

CHAPTER TWO

Naval Logistics Planning

“To be a successful commander at any echelon, you had better think about logistics and you had better make sure that when you are ready to go you have enough fuel, beans, bullets, and bandages—all of the things to sustain your forces.”

—General Carl E. Mundy, Jr., USMC
Commandant of the Marine Corps, 1993

Introduction

The dynamic process of providing logistics support to our operational forces is one characterized by the need to respond to continuous change: e.g., changes in support required because actual usage exceeds expected consumption; changes in user location to keep ahead of enemy moves; changes in quantities needed to replace losses in transit or at the theater depot. A responsive logistics planning system and integral information support allows naval logisticians to keep up with these necessary changes to maintain our operational warfighting readiness through uninterrupted logistic support whenever, wherever.

Naval logistics planning and information support is designed to answer these questions: What materials, facilities, and services are needed? Who is responsible for providing them? How, when, and where will they be provided? To find answers, we start with sources of logistics planning guidance, then apply a formal process that parallels operational planning procedures. The nature of the situation will determine whether we apply a deliberate or a crisis action planning process. Using one of these processes, a general plan is formulated that covers the organization, procedures, and

policies of logistics support groups and the specific directives or instructions detailing the execution of support for a particular operation. These rules and tools are imperative for optimizing logistics systems responsiveness to the warfighter. Naval logistics information support systems keep the plan current, accurate, and adequate by providing data on the status of logistic resources, operational force needs, and the ability to meet those needs. Logistics planning and information support are thus complementary. Information enables a commander to apply his experience and judgment to deviate from existing plans. Similarly, formal planning can organize and prioritize a commander's information needs, allowing him to select the best courses of action and adapt what he knows to the situation.

Logistics Planning Considerations

Logistics is the responsibility of the operational commander, who must ensure that his operations and logistics experts integrate their operation and logistic plans. Overall feasibility of these plans will be determined by their ability to generate and move forces and materiel into the theater, then forward to our operating forces.

The complexity of planning would be extremely daunting, but for the fact that both logistics and operations planning are organized processes. Logistics planning needs to shape, anticipate, innovate, and be conducted concurrently with operations planning. Logistics planning is performed in parallel with naval operations planning. Logistic planners identify and resolve support problems early by working concurrently with, and in support of operations planners. All planners must consider the overall support requirements and capabilities. This is accomplished by working back from established objectives, and addressing such issues as adequacy and availability of resources. The result of this process is a logistics concept of operations that parallels the commander's concept of operations, permitting subsequent detailed, tactical-level, support planning. Detailed logistics planning should:

- ◆ Achieve optimum warfighter readiness.
- ◆ Optimize logistics systems responsiveness to the warfighter.
- ◆ Earmark significant time-phased support requirements necessary to maintain and sustain the warfighter whenever, wherever.

- ◆ Identify personnel and cargo throughput at shore-based logistics sites.
- ◆ Identify transportation requirements to support the movement of personnel, equipment, and supplies.
- ◆ Outline the capabilities and limitations of ports, including the Logistics-Over-The-Shore (LOTS) capability to respond to normal and expanded requirements.
- ◆ Recognize support methods and procedures required to meet the needs of the sea, air, and land lines of communications.
- ◆ Coordinate and control movement into the contingency area.
- ◆ Develop reasonable logistical assumptions.
- ◆ Define the extent of needed host nation resources.
- ◆ Designate alternative support sources for host nation support failure.
- ◆ Identify the engineering and construction requirements for sustainability.
- ◆ Identify the source of funding for logistics support.
- ◆ Delineate contracting responsibilities and authority.
- ◆ Consider the meteorologic and oceanographic limitations.
- ◆ Identify health service support requirements.
- ◆ Identify the service and maintenance support requirements for sustainability.

Sources of Logistics Planning Guidance

The National Security Strategy, National Military Strategy, Unified Command Plan, and Joint Strategic Capabilities Plan (JSCP) all form the basis of the theater campaign plan, and, in turn, the logistics support plans. These broad documents—in particular, the JSCP, which conveys the Chairman’s guidance—contain the basic planning assumptions for developing

regional plans. Navy and Marine Corps Capabilities and Mobilization Plans, and the Marine Corps Mobilization Management Plan contain detailed policies and force capabilities and allocation for each logistics functional area.

The Logistics Planning Process

The planning guidance provided by joint, naval, and multinational doctrine forms a sound, consistent, and authoritative foundation for naval planning. Naval logistics planners should be ready to participate in joint and combined operations as partners in the planning process, and as spokespersons for Navy and Marine Corps interests and requirements. The planner who understands joint planning can quickly integrate into Service or multinational planning.

Joint Logistics Planning is part of the joint operation planning process. Operational planning, conducted simultaneously at the strategic, operational, and tactical levels, provides the framework for employment of military forces to achieve specified objectives during contingencies. Planners provide for five major activities of joint operations. These are mobilization, deployment, employment, sustainment, and redeployment. These activities are components of force projection, which will be discussed in Chapter Four. In addition, planning may be deliberate, addressing potential future requirements; or crisis action, which addresses emergent planning requirements.

Operational plans must be adequate, feasible, acceptable, and compliant with joint doctrine. An adequate plan is one that will accomplish the mission, while a feasible plan relies on resources that are actually available when required. An acceptable plan is militarily and politically supportable, and is deemed worth the anticipated cost. Developing such plans in accordance with joint doctrine is the goal of the Joint Operation Planning and Execution System (JOPES) deliberate and crisis action planning processes. These are continuing cyclical planning processes that begin when a requirement is identified and continue until it no longer exists.

