provides fuel and ammunition necessary for the employment of aviation maneuver units in combat.

5003. Supply Battalion, FSSG

a. Mission. The supply battalion (SupBn) is assigned the mission of providing general supply support (less bulk fuel and Navy-funded stock/program sustainment) for MAGTF operations. In fulfilling this mission, it accomplishes the following tasks:

- Provides supply support management for the FSSG and other MAGTF elements beyond the organic capabilities of supported units. This support includes the following stock control functions:
- Management of the MAGTF's special allowance training pool items and initial issue provisioning assets (e.g., contingency training allowance pool [CTEP]).

- Management of the MAGTF's secondary repairables through the repairable issue point (RIP) (e.g., transmissions and engines).
 - Technical management, data research, customer service, and general assistance to the MAGTF for supply matters.
 - Supply status management reports for the MAGTF, as required.
 - Interface with the MAGTF and the financial/maintenance management systems.
 - Provides contracting services and cross-servicing functions (i.e. other service/host nation) for supported units, as required.
 - Provides warehousing capability for the MAGTF.
 - Accounts for class I, II, IV, VII, VIII, IX, and X supplies; initial issue provision assets; and authorized levels of war reserves.
 - Provides subsistence support to the MAGTF, to include operation of class I subsistence dumps for storage and issue.
 - Receipts, stores, and forwards packaged class III supplies.
 - Receipts, stores, issues, and accounts for class V items.
 - Provides technical assistance in receipt, storage, assembly, and provisioning of special ordnance.
 - Receipts, stores, issues, and provides organizational (2d echelon) and intermediate (3d and 4th echelon) maintenance support for class VIII supplies and equipment.
 - Provides intermediate level shop stores/issue points for the MEF.
 - Procures items held by IMM activities.
- b. Organization.** The SupBn consolidates the intermediate supply capabilities of the FSSG and task-organizes commodity-oriented detachments to support MAGTF requirements. These functions are organized into four companies. See figure 5-2.
- (1) Headquarters and Service Company (HQSVC) .** The company is organized to plan, coordinate, and supervise the command support functions of the battalion and to provide specified general support supply functions for MAGTFs. It is also structured to facilitate task organization of detachments for operations conducted by the battalion in support of MAGTF operations.
- (2) Supply Company.** The supply company is structured to provide centralized supply control and management for the SupBn, FSSG, and the MAGTFs through the SMU which is capable of accounting for SASSY. The officer-in-charge of the SMU directs and controls external supply support and internal SMU operations. Data processing support is provided by the local regional automated services center.
- (3) Ammunition Company.** The ammunition company is organized to plan, coordinate, and supervise class V

Figure 5-2. Supply Battalion, FSSG

support functions. It is also structured to facilitate task organization of detachments for operations conducted by the supply battalion in support of the MEF, two MEFs forward, or any combination of smaller MAGTFs.

(4) Medical Logistics Company (MEDLOG). The MEDLOG company is structured to provide a centralized supply and maintenance facility for class VIII supplies and equipment. See figure 5-3. The supply platoons are capable of centralized operations under the medical logistics company or decentralized operations in three balanced units in support of MAGTFs smaller than a MEF. The equipment repair platoon is capable of in-store maintenance of medical and dental equipment of the MAGTF and operating a centralized repair site or through decentralized, on-site maintenance support teams.

The medical logistics company performs the following tasks:

- Provides general supply support, to include establishment/operation of class VIII supply points and acquisition, receipt, and issue of the MAGTF's class VIII material.
- Provides for the receipt, storage, and issue of class VIII supplies in support of MAGTF medical and dental units; intermediate maintenance support for biomedical/technical medical and dental equipment; and organizational maintenance support for MAGTF medical/dental equipment.
- Provides organizational (1st and 2d echelon) and intermediate (3d and 4th echelon) maintenance support for the MAGTF's class VIII equipment.
- Provides support for the packing, preserving, storage, and maintenance of class VIII resupply.
- Provides technical assistance to MAGTF medical/dental units for the maintenance, inventory, and quality control of class VIII supplies.

Figure 5-3. Medical Logistics Company.

Chapter 6

SUPPLY SUPPORT FOR AMPHIBIOUS OPERATIONS

Supply support during amphibious operations basically involves the process of supplying and resupplying the assault echelon (AE) and assault follow-on echelon (AFOE) as transition from sea to shore occurs. Each ship participating in offload operations requires a well-conceived offload/discharge plan to ensure sustainment is available as required. The conduct and sequencing of the offload will, in many cases, be constrained by the availability of offload systems. At anchorage, self-sustaining ships are constrained by anchorage locations and lighterage availability. Non-self-sustaining ships will be further constrained by the availability of specialized shipping or systems for offload. At the beach, cargo movement from both self-sustaining and non-self-sustaining ships will be constrained by the number and availability of beach offload points.

6001. Landing Force Supplies

Landing force supplies are the supplies and equipment in the AE and the AFOE of an amphibious task force (ATF). They include the initial supply support needed before arrival of resupply in the amphibious objective area (AOA). These are usually the supplies which were made organic to the MAGTF during pre-deployment planning. Landing force supplies include *basic loads*, *prepositioned emergency supplies*, and *remaining supplies*.

a. Basic Load. The basic load is the Force's initial source of supply support. Basic loads are the types and quantities of supplies which the commander directs his unit to carry for a specific operation. The amount is usually expressed as days of supply or days of ammunition (DOS/DOA) and may change each day as tactical situations dictate. The basic load should not exceed organic transportation capabilities or what is necessary for combat operations until replenishment becomes available.

b. Prepositioned Emergency Supplies. The commander uses prepositioned emergency supplies for replenishment early in the ship-to-shore movement. These

supplies are available on-call for immediate delivery to units ashore. This category of supplies is broken down into floating dumps and prestaged helicopter-lifted supplies.

(1) Floating Dumps. Floating dumps normally consist of selected pre-packaged class I, III, V, and VIII supplies. These supplies are established to support the surface assault elements and are staged aboard landing craft or assault amphibious vehicles for immediate on-call delivery to units ashore. The primary control officer dispatches floating dumps to the beach in response to requests from forces ashore via the tactical-logistical group (TACLOG). The landing craft/assault amphibious vehicles are unloaded ashore and the supplies are used to expand dumps in the beach support area (BSA). The commander dissolves floating dumps once there are enough supplies ashore to meet critical needs.

(2) Prestaged Helicopter-Lifted Supplies. The commander uses prestaged helicopter-lifted supplies primarily in support of helicopterborne units, but can use them to support surface assault units, if required. These are prepackaged units of selected high priority supplies positioned aboard ships for helicopter transport. Like floating dumps, these supplies are available on call for

units ashore. Requests for this category of supplies are made from the unit to the TACLOG. Any of these supplies remaining after the initial stages of assault are used to expand supply dumps ashore. Both prestaged supplies and floating dumps may be assigned landing serial numbers to help identify and deliver specific supplies.

c. Remaining Supplies. The remaining supplies are all the MAGTF supplies not included in the basic load or prepositioned emergency supplies. They constitute the major portion of the supplies transported to the AOA in the AE and the AFOE. When the tactical situation permits, the commander uses some of these supplies to build dumps ashore. The CSSE unloads the bulk of the remaining supplies during the general offload.

6002. Resupply

Resupply are those supplies transported to the AOA after arrival of the AE and AFOE. Resupply includes such sources as host nation and inter-Service support, supplies aboard other ships or aircraft in an on-call status outside the AOA, ship or aircraft on fixed delivery schedules, and CINC-directed common item support. Additional information concerning landing force operations is contained in Joint Publication 3-02, *Joint Doctrine for Amphibious Operations*.

6003. Ground Supply Operations For Amphibious Operations

As the objective is secured during the amphibious operation, the general offload process begins. This offload process is necessary to allow for the stationing of supplies closer to the consumer. This in turn allows for a faster response time to consumer's needs. Certain units are placed ashore to ensure that the offload site is efficiently and properly organized for offload, storage, flow of requests, and the distribution of supplies.

Figure 6-1 depicts the management and execution of ground supply operations during the amphibious assault. Although the agencies are different and the capabilities less, the process closely resembles CSSE support operations once it is established ashore. This transition is gradual; as combat forces move inland, more CSS capability lands.

a. The Landing Force Support Party (LFSP).

The LFSP provides personnel who land with the assault elements of the GCE. The LFSP advance party lands in later waves and establishes a link between the liaison personnel and the TACLOG on the primary control ship for each beach. After the LFSP lands, it establishes the beach support area with dumps for essential classes of supply.

b. Landing Zone (LZ) Buildup. During helicopter-borne operations, a helicopter support team (HST) provides support to units landing in each LZ. When the operation plan calls for a CSS buildup in the LZ, the landing support company provides the nucleus for the HST. When there is not a CSS buildup, the HST comes from the helicopterborne force.

c. The Tactical-Logistical Group (TACLOG).

The landing force establishes a TACLOG at each level of the Navy ship-to-shore control organization. The purpose of the TACLOG is to advise Navy control groups of landing forces' requirements for the waterborne and helicopter-borne ship-to-shore movements. The TACLOG monitors scheduled unloading and helps the Navy control organization with movement during scheduled waves, on-call waves, and nonscheduled serials. The personnel in the TACLOG must have a thorough knowledge of the unit's tactical and administrative plans.

d. Requesting Supplies. Assault units submit requests for supplies to either the shore party group or helicopter support teams. The teams relay the requests to the TACLOG over shore party or HST control nets. As an alternative, the assault element may pass requests directly to the TACLOG over a tactical net. However, requesting supplies directly from the TACLOG over tactical nets should only be done for emergencies so that there is no interference with tactical message traffic or during failure of other communications. When the tactical net is used, the TACLOG should alert the shore party team or HST. They, in turn, must prepare to receive the supplies or equipment. The warning order should identify the requesting unit and the quantity of supplies or equipment needed ashore.

e. Shore Party Group Landing. After the shore party group lands, it establishes dump sites inland and controls the selective unloading of supplies, limiting the effort to high priority serials. Shore party group and HST personnel unload, sort, store, safeguard and issue supplies. These personnel then distribute supplies directly to the

Figure 6-1. Ground Supply Operations During Amphibious Assault.

consumer using the fastest available means. The emphasis is on responsiveness, even at the expense of economy and accountability.

f. Critical Item Requisition. If a critical item is not on hand, the shore party or HST notifies the TACLOG by radio. The TACLOG first locates the item and then coordinates transportation with the Navy control organization.

g. Unscheduled Supplies Movement. Before the Navy assigns transportation to move unscheduled sup-

plies ashore, the TACLOG must determine the impact on the tactical situation. It must assess the priority against the priority for landings scheduled and on-call serials. The landing force commander or his representative makes the

final decision on all changes to landing priorities. All other agencies must respond to his decisions.

h. Supply Distribution. The shore party team or HST receives the supplies and distributes them to the user. Delivery by helicopter can be direct from the ship or from the beach if landing craft brought the item ashore. For additional information, refer to FMFM 4-3, *MAGTF Landing Support Operations*.

Chapter 7

SUPPLY SUPPORT ASHORE

Once supply support is transferred ashore, there must be an established process for the flow of supplies from the appropriate source to the consumer. The beginning of the supply flow is when consumers submit requisitions. The consumers must know at what point to order supplies so that they do not have shortages. The consumer must also order the correct quantity of supplies to prevent excess of on hand supplies which hinders mobility. Likewise, the supply sources (CSSE/CSSD) ashore will have to establish the means of transporting the supplies for distribution and replenishment. This chapter will discuss ground supply operations ashore and the supply knowledge required to sustain operations ashore.

7001. Control of Supply Support

a. Flow of Supplies. Supplies should flow from the source to the consumer by the most direct route. CSS delivery of supplies must be simple so that excess handling does not reduce responsiveness. Direct shipment to the consumer is the best method of delivery because bypassing intermediate installations reduces handling. However, when moving large bulk quantities, transportation economy is enhanced by utilizing CSSDs. Likewise, record keeping should be as simple as possible and include only essential information for controlling supply activities.

b. Stock Control. To aid in the control of stock quantities, supply organizations utilize stockage objectives and reorder points. Selection of a proper stockage objective level is critical for transportation management and continued support of combat operations.

(1) Stockage Objective. The stockage objective is the maximum quantities of material that the CSSE/GCE/ACE must have on hand to sustain current operations. The MAGTF commander prescribes the stockage objective for CSS installations based on the CSSE/ACE commanders' recommendations. Too high a stockage objective can place an excessive burden on handling and management systems. Too low a stockage objective can delay or even prevent combat operations.

The stockage objective consists of two levels of supply stocks—the operating level and the safety level. The operating level of supply stocks is the quantity required to sustain operations between submission of requisitions or between the arrival of successive shipments. These quantities are based on the established replenishment period (daily, monthly, quarterly). In combat, the replenishment period is usually more frequent than during peacetime operations. The safety level of supply stocks is the quantity required to continue operations if there are minor delays in resupply or unpredictable changes in demand. In combat, the safety level is more critical than during peacetime.

(2) Reorder Point. The reorder point is that point at which the CSS unit must submit a requisition to maintain the stockage objective. It consists of the sum of stocks represented by the operating level and the safety level. The reorder point is the sum of the safety level, the reorder time, and shipping time. Figure 7-1 is an example of reorder point calculation. In this example, the CSS unit reorders when the on-hand balance reaches 22 days. The reorder quantity is the difference between the stockage objective and the on-hand balance (reorder point). To determine actual quantities, the CSSE multiplies the number of days by the daily usage rate.

SAFETY LEVEL	5 DAYS
REORDER TIME	2 DAYS
SHIPPING TIME	15 DAYS
REORDER POINT	22 DAYS

Figure 7-1. Reorder Point Calculation.

7002. Distribution

a. Distribution Methods. The two distribution methods are *supply point distribution* and *unit distribution*. The supply point distribution method is when the receiving unit is issued supplies at a supply point (depot, airhead, navigation head, railhead, combat train site, distribution point) and then moves the supplies in organic transportation. The unit distribution method is when the receiving unit is issued supplies in its own area and the transportation is furnished by the issuing agency. The receiving unit is then responsible for its own internal distribution. Supported units usually prefer the unit distribution method. However, the MAGTF seldom has enough transportation assets to permit unit distribution to all supported organizations.

b. Distribution Method Considerations. The MAGTF commander usually determines the distribution method used, and the method is reflected in annex D of the OPOD. When supply point distribution is used, care must be taken not to restrict operations for units which have limited organic transportation. When the MAGTF commander selects unit distribution, the CSSE/ACE commander must develop a transportation network from the supported organization to the rear supply area that does not generate equipment shortages in rear areas. As a general rule, the MAGTF commander must use a combination of supply point and unit distribution. Highest priority for unit distribution is usually given to engaged units having limited organic transportation. Engaged units having organic transportation are usually the next priority. Units which are not in contact with the enemy usually receive the lowest priority.

7003. Replenishment Systems

a. Types of Systems. The two types of replenishment systems are pull systems and push systems. Available resources and tactical situations usually dictate that a MAGTF commander use a combination of the “pull” and “push” systems.

(1) Pull Systems. The pull system utilizes consumer requests in the form of requisition forms. Pull systems will *only* provide supplies which are ordered by the consumer. Therefore, pull systems are not as responsive as push systems because they do not anticipate user’s needs.

(2) Push Systems. The push system uses reports (e.g., on-hand or usage reports) to determine the type and quantity of resupplies. These supplies are then automatically sent (pushed) to the consumer. When using a push system, extreme caution should be used to avoid burdening the user with excess stocks.

b. Replenishment Methods. The two most commonly used replenishment methods are *service station* and *tailgate issue*.

(1) Service Station. The service station method is quicker than the tailgate issue method. However, the service station method involves vehicles leaving their tactical positions and entering an established resupply area. The number of vehicles being resupplied at one time is dependent upon the enemy situation and resupply capabilities. The resupply area is designed as a series of resupply points for vehicles when they need resupply service. Traffic flow through the resupply area is one way to enhance efficiency. Once all vehicles have completed resupply, the vehicles move to the holding area where a pre-combat inspection is conducted (time permitting). See figure 7-2.

(2) Tailgate Issue. The tailgate issue method is normally conducted in an assembly area only. This method places the resupply vehicles at greater risk, but maintains tactical positioning and reduces traffic flow. If the tailgate issue method is used in forward positions, then resupply must be masked by the terrain. This method involves

resupply while combat remain in their positions. Vehicles stocked with POL and ammunition stop at each

Figure 7-2. Service Station.

individual vehicle position to conduct resupply services. Other general supplies and services such as enemy prisoner of war retention and maintenance are centrally located at fixed sites. Individuals are rotated in much the same manner as the service station for feeding and general resupply. See figure 7-3.

7004. Supply Operations Ashore

In general, the organic supply source for ground units is at the battalion level and for aviation units at the aircraft group level. Current Marine Corps/Navy directives and standing operating procedures (SOPs) will dictate the specific procedures that units use to request resupply. Figure 7-4 illustrates the management and execution of ground supply operations after the CSSE is functioning ashore. Paragraphs a. through d. are the basic supply procedures and principles used for resupply.

a. CSSD Support. Simple, locally established manual procedures are the norm for initial requests from users. On receipt of user requests, the supporting CSSD determines if the item is on hand. If the item is available, the CSSD transports it to users with unit distribution, when possible. Consumers on supply point distribution are notified where and when they can pick up the item. If the item

is not on hand, the CSSD passes the requisition to the next higher level for requisition. There is likely to be a transition period when both the CSSE and CSSDs use manual supply processing procedures.

b. CSSD/CSSE Interaction. The CSSE receives requisitions from the CSSD or, in some instances, direct from the user. The CSS agency uses formal procedures both for stock replenishment and for passing unfilled user requests to the CSSE. Where possible, CSSDs in direct support of consumers use automated systems to pass both requisitions and reports to the CSSE. During the early stages of an operation, the likelihood of the CSSE having data processing capability ashore to process automated requisitions is low.

c. CSSE Requisitions. When the CSSE cannot fill the requisition, it either back orders or passes it on to in-theater sources. The CSSE passes requisitions to these sources rather than to continental United States (CONUS) depots. Marine Corps user manuals and MAGTF operation orders will establish specific supply procedures for an operation.

d. CSSE Supply Transportation. The CSSE normally provides the transportation to deliver supplies and equipment to its subordinate CSSDs. Selection of the mode of transportation is the CSSE's responsibility.

Figure 7-3. Tailgate Issue.

Surface transportation is the norm; however, water or air transportation may be used, when available. Although the consumer does not select the mode of transportation, his request should contain the urgency of need and any information which might influence the mode. For example, if the tactical situation requires rapid ammunition resupply, the use of air delivery may be essential.

7005. Train Concept

The train concept is a means of internally task-organizing and employing the organic CSS assets of tactical units. Trains serve as the link between forward tactical elements and the supporting CSSE. The use of trains enables combat service support to be performed as far forward as the tactical situations permit. Depending on the situation, trains may provide combat service support to units organic or attached to the battalion, and/or be fully mobile. However, trains are usually movable rather than mobile. In the Marine Corps, this concept equates to *unit*, *battalion*, and *regimental trains*.

a. Unit Trains. Unit trains *centralize* the supported units' CSS assets under the direct control of their commander. Unit trains are most appropriate in defensive, slow moving, or static situations. The commander uses this option when a tactical situation dictates self-contained train operations for centralization and control. For example, during the early phases of an amphibious operation, the battalion must locate its CSS capability in the beach support area or landing zone. Unit trains provide simplicity, economy, and survivability against ground attack.

b. Battalion Trains. Normally, trains supporting battalion-sized units will be echeloned into *combat trains* and *field trains*. This echelonment concept improves responsiveness, flexibility, and survivability against air attack.

(1) Combat Trains. Combat trains are organic elements which provide critical combat service support in forward areas. The key to combat trains is mobility. This element is intentionally kept as small as possible so that it can travel or stay with supported forces. A combat train's survivability depends on remaining small and possessing

Figure 7-4. Ground Supply Operations Ashore.

its own firepower. Combat trains usually include handling of rations, fuel, ammunition, and critical repair parts; maintenance contact teams with limited repair capability; and a battalion aid station.

