

Joint Publication 3-02.1



Joint Tactics, Techniques, and Procedures for Landing Force Operations



11 May 2004



PREFACE

1. Scope

This publication establishes doctrine and joint tactics, techniques, and procedures (JTTP) for all phases of planning and conducting joint amphibious operations from the perspective of the landing force. It addresses unique landing force operations, including planning, ship-to-shore movement, and fire support. It also covers the organization, command and control, and related operations of the landing force and its major components.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine and selected JTTP to govern the joint activities and performance of the Armed Forces of the United States in joint operations and provides the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders (JFCs) and prescribes doctrine and selected tactics, techniques, and procedures for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the JFC from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and selected tactics, techniques, and procedures and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine (or JTTP) will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For doctrine and procedures

not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable and consistent with US law, regulations, and doctrine.

For the Chairman of the Joint Chiefs of Staff:

A handwritten signature in black ink, appearing to read 'T. J. Keating', written in a cursive style.

T. J. KEATING
Vice Admiral, USN
Director, Joint Staff

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EXECUTIVE SUMMARY COMMANDER'S OVERVIEW

- **Provides an Overview of the Concept, Organization, and Command and Control of Landing Force Operations**
- **Discusses Landing Force Operations Planning**
- **Covers Embarkation and Deployment During Landing Force Operations**
- **Highlights Supporting, Advance Force, and Pre-assault Operations**
- **Provides Guidance with Regard to Ship-to-Shore Movements**
- **Discusses Considerations Pertinent to the Planning and Organization of Operations Ashore**
- **Covers the Intelligence Processes Necessary for Successful Landing Force Operations**
- **Provides Guidance on the Responsibilities for Fire Support Planning and Coordination**
- **Explains Key Logistic Considerations and Factors in Supporting Landing Force Operations**
- **Highlights Responsibilities with Regard to Landing Force Command, Control, Communications, and Computer Systems**

Concept, Organization, and Command and Control

The landing force (LF) must execute rapid, and focused actions in support of the joint force commander's campaign or operation.

An amphibious operation is a military operation launched from the sea by an amphibious force (AF), embarked in ships or craft with the primary purpose of introducing a landing force (LF) ashore to accomplish the assigned mission. Amphibious operations consist of five phases: (1) **planning**; (2) **embarkation**; (3) **rehearsal**; (4) **movement**; and (5) **action**.

The LF is a Marine Corps or Army task organization, or combination, formed to conduct amphibious operations. The LF can be task-organized for **embarkation**, to temporarily ensure that embarkation efforts facilitate operational planning; for **landing**, to facilitate the rapid transition and employment of

combat power ashore; or for **combat**, to facilitate mission success ashore.

Joint force commanders (JFCs) may define operational areas or joint areas of sufficient size to conduct necessary sea, land, and air operations required to execute the mission of the amphibious force. During amphibious operations, the JFC's airspace control authority will normally designate the maritime commander as the control authority for a specific airspace control area during the conduct of the amphibious operation until a land-based air control agency is established ashore.

Planning

The amphibious planning process is based on joint and Service planning models and affords the component the ability to conduct interface with both deliberate and crisis action planning.

The intricate and unique nature of amphibious warfare is characterized by a planning process that requires AF commanders to drive decisions from the top down; to adhere to the principle of unity of effort in order to focus the AF on mission accomplishment; and to integrate planning, both in terms of the physical location of personnel assigned the planning responsibility, as well as across functional areas such as maneuver, supporting arms and fires, intelligence, command and control, and force protection.

The LF plan will begin to take shape as the commander, amphibious task force (CATF) and commander, landing force (CLF) begin to agree on the ten primary decisions made during the amphibious planning process. These primary decisions are to: (1) determine AF mission(s); (2) select AF objective(s); (3) determine courses of action (COAs) for development; (4) select COA; (5) select landing areas; (6) select landing beaches; (7) determine sea echelon plan; (8) select LF objectives; (9) select landing zones and drop zones; and (10) select date and hour of landing. Interactions among planners during various steps of the planning process allow a coordinated effort that maintains flexibility, makes efficient use of time available, and facilitates continuous information sharing within the LF and the AF as a whole.

Embarkation and Deployment

The primary goal of the embarkation phase is the orderly assembly and loading of personnel and materiel to assigned shipping in a sequence designed to meet the requirements of the LF concept of operations.

During this phase, the goal is to embark the LF in such a way as to maximize throughput at sea while, first and foremost, accommodating the LF concept of operations ashore. Embarkation plans must provide for the highest possible degree of unit self-sufficiency, while providing for rapid unloading in the objective area and the dispersion of critical units and supplies among several ships.

The organization for embarkation is a temporary task organization of embarkation groups, units, elements, and teams within each element of the AF conforming to the circumstances of the deployment and the requirements of the expected tactical situation. The two general methods of loading amphibious ships are administrative loading, which gives primary consideration to achieving maximum use of billeting and cargo space, and combat loading, which gives primary consideration to the facility with which troops, equipment and supplies can be unloaded ready for combat.

During deployment planning, theater-level plans are validated and refined to determine the total lift requirement; lift availability by type; the availability of staging bases, airfields, roads, railroads, and other facilities to support embarkation and deployment; and the organization of LF troops, equipment, and supplies into temporary organizations. During deployment planning, decisions are reached to provide for a time-phased echelonment of troops, equipment, and supplies into the objective area, not only because of the limited availability of airlift and sealift but also for control purposes to support the employment and sustainment of forces.

Supporting, Advance Force, and Pre-assault Operations

Supporting, advance force, and pre-assault operations shape the battlespace prior to the execution of the decisive action phase of an amphibious operation.

Supporting, advance force, and pre-assault operations are conducted to isolate the landing area, gain information on the adversary, and prepare the landing area for the insertion of the LF. **Supporting operations**, normally conducted by naval, air, space, and special operations forces, usually consist of those tasks that cannot be completed by the advance force. **Advance force operations** range from reconnaissance to bombardment of the landing area by air, naval surface fires, and even artillery if firing positions are available. If not directed by higher authority, the decision to employ an advance force is made early in the planning cycle, normally during COA development. In making this

decision, AF commanders must weigh the relative advantages and disadvantages of operational/tactical surprise and the requirements for preparation of the landing area. **Pre-assault operations** are usually of a more overt nature directly supporting the landing plan itself. Some examples of pre-assault operations are (1) Demolition of obstacles, clearance of mines, breaching of minefields and barriers to the beach; (2) Overt marking of usable channels, direct action missions, target acquisition and spotting for naval surface fire support (NSFS), and initial terminal guidance for designated assault landings; and (3) Planned air strikes against adversary installations along the route to and in the vicinity of the beaches, drop zones (DZs), and landing zones (LZs).

Ship-to-Shore Movements

Ship-to-shore movement, perhaps the most critical part of the action phase of amphibious operations.

Ship-to-shore movement includes the deployment of the LF from assault shipping to designated landing areas. Movement control requirements are complex and must be coordinated precisely with supporting arms. Waterborne forces, helicopterborne forces, or a combination of the two may execute the movement. Unloading operations are divided into two periods; (1) The initial landing and unloading period, during which a rapid build-up of combat forces ashore responsive to LF requirements; and (2) The general unloading period, primarily logistic-oriented, which emphasizes rapid completion of the unloading of required personnel and materiel.

The commander, amphibious task force (CATF) is responsible for preparation and coordination of the ship-to-shore movement plan.

Planning for the ship-to-shore movement follows a general sequence that begins with the LF scheme of maneuver, defines requirements and the assets available, and ends with the development of the detailed landing plan. The CLF is responsible for determining LF requirements and provides information on the availability of organic assets (helicopters and amphibious vehicles) to the CATF and prepares the documents contained in the LF landing plan. Principal factors that influence ship-to-shore movement planning include, (1) tactical integrity of the LF, (2) required degree of concentration or dispersion of assault shipping, (3) available assault shipping and ship-to-shore movement assets, (4) defense of the AF, (5) flexibility, and (6) over-the-horizon operations. An amphibious demonstration may be conducted as a show of force to confuse the adversary as to the time, place, or strength of the main operation.

Ship-to-shore movement requires specific, parallel amphibious task force (ATF) and LF organizations for command, control,

and coordination of the elements of the force. The LF will further organize into battalion landing teams to facilitate the ship-to-shore movement and initial operations ashore.

Two categories of supplies and five categories of movement are employed in ship-to-shore movements. **LF supplies** are all those supplies and equipment that accompany the LF in assault echelon (AE) and assault follow-on echelon (AFOE) shipping and comprise the projected initial supply support to sustain the LF until the AF mission is accomplished. This supply category is further broken down into prescribed loads, pre-positioned emergency supplies, and remaining supplies. Secondly, **resupply** consists of the supply support transported into the objective area by the follow-up shipping subsequent to the landing of the AEs and AFOEs of shipping. Resupply also includes host-nation and inter-Service support. Third, the five **movement categories** consist of scheduled waves, on-call waves, nonscheduled units, pre-positioned emergency supplies, and remaining LF supplies.

The CATF is responsible for control of the ship-to-shore movement of both waterborne and helicopterborne assault forces.

The control of the movement of landing ships, landing craft, amphibious vehicles, and helicopters from the transport and landing ship sea echelons areas to landing beaches and helicopter landing zones (HLZs) is exercised through a Navy control group. The CLF influences the execution of the ship-to-shore movement through the tactical-logistical group (TACLOG) afloat and the landing force support party (LFSP) ashore.

The commencement of boating landing craft loading and enplaning and the timing of other ship-to-shore movement preparations are dependent on the designated H-hour and L-hour. Preparations are made for debarkation of on-call and nonscheduled units and for dispatching these units when required. Scheduled waves are normally landed according to plan, regardless of the developing situation. The landing of on-call waves and pre-positioned emergency supplies is initiated as the situation requires and continues until these categories are ashore. Nonscheduled units and remaining LF supplies are landed in accordance with the requirements of the LF with the maximum coordination between LF and ATF control organizations to ensure responsiveness and efficient use of landing ships and craft. Helicopterborne ship-to-shore movement is normally completed during the initial unloading period. The landing of nonscheduled, helicopterborne waves commences upon completion of scheduled landings into the LZs. Once the helicopterborne ship-to-shore movement is completed, transport helicopters are employed to

meet tactical and logistical requirements of LF operations ashore as directed by the CLF.

Operations Ashore

During operations ashore, elements of the LF quickly transition to organization for combat and conduct operations to accomplish the LF mission.

In an amphibious operation, LF operations ashore begin with the landing of the first scheduled wave, by surface means, vertical takeoff and landing insertion, or airborne landing. The established command relationships during amphibious operations will vary depending on the mission. Organization for the action phase of an amphibious operation is based on the parallel organization of the ATF, LF, and other designated forces. Tactical integrity of landing elements is maintained insofar as practicable during ship-to-shore movement. The CATF is responsible for overall control of both surface and air ship-to-shore movement and exercises central control to permit coordination of support for LF elements. Later, as circumstances permit, control of surface movement is decentralized for efficient and rapid execution. However, due to airspace coordination concerns, aircraft movement remains under the control of the CATF, through the Navy tactical air control center (TACC).

The development of the concept of LF operations ashore is an evolutionary process.

Much of the detailed information will be included in the LF operation plan (OPLAN) by way of annexes and appendices. The operational and logistic requirements of subordinate elements and changes in the adversary situation may necessitate modifications to the concept of LF operations, but it must always provide additional clarity to the LF commander's intent. In formulating the scheme of maneuver for an amphibious operation, the principles of ground combat remain valid. However, variations of application may be necessary due to the character of the operation.

The LF mission is developed early in the planning process after careful analysis of the AF mission and only after all specified and implied tasks are identified and understood. The mission developed by the commander, and as amplified by the concept of operations (CONOPS) ashore, is the principal means to ensure that the commander's intent is understood and accomplished in detailed planning and execution of the operation.

The LF will seldom be able to secure control of the landward section of the landing area in a single landing. Therefore, the CLF will have to phase his units and capabilities ashore during the execution of the OPLAN. Phasing can revolve around many

media, but the CLF must ensure that the plan is based on sound decisions and the capabilities of the LF as a whole. The action phase is characterized by decentralized execution of the plan by subordinate commanders. The concept for phasing ashore the LF's combat power should plan for the reestablishment of centralized control of the LF.