The Deliberate Planning Process

Deliberate planning prepares for a possible contingency based on the best available information, using forces and resources apportioned by the

CJCS in JSCP. Most deliberate planning is done in peacetime, based on assumptions regarding the political and military circumstances that may prevail when the plan is implemented. Deliberate planning is highly structured and occurs in regular cycles. It produces an operations plan (OPLAN), concept plan (CONPLAN), or functional plan.

Logistics planners prepare the staff logistics estimate during the concept development phase of deliberate planning. This provides the commander with the information to support courses of action (COA) selection, and is developed concurrently with the commander's estimate. Logistics also plays a major role in plan development as supported and supporting CINCs determine support requirements and resolve shortfalls. Finally, logistics planners at many levels prepare supporting plans to provide the mobilization, deployment, sustainment, reconstitution, and redeployment of forces and resources in the OPLAN.

Crisis Action Planning

Crisis Action Planning (CAP) is conducted in rapid response to actual circumstances. CAP follows the general pattern of deliberate planning, but adds flexibility for timely action. If an existing OPLAN is adaptable to the situation, CAP procedures are used to adapt an existing OPLAN to actual conditions or to develop and execute an operation order (OPORD).

Naval Logistics Planning

Naval planning occurs within the framework of the joint planning process. When naval forces are assigned, attached, or apportioned to unified or specified commanders, planning is done in support of the commander's intent. Naval planners provide input to the concept development (including the logistics estimate), plan development, and plan review phases. When a combined, joint, or naval task force is established, the component commander is directly responsible to the task force commander for development of supporting plans, including the logistics annex. The task force commander may often be Navy or Marine Corps, and may have other Service components providing supporting plans. Common planning processes allow products from each level or component to effectively support the overall plan.

For an OPLAN or OPORD, planners for Naval Component Commanders will receive the concept of operations, force apportionment, time-lines, and other pertinent information, and then promulgate the appropriate guidance, and task subordinate and supporting commanders to provide the additional information necessary to build the logistics plan. They will also work within the Joint Planning and Execution Community (JPEC) to resolve strategic and theater-wide planning issues. The Naval CINC logistics planners review and approve subordinate inputs, incorporate the data and requirements into the Navy plan, and represent the Navy CINC to resolve shortfalls, deconflict issues, and develop comprehensive and feasible logistics annexes to the OPLAN or OPORD. In the event of a Navy OPORD or General Operation Order (OPGEN), the Navy CINC planners follow the same basic process, but without a requirement for JPEC refinement. Navy CINC logistics planners often request and receive planning support from subordinate commands and supporting CINCs.

Planners for the numbered fleets, or other command levels below the component commander, develop detailed logistics requirements. The numbered fleet commander considers the level of supported forces, the timing of their arrival, planned movements, projected operations tempo and the distance and capabilities of potential support sites and maintenance facilities. Detailed support requirements and shortfalls are determined from these considerations. The CINC then incorporates these results in the final product, a detailed logistics concept of support. The Navy commander at this level—through his logistics staff and planners—may have responsibility for joint logistics coordination within theater, and will be concerned with both Navy and common-user theater stocks and services. Planning and coordination of support sites, contracting, facilities, forces, and equipment for shore-based operations are conducted in detail, as are planning for CLF and COD/VOD support of afloat forces. Numbered fleet or component commanders will task subordinates for appropriate planning data, and may receive logistics planning assistance from supporting commands.

Transportation planning assumes a minor role for initial deployment of most ships. While sustainment requirements bring the afloat force into competition for limited strategic transportation assets, the transportation feasibility of ships' movement during the deployment phase of an operation is almost always assured. Initial requirements for every logistics function are transported with the supported force. Endurance loaded ships may operate for weeks with minimal external support.

Naval units at sea must also place planning emphasis on theater infrastructure and lines of communication (LOC) issues. Theater infrastructure concerns do influence planning with regard to ports and facilities for shore-based support, maritime prepositioning force (MPF), assault follow-on echelon (AFOE), and logistics over the shore (LOTS) operations; and other strategic sealift discharge. Forces afloat must also be concerned with characteristics of the theater regardless of land or sea. Political and topographical concerns become relevant during projection of power into national waters, airspace, or territories. Where political or other conditions prohibit effective placement of support sites, planners must ensure available logistics force ships can provide support across extended shuttle legs. Conversely, the support of ships at sea is complicated by specific environmental (wind/sea state) impediments to resupply, and broader threat spectrums (including subsurface as well as surface and air). The U.S. Navy excels at underway replenishment (UNREP), but weather, threat, or operating conditions can render UNREP impossible at times. Planners seek to prevent support shortfalls by ensuring necessary support in spite of natural or enemy action.

Shore-based Naval logistics introduces additional planning requirements. Sites must be identified for the advanced logistics support sites (ALSSs) and forward logistics sites (FLSs). Capacities, layout, equipment, and competing requirements determine the throughput the sites can accommodate, and the logistics forces necessary to support that throughput. Plans are structured using ABFCs. These planning tools are functional groupings of personnel, material, facilities, and equipment. Each ABFC has a defined capability, and a list of requirements necessary to its support. Multiple ABFCs are combined to meet the mission requirements of each site, with personnel ABFCs providing the necessary skills being married to equipment/facility ABFCs providing the necessary capabilities. ABFC requirements may be met from units and equipment sets in the active component, the Naval Reserve, or from other sources. Navy organic shore based logistics forces are concentrated in the Naval Reserve, and planners must consider the need for early access to reserve units and equipment (both active and reserve) for every functional area of logistics. Additionally, the plan must provide for sustainment and security of the logistics forces and sites since many expeditionary shore-based Navy logistics forces are not fully self-sustaining.

Logistics planning within the battle group generally addresses near-term operations and emergent requirements. The battle force logistics coordinator

and staff will plan and develop operation tasks (OPTASKs) promulgating days of supply, logistics staff responsibilities, replenishment priorities, logistics reporting, and coordination of support within the battle force and with the underway replenishment group and shore-based logistics organizations. Existing shore-based logistics commands generally participate in OPLAN development by generating and providing relevant data and/or supporting plans to the Navy component commander. For Navy ships, logistics planning is driven by the direction received in instructions and OPTASKs from each level of command. Supply, Weapons, Medical, and Engineering Officers maintain directed levels of supply, and exercise judgment within prescribed parameters.

Marine Corps logistics planning reflects the tradition of operations from the sea, focusing on its expeditionary nature. Expeditionary operations ashore generally require establishment of forward bases and creation of a theater logistics system. Expeditionary operations generally involve five phases of action: predeployment, deployment, entry, enabling/decisive actions, and redeployment. Planning for predeployment addresses logistics, interfaces, FSSG support to the deploying MAGTF, civilian support, mobilization personnel requirements, fiscal authority, facilities, and remain-behind equipment. Deployment planning defines deployment support organizations, JOPES validation, deployment modes, movement control organizations, and continuing support from parent bases and stations. Entry planning includes amphibious operations, MPF operations, air contingency MAGTF operations, Marine Operations other than War, or any combination of the four. Enabling/decisive planning considers sustainment through lodgment for logistics and other support capabilities, sea basing requirements, the need for the sea echelon, and the potential to transition to sustained operations ashore. Finally, reconstitution planning provides for potential follow-on missions and redeployments.

Multinational Planning

Economic, military, environmental, and other crises seldom confine themselves to a single nation. The U.S. unified, subunified, or joint task force (JTF) commander normally acts within the U.S. chain of command to prepare both unilateral plans and joint plans in support of treaty or alliance commitments. Within the combined chain of command, the U.S. commander and component commanders coordinate these plans with coalition or alliance plans. The principles guiding operational and logistics planning

within international organizations are much the same as those within joint and naval planning, and logistics remains a national responsibility under allied doctrine. However, certain planning considerations gain significance in multinational planning. The following are representative of areas the naval logistics planner must address:

- ◆ Chains of command proliferate, and lines of authority and responsibility must be understood. This relates to all levels of command. It reflects the need to know not just command and control organizations, but also responsibilities for functional and site operations. Equally important is advance agreement on procedures for adjudicating conflicts that may arise between countries.
- ◆ National security interests must be maintained. Certain information within joint and supporting plans will not be necessary to the planning or execution of the combined operation, and will not be releasable to allies or coalition members. The scope and level of information to be released will be in accordance with CJCS instructions.
- ◆ Planning and reporting requirements, methods, and formats must be determined. This is frequently established in allied doctrine, but may vary in different operations. Planners must recognize and incorporate these requirements in planning logistics command and control.
- ◆ Logistics interoperability must be addressed. While logistics is a national responsibility, the principles of economy and simplicity require cooperative agreements. These agreements allow more efficient use of resources and minimize the logistics footprint in theater. Differences in areas like health services or food service between the support acceptable by one nation, and available from other nations may be completely irreconcilable. While issues such as processing standards, sanitation practices, and water or fuel quality provide common examples of this problem, other considerations can be just as critical; common or shared support of combined forces can be extremely difficult when cultural or religious beliefs impact sustainment.

NATO Logistics Support

Planning takes place within the NATO Operational Planning Process (OPP), and produces detailed logistics Annexes to the NATO OPLAN and

OPORDER. Within NATO maritime forces, specific logistics planning may be promulgated through OPTASKs. The NATO planning process and products bear great similarity to the U.S. equivalents. A primary difference is the need for continuous national consultation and international coordination during planning. Memoranda of Understanding (MOU), bilateral agreements, joint Host Nation Support Agreements (HNSAs), Status of Forces Agreements (SOFAs), funding, transfers of authority, national contributions, NATO-owned equipment, and other questions must be addressed. The principal source of unity of effort, consensus, and economy is a series of Logistics Planning Conferences involving NATO Commanders and nations. These conferences result in logistics procedures and a command and control architecture to be employed in the operation.

Conclusion

Planning operations at the Service, joint, or multinational level requires tremendous amounts of data. For logistics planning, this data involves every aspect of an operation that may affect distribution and sustainment. Analysis at every level of logistics, for each element, within each function, must be thorough and accurate. Incorporating every consideration from the strength of the enemy to the location of a reserve unit in the middle of the U.S. is an almost incomprehensible task. Effective planning depends on the rapid accumulation and processing of data into information that can support the operational commander in making the right decision. To this end, sophisticated information systems link operations and support planners at every level to each other and to the information they need. Naval and joint planners rely on JOPES and supporting systems identified in the next chapter to produce feasible plans and time-phased force and deployment data (TPFDDs).

Logistics planning extends from the deckplates to the National Command Authorities, and to international alliances and organizations. Attention at every level assures consideration of factors ranging from the operating needs of the forces to the limits of the industrial base. At higher organizational levels planning becomes more complex, yet more productive; economies and capabilities shared within and between units, forces, services, and nations afford the warfighter increasing access to responsive, flexible support. Feasibility is enhanced as joint and combined assets address common needs. Disciplined planning efforts draw each advantage from cooperative support, thereby minimizing waste and redundancy. At

execution, the products of logistics planning multiply the effectiveness of the force and the confidence of the combatant commander.





Logistics Command and Control Systems

“A sound logistics plan is the foundation upon which a war operation should be based. If the necessary minimum of logistics support cannot be given to the combatant forces involved, the operation may fail, or at best be only partially successful.”

—Admiral Raymond A. Spruance, USN
Commander Fifth Fleet, 1946

Introduction

Naval commanders monitor and direct forces through command and control (C2) systems. C2 systems are bolstered by information systems offering reliable data and the organizational and analytical tools to manipulate that data in support of effective decision-making. The command and control and information systems used to monitor and direct naval forces and operations, including naval logistics forces and operations, function under national authority and within a joint command and control system to permit effective coordination and employment of forces. Additionally, naval forces may be assigned to combined forces. In this mode, naval command and control systems connect to allied systems, and naval information systems share with allied systems that information necessary for combined operations, consistent with U.S. security considerations. Effective logistics support requires commanders at every level of supported and supporting forces to understand the organization and associated information systems of naval, joint, and combined forces.

Development of joint command and control, and information systems is progressing rapidly. Commonality and interoperability have assumed a higher priority than ever before. Advances in C2 have been made possible by advances in information and communications technology, and divergent approaches to command and control are drawn closer by computer processing power and electronic media. Advances in C2 extend to command and control of naval logistics (Log C2), and supporting information systems.

Command and Control of the Armed Services

The NCA controls the operating forces through designated commanders in chief exercising combatant command (COCOM) of assigned forces. COCOM is vested in geographic and functional unified (all Service) commands with broad continuing missions. Two additional levels of joint force commands are subordinate unified commands and the JTF. The JTF is the “workhorse” organization for joint response to an emergent crisis with a specific limited objective.

Naval Service Organizations

Although forces may be assigned or reassigned between unified CINCs, they remain permanently organized within the Services. The Secretary of the Navy (SECNAV) exercises authority, direction, and control of those Navy and Marine Corps forces *not specifically assigned to combatant commanders*. The SECNAV directs and controls naval forces through the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps (CMC). The Department of the Navy organizes, trains, equips, and provides forces for the combatant commanders, and maintains administrative control (ADCON) of those forces. Administrative control is exercised through the commander of the cognizant Navy or Marine Corps component command.

The CNO and the CMC are the senior Navy and Marine Corps officers respectively of the Department of the Navy, and are members of the Joint Chiefs of Staff (JCS).

Forces and assets under the CNO administrative control include Navy operating forces and the Navy shore establishment. Navy component commanders working under the unified CINCs report administratively to the

CNO. In this chain of command, they train and equip the operating forces. These commanders include the major fleets—the Atlantic Fleet (CINCLANTFLT) and the Pacific Fleet (CINCPACFLT)—and the commanders of U.S. Naval Forces Europe (CINCUSNAVEUR) and U.S. Naval Forces Central Command (COMUSNAVCENT). Also included are commanders of the Naval Reserve Force (COMNAVRESFOR), the Operational Test & Evaluation Forces (COMOPTEVFOR), the Naval Special Warfare Command (COMNAVSPECWAR), and the Military Sealift Command (COMSC).

Under the USMC organization, the CMC is administratively responsible to train and equip the Marine Corps forces under its two main organizations, Marine Forces Pacific (MARFORPAC) and Marine Forces Atlantic (MARFORLANT).

Operating Force Organization

Operationally, Navy geographic component commanders report to the unified CINCs for their areas and command Navy operating forces and activities within their geographic areas. These operating forces are organized in numbered fleets. The Commanders of the Third Fleet and Seventh Fleet report to CINCPACFLT, while Commander, Second Fleet reports to CINCLANTFLT. Additionally, Commander, Sixth Fleet reports to CINCUSNAVEUR, and Commander, Fifth Fleet reports to COMUSNAVCENT. As units enter an area of responsibility for a specific Navy CINC, they CHOP (change of operational control) to the appropriate numbered fleet. Within the fleet, forces are further organized into task forces (TF), task groups (TG), task units (TU), and task elements (TE) as appropriate. These organizations may be naval, joint, or combined. In joint or combined task operations, the senior naval commander may be the combatant commander or may serve as component commander to the task organization.

Operationally, Marine Corps Operating Forces are assigned to combatant commands through the Marine Corps component commanders. The Marine Corps established combatant command-level Service component commands include MARFORPAC and MARFORLANT. To provide three-star, general officer representation to the remaining three geographic combatant commands, COMMARFORLANT is designated as the Marine Corps component commander to both CINCUSEUCOM and CINCUSSOUTHCOM.

COMMARFORPAC is designated as the Marine Corps component commander to CINCUSCENTCOM and Commander, U.S. Forces Korea (COMUSFK). The Marine Corps operational organization is focused on the MAGTF. Each MAGTF contains a Command Element (CE), a Ground Combat Element (GCE), an Aviation Combat Element (ACE), and a Combat Service Support Element (CSSE). There are four basic types of the MAGTF:

- ◆ **The Marine Expeditionary Force (MEF)** consists of a command element, and at least one Marine division (MARDIV), a Marine aircraft wing (MAW), and a force service support group (FSSG). Any of the three MEFs may deploy minus portions of its structure, or plus units from other MEFs, Services, or the Reserve.
- ◆ **The Marine Expeditionary Brigade (MEB)** consists of a command element, two to five reinforced infantry regiments, a composite Marine aircraft group (MAG), and a Brigade service support group (BSSG). A MEB may deploy as an amphibious force, maritime prepositioning force, or an air contingency MAGTF.
- ◆ **The Marine Expeditionary Unit Special Operations Capable [MEU(SOC)]** is the standard forward-deployed organization, routinely found in an Amphibious Ready Group (ARG). The MEU(SOC) normally includes a command element; a reinforced infantry battalion with artillery, engineer, reconnaissance, armor, and assault amphibian units; a reinforced squadron with transport, utility, and attack helicopters; a detachment of vertical/short takeoff and landing fixed-wing attack aircraft; and a task organized MEU service support group (MSSG).
- ◆ **The Special Purpose MAGTF (SPMAGTF)** may be formed with narrowly focused capabilities chosen for a specific mission. Normally, the SPMAGTF will be at or below the size of a MEU(SOC).

Naval Logistics System Organization

Naval logistics forces fall within the same overall command and control structure as operating forces. Forces in theater are assigned to the operational control (OPCON) of the supported CINC. The logistics organizations, systems, and forces are both components and customers of the overall logistics system. Regardless of location or employment, all logistics forces rely on supply and transportation systems to distribute their own

support and to fuel the support they provide. Joint, naval, and multinational organizations often co-exist and interact to provide effective theater logistics command and control.

Theater Logistics Command and Control

Logistics command and control in theater is the responsibility of the combatant commander, while logistics support is a Service responsibility. The combatant commander normally accomplishes control of naval logistics operations through the naval component commander. Dependent on the size and nature of operations and assigned forces, there may be either Navy (NAVFOR) or Marine Corps (MARFOR) component commanders, or both. Naval forces afloat, including Marine forces, will likely be OPCON to NAVFOR. Marine Forces afloat may receive common-item logistics support via the NAVFOR. Conversely, Naval forces landed in support of ground operations, which may include Navy forces, will be likely OPCON to MARFOR and may receive common-item logistics support via the MARFOR. Also, a joint force commander may designate JTFs sourced entirely from a single Service, or from functional components of several Services. Naval organization for effective logistics support is predicated on the nature of the forces supported, and may be tailored to specific theaters and operations.

The joint force commander (JFC) will determine his appropriate Log C2 organization based on the mission, operating environment, and assigned assets. This organization will manage common-user and cross-Service logistics, monitor and report logistics operations and capabilities, advise the combatant commander on logistics matters, and represent the command to external logistics organizations. Regardless of what specific form the organization takes, it will generally constitute or include a Logistics Readiness Center (LRC). The logistics staff will focus its monitoring, advising, and internal and external coordinating activities within this center. While the joint logistics C2 structure may take many forms, most can be categorized within three primary models:

- ◆ Augmented log organization, represented in Figure 3-1, utilizes the existing J4 organization as the theater Log C2 organization. This logistics staff, augmented as necessary by the relevant Services and Agencies personnel, extends its role beyond the internal staff logistics functions to provide coordination and tasking for joint force logistics.

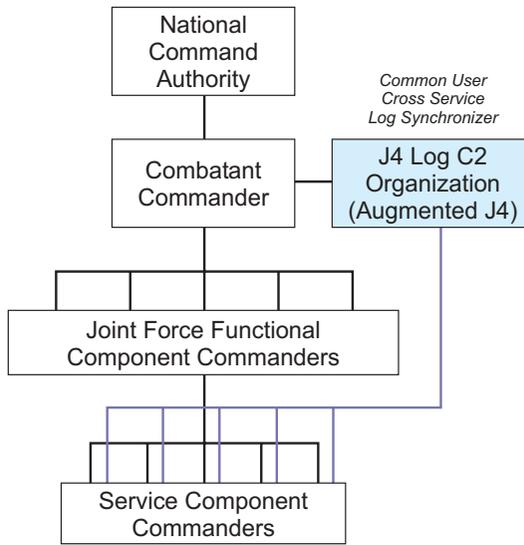


Figure 3-1. Joint Logistics Augmented Organization

- ◆ In a second organizational form, shown in Figure 3-2, a separate J4 focuses mainly on internal logistics, and a Log C2 tasking and coordinating position is created on the CINC’s staff. Jointly staffed by the Services and Agencies, this organization can be activated and expanded as dictated by mission requirements.
- ◆ For missions or areas where one Service represents the majority of the capabilities or requirements, the combatant commander may organize Log C2 by tasking the predominant involved Service’s logistics agency with managing and coordinating joint requirements. Service and Agency liaison will be provided to represent component requirements. An example of this organization is depicted in Figure 3-3.

Naval Theater Logistics Command and Control

Naval Log C2 organization for forces afloat is often supported across multiple lines of communication from sites both within and without the operating area. These sites may be under control of different numbered fleet commanders. The forces afloat can also move in and out of the CINC’s area of responsibility (AOR), drawing sustainment from changing CINC’s as they transit the ocean. Shore-based forces in theater have different support requirements than forces afloat, and in some theaters may fall under