(2) Field Trains. Field trains consist of the remaining organic CSS elements located further to the rear. These trains may or may not be mobile-loaded. Field trains usually include the mess section; the supply section (-); organic or attached motor transport; and the remainder of combat service support not in the combat train.

c. Regimental Trains. The regimental train consists of the CSS assets required to sustain the regimental headquarters and any organic or attached units under the direct control of the regiment. The regimental commander may choose to consolidate the battalion field trains in one location for security, control, and centralization of resources. The combat service support of immediate need to the combat units should be allocated to the battalion trains, but combat service support not of a time-critical nature can often be consolidated at the regimental level.

d. Positioning Considerations. Seldom will any train site possess all the desirable traits of the seven CSS principles. However, the CSS principles of responsiveness and survivability should be main considerations when selecting a train site for positioning of trains. In general, trains should be located —

- On defensible terrain to allow the best use of limited personnel assets.
- In an area with enough space to permit dispersion of both vehicles and activities.
- In an area that provides concealment from hostile ground and air observation.
- On firm ground to support heavy/continuous vehicle traffic.
- Near a suitable helicopter landing site for helicopter resupply and medical evacuation.
- Close to main supply routes (MSRs) forward and rearward.
- In an area that allows good communications with forward elements and with supporting activities.

e. Resupply Techniques. Trains are employed in numerous ways by CSS units in the resupply process. Figure 7-5 illustrates train techniques commonly used during resupply operations.

7006. Medical-Peculiar Supply Support

Medical and dental supply encompasses the functions of procurement, initial issue, resupply, and disposition of material necessary to support medical and dental elements organic to the FMF. As a general rule, requisitions for class VIII material follow the same channels as other classes of supply. Medical/dental major end items of equipment, repair parts, and consumable items are funded/ordered by the Marine Corps. The medical/dental support deployed aboard ships is generally a self-contained “package deal” that not only provides the professional medical personnel but also their required administrative and support personnel. While embarked, the MAGTF does not consume its organic assets but consumes the ship’s materials.

a. Allowance and Source of Supply. Supply requirements of the Medical and Dental Battalion are identified in the units’ T/Es and authorized class VIII capability sets. The T/E includes items necessary for basic support of the organization (tentage, vehicles, etc.). *Specialized* equipment and supplies allocated to medical and dental elements are listed in class VIII capability sets. Class VIII capability sets constitute the authorized allowances of medical/dental equipment and consumable supplies required to accomplish healthcare support during combat. The T/E, plus the capability sets allocated to medical and dental elements of a MEF, are designed to support the MEF in an estimated worst case scenario through a 60-day period of combat.

b. Medical Basic Loads. All medical support elements of a MAGTF mount out with equipment and medical consumable items sufficient for a projected 15 days (minimum) of combat support operations. Medical equipment and consumable supplies sufficient for 3 to 5 days are initially brought ashore by the personnel of unit medical sections and evacuation sections of the assault echelon. Vehicles, including ambulances, dedicated for medical/dental elements are combat-loaded during mount out and used to bring in initial medical equipment and supplies ashore. Equipment and supplies remaining afloat are phased ashore on demand or as scheduled with ensuing waves of the assault echelon.

The CSSD is replenished at the CSSA by a higher echelon of the CSSE. The location of the CSSA will be situational, but is usually 20-25 km behind the forward line of own troops (FLOT). This will improve survivability by being out of range of enemy indirect fire.

The CSSD may move forward to resupply regimental trains which resupply the unit/Bn trains; unit/Bn trains which resupply their forces; and directly resupply the using units, when feasible.

CSSDs in direct support may be 10-20 km behind the FLOT or where most responsive yet survivable. Except when providing direct support to maneuver units (e.g. MCSSD), the CSSD may even be co-located with regimental or field trains. Resupply is usually conducted at the repair and replenishment point (RRP).

c. Medical Resupply During Amphibious Assault. During the pre-embarkation planning, the force commander will determine the number of modularized class VIII capability sets, both equipment and consumable types, required to support the initial assault phase of the operation. These capability sets contain highly used critical items such as intravenous fluids, administration sets, and battle dressings. When need for these supplies occurs, the using unit submits a request through its supply section to the tactical logistic group. The supplies are then sent depending on priority and available transportation. Additional resupply stocks of equipment and consumable

when directed, resupply is normally by line item requisition from the supporting CSSE through the unit's supply section. Figure 7-6 illustrates combat medical/dental supply procedures. Company/platoon corpsmen normally receive resupply from their parent aid station. Aid stations obtain resupply through parent unit supply sections. Platoon corpsmen and aid stations may obtain emergency resupply from supporting companies of the medical battalion or through inbound medical evacuation aircraft or ground transportation.

material are positioned for mount-out with the MEDLOG Co Det with the supply section of the CSSE.

d. Medical Combat Resupply Operations. After consumable capability sets are issued and expended, or

Figure 7-6. Combat Medical and Dental Supply Channels.

Chapter 8

MAGTF AVIATION COMBAT ELEMENT

Not only does the MAGTF commander need to be familiar with ground supply operations, but he must also understand supply operations for aviation. Although it is a part of the MAGTF, the aviation combat element (ACE) has unique requirements and therefore has a different supply network. In general, the ACE receives certain supplies from the Navy's supply system and other supplies from the Marine Corps Supply System (MCSS). Internally, the logistic support sources for the ACE are the Marine aviation logistics squadron (MALS) and the Marine wing support squadron (MWSS). The MALS provides aviation logistics support for the Marine aviation group (MAG) and below. The MWSS provides aviation ground support. When a task-organized ACE is deployed, the CSSD provides logistic support beyond the capability of the MWSS. This chapter will discuss the organization of the ACE, its organic supply support in each unit, and the unique organizations and programs that are in place to assist the ACE with supply support, when deployed.

8001. ACE Organization

An ACE is organized and equipped to operate in an expeditionary environment. The ACE is not a permanent organization but is comprised of aviation assets that are task organized to provide air support for an assigned mission and is dissolved upon completion of that mission. The ACE of a MAGTF is task organized from Marine aircraft wing (MAW) assets that include rotary and fixed-wing MAGs, Marine air control groups (MACGs), and Marine wing support groups (MWSGs). Representative examples of a MEU ACE and MEF ACE are found in figures 8-1 and 8-2.

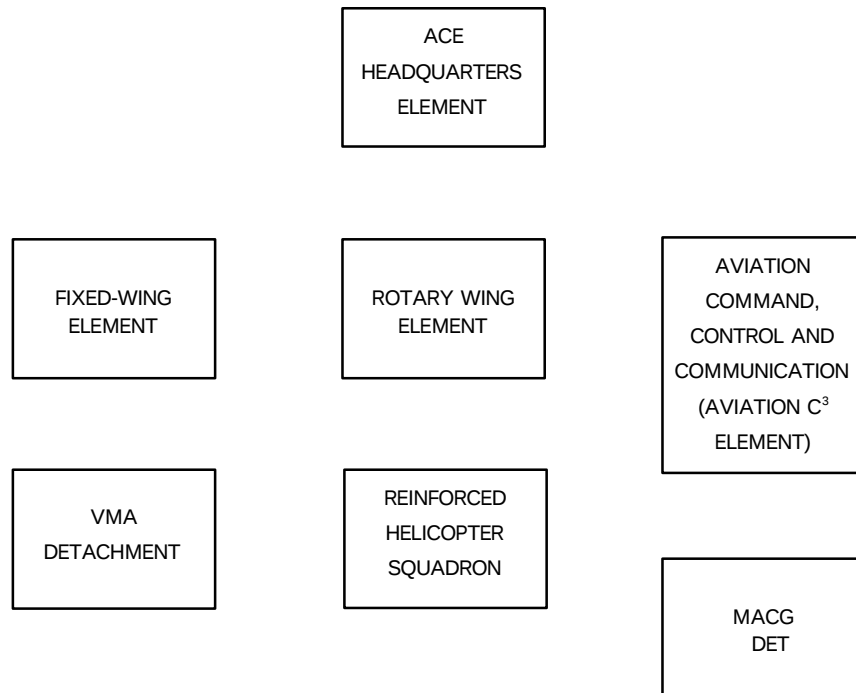
8002. ACE Logistic Sources

Supply operations for the MAGTF ACE are similar to ground supply operations in that there is a wholesale level and a retail level. For the ACE, these levels are generated from the naval supply system. However, naval supply support is only for aviation-peculiar items such as aircraft parts and airfield items. The ground side support for the ACE is provided by the CSSE.

a. Naval Supply System. The naval supply system provides the MAGTF ACE with supply support for aircraft, aviation support equipment, and aviation armament and ordnance equipment. The naval supply system is a two-tiered system — the *wholesale level* and the *retail level*.

(1) Wholesale Level. At the wholesale level, supplies are controlled by the Naval Supply Systems Command's (NAVSUPSYSCOM's) two inventory control points (ICPs) — the Aviation Supply Office (ASO), Philadelphia, PA, and the Ships Parts Control Center (SPCC), Mechanicsburg, PA.

(2) Retail Level. Retail level supplies are held within each MALS Aviation Supply Department. Authorized levels of supply are identified in the Aviation Consolidated Allowance List (AVCAL) and Coordinated Shipboard Allowance List (COSAL). Additional allowances for specific-peculiar systems can be found in the various Naval Aviation Systems Command (NAVAIR) allowance documents.



NOTE: It is important to note that the ACE of a MEU is normally embarked aboard an air-capable ship(e.g., LPH, LHA, LHD); therefore, aviation supply support is the responsibility of the ship.

Figure 8-1. MEU ACE Organization.

b. Aviation Ground Support (AGS). AGS is provided by the MWSSs of a MWSG. MWSSs are designed to support either rotary or fixed-wing operations. However, a single MWSS can be task organized to simultaneously support rotary and fixed-wing operations, if required

is a subordinate unit of the MWSG and it will normally function as an integral unit of the ACE. A CSSD provides external supply support beyond the capabilities of the MWSS. CSSDs are composed of units within a FSSG and are task organized to provide specific support to the MAGTF ACE.

8003. ACE Supply Support Organizations

The MALS and the MWSS are the internal supply support organizations for the ACE. The task-organized MALS provides tailored aviation logistics support and each MWSS provides tailored packages of AGS. The MALS is structured as a subordinate unit of a MAG and is organized as a core unit that is augmented by personnel associated with specific aircraft types and squadrons. This organizational structure enables each MALS to task organize to provide logistic support for a corresponding task-organized, rotary or fixed-wing ACE. A MWSS

a. Marine Aviation Logistics Squadron

(1) Mission. A Marine aviation logistics squadron (MALS) provides aviation logistics support for the subordinate units of the MAG, as well as other designated units of the MWSG and MACG.

(2) Tasks. Tasks performed by a MALS include —

- Providing intermediate level maintenance on aircraft and aeronautical equipment of all supported units. Performing first degree repair on aircraft engines, when authorized.

Figure 8-2. MEF ACE Organization.

- Providing supply support for aircraft, aeronautical equipment, and Navy-funded programs in support of Marine aviation (e.g., weather equipment, air traffic control equipment, expeditionary airfield equipment, etc.).
 - Interpreting and implementing aircraft maintenance and supply policies and procedures for the MAG commander and performing inspection and assistance reviews on all aspects of aviation logistics within subordinate units of the MAG.
 - Coordinating all planning functions associated with aviation logistics and its deployment, employment, and utilization.
 - Maintaining the capability to deploy as an integral unit or as tailored logistic support elements in support of separately employed units.
 - Providing assembly and distribution of class V(A) ammunition.
 - Providing data processing support to facilitate the execution of aviation supply, maintenance, and financial functions of the MAG.
- b. Marine Wing Support Squadron**
- (1) Mission.** A Marine wing support squadron (MWSS) provides essential AGS to a designated ACE and all supporting or attached elements of the MACG. MWSSs are specifically tasked to conduct airfield operations—less air traffic control—for supported ACE units.
- (2) Capabilities.** MWSS capabilities include —
- Establishing and performing air base support functions (EAF construction; meteorological support; crash, fire, and rescue; airfield communications; messing, dental, and medical facilities; etc.).
 - Providing motor transport to support internal airfield operations.

- Performing essential engineer services (i.e., construction and maintenance of the airfield fuel distribution system, establishing essential water and power support, making rapid runway repairs, etc.).
- Providing ground equipment and aircraft refueling support.
- Providing security and law enforcement services (flight line security, convoy escort, etc.).

c. Combat Service Support Detachment

(1) Mission. A combat service support detachment (CSSD) from the MAGTF CSSE augments the ACE combat service support provided by the MWSSG. Specific CSSD requirements are determined, requested, and coordinated by the MWSS.

(2) Capabilities. Available CSSD capabilities to support the ACE include —

- Transporting fuel, ordnance, and other supplies required by the ACE from the point-of-entry in the MAGTF area of responsibility to the expeditionary airfield site for distribution by an MWSS and/or MALS.
- Performing third echelon maintenance on Marine Corps supported motor transport, engineer, and communications equipment operated by the ACE.
- Providing postal, disbursing, exchange, legal, civil affairs, and graves registration services.
- Providing automated information systems services (e.g., JUMPS/MMS, and SASSY) required by the ACE, excluding those associated with support for Navy-funded assets/aviation logistics.

(3) Limitations. AGS which cannot be fulfilled by a MWSS will be provided by the MAGTF CSSE. To provide support for the entire MAGTF, the CSSE establishes CSSAs manned and equipped by CSSDs. The MWSSs of an ACE will determine the logistic support required from the CSSE. CSSDs will be formed to provide the AGS identified.

8004. Logistic Support Programs for the ACE

The logistic support for a MAGTF ACE is provided through a variety of different programs. The MALS are tasked with furnishing aviation-peculiar logistics support. The Marine aviation logistics support program (MALSP), together with the MPS program and the aviation logistics support ship (TAVB) program, provides aviation logisticians the ability to identify and integrate the aviation logistics needed to support all aircraft types that could comprise a MAGTF ACE. Specifically, these programs enable aviation logisticians to identify and integrate the people, support equipment, mobile facilities/shelters, and spares/repair parts needed to support a MAGTF ACE.

a. Marine Aviation Logistics Support Program (MALSP).

Most Navy-funded logistic support for aviation units is provided under the MALSP. The primary objective of the MALSP is to ensure that required aviation-peculiar logistics is available to support any contingency. The MALSP, together with a number of other programs, provide a standard method of quickly task-organizing aviation logistics support. *MALSP structures aviation logistics support into packages that can be phased into an area of responsibility commensurate with the buildup of air power.* These support packages are used as building blocks to keep aircraft operational during every phase of an operation.

(1) Fly-in Support Packages (FISPs). FISPs can be viewed as “enabling” packages. They provide the organizational level, spare parts support (remove and replace) that allows Marine aircraft to commence flight operations immediately upon arrival in theater. FISPs are airlifted to the operating site as part of the fly-in echelon (FIE). They are then married with the organizational level support equipment transported aboard MPF ships or accompanying the aircraft. This combination of assets is capable of providing critical aviation support for 30 days of combat flying. If flight operations are too extensive in scope or duration for the FISPs alone to handle (i.e., greater than 30 days), then the next “building block,” CSPs, will be provided.

(2) Contingency Support Packages (CSPs). CSPs augment the FISPs by adding common and peculiar support needed to support both organizational and intermediate level maintenance. CSPs integrate the

support equipment, mobile facilities, spare and repair parts, and Marines needed to sustain deployed aircraft. CSPs have been developed to support each type of tactical Marine aircraft.

(3) The Follow-on Support Packages (FOSPs). FOSPs represent the final MALSP “building block.” Simply put, a FOSP is designed to “flesh out” the support that the FISP and CSPs do not provide. The introduction of the FOSP would, in essence, provide ACE aircraft the same support they receive in garrison.

b. U. S. Navy-Furnished War Reserve Material. Navy war reserve material in support of Marine aviation is managed by the CNO under special project codes. These project codes include allowances for forms, publications, flight clothing, support equipment, ordnance support equipment, and repair parts. Specific project codes are identified in OPNAVINST 4080.11. Navy-furnished war reserve material is designed to assure the availability of material that is not held in sufficient quantity at the organizational level so that it can satisfy requirements in support of MAGTF operations.

c. Aviation Logistics Support Ship (TAVB). The TAVB is an innovative program developed to transport critical intermediate level maintenance and supply assets to a forward operating area in support of deployed Marine aircraft. The primary mission of the TAVB is to provide dedicated sealift for movement of intermediate level logistic support for use in the rapid deployment of a MAGTF ACE. A secondary mission — to serve as a national asset dedicated to strategic sealift — can be exercised if the embarked MALS intermediate maintenance support is phased ashore. To enhance responsiveness, one ship is berthed on the East Coast and another on the West Coast of the United States. Both ships can be configured to allow for tailored intermediate level repair capability while underway, in-stream, or pier-side.

d. Maritime Prepositioning Force (MPF). The purpose of the MPF program is to provide fleet commanders deployment flexibility. Included in each MPF squadron is limited organizational level, common aviation support equipment, class V(A) and limited intermediate level support equipment. The flexibility of the MPF program allows a MPF to meet missions ranging from combat operations to humanitarian assistance.

e. Aviation Ground Support (AGS). AGS consists of that Marine Corps-funded support provided to the ACE by the MWSS. Specific functions center on those services required to sustain airfield operations. Just as a task-organized MALS provides tailored aviation logistics support, each MWSS provides tailored packages of AGS. These packages are described as follows:

(1) Basic Capability Package (BCP). The BCP consists of the equipment and personnel required to achieve initial operational capability at a selected main air base or air facility.

(2) Full Capability Package (FCP). The FCP is comprised of equipment and associated personnel not assigned to a BCP but required to achieve full operational capability at an existing main air base or air facility.

(3) Site/Point Package (SPP). SPPs contain the minimal quantities of personnel and equipment required to operate an air site or air point.

(4) Expeditionary Airfield Package (EAFP). This package consists of the EAF equipment and personnel necessary to establish an EAF or augment/enhance an existing airfield.

(5) Aircraft Recovery Package (ARP). An ARP is comprised of aircraft arresting gear and visual aids (i.e., lighting) used to provide an airfield with emergency recovery capabilities. Using a combination of these packages, a MWSS tailors its equipment and personnel to fit the assigned mission. It should be noted that each package represents an initial core capability which can be modified as needed in response to specific circumstances.

8005. ACE Supply Support for Expeditionary Operations

a. Pre-deployment. Upon receipt of a mission, the MAGTF commander will, through either deliberate planning or rapid planning, develop a course of action, force structure, and sequencing plan for forces to arrive in an area of responsibility (AOR). When the planning process is complete, the MAGTF commander's staff will commence task organization and organization of forces. Logistic deployment planning is based on the tactical requirements for phasing forces into the AOR. It is during

this timeframe that the ACE is task organized, the rotary and fixed-wing MALS and supporting MWSSs designated, and preparations for deployment begin. The deployment of a MAGTF ACE is executed by forming the total force into movement groups.

The MALS and MWSS predeployment logistics actions are listed in figure 8-3. After completing the predeployment actions shown in figure 8-3, the ACE lift requirement data must be provided to senior coordinating commands. This reporting ensures that material, equipment, and personnel are accurately reflected in the master deployment and execution date of higher headquarters.

b. ACE Movement Echelons During Deployment. The deployment of a MAGTF ACE is executed by forming the total force into movement groups. The movement groups are developed according to the speed

required. See figure 8-4 for organizing ACE movement echelons.

c. Logistics Assets within ACE Movement Echelons. Personnel, material, and equipment of the rotary and fixed-wing MALSs and MWSSs are located within the ACE movement echelons. See figure 8-5.

d. ACE Employment. Figure 8-6 discusses how the MALS and the MWSS provide supply support to the MAGTF ACE when it is employed.

e. ACE Redeployment. The procedures used by a MALS and MWSS during redeployment must support the reconstitution of the MAGTF. Redeployment planning is based on the tactical requirements present in the AOR, force time-phasing requirements, and reconstitution requirements. See figure 8-7 for MALS and MWSS logistic actions during ACE redeployment.

Pre-deployment logistics actions for fixed- and rotary wing MALS:

The MALSs, called parent MALSs, of MAGs providing aircraft to the ACE will identify and prepare for shipment the FISPs and CSPs for the specific type of aircraft being provided.

FISPs and CSPs will be transferred to the designated supporting MALS, called the host MALS, of the rotary and fixed-wing element of the ACE.

Each host MALS will identify and prepare for shipment the appropriate resident support packages (i.e., FISPs and CSPs) for the aircraft being provided by their MAG.

Pre-deployment logistics actions for a MWSS:

Based on ACE composition (rotary, fixed-wing, or a combination of both), a MWSS will be organized, equipped and assigned to the ACE.

Equipment and personnel requirements will be developed utilizing the AGS capabilities packages for time-phased deployment.

Coordination will be made with the CSSE to ensure ACE external AGS requirements will be provided.

Coordination will be made with the supporting MALS to ensure Navy-funded material in support of AGS operations (i.e., weather, EAF material, etc.) will be provided.

Figure 8-3. Pre-deployment Logistic Actions for the MALS and the

and characteristics of the available lift and within the timeframe the forces are required in the AOR. To move ACE logistic support, both airlift and sealift will be

Movement echelons may be organized as outlined below:**FIE**

The fly-in echelon (FIE) consists of the following elements:

OPP

The offload preparation party (OPP) is used during MPF operations. It consists of equipment operators, maintenance, and embarkation personnel. Their mission is to embark aboard MPF ships to prepare equipment for offload while in transit to the area of responsibility.

SLRP

The survey, liaison and reconnaissance party (SLRP) consists of personnel from all elements of the MAGTF. Its mission is to assess areas with potential to support the arrival and assembly phase, evaluate host nation support, and determine engineering requirements.

A/P

The advance party (A/P) is a task-organized element which provides the logistic capability for offload, arrival, and assembly. The OPP and SLRP are absorbed into the A/P.

FF

The flight ferry (FF) consists of the rotary and fixed-wing aircraft capable of self-deployment. This phase involves in-flight refueling, enroute maintenance and supply support, and coordination of enroute support bases (ESBs).

(continued)

Rotary wing aircraft not capable of self-deployment are not part of the FF. Instead, these aircraft are loaded aboard transport aircraft and flown in with the main body.

M/B

The main body (M/B) is made up of remaining MAGTF units.

TAVBs

The aviation logistics support ships (TAVBs) are utilized to provide dedicated sealift for the movement of MALS maintenance and supply assets. The ships are normally configured to support intermediate (3rd and 4th echelon) repair while moving to the area of responsibility. Once in theater, the MALS intermediate maintenance activity (IMA) may operate aboard the TAVB or be phased ashore.

MPF

In a maritime prepositioning force (MPF) operation, some ACE logistic assets, such as organizational-level aviation support equipment, aviation ordnance, and transportation assets, will be aboard these prepositioning ships.

FOE

The follow-on echelon (FOE) consists of the personnel and equipment not required to deploy with the FIE but required to sustain the assault.

Figure 8-4. Example of Organizing ACE Movement Echelons.

FIE OPP**MALS**

There is no requirement for MALS personnel to be part of the fly-in echelon offload preparation party (FIE OPP) since minimal intermediate-level aviation support equipment is prepositioned.

MWSS

A MWSS will most likely provide maintenance and embarkation personnel to prepare transportation, engineer, and EAF equipment for offload.

FIE SLRP**MALS**

MALS representatives should be members of the fly-in echelon, survey, liaison and reconnaissance party (FIE SLRP) to reconnoiter potential operating areas and/or facilities at the intended rotary and fixed-wing sites.

MWSS

Representatives from the Airfield Operations, Communications, and Engineer Operations Divisions of the MWSS should be represented in the FIE SLRP.

FIE A/P**MALS and MWSS**

Both the MALS and MWSS should provide command element representatives on the fly-in echelon, advance party (FIE A/P). These personnel ensure proper preparation for arrival and assembly of their respective main body elements, and

(continued)

assist with the offload and distribution of ACE assets aboard the MPF ships.

FIE FF**MALS**

The MALS will provide the appropriate FISP and aviation supply personnel to accompany the fly-in echelon, flight ferry (FIE FF). This contingent will be transported aboard transport/refueling aircraft accompanying the FF. An alternative method of supporting the FF would be to preposition aviation logistics support at enroute staging bases.

MWSS

There is no requirement for MWSS support in the FIE FF.

M/B**MALS**

Personnel and equipment to provide tailored intermediate-level maintenance support are deployed aboard the TAVBs.

MWSS

Personnel and equipment not previously deployed, but required for support, will be positioned in the main body (M/B).

FOE

Personnel and equipment of the MALSs or MWSSs not deployed with another movement echelon, but required for support, will be part of the follow-on echelon (FOE).

Figure 8-5. Organic ACE Logistics Assets.

MALS

The exact makeup of a MAGTF ACE will determine when and how aviation logistics support is provided and to what degree these assets are employed. It is important to note that the ACE of a MEU is normally embarked aboard an air-capable ship (e.g., LPH, LHA, LHD). Aviation logistics support is, therefore, the responsibility of the ship. Key MALS employment considerations for MAGTFs larger than a MEU are discussed below:

- The designated host MALS will normally deploy its command element and organic automated data processing capability (i.e., SUADPS and NALCOMIS).
- To operate effectively, a MALS must remain stable at the designated site from which its supported aircraft are operating. Although a MALS is movable, it is not a “pick-up and go” event and must be planned and coordinated in advance.
- Arrangements should be made to ensure accountability of the MALS personnel, equipment, and/or logistic support assets not deployed. The preferred method is to transfer those assets not being utilized to remain behind MALS.
- The employment of more aircraft, or flying them more hours, than the FISPs are designed to support will require that logistics assets be drawn from the CSPs and added to these packages

MWSS

The composition and employment of a MWSS depends largely on the concept of operations, planned operating site of the supported ACE, the anticipated level of CSSD support, and the mission requirement to support multiple forward operating bases. Key planning employment considerations for an MWSS include the following:

- Determining construction requirements. A requirement for extensive construction material not readily available or locally procurable will significantly increase the embarkation requirements for a MWSS.
- Determining the number of sites to be supported. Doctrinally, a MWSS can support more than one site; however, the desired level of support at each site and the distances between sites will have a direct impact on the level of support available.

Figure 8-6. MALS and MWSS Support for an Employed MAGTF ACE.

MALS Redeployment

Logistic actions that occur with a rotary and fixed-wing MALS assigned to the ACE during redeployment include —

- Reconstituting the FISPs and CSPs and preparing them for shipment.
- Identifying, preparing, and segregating FF support for redeploying aircraft.
- Transferring specific FISPs/CSPs to their parent MALS may be accomplished before or after redeployment depending on the operational situation in the AOR.
- Receipting upon return to their home air station those CSPs that were transferred to other activities at the time of employment.

MWSS Redeployment

MWSS assets and support will be required at the AOR as long as there are air operations. As a result, the MWSS will be one of the last units to redeploy. To the greatest extent possible, reconstitution of equipment will occur prior to redeployment. Specific points a MWSS needs to consider during redeployment include —

- Conducting agricultural washdowns of all equipment and rolling stock prior to embarkation aboard aircraft/ships.
- Performing maintenance performed on all equipment prior to redeployment, to the maximum extent possible.
- Returning MPF assets to the appropriate CSSE.
- Ensuring that AGS is transitioned to the CSSE or contracted host nation support as the ACE redeploys and required logistic support decreases.

Figure 8-7. MALS and MWSS Logistic Actions During an ACE Redeployment.

Chapter 9

Planning for Supply Operations

Supply requires the longest forward planning because it has the broadest scope of support within combat service support. As a result, supply support becomes one of the first planning considerations in the support plan — the support plan being part of the CSS estimate of supportability within the tactical plan. In order for supply planning to be effective initially, intense coordination between planners at all levels should take place during the predeployment phase. This phase offers the most opportune time to get “tailor made” supply support as commanders can avail themselves of the major base/installation FSSG facilities. Regardless of the phase of the operation, a unit commander can receive timely and appropriate supply support if both the supported and supporting units know each other’s responsibilities. Without timely and appropriate supply support to sustain the MAGTF, the effectiveness of efforts in the other functional areas and the overall throughput system is largely negated.

9001. Supported Unit Responsibilities

The supported unit commander, through the coordinated efforts of his G-3 and G-4 (S-3/S-4), initiates the detailed planning for combat service support. CSS planning begins with *determining support requirements, assigning priorities, and allocating resources.*

a. Determining Support Requirements. The supported unit commander determines and identifies those supply support requirements beyond his organic capabilities which are needed for a mission. To arrive at an accurate decision on the type and amount of external service support needed, the exact quantities of different supply categories need to be calculated. See figure 9-1 for factors that should be considered when calculating these needs.

b. Assigning Priorities. The supported unit commander establishes and assigns priorities associated with the execution of his concept of operations and scheme of maneuver. This assignment of priorities, in turn, will affect the plans of the supporting CSSElement's concept of

combat service support. Ultimately, the MAGTF commander oversees assignment of priorities.

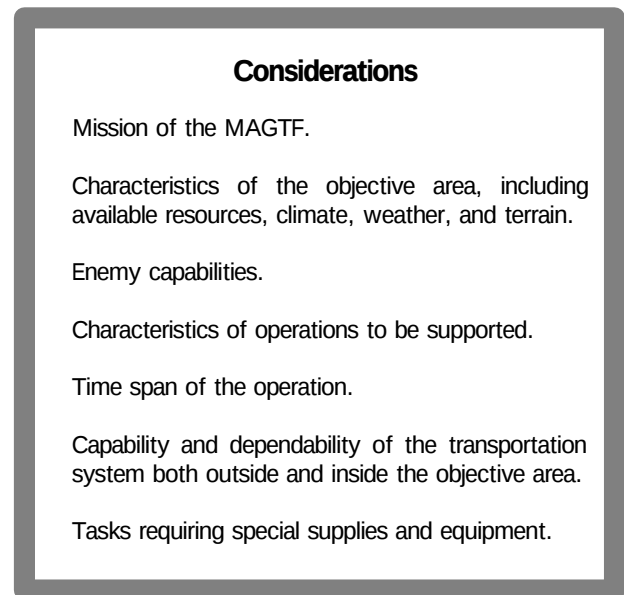


Figure 9-1. Considerations for Calculating

c. Allocating Resources. The supported unit commander allocates available CSS resources to the subordinate elements of his organization. This allocation includes those assets which he desires to retain as a reserve. The allocation of resources must support and complement the supported unit commander's concept of operations. They also need to reflect his previous decisions on requirements and priorities. Like his assignment of priorities, the supported unit commander's allocations of CSS resources affect the supporting CSS element's concept of combat service support.