The LF is organized to execute the landing and to conduct initial operations ashore in accordance with the commander's concept of operations.

LF elements are reorganized for landing based on the scheme of maneuver ashore and the capabilities of the available ship-to-shore movement assets. Once ashore, the LF reorganizes again for combat. However, the organization for combat is actually the start point for all organizational planning. By using inverse planning, the LF staff can tailor the organization for landing that most closely reflects the organization for combat. In simple terms, the LF organization for combat involves the combination of infantry, reconnaissance, armor, artillery, aviation, combat service support (CSS), and other units that the CLF determines will best accomplish the assigned mission.

Intelligence

Intelligence is required to assess basic infrastructure data, weather and terrain, and threats to friendly forces in the area of interest.

While intelligence support to amphibious operations may differ from intelligence support to other military operations in a number of ways, the basic nature of intelligence, surveillance, and reconnaissance does not change in amphibious operations. Accurate and timely intelligence is the keystone for planning and decision making. Because of the difficulty in altering plans significantly during the initial assault, the requirement for intelligence has special relevance to the LF in an amphibious operation.

The needs of the LF are all encompassing, ranging from the location of underwater obstacles, to trafficability of soil on the beach, to the capacity of bridges on egress routes, to the ground slope and conditions in potential HLZs. Adversary capabilities must be determined based on detailed study of all order of battle factors, in-depth terrain, hydrography, and weather analysis. From the assessment of adversary capabilities, the intelligence officer must develop and present his appraisal of the adversary's probable COAs.

Amphibious and LF intelligence efforts are directed from the intelligence center established within the AF. This intelligence center brings together ship's company and may task-organize to perform intelligence work necessary for completion of the

mission. An intensive pre-assault intelligence effort will provide the LF the detailed information required to conduct the landing and operations ashore. The decision to undertake any collection effort must weigh the need for particular information against the risk that collection operations may expose the commander's intent. Collection planning must provide for the continuous collection of information throughout all phases of the operation and must be integrated with the overall scheme of maneuver and plan for fire support.

Many of the ten primary decisions made during the amphibious planning process are based on the initial intelligence estimate.

Preliminary intelligence studies and estimates are developed on receipt of the establishing directive or on being alerted for the potential operation. Preliminary planning may include an analysis of the area of operations and the possible impact of terrain, hydrography, weather, and cultural features on the proposed operation. As a minimum, the initial estimate should provide the commander with information on the general weather conditions expected in the objective area; key terrain and manmade features and avenues of approach; the location, nature, and extent of available beaches; and the general composition, strength, and disposition of adversary forces in the area, including all available information on the adversary's chemical, biological, radiological, nuclear, or high-yield explosives capabilities.

Intelligence operations must ensure a continuous flow of timely, pertinent, and tailored intelligence throughout the LF to maintain a shared picture of the battlespace while rapidly identifying new intelligence requirements of commanders and the operating forces. Intelligence operations focus on providing situational awareness, identifying the latest adversary activities and friendly opportunities, aiding friendly maneuver and targeting, and supporting force protection — all while continuing to support future operations planning.

Fire Support Planning and Coordination

Commanders at each level of the LF have certain fire support responsibilities.

Properly planned and executed supporting fires are critical to the success of an amphibious operation. At the beginning of an assault, the LF relies upon tactical air support and NSFS. Once sufficient area is seized ashore, artillery can be landed to provide additional fire support.

Fires in support of amphibious operations (amphibious fire support) are the synergistic product of three subsystems: target acquisition (TA), command and control (C2), and attack resources.

TA systems and equipment perform the key tasks of target detection, location, tracking, identification, and classification in sufficient detail to permit the effective attack of the target. C2 systems bring all information together for collation and decision making. Attack systems include fires delivered from organic and/or nonorganic air, surface, land, and subsurface resources.

Fire support planning in preparation for an amphibious operation is more centralized than that for subsequent operations ashore.

When developing the concept of fires, the supported commander will formulate the “commander’s guidance for fires.” It is from this guidance that supporting and subordinate commanders and fire support personnel begin to frame the role of fire support in the plan. The CATF is responsible for the overall coordination of supporting fires. A commander has the authority to approve or disapprove the use of supporting arms within their assigned area. In the early stages of the assault, air-delivered munