CHAPTER 3. COMMAND AND CONTROL

Operational logistic C2 involves the organizations, communications, and processes needed to generate, collect, and transmit the necessary logistic information to execute force closure, sustainment, and reconstitution and redeployment. Logistic C2 has three primary goals—recognizing needed support and ensuring the support reaches units that need it, anticipating future requirements, and allocating resources. C2 supports the operational logistic planning, decision, execution, and assessment (PDE&A) cycle. It enables the component commander to exchange logistic information with joint, multinational, other Service components, host nation, the MAGTF, and the strategic base. The operational logistics C2 begins with the national military command structure.

National Military Command Structure

Marine Corps combatant command-level components occupy a point of convergence between the operational and Service (administrative) chains of command in the national military command structure. See figure 3-1. Below the National Command Authorities (NCA), the two chains of command diverge with the operational chain running through

Figure 3-1. Chain of Command.
the combatant commands to the Service component and with administrative authority flowing through the Service secretaries and Service chiefs to the Service component commander.

**Joint Forces**

There are three levels of joint forces: unified commands, subordinate unified commands, and JTFs. The NCA has established nine unified commands, also referred to as CINCs, to perform broad continuing missions. The five combatant commands are responsible for a geographical area, while the unified commands are functionally responsible for transportation, space, special operations, and strategic forces. The CINC, United States Transportation Command (USCINCTRANS) is the functional unified commander for transportation.

Combatant commanders may form standing subordinate unified commands to perform broad and continuing missions. For limited and temporary operations, JTFs are established that report to either a combatant command, subordinate unified command, or an existing JTF. COMMARFORPAC can establish and deploy two JTF headquarters, and COMMARFORLANT can deploy one JTF headquarters, ordered by their combatant commanders.

Joint commanders organize their commands either by function, Service component, or by a combination of both methods. Joint forces with assigned and/or attached MARFOR have Marine Corps Service components.

**Marine Corps Components**

The Marine Corps has three methods of organizing and staffing the two levels of composnency shown in table 3-1.

A combatant command-level MARFOR is formed on a continuing basis. The combatant-level commander, Marine Corps forces (COMMARFOR) may deploy with a staff in situations where the CINC and principal staff deploy to the operational area. When deployed to a theater of war, the MARFOR can be organized with two commanders and two staffs or with one commander and two staffs.

**Two-Commanders/Two-Staff Method**

In the two-commander/two-staff arrangement, one commander and one staff function as the MARFOR, while the other commander, supported by a staff, commands the MAGTF.

**One-Commander/Two-Staff Method**

In the one-commander/two-staff arrangement, one commander is dual-hatted as COMMARFOR and MAGTF commander supported by a component staff and MAGTF staff.

**One-Commander/One-Staff Method**

For smaller scaled operations, a one-commander and one-staff organization is used at the subordinate joint command level. This organization method is primarily used with a JTF but can be used for a subordinate unified command. In this method, the MAGTF commander and staff are also designated as the component commander and staff. The combatant command-level MARFOR can augment the component/MAGTF commander with personnel to establish an embedded component staff. Located with the MAGTF staff, the embedded staff concentrates on operational-level functions while the MAGTF staff focuses on tactical considerations.

<table>
<thead>
<tr>
<th>Joint Force</th>
<th>Marine Corps Component</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combatant command</td>
<td>Combat command-level MARFOR</td>
<td>One commander and two staffs or two commanders and two staffs</td>
</tr>
<tr>
<td>Subordinate unified command or JTF</td>
<td>Subordinate joint command-level MARFOR</td>
<td>One commander and one staff</td>
</tr>
</tbody>
</table>
Command Responsibilities

C2 responsibilities for logistics are as follows:

- Joint staff and Services concentrate on strategic logistics.
- Supporting and supported combatant commander’s logistic staff manage strategic and operational logistic issues that affect missions assigned to the combatant commanders in the Joint Strategic Capabilities Plan and other areas directed by the CINC.
- COMMARFOR or the senior MAGTF commander performs operational logistics. The COMMARFOR may establish a theater MLC to C2 operational-level logistic functions.
- MAGTF and subordinate commanders deal with tactical logistic responsibilities.

Marine Corps Forces Logistic Responsibilities

The focal point of Marine Corps operational logistic C2 is the MARFOR. The Marine Corps component is positioned at the confluence of the joint operational and Service administrative chains of command, the center of the theater distribution network, and the junction of the strategic/tactical logistic pipeline. Figure 3-2 depicts the central location of the Marine Corps component in the operational logistic C2 network. The MARFOR is responsible to the JFC for the following major actions:

- Making recommendations on the proper employment of MARFOR.
- Accomplishing operational missions assigned by the combatant commander.
- Selecting and nominating specific Marine units or forces for assignment to other subordinate forces of the combatant command.
- Conducting joint training and exercises.
- Informing the combatant commander of changes in planning for logistic support that will affect the combatant commander’s ability to accomplish the mission.
- Developing Marine Corps programming and budgeting requests to support the combatant commander’s warfighting requirements and priorities.

Figure 3-2. Operational Logistics C2.
Providing supporting operation and exercise plans to support assigned missions.

Marine Corps Forces Command and Control Principles

To maximize the benefits from its central position, the MARFOR must interface effectively with joint and multinational organizations that use different processes than the Marine Corps. Multinational operations are difficult because of variations in language, terminology, doctrine, systems, and operating standards. To reduce confusion during joint and multinational theater logistic operations, the MARFOR is guided by the following C2 principles:

- Establish liaison early.
- Monitor current and evolving theater and Marine component logistic capabilities.
- Coordinate logistic support requirements with upcoming operations (in the construct of future operations and future plans).
- Advise the component commander on the supportability of proposed COAs.
- Coordinate with nontheater logistic organizations.
- Articulate Marine Corps capabilities and requirements to joint logistic centers, boards, and offices to coordinate the MARFOR logistic concept.
- Leverage limited C2 assets.
- Use common cryptographic systems.
- Agree on policy in advance of war.

Marine Corps Forces Logistic Relationships

The MARFOR is responsible for planning, coordinating, and supervising the execution of operational logistic functions in support of the MAGTF as well as assigned and attached multinational and/or other Service forces. See figure 3-3.

Relationships with the Joint Force Commander

The JFC conducts the campaign by assigning subordinate commanders missions that accomplish strategic and operational objectives. The combatant commander exercises COCOM over the combatant command-level MARFOR, and the subordinate JFC exercises OPCON over a subordinate MARFOR.

Although the Service component is responsible for Service logistics, the JFC establishes operational logistic objectives and priorities. The JFC can designate a Service component to provide CUL to the joint force and/or establish a joint organization. Joint policy normally assigns CUL missions to a dominant user or most capable service.

Relationships between Marine Corps Forces

Marine Corps componency policy links MARFORs with each other, HQMC, and the Marine Corps SE. A subordinate MARFOR receives administrative...
and logistic support from its parent combatant command-level MARFOR. For Service-specific matters, the subordinate MARFOR communicates directly with its parent MARFOR. When forces are attached from one combatant command-level MARFOR to another, the MARFOR providing the force and the MARFOR gaining the force should agree on and specify the support relationship for the attached forces. The Marine Corps SE and HQMC are responsible for providing the MARFOR logistics and administrative support.

The JFC may attach multinational and/or other Service forces to the MARFOR. Normally, logistics is a Service and national responsibility; however, the implementation of CUL arrangements may require the MARFOR to include and support the operational logistic requirements of non-Marine Corps units. The MARFOR remains responsible for informing the JFC on logistic issues affecting the execution of its mission.

**Assistant Chief of Staff, G-4**

The assistant chief of staff (AC/S), G-4, is the COMMARFOR’s principal advisor for logistics. The focus of the MARFOR AC/S, G-4, is on planning, logistic policy, and coordination with agencies/Services external to the MAGTF for theater logistics.

The MARFOR G-4 is responsible for the following functions:

- Assisting the COMMARFOR in the development and implementation of logistic policy.
- Establishing priorities for the provision of logistics and allocation of logistic resources.
- Establishing the division of labor between the MLC, if established, and MAGTF.
- Setting the boundaries for direct liaison authorized (DIRLAUTH) for MARFOR logistic elements with external agencies.
- Coordinating nonaviation-peculiar logistics for MARFOR and other attached forces.
- Initiating and maintaining active liaison with HHQ, other Services, and allied forces.
- Designating the MLC or other MARFOR subordinate logistic agency as the liaison to selected joint boards and offices.

**Supporting Marine Corps Forces**

Depending on the circumstances, combatant command-level MARFORs can be either supporting or supported MARFORs. However, COMMARFORLANT and COMMARFORPAC are the established Marine Corps links to the Marine Corps operating forces, the Selected Marine Corps Reserve (SMCR), and most bases and stations in the SE.

From the operating forces, COMMARFORLANT and COMMARFORPAC can source logistic requirements from the peacetime operating stocks, remain-behind equipment (RBE), and war reserve materiel stocks field (WRMSF) under their control. Peacetime operating stocks are the everyday Marine Corps operating supplies (e.g., major end items and secondary items of equipment authorized by tables of equipment [T/Es]). RBE is the equipment that is left behind when an MPF MAGTF deploys or a MAGTF deploys that will use the geoprepositioned equipment and supplies in Norway. WRMSF is the portion of the war reserve materiel requirement held by the operating forces.

**Relationships with Navy Aviation Commands**

Commander, Naval Air Force, Pacific, and Commander, Naval Air Force, Atlantic, deal directly with the MAGTF ACE on aviation logistic matters. The Commander, Naval Air Force, Pacific, and Commander, Naval Air Force, Atlantic, are the aviation type commands within the Navy’s chain of command. Although the ACE and the Navy-type commands have direct communications, the MAGTF commander must ensure that the MARFOR is fully knowledgeable on logistic matters affecting Marine Corp aviation. This information is required for the MARFOR to execute the responsibility of informing the JFC of any changes in logistic support that will affect the JFC’s ability to accomplish the mission.
Relationships with Other Joint Force Component Commands

Joint policy encourages the Service components to coordinate, consult, and agree on common procedures and efficient use of logistic resources. The JFC may exercise DAL and establish joint support relationships. The JFC may direct the MARFOR to provide logistics to other Service units and personnel arriving early in theater. In addition, the JFC may use Marine Corps throughput organizations established during arrival and assembly operations as the nucleus for follow-on joint force closure. When the JFC directs a service component to provide CUL, the MARFOR coordinates with the supporting or supported components to ensure responsiveness of the support relationship directed.

Relationships with the MAGTF and Attached Forces

The MARFOR normally has OPCON and administrative control (ADCON) of the assigned and/or attached MAGTF. If the combatant commander attaches a MAGTF to a functional component, the MARFOR retains ADCON of the MAGTF. For attached forces from other Services and nations, the MARFOR normally coordinates with the providing Service component for the logistic support of attached forces. The JFC may define support relationships for attached forces in the operation or execute order.

While the MARFOR AC/S, G-4, focuses on planning, logistic policy, and external coordination for the theater campaign, the MLC executes COMMARFOR operational logistic responsibilities with an internal focus on supporting the MARFOR major subordinate commands. The external coordination by the MLC is with the MARFOR and joint logistic agencies responsible for the execution of theater logistics. The MARFOR will determine the best mix of external and organic Marine Corps sources to support the MAGTF. The MARFOR may task the MAGTF with providing the resources required for operational logistic functions. To the extent possible, this should be determined during deliberate planning and during initial warning orders for crisis action planning to allow the MAGTF commander to properly task-organize forces.

Logistics Authority in Joint Operations

Unity of command requires responsibility and authority for logistics to support joint operations be vested in a single command authority. The single command authority improves effectiveness and efficiency while preventing unnecessary duplication of logistic effort among the Service components. The JFC exercises DAL through cross-servicing, common-servicing, and joint-servicing.

Joint Force Commander

To supervise and control logistic operations, the JFC may—

- Coordinate the total logistic effort through service components and other subordinate commands as required.
- Establish joint boards and offices as required to exercise control of logistics and promote economy of effort.
- Establish policies consistent with authority and existing JPs.
- Coordinate with other supporting commands to achieve long-term sustainment of forces.
- Prescribe and allocate common-user resources to components and subordinate commands.
- Use inter-Service support and common- or cross-servicing agreements to eliminate unnecessary duplication.
- Establish and coordinate priorities and programs to ensure effective use of supplies, facilities, and personnel.
- Review adequacy of service components’ requirements consistent with service directives.
- Synchronize the concept of logistics with the concept of operations and ensure unity of effort.
Division Ready Brigade

During joint operations, an Army division ready brigade (DRB) may be attached to a MEF or a MEB. The DRB should come with its own forward support battalion (FSB) and a GS CSG(-) to augment FSSG. An FSB is similar in size and capability to an MSSG. The CSG(-) is task-organized based on the composition of the DRB and approximates a BSSG in size and capability. Figure 3-4 depicts the C2 logistics when the DRB operates under the control of the MEF.

Marine Expeditionary Brigade

With the exception of selected Class II, V (primarily aviation), VII, and IX supplies and maintenance requirements peculiar to Marine Corps equipment, the Army can provide the majority of logistics required by the MEB that exceeds the capability of the CSSE. Figure 3-5 shows a notional corps support battalion (CSB) constituted to provide that support. CSB tailoring is contingent not only upon the support required by the MEB; its task organization would also accommodate support requirements for any additional Army elements placed under the control of or in support of the MEB. For example, the CSB would be task-organized with additional Class III and Class V capabilities to support a field artillery brigade placed in support of the MEB. Figure 3-6 on page 3-8 reflects the C2 relationship of logistic elements when the MEB operates as part of a corps.

Figure 3-4. Logistics C2 DRB Under MEF Control.

Figure 3-5. Notional CSB in Support of MEB.
Multinational Force Command and Control Relationships

National sovereignty restricts the command relationships available in an MNF. Ordinarily, forces from member nations have direct and near immediate communications to their respective national political leaderships. This link may facilitate coordination of issues, but it can also be a source of frustration as national leaders external to the operational area may be issuing guidance directly to their deployed national forces. Generally, the negative effects of direct national communications occur less in alliances, which are based on formal agreements and are of longer duration than coalitions. To establish a command structure, the MNFC must balance two, often-conflicting, conditions:

- Logistic economy and efficiency, through reduced redundancy and maximum use of CUL arrangements, best support combat operations.
- Individual nations are responsible for the logistic support of their forces.

Command Structures

Joint doctrine states that there is no single C2 structure or designation of authorities that best fits the needs of all alliances and coalitions. Accordingly, the structures established to C2 MNF operations must be adaptable to meet the needs of a particular operation. The MNFC can use the alliance integrated, lead nation, parallel, or a combination of parallel and lead nation command structures.

Alliance Integrated

In the alliance integrated command structure, the nationalities of the MNF headquarters staff and subordinate commands are different from the MNFC’s nationality. See figure 3-7. Normally, the integrated command structure is used in an alliance situation of long duration (i.e., NATO). MNFs using this type of command structure have had the time to establish mutually agreed-on support systems and standardized procedures for C2 of logistic operations.

Lead Nation Command Structures

In a lead nation command structure, multinational members subordinate their forces to a single MNFC. See figure 3-8. The lead nation establishes logistic policies, procedures, and reporting requirements for the MNF. In addition, the lead nation should ensure that participating national forces understand logistic requirements, which may require the preparation of packages that explain the lead nation’s logistic policies, procedures, and reports. Used in alliance situations, the lead nation command structure is the preferred method for coalition operations.
Parallel Command Structure

In parallel command structure, separate but parallel national command structures exist to satisfy political/diplomatic requirements. National forces are not subordinate to a single commander. See figure 3-9 on page 3-10. CUL support is difficult. A centralized coordination center should be established between various command echelons to provide mutually beneficial logistics. Usually, the parallel command structure occurs in coalition operations.

Combination Parallel/Lead Nation Command Structure

In this structure, some multinational members have subordinated themselves to a single commander while other members have not. Effective C2 of logistics is extremely difficult to attain in such an arrangement. During Desert Storm, the U.S. led coalition used the parallel/lead nation command structure.

Command Relationships

The critical feature of multinational operations is that participants are from sovereign nations. Normally, this gives the MNFC minimum control over the different national forces in the command. For example, the CINC retains command authority over U.S. Forces attached to an MNF. This includes the authority and responsibility for using available
resources and for planning employment, organizing, directing, coordinating, controlling, and protecting the military force. The chain of command runs from the President to the lowest U.S. commander in the field and remains inviolate. U.S. commanders will maintain the capability to report separately to higher U.S. military authorities in addition to foreign commanders.

Other nations are as judicious in maintaining control over their own forces attached to an MNF. National authorities may allow another country to have OPCON, tactical control, and support relationships over their forces; however, coordinating authority will be the most probable command relationship used in multinational operations. Even when OPCON is granted to an MNFC, a nation will normally maintain a separate chain of command to their forces.

**Coordination Centers**

The use of coordination centers is an effective method for improving logistic C2 in a multinational operation. The coordination centers are valuable in facilitating unity of logistic effort in parallel C2 structures and can be established at the multinational joint and functional level. Functional coordination centers may be established to control logistic support operations, theater medical support, infrastructure engineering, and contracting. National forces should send staff members that are functionally proficient, speak a common language, and have adequate communications connectivity with their national commands.

**Communications**

The MARFOR headquarters is the hub of operational level of war activities and requires extensive communications connectivity. However, the requirement to support a deployable MARFOR headquarters with communications and information systems (CIS) personnel and equipment can have a significant effect on the availability of CIS resources to support the MAGTF.

**Communications Battalion**

The primary source of support to the MARFOR is the MEF’s communications battalion. It installs, operates, and maintains communications for the MARFOR headquarters, MEF CE, and MEB CE. The MEF communications battalion is also responsible for message and voice switches and links to joint force headquarters, major subordinate commands, adjacent units, the naval telecommunications system, and the Defense Communications System. Joint doctrine states that the communications battalion may be...
augmented for joint operations by joint force-provided communications systems.

**Marine Logistics Command**

The MLC must be able to communicate internally within the component and externally with the host nation, joint agencies, multinational organizations, other component headquarters, and the strategic base. Internally, the MLC relies on the FSSG communications company for connectivity with subordinate commands and elements. The communications capability may be sourced from the supported FSSG depending on the tactical situation, Marine forces available, and the MARFOR logistic support concept. The communications company establishes connectivity between the MLC headquarters and subordinate CSSEs. Within the MARFOR, the supporting communications element establishes connectivity among the MLC, the MARFOR, and the supported FSSG. The MLC communicates with external organizations to the MARFOR through the circuits established for the MARFOR by the communications battalion.

**Command, Control, Communications, and Computer Systems**

Advancements in information technology and communications are improving command, control, communications, and computers (C4) capabilities. C4 systems developed for strategic or tactical use can be applied at the operational level. The Global Combat Support System (GCSS), Global Command and Control System (GCCS), and Joint Operation Planning and Execution System (JOPES) are logistic information management systems that improve the planning and execution of operational logistic functions.

**Global Combat Support System**

The GCSS provides integration and interoperability between combat support functions and C2 to support the operational needs of the warfighter. It directly supports command, control, communications, computers, and intelligence. Using the defense information infrastructure (DII) and/or common operating environment (COE) as well as the shared data environment, GCSS ensures rapid integration of combat support applications by providing a seamless flow of operational and sustaining base information to the warfighter. GCSS provides accurate and near real time total asset visibility vital to the deployment, employment, sustainment, reconstitution, and redeployment of joint combat assets or resources.

The GCSS portal is a web-based, online query capability to access fused and integrated combat support data. It consists of a set of applications that may be accessible individually or directly from the common operational picture (COP)-client server environment (CSE). Current combat support applications on the GCSS portal are accessible via a unilateral log-on feature through public key infrastructure technology.

**Global Command and Control System**

The GCCS is a graphical depiction of warfighting information available in an AOR. A key tool for commanders planning and conducting joint operations, GCCS enhances the flow of information between the NCA, joint staff, and commanders by amplifying situation reports (SITREPs), operational reports (OPREPs), and other key reports. GCCS displays battlespace information in a graphical manner that links to detailed information, which SITREPs and OPREPs are unable to display. The GCCS provides the user interface to access combat support and CSS applications such as Global
Transportation Network (GTN) and joint total asset visibility (JTAV). The GCCS provides direct combat support (e.g., logistic, transportation, medical, personnel) information to warfighters.

**Global Transportation Network and Joint Total Asset Visibility**

Among the joint automated systems that will enable GCSS are GTN and JTAV. The GTN is a global C2 information repository designed to track DOD unit and non-unit cargo and passengers while in transit. JTAV allows timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. JTAV integrates in-process, in-storage, or in-transit visibility (ITV). ITV refers to the ability to track the identity, status, and location of DOD unit and non-unit cargo, passengers, and medical patients from origin to the foxhole, during peace, contingencies, and war. GTN provides the ITV that is integrated with JTAV.

**Joint Decision Support Tools**

The joint decision support tools (JDSTs) provide warfighters and logisticians with the ability to access support force capabilities to perform mission tasks, develop and evaluate logistic operational support plans, monitor logistic operations, and react to deviations from project support. The JDSTs are available via a web-based, client-server environment that complies with DII and COE architecture standards and requirements.

**Joint Operation Planning and Execution System**

The JOPES is the integrated C2 system used to plan and execute joint military operations. JOPES includes joint operation planning policies, procedures, and reporting structures supported by communications and automated data processing on GCCS. Marine Corps planners use these applications for deployment and employment planning. The following systems feed MAGTF logistic requirements into JOPES.

**MAGTF II/Logistic Automated Information System**

The Marine air-ground task force system II (MAGTF II)/logistic automated information system (LOGAIS) supports Marine Corps ground logistic data requirements. Marine Corps planners use MAGTF II to create operations plans. The MAGTF II system is the primary planning tool for selecting and tailoring a MAGTF and for providing updates to JOPES. It includes Transportation Coordinator’s Automated Information for Movement System (TC-AIMS) and the MAGTF Deployment Support System II (MDSS II).

**Transportation Coordinator’s Automated Information for Movement System.** The TC-AIMS provides automated support for motor transport control, planning of support, and coordination of overland movement and convoys. Managing use and movement of day-to-day motor transport and heavy equipment, TC-AIMS resource-management module provides inventory, support requests, and task and dispatch management. In addition, TC-AIMS supports convoy management with an embarkation and marshaling module. This system also tracks critical events, including user-time statistics.

**MAGTF Deployment Support System II.** The MDSS II assists in deployment planning and execution and unit movement at the MEF level and below. It functions in coordination with TC-AIMS.

**Asset Tracking Logistics and Supply System**

The Asset Tracking Logistics and Supply System (ATLASS) provides automated support for supply and maintenance. It replaces the Marine Integrated Maintenance Management System (MIMMS) and the supported activities supply system (SASSY). ATLASS is being implemented through phased
development, with the current phase focusing on integrating user unit supply and shop-level maintenance functions. ATLASS will provide functional logistic management for sustainment and distribution information to MAGTF II/LOGAIS.

**Navy Support Systems**

Three Navy systems support Marine Corps aviation.

**Shipboard Nontactical Automated Data Processing Program III**

The MALS uses Shipboard Nontactical Automated Data Processing Program III (SNAP III) hardware to provide automated information processing support for supply, finance, and organizational maintenance management.

**Naval Aviation Logistics Command Management Information System**

The MALS uses the Naval Aviation Logistics Command Management Information System (NALCOMIS) software application to provide automated information processing support for maintenance of aviation equipment and spares to aviation units and selected base and garrison activities throughout the Marine Corps.

**Shipboard Uniform Automated Data Processing System**

The Shipboard Uniform Automated Data Processing System (SUADPS) supply software application is used by the MALS to provide financial, inventory, and logistic management of aviation supply support for Marine aircraft.