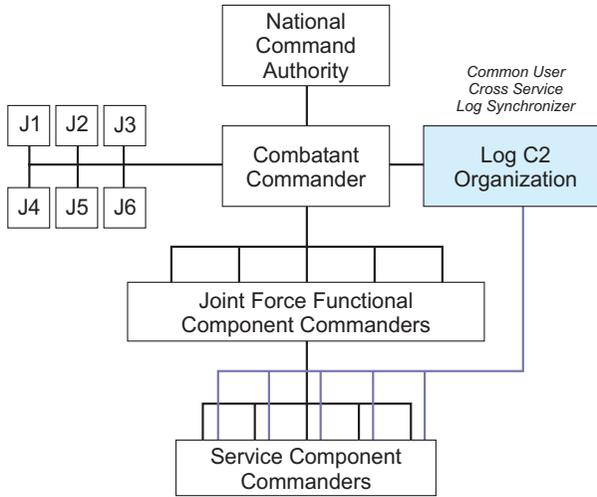


Figure 3-2. Joint Logistics Stand Alone Organization

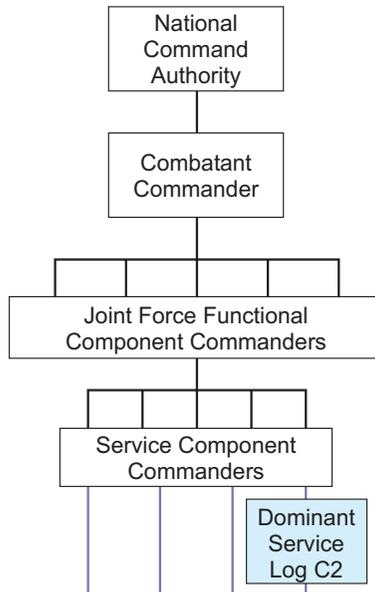


Figure 3-3. Joint Logistics Dominant Service Organization

different Service Log C2 organizations. Certain Navy forces ashore may be reassigned between Navy and Marine Corps (or other-Service) control, shifting support responsibilities. Finally, Marine Corps forces afloat shift substantial support requirements from Navy to Marine Corps logistics organizations when they go ashore. These challenges demand very flexible, but very well defined, Log C2. Like the unified CINC, the Navy fleet CINC has the three similar options for Log C2 organization.

The logistics forces of each numbered fleet overseas are organized into a standing task force. The commanders of these task forces act as the principal logistics agents for the Fleet Commander. They control assigned CLF shuttle ships; plan resupply of ordnance, fuel, and repair parts; and plan and manage theater ship repairs in military and commercial yards. In some cases, the numbered fleet logistics task force commander may be “dual-hatted” on the CINC Fleet staff. In other cases, the Navy component commander may control logistics forces that are not assigned to a numbered fleet.

Logistics Command and Control Ashore

Navy expeditionary shore-based logistics forces include those assigned to the Navy component commander and those assigned to the Marine Corps forces. Navy expeditionary shore-based logistics forces not assigned to Marine Corps forces will normally be incorporated into logistics sites in theater. Commanders of these sites will report to the Navy component commander through the NCC’s logistics C2 organization. Sites under NCC operational control include the ALSS and FLS central to Navy theater distribution. While an ALSS or FLS will include airfields and seaports, Navy logistics forces will normally be tenants at these facilities, and will control only those forces and facilities specifically belonging to or given over to the Navy. Potential command and control options for terminal operations include:

- ◆ Existing U.S. bases with common-user port and terminal operations under AMC (air) or MTMC (sea).
- ◆ Existing U.S. bases operating common-user terminals under AMC or MTMC within port facilities under host nation civil or military control.

- ◆ Existing U.S. bases with port and/or terminal operations under Service control.
- ◆ Expeditionary common-user terminals under AMC or MTMC control, normally located in ports operated and controlled by host nation civil or military authority. This could include ports operated under combined commands.
- ◆ Expeditionary Service terminals located in ports under host nation authority. For Navy terminal operations, these are generally constituted from appropriate ABFCs to provide terminal operations and related support. This could include expeditionary terminals under combined control within host nation ports.
- ◆ Foreign civil or military ports without U.S. terminal operations, with or without an ongoing U.S. liaison presence. This circumstance most often occurs when a ship or unit calls at a port where U.S. forces do not normally operate.

Operations conducted in the absence of ocean terminals include MPF operations, amphibious operations, and LOTS/JLOTS. MPF operations will be conducted through ports when available, but the organizational foundation of the operations remains the same. MPF operations require an aerial port of debarkation (APOD) for offload of two fly-in echelons (FIE). At the seaport or beach, the Naval Beach Group (NBG) commander becomes commander of the Naval Support Element and directs cargo offload operations. During amphibious operations, the NBG supports the landing. A landing force support party (LFSP) is task organized from the NBG, Transportation Support Battalion, and other Navy organizations to provide initial combat service support. In JLOTS, the JFC will designate a JLOTS commander. Naval responsibilities will be as defined by joint doctrine and the JLOTS commander, and are generally influenced by the Service composition of the forces and sustainment being throughput.

Naval logistics forces including medical battalions, dental battalions, medical logistics companies, and construction battalions also support MAGTF operations. These forces operate under the Marine Corps theater logistics organization. The COMMARFOR may establish a MLC to facilitate reception, staging, onward movement, and integration (RSOI) and provide operational logistics to Marine forces. MLC is a task organization option, not a permanent organization. A FSSG may be assigned the

resources and responsibility for MLC functions, based on the operational situation, geography, C2 (for both tactical operations and logistics), and infrastructure requirements. During deliberate planning the MLC supports the identification, preparation, and submission of host nation support, interservice support, and intertheater and intratheater requirements for the Marine Service component. The FSSG designated as the MLC deploys early to support arrival, assembly, and initial CSS missions to the MEF until its own CSSE can be established. The MLC then conducts general support and interfaces with other theater logistics agencies.

Marine Corps command and control of non-aviation logistics in the MAGTF is through the CSSE that may be a FSSG or subordinate element. All organizations in the MAGTF have limited logistics capability—when that capability requires augmentation, the CSSE provides combat service support. The CSSE commander takes direction from the MAGTF commander.

The Assistant Chief of Staff, Logistics (AC/S G-4) has staff cognizance for logistics, and identifies logistics requirements, recommends logistics priorities, and coordinates external support. As the MAGTF and its CSSE are task organized, the CSSE commander may use various C2 options. The FSSG commander may form a subordinate CSS Detachment (CSSD), centralizing control by giving the unit a general support mission, decentralizing control by giving the unit a direct support mission, or attaching the CSSD to the supported unit. The Assistant Chief of Staff, Aviation Logistics Department (AC/S ALD) coordinates aviation maintenance, aviation ordnance, aviation supply, and avionics for the MAGTF's ACE with the Marine Aviation Logistics Squadron (MALS). The ACE also possesses organic ground logistics capability in the Marine Wing Support Group (MWSG). The commander of the MAGTF may realign tasking and responsibilities between the CSSE and the MWSG to maximize overall effectiveness.

Logistics Command and Control Afloat

The commander of the afloat forces will exercise control of logistics through a Fleet Logistics Coordinator (FLC), Task Force Logistics Coordinator (TFLC), or Task Group Logistics Coordinator (TGLC). Guidance and direction for Navy logistics operations derives from OPGEN promulgated by the Navy operational commander to set general policies and

procedures. An OPORD may be issued at various command levels to provide direction for specific operations. More specific guidance is provided by a series of OPORD appendixes or OPTASKs.

Multinational Theater Logistics Command and Control

Command and control of logistics during combined operations is similar to joint command and control. Command and control of multinational logistics operations requires the commander and staff to be aware of the parallel national organizations involved, and to foster good relationships with national representatives at appropriate points within those “stovepipes.” A few of the major complicating factors in multinational operations follow:

- ◆ Combined operations can greatly multiply the overlapping organizations. As an example, defense of the Korean peninsula is entrusted to Service components reporting to a joint commander (CINCUSFK) working within a Republic of Korea/U.S. Combined Force Command (CFC) bilateral alliance that coexists with the United Nations Command (CINCUNC).
- ◆ Sovereign nations will not always give Multinational Force Commanders (MNFCs) operational control of their forces. When operational control is given, it may be accompanied by restrictive conditions that severely limit the commander’s flexibility in employing the forces. This extends to logistics forces; OPCON may be extended to the MNFC, or limited directive authority may be granted.
- ◆ When OPCON over forces is granted, it does not automatically extend to logistics resources. Multinational operations do not provide directive authority over logistics unless specifically granted. Specified commanders within NATO are granted logistics redistribution authority to meet critical operational needs, but this is severely qualified.
- ◆ Forces are generally committed to multinational operations because of a community of interest; the military objectives of the force align substantially with the political objectives of the participants. Sovereign authority over forces, even those OPCON to the MNFC, supersedes any other.

The diversity of coalition or alliance members can be further complicated by the introduction of non-member nations into alliance operations. Ad hoc coalitions in response to emergent crises bring no C2 organization with them. It is assumed that when the U.S. is the coalition leader and dominant participant, U.S. joint or Service C2 organizations will prevail, but even willing coalition partners may sometimes lack the logistics robustness, interoperability, technology, or discipline to allow easy integration.

NATO Organization

There has been substantial success in developing combined command and control doctrine and procedures. NATO is the premier example of combined C2 for alliances involving many nations. As a standing organization that includes numerous members, operates in multiple theaters, and executes multiple types of missions, NATO reflects most of the challenges inherent in development of formal C2 for combined operations. NATO relies on a civil/military structure. Each member nation sends permanent ambassadors to the civil forums, and military representatives to the Military Committee. The highest civil forum is the North Atlantic Council (NAC). The Military Committee (MC), which is one of several committees established under the authority of the NAC, is the highest military authority in NATO. NATO's upper level military structure is depicted in the NATO Logistics Handbook.

Forces assigned to NATO are task organized. Operational control passes to the Combined Joint Task Force (CJTF), but the United States does not relinquish command of its forces. The OPCON of forces does not entail control of logistics, which must be specified. When a CJTF is formed, the CJ4 is responsible for logistics coordination. NATO Multinational Maritime Force (MNMF) doctrine requires member host nations to establish and operate necessary ALSSs or FLSs. Afloat support refers to logistics support ships providing sustainment, medical services, and repair support to MNMF ships underway or at anchor. Ashore support involves necessary sites, facilities, and forces to provide logistics support to the MNMF.

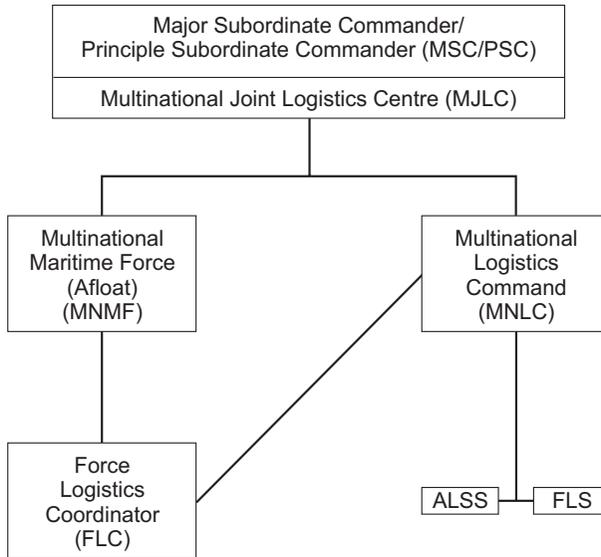


Figure 3-4. Multinational Logistics Organization

Command and Control of Afloat Support to the Multinational Maritime Force

Component forces may establish Multinational Logistics Centres or Commands (MNLs). The MNL for shore-based support of maritime operations is established as a command because of the requirement to command subordinate sites. This command relationship is reflected in Figure 3-4. Land or air MNLs are established as centers, and are limited to coordinating authority.

Command and control of afloat support to the NATO MNMF is similar to U.S. Navy practices. The MNMF Commander assigns a Force or Group Logistics Coordinator (FLC/GLC) to ensure logistics readiness. The U.S. Navy commander within the MNMF will assign a Logistics Coordinator (LC) to provide coordination with the FLC/GLC. The Force Logistics Coordinator plans and executes MNMF afloat logistics policy, monitors inventory, and controls movement of sustainment to and within the task force or task group. The FLC is the Commander's direct liaison to the MNL for shore-based support. The NATO afloat logistics command structure is pictured in Figure 3-5.

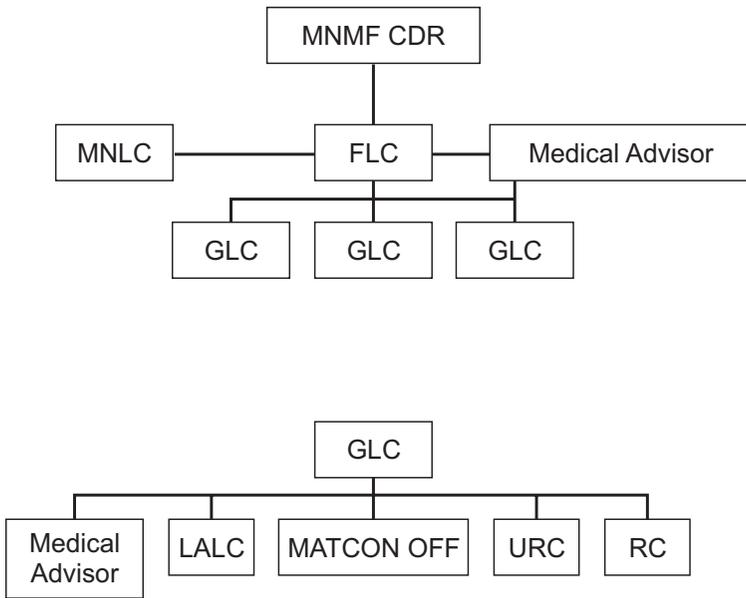


Figure 3-5. MNMF Afloat Support Organization

Command and Control of Shore-Based Support to the Multinational Maritime Force

Consistent with agreement between NATO Military Authorities and involved nations, the Multinational Logistics Commander (MNLC) controls and coordinates assigned shore-based logistics support forces. These include assets of the ALSS, FLSs, theater airlift, VOD, and shuttle tankers. The MNLC will normally report to the NATO commander exercising OPCON of the Multinational Maritime Force. Shore-based theater distribution within NATO is very similar to the hub and spoke system operated by the U.S. Navy, but when an ALSS or FLS is established within a member nation, the commander of that site will be drawn from that nation. This facilitates cooperation and communication between NATO sites and the host nation, and often allows NATO to rely on existing capabilities with minimal startup delay.

Logistics Information Systems

Logistics command and control depend on the identification and communication of planned and actual support requirements, and the

identification and application of logistics assets to meet those requirements. Conceptually, the quality of asset management determines whether scarce logistics resources can “stretch” to provide effective support. The commander, planner, or logistician is constrained by the accuracy and timeliness of available data. Such data is only useful when collected, analyzed, and refined into relevant information. Information systems enable every element, and support each principle of logistics. Information technologies have changed the way naval logisticians do business by fostering more efficient application of limited logistics resources. Increased emphasis on interoperability of equipment and standardization of procedures has allowed naval commanders and logisticians to lend to and gain from joint, other Service, and multinational logistics capabilities. The combined impact of the various systems in place and coming into service provides our naval forces with definitive advantages in planning, command and control, and operation of our logistics system.

Global Command and Control System (GCCS) and Other Primary Joint and Naval Logistics Information Systems

Global Command and Control System (GCCS) is the primary comprehensive automated command, control, communications, computers, and intelligence (C4I) system. It provides a worldwide network of military and commercial systems supporting information exchanges between the NCA, combatant commanders, and component commanders. Over 100 other major logistics information systems are in use by the Armed Forces, but as standardization continues, more systems feed common databases. The use of two emerging joint deployment information systems has been approved in an effort to enable the 72-Hour Time-Phased Force Deployment Data (TPFDD) time standard for deployment and provide operational capability in the near-term. The Transportation Coordinator’s Automated Information For Movement System II (TC-AIMS II) will be the near-term joint single-source data system, and Joint Force Requirement Generator II (JFRG II) will be the near-term joint single-source feeder system for capturing and feeding unit movement requirements information into JOPES. TC-AIMS II will exchange unclassified Organizational Equipment List (OEL), Unit Deployment List (UDL), and Unit Movement Data (UMD) files with the JFRG II. GCCS is the C2 migration system to bring Service systems together; in this sense, all legacy and migration systems that support or access the common data bases are “part of” GCCS. Many systems play some

part in joint and naval logistics. Naval distribution is supported by numerous information and communication systems, offering management of inventories, movement, requirements, and other aspects of supply and transportation. These systems enhance distribution at every level of operations. Various systems at DLA, Service, and commercial locations provide the backbone of continental United States (CONUS) logistics, and support global distribution. Functionally specialized systems support disbursing, engineering, medical, repair, ordnance, fuel, and other operations. Together, these systems form an increasingly integrated network of information and decision support focused on effective logistics. NATO utilizes the Allied Command and Control Information System (ACCIS) for this function.

Conclusion

Adequate information about the availability and location of support—together with information on the physical and operational environment constraining distribution or execution of that support—allow maximum responsiveness and economy. By squeezing the most support from the available assets, effective command and control can positively influence overall efficiency of the logistics system. Likewise, a warfighter with reliable information on his logistics support can achieve the required level of confidence at a lower level of supply. Thus, excess stocks and requisitions are avoided, allowing the logistics information to serve as both an enabler and a product of logistics command and control. Naval logisticians will always depend on effective command and control to achieve maximum support from minimum resources, facilitating effective decision-making.