9002. Supporting Unit Responsibilities

Once the CSS planner knows the supported unit's desires, he can begin to advise and assist the unit in refining requirements, to procure the resources to meet those requirements, and to plan for the distribution of assets to support the mission and concept of operations.

a. Determination of Requirements. This step is very similar to the estimate of the situation and must address each CSS functional support area. These requirements are based on the supported commander's concept of operations and the situational factors. The CSS element must know requirements early in the planning phase and be informed of changes as they occur.

b. Procurement of Assets. The supporting CSS element procures assets based on the determination of requirements required to sustain the supported unit. Realizing that nearly all consumers tend to overestimate their requirements, the supporting CSS element attempts to prevent oversupply by processing procurement actions with realistic quantities.

c. Distribution of Assets. This involves the actual providing of the supported services. This stage has the most critical impact on responsiveness, flexibility, and economy of combat service support.

9003. CSS Planning References

The following references assist in the determining of CSS requirements. See chapter 1, figure 1-3 for the listing of the classes of supply.

a. Table of Authorized Material (TAM). The TAM provides general information and instruction on the

supply system, specific information on classes I, II, III, IV, VII, and IX, and replacement factors needed to project anticipated losses or consumption.

b. Table of Equipment (T/E). The T/E identifies the equipment that a unit rates or the total of what it has on hand or on order. The T/E is primarily concerned with class VII items. The information in the T/E is used to help determine class V supplies because it gives the amount of weapon systems a unit possesses. Likewise, its listing of vehicles/equipment assists in calculating fuel requirements.

c. Table of Organization (T/O). The T/O contains the organization of the unit and an actual listing of the personnel allocation authorized to the unit. The T/O is useful to the logistics planner because it describes the logistic capabilities of the unit. The authorized strength figures are used to assist in the determination of classes I and V.

d. Marine Corps Orders (MCO). MCO 8010.1 provides class V(W) supply rates in combat operations. MCO 8011.4 provides information for determining training requirements. See Appendix D, *References*.

e. U.S. Army Field Manuals (FMs). FM 101-10-1, *Staff Officers Field Manual: Organizational, Technical, and Logistic Data (Unclassified Data)*, provides a wide variety of planning data about supply and transportation.

9004. Requirements by Classification

The following information provides general assistance in determining requirements for each class of supply.

a. Class I

(1) Food Items. The T/O is useful for determining the requirements of food items. Also, the TAM contains data for computation of requirements and packaging data under the class I section. There are several food items available to the commander.

(a) Meals, ready-to-eat (MREs) are rations designed for individual or small group feeding when cooking facilities are not used. MREs fall under subclass C.

(b) “A” rations are designed for large group feeding in the field or garrison. These rations require preparation facilities and refrigerated storage spaces. “A” rations fall under subclass R.

(c) “B” rations are designed for large group feeding when cooking facilities are not available. These rations are composed mainly of canned or dehydrated nonperishable foods. “B” rations fall under subclass S.

(2) Water Requirement. When calculating the amount of water necessary, the T/O is used in determining the total number of personnel. Information from the T/E is used in part to determine what equipment is available to carry and store water. FMFM 4-18, *Bulk Liquids Operations*, will also be used to assist in water requirement computation.

b. Class II. The T/O, T/E, and the TAM are used to determine what organizational supplies and equipment are needed. The combat active replacement figure (CARF) in the TAM is used to calculate replacement rates for T/E items.

c. Class III. Petroleum, oils, and lubricates (POL) are expressed in terms of packaged and bulk products. The T/E provides the amount of equipment which require fuel. The TAM provides planning for climate conditions, oils, and greases. It also provides a listing of POL and planning data for all fuel-consuming vehicles and equipment in the Marine Corps inventory. FMFM 4-18 provides additional information.

d. Class IV. The TAM provides data on individual engineer construction materials (i.e., barbed wire, sandbags, and lumber). FM 101-10-1 provides additional information for total requirements.

e. Class V. Information concerning ground ammunition can be found in MCO 8010.10 by type. Information concerning aviation ammunition can be found in the OPAVINST 8011.9A, *Non-nuclear Ordnance Requirements Process*.

f. Class VI. Because exchanges are not usually brought into a combat zone early in an operation, the sundries pack

provides Marines with exchange-type items until an exchange is established.

g. Class VII. The T/E provides allowances for major end items. The TAM provides the CARF which reflects the anticipated combat attrition of equipment on a monthly basis.

h. Class VIII. Medical and dental T/Es and capability sets are designed to support the MEF in an estimated worst case scenario through a 60-day period of combat. The force commander is responsible for ensuring that HSS capabilities are sufficient to support the OPLAN. The capability sets may be allocated to support specific OPLAN requirements.

i. Class IX. The SMU’s deployment support generator package can provide repair part historical usage data based on desired end items. Class IX(A) allowances are identified in chapter 8. During the predeployment phase, a class IX block is tailored to support the units in a MAGTF. The development of the supply block begins with the SMU running a program or “generator package” to estimate repair part requirements. The generator package’s estimate is based on Marine Corps historical usage data for a piece of equipment’s specific identification number. The MAGTF’s equipment density list (EDL) is submitted to the SMU so that generator package compensates for the total number of each identification number. Because the SMU’s generator package does not consider specific factors (e.g. operating climates), this estimate should only be used as a starting point to develop and refine the class IX block. For the purposes of developing a parts block, commanders must incorporate previous experiences and the expertise of their maintenance personnel into its development. See figure 9-2 for factors that should be considered during repair parts block determination.

j. Class X. These supplies are usually not a requirement for Marine forces. If they are used, higher headquarters (usually MEF or higher) will assign the required levels.

9005. Security

The commander of a force cannot normally afford to dedicate combat forces for the protection of CSS facilities. Therefore, CSS facilities must be prepared to defend themselves against enemy attack. Normally, the G-4/S-4 is responsible for planning the security of appropriate CSS element’s security. FMFM 2-6, *Rear Area Security*

Factors

Type and density of equipment to be supported.

Level of maintenance to be performed by the organizational and CSSE maintenance elements.

MAGTF's objective and scheme of maneuver.

Environmental factors.

Projected length of operation.

Other resources in the MAGTF's area of operation.

After action reports of MAGTFs deployed to same region.

Popular demand national stock number (NSNs) reporting.

Embarkation and lift constraints.

Figure 9-2. Factors for Repair Parts Block Determination.

Actions

Observation posts should be established to give early warning.

A perimeter defense should be established when expecting to be stationary for an extended period of time.

Provisional rifle squads from logistics/CSS personnel should be assigned positions/sectors of fire.

Vehicles with heavy machine guns should be positioned to cover likely avenues of approach.

Internal communications should be established.

On-call targets should be plotted for point defense.

Seek positions that offer overhead concealment from enemy air attack.

Position CSS elements near the reserve if possible.

Figure 9-3. Actions to be Considered When Planning Security.

contains additional information for planning security measures. See figure 9-3 for actions to be considered when planning security.

Chapter 10

MAGTF II/LOGAIS

The Marine Corps has developed a family of coordinated, mutually supporting, automated systems to support Marine Corps deployments. These systems are called the Marine Air-Ground Task Force II/Logistics Automated Information Systems (MAGTF II/LOGAIS). The MAGTF II/LOGAIS supports deliberate and time-sensitive planning, mobilization, assembly, deployment, and sustainment of a MAGTF in independent, joint, and/or combined operations. Figure 10-1 illustrates the systems which constitute MAGTF II/LOGAIS and their internal relationship.

Figure 10-1. MAGTF II/LOGAIS Systems' Relationship.

10001. MAGTF War Planning System II

The MAGTF II is designed to assist Marine Corps planners in operation plan development by comparing alternative force structures, forecasting lift and sustainability requirements, and estimating lift "footprints." The MAGTF II rapidly generates and refines time-phased force and deployment data (TPFDD) to meet short-force closure deadlines. Additionally, it is being designed to provide the Marine Corps with a data interface to the Joint Operation Planning and Execution System (JOPES).

10002. MAGTF Deployment Support System II

The MDSS II is a unit-level planning and execution system that provides MAGTFs and subordinate elements the ability to develop and tailor plan-specific force structures (personnel, supplies, and equipment) for multiple operation plans. In addition, the MDSS II monitors real-time element combat readiness for personnel and equipment. It also serves as a common source of movement, embarkation, force structure planning data, and level VI detail (NSN, SSN, serial number, etc.) for other MAGTF II/LOGAIS subsystems.

10003. Computer-Aided Embarkation Management System

The CAEMS provides load plans (template deck diagrams) and associated reports (Dangerous Cargo Manifest, Trim Stress and Stability, etc.) for amphibious, commercial shipping (black bottom), and maritime prepositioning ships (MPS). The MDSS II is the initial source of data.

10004. Computer Assisted Load Manifest

The CALM is an automated Air Force designed and maintained system for producing Air Mobility Command (AMC) approved airlift load plans and reports. This system automatically computes the optimal configuration of load plans for C-130, C-141, C-5, and KC-10 aircraft by

aggregating weights, volume, center of balance, and cargo compatibility. During the planning and execution phases of an operation, the CALM updates the MDSS II.

10005. Transportation Coordinators' Automated Information for Movements System

The TC AIMS supports planning and execution for movement of forces from CONUS, overseas points of origins to ports-of-embarkation (POEs), and ports-of-debarkation (PODs) to destinations. The TC AIMS provides in-transit visibility to the United States Transportation Command's (USTRANSCOM's) Component Commands and the Defense Transportation System (DTS). The TC AIMS can also be used for the redeployment of forces.

10006. MAGTF Data Library

The MDL is a microcomputer data base management system comprised of standardized logistics and reference files. The MDL creates the reference files which are used by all of the LOGAIS family. Additionally, the MDL provides a rapid retrieval capability for MAGTF logisticians, specifically the person designated as a MAGTF data base manager.

10007. Asset Tracking for Logistics and Supply System

The ATLASS is a new system which is currently being fielded in the Marine Corps to expand and replace the landing force asset distribution system (LFADS). In the future, the ATLASS will provide the means for combining the Marine Corps ground maintenance and unit/intermediate levels of supply into one system. In doing this, the ATLASS will replace the following systems:

- Marine Integrated Maintenance Management System (MIMMS)
- Marine Corps Automated Readiness Evaluation System (MARES)
- Supported Activities Supply System (SASSY)
- Medical Logistics System (MEDLOGS)
- Ammunition Logistics System (AMMOLOGS)

Appendix A

PLANNING DATA

PLANNING DATA FOR RATIONS			
RATION TYPE	CONTENT	WEIGHT (lbs) per unit	VOL (ft ³) per unit
MRE	12 meals/case	16.0	0.832
FBT	1200 FBTs/case	72.0	3.1
COLD WEATHER	6 meals/box	16.5	0.832
SUPPLEMENT SUNDRIES	100 servings/box	41.0	1.69
A	3 servings/ration	6.54	0.223
B	3 servings/ration	3.83	0.123
(TRAY PACK)	36 meals/module	70.0	4.5

PLANNING DATA FOR DRUMMED FUEL						
	DIESEL		GASOLINE		KEROSENE	
	ft ³	lbs	ft ³	lbs	ft ³	lbs
55 gal drum	9.0	432	9.0	384	9.0	421
5 gal can	.8	46	.8	41	.8	45

HELICOPTER LIFT CAPACITY PLANNING GUIDANCE	
HELICOPTER TYPE	LIFT CAPACITY (Lbs)*
CH-46	4,500
CH-53D	13,000
CH-53E	30,000
* Based on standard day conditions (15 °C, sea level, no wind or humidity) and 1 hour and 45 minutes of fuel onboard.	

CARGO NET CAPACITY PLANNING GUIDANCE		
NET TYPE	CARGO VOLUME	
	ft ³	lbs
A-22 bag	66	2,500
5,000 net	125	5,000
10,000 net	380	10,000

PLANNING DATA FOR WATER			
Personnel consumption (gallons per individual per day)			
Planning factor of 47.5 lbs/1 ft ³ per expeditionary water can			
	<u>CLIMATE</u>		
USE	HOT	TEMPERATURE	COLD
Drinking ¹	3.0	1.5	2.0
Heat Treatment	.2	.0	.0
Hygiene ²	1.7	1.7	1.7
Food Preparation	0.0-4.5	0.0-4.5	0.0-4.5
Waste (10%)	0.8-1.3	0.7-1.1	0.7-1.2
¹ Increase to 3.5 (hot) and 3.0 (temperate) for MOPP levels 3 and 4.			
² Personal hygiene (shaving, brushing teeth, washing hands, etc.).			
<u>DECONTAMINATION</u>			
Requirements depend on frequency, intensity, and location of attacks.			
Decontamination planning factors per individual are:			
7 gallons per individual			
380 gallons per major end item			

ESTIMATING FUEL REQUIREMENTS
Number of vehicles (equipment) X daily fuel usage rate X consumption rate = fuel requirement

Appendix B

INTEGRATED MATERIAL MANAGERS

GENERAL SUPPLY CLASS	MANAGER CODE	ITEM MATERIAL CATEGORY	INVENTORY MANAGER, MATERIAL READINESS COMMAND, OR SERVICE ITEM CONTROL CENTER
II, VII	B	Ground Forces Support Materiel	U.S. Army Troop Support Command, St Louis, Missouri
II, IV	E	General Supplies	U.S. Army General Materiel & Petroleum Activity New Cumberland, Pennsylvania
II	F	Clothing, Textiles, and Nonmedical Toiletries	U.S. Army Communications & Electronics Command Philadelphia, Pennsylvania
II, VII	G	Communication and Electronic Equipment	U.S. Army Communications & Electronics Command Fort Monmouth, New Jersey
II, VII	H	Aircraft and Aircraft Materiel	U.S. Army Aviation Systems Command St. Louis, Missouri
II, IV	J	Ground Forces Support Materiel	U.S. Army General Materiel & Petroleum Activity New Cumberland, Pennsylvania
II, VII	K	Combat, Tactical, Support Vehicles & Components; Repair Parts for Mobility	U.S. Army Tank-Automotive Command Warren, Michigan
II,VII, IX	L	Missiles and Missiles Materiel	U.S. Army Missile Logistics Center Redstone Arsenal, Alabama
II, VII, IX	M	Ammunition, Weapons, Tracked Combat Vehicle Weapons, Special Weapons and Chemical & Fire Control Materiel	U.S. Army Armament, Munitions, and Chemical Command Rock Island, Illinois
II, IX	Q	Electronic Materiel	U.S. Army General Materiel & Petroleum Activity Fort Monmouth, New Jersey
II, III	R	Bulk & Packaged Petroleum Fuels, Packaged Petroleum Products, Containers and Accessories, and Certain Chemical and Solid Fuels	U.S. Army General Materiel & Petroleum Activity New Cumberland, Pennsylvania
II	T	Industrial Supplies	U.S. Army General Materiel & Petroleum Activity New Cumberland, Pennsylvania
VII, IX	U	COMSEC Materiel	U.S. Army Cecom Communications Security Logistics Activity Fort Huachuca, Arizona
VI	NA	Personal Demand, Comfort, and Hygiene Items	Defense Personnel Support Center Philadelphia, Pennsylvania
X	NA	Nonmilitary Program Items	U.S. Army General Materiel & Petroleum Activity New Cumberland, Pennsylvania

Appendix C

GLOSSARY

Section I. Abbreviations and Acronyms

A/P	advance party	CNM	Chief of Naval Materiel
AAV	assault amphibious vehicle	CNO	Chief of Naval Operations
ACE	aviation combat element	CONUS	continental United States
acft	aircraft	COSAL	consolidated ship/station allowance list
ADAL	authorized dental allowance list	CRWR	contingency retention war reserves
ADP	automatic data processing	CSP	contingency support package
AE	assault echelon	CSS	combat service support
AFOE	assault follow-on echelon	CSSA	combat service support area
AGS	aviation ground support	CSSD	combat service support detachment
AMAL	authorized medical allowance list	CSSE	combat service support element
AMC	Air Mobility Command(USAF)	CSSG	combat service support group
AMMOLOGS	ammunition logistics system	CTEP	contingency training allowance pool
AOA	amphibious objective area	CWR	core war reserves
AOR	area of responsibility	DCS I&L	Deputy Chief of Staff Installation and Logistics
ARP	aircraft recover package	DLA	Defense Logistics Agency
ASP	ammunition supply point	DOA	day(s) of ammunition
ATF	amphibious task force	DOD	Department of Defense
ATLASS	asset tracking for logistics and supply system	DOS	day(s) of supply
AVCAL	aviation consolidated allowance list	DSSC	direct support stock control
BCP	basic capability package	DTS	Defense Transportation System
BMU	beachmaster unit	EAF	expeditionary airfield
Bn	battalion	EAFP	expeditionary airfield package
BSA	beach support area	EDL	equipment density list
CAEMS	computer-aided embarkation management system	ESB	enroute support base
CALM	computer assisted load manifest	FARP	forward arming and refueling point
CARF	combat active replacement figure	FF	flight ferry
CHAPGRU	cargo handling and port group		
CINC	commander in chief		
CMC	Commandant of the Marine Corps		

FCP	full capability package	MAGTF II/LOGAIS	Marine air-ground task force II/Logistics Automated Information Systems
FCSSA	force combat service support area	MAGTF	Marine air-ground task force
FIE	fly-in echelon	MAGTF II	Marine air-ground task force War Planning System II
FISP	fly-in support package	MALS	Marine aviation logistics squadron
FLOT	forward line of own troops	MALSP	Marine Aviation Logistics Support Program
FM	U.S. Army field manual	MARES	Marine Corps automated readiness evaluation system
FMF	Fleet Marine Force	MAW	Marine aircraft wing
FMFM	Fleet Marine Force manual	MCLB	Marine Corps logistics base
FOE	follow-on echelon	MCO	Marine Corps Order
FOSP	follow-on support package	MCSS	Marine Corps supply system
FSSG	force service support group	MCSSD	mobile combat service support detachment
GCE	ground combat element	MDL	Marine air-ground task force data library
GSA	General Services Administration	MDSS II	Marine air-ground task force Deployment Support System II
HLZ	helicopter landing zone	MEDLOG	medical logistics
HNS	host nation support	MEF	Marine expeditionary force
HQMC	Headquarters, U.S. Marine Corps	MEF (Fwd)	MEF (Forward)
HQSVC	headquarters and service company	MEU	Marine expeditionary unit
HST	helicopter support team	MILSTRIP	military standard requisitioning and issue procedure
ICP	inventory control point	MIMMS	Marine Integrated Maintenance Management System
IMA	intermediate maintenance activity	MMC	materiel management center
IMM	integrated materiel management	MOA	memorandum of agreement
ISSA	inter-Service support agreement	MOU	memorandum of understanding
JFC	joint force commander	MPE/S	maritime prepositioned equipment and supplies
JOPES	Joint Operation Planning and Execution System	MPF	maritime prepositioning force
JUMPS/MMS	Joint Uniform Military Pay System/Manpower Management System	MPS	maritime prepositioning ships
LAV	light armored vehicle	MPSRON	maritime prepositioning ships squadron
LFADS	landing force asset distribution system	MRE	meals, ready-to-eat
LFSP	landing force support party	MSC	Military Sealift Command
LPH	amphibious assault ship	MSR	main supply route
LHA	amphibious assault ship (general purpose)	MSSG	Marine expeditionary unit service support group
LHD	amphibious assault ship (multipurpose)	MUMMS	Marine Corps unified material management system
LZ	landing zone		
LZSA	landing zone support area		
M/B	main body		
MACG	Marine air control group		
MAG	Marine aircraft group		

MWR	morale, welfare, and recreation	SIA	station of initial assignment
MWSG	Marine wing support group	SLRP	survey, liaison and reconnaissance party
MWSS	Marine wing support squadron	SMCR	Selected Marine Corps Reserve
NALCOMIS	Naval Aviation Logistics Command Management Information System	SMU	Supported Activities Supply System Management Unit
NALM	Norway airlanded Marine expeditionary brigade	SOP	standing operating procedure
NATO	North Atlantic Treaty Organization	SPCC	ship's parts control center
NAVAIR	Naval Aviation System Command	SPP	site/point package
NAVSUPSYSCOM	Navy Supply Systems Command	SSN	social security number
NCF	naval construction force	sqdn	squadron
NCR	naval construction regiment	SRIG	surveillance, reconnaissance, intelligence group
NSN	national stock number	SUADPS	shipboard uniform automated data processing system-real time
OMA	organizational maintenance activity	SupBn	supply battalion
OMFTS	operational maneuver from the sea	TAACOM	theater Army area command
OPLAN	operation plan	TACLOG	tactical-logistical group
OPORD	operation order	TAHQ	theater Army headquarters
OPP	off-load preparation party	TAM	table of authorized material
ORF	operational readiness float	TAMMC	theater Army materiel management center
PEI	principal end item	TAVB	aviation logistics support ship
POD	port of debarkation	TC AIMS	Transportation Coordinator's Automated Information for Movement System
POE	port of embarkation	T/E	table of equipment
POL	petroleum, oils, and lubricants	TFE	tactical field exchange
POS	primary operating stocks	T/O	table of organization
RIP	repairable issue point	TPFDD	time-phased force and deployment data
RRP	repair and replenishment point	trng	training
SAC	special accounting code	TSA	training squadron allowance
SASSY	Supported Activities Supply System	USTRANSCOM	United States Transportation Command
SCP	salvage collection point	WRM	war reserve materiel
SHORCAL	shore consolidated allowance list	WRMR	war reserve materiel requirement
		WRS-A	war reserve stocks for allies

Section II. Definitions

A

accompanying supplies - Unit supplies that deploy with forces. (Joint Pub 1-02) That materiel, including consumables, that moves with and supports the deploying MAGTF. Marine Corps doctrine requires that MAGTFs deploy with up to 60 days of supplies.

allowance items - The quantity of items of supply or equipment prescribed by Marine Corps tables of equipment or other authorized allowance publications. (FMFRP 0-14)

assault echelon - The element of a force that is scheduled for initial assault on the objective area. (Joint Pub 1-02)

assault follow-on echelon - In amphibious operations, that echelon of the assault troops, vehicles, aircraft equipment, and supplies which, though not needed to initiate the assault, is required to support and sustain the assault. In order to accomplish its purpose, it is normally required in the objective area no later than five days after commencement of the assault landing. (Joint Pub 1-02)

B

beachmaster unit - The naval element of the landing force shore party which facilitates the landing and movement over the beaches of troops, equipment, and supplies and to facilitate the evacuation of casualties and prisoners of war. (FMFRP 0-14)

C

consumable supplies - Those articles which, after issue, are chemically or physically altered with use to the extent that they cannot be economically reused for their original purposes. They are not normally

returned to a storage or industrial activity for repair.

Consumable supplies are either consumed in use or lose their identity in the process of work or performance of service. They include such items as office supplies, petroleum, oil, and lubricant products, and lumber.

D

day(s) of ammunition - Unit of measurement of replenishing ammunition expressed as a specified number of rounds, or items of bulk ammunition as may be appropriate per weapon, unit, individual kit, set, or using device required for one day of combat. (FMFRP 0-14)

demand(s) - An indication of a requirement (requisition, request, issue, etc.) for issue of serviceable materiel. Demands are categorized as either recurring or nonrecurring.

E

expendable supplies and material - Supplies which are consumed in use, such as ammunition, paint, fuel, cleaning and preserving materials, surgical dressings, drugs, medicines, etc., or which lose their identity, such as spare parts, etc. (Joint Pub 1-02)

F

fly-in echelon - Airlifted forces and equipment of the MAGTF and Navy support element plus aircraft and personnel arriving in the flight ferry of the aviation combat element. (FMFRP 0-14)

force sustainment - Capabilities, equipment, and operations which ensure continuity, freedom of

action, logistics support, and command and control. (FMFRP 0-14)

H

helicopterborne operation - A military action in which combat forces and their equipment maneuver about the battlefield by helicopters or vertical-landed aircraft. Aviation activities are under the control of the aviation combat element commander who is assigned in direct or general support of one or more combat element(s). (FMFRP 0-14)

host-nation support - Civil and/or military assistance rendered by a nation to foreign forces within its territory during peacetime, crises or emergencies, or war based on agreements mutually concluded between nations. (Joint Pub 1-02)

I

integrated material management - The exercise of total Department of Defense (DOD) management responsibility for a Federal supply group/class commodity of item by a single agency. It usually includes computation of requirement, funding, budgeting, storing, issuing, cataloging, standardizing, and procuring functions. (Joint Pub 1-02)

integrated material manager - Any activity/agency designated to exercise integrated material management for a Federal supply group/class commodity or item on a DOD or Federal Government level. (User Manual 4400.71)

J

joint operation - An operation carried on by a force which is composed of significant elements of the Army, Navy or the Marine Corps, and the Air Force, or two or more of these Services operating under a single commander authorized to exercise unified command or operational control over joint forces. Note: A Navy/Marine Corps operation is not a joint operation. (FMFRP 0-14)

M

maritime prepositioning force - A task organization of units under one commander formed for the purpose of introducing a MAGTF and its associated

equipment and supplies into a secure area. The maritime prepositioning force is composed of a command element, a maritime prepositioning ships squadron, a MAGTF, and a Navy support element. (FMFRP 0-14)

N

Naval Aviation Logistics Command Management Information System - An aviation maintenance management system utilized to document organizational/intermediate level aviation maintenance.

O

operating level of supply - The quantities of materiel required to sustain operations in the interval between requisitions or the arrival of successive shipments. These quantities should be based on the established replenishment period (monthly, quarterly, etc.). (Joint Pub 1-02)

P

plan for landing supplies - A plan peculiar to amphibious operations. It prescribes the levels to be landed at prescribed times and sets forth the means by which the transfer from ship to shore is accomplished. It includes instructions concerning supplies to be landed with assault troops, prescribed loads, mobile loads for vehicles, floating dumps, supply by helicopter or other aircraft, selective and general unloading, and dump levels to be achieved during various phases. (FMFRP 0-14)

port of embarkation - The geographic point in a routing scheme from which cargo or personnel depart. May be a seaport or aerial port from which personnel and equipment flow to port of debarkation. For unit and nonunit requirements, it may or may not coincide with the origin. Also called **POE**. (Joint Pub 1-02)

principal end item - A final combination of major end products, component parts, and/or materials which are ready for their intended use (e.g., truck, aircraft, tank, etc.).

R

reorder point - That point at which time a stock replenishment requisition would be submitted to maintain the predetermined or calculated stockage objective. (Joint Pub 1-02)

reparable item - A nonconsumable item of supply normally repaired and for which condemnation authority can be exercised below the depot level of maintenance.

S

safety level - The quantity of materiel which is required to be on hand to permit continued operations in the event of minor interruption of normal replenishment or unpredictable fluctuation in demand.

secondary items - Items, consumable and nonconsumable, other than principal end items.

secondary reparable - A reparable item other than the primary unit/end item. They are not functional by themselves, but are components of other items.

Shipboard Uniform Automated Data Processing System-Real Time - An inventory and financial management system utilized by Marine aviation supply.

stockage objective - The maximum quantities of materiel to be maintained on hand to sustain current operations. It will consist of the sum of stocks represented by the operating level and the safety level. (Joint Pub 1-02)

supplies - In logistics, all materiel and items used in the equipment, support, and maintenance of military forces. (Joint Pub 1-02)

supply - The procurement, distribution, maintenance while in storage, and salvage of supplies, in-

cluding the determination of kind and quantity of supplies. (Joint Pub 1-02)

supply control - The process by which an item of supply is controlled within the supply system, including requisitioning, receipt, storage, stock control, shipment, disposition, identification, and accounting. (Joint Pub 1-02)

supported commander - The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. (extract from Joint Pub 1-02)

supporting commander - A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. Includes the designated combatant commands and Defense agencies as appropriate. (Joint Pub 1-02)

sustainment - The provision of personnel, logistic, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (Joint Pub 1-02)

T

tac-log group - Representatives designated by troop commanders to assist Navy control officers aboard control ships in the ship-to-shore movement of troops, equipment, and supplies. (Joint Pub 1-02)

theater - The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility. (Joint Pub 1-02)

throughput - The average quantity of cargo and passengers that can pass through a port on a daily basis from arrival at the port to loading onto a ship or plane, or from the discharge from a ship or plane to the exit (clearance) from the port complex. Throughput is usually expressed in measurement tons, short tons, or passengers. Reception and storage limitation may affect final throughput. (Joint Pub 1-02) In logistics, the flow of sustainability assets in support of military operations, at all levels of

war, from point of origin to point of use. It involves the movement of personnel and materiel over lines of communications using established pipelines and distribution systems. (FMFRP 0-14)

throughput system - The logistic infrastructure that links; a. production logistics to consumer logistics, and b. the sources of operating forces' military capability to the sustainability of those forces. It is associated distribution systems (ports, bases, and airfields), civilian agencies, and supporting forces and service troops which operate those facilities and installations. (FMFRP 0-14)

time-phased force and deployment data - The Joint Operation Planning and Execution System data base portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan, including:

- a. In-place units.
- b. Units to be deployed to support the operation plan with a priority indicating the desired sequence for

their arrival at the port of debarkation.

- c. Routing of forces to be deployed.
- d. Movement data associated with deploying forces.
- e. Estimates of non-unit-related cargo and personnel by movements to be conducted concurrently with the deployment of forces.
- f. Estimate of transportation requirements that must be fulfilled by common-user lift resources, as well as those requirements that can be fulfilled by assigned or attached transportation resources. Also called **TPFDD**. (Joint Pub 1-02)

training squadron allowance - Training squadron allowances are additive to the allowances of a MAG and are to be distinctly identified as such in allowance documents provided to MAGs. TSAs are built to support a 30-day endurance period at peacetime flying hours. Also called **TSA**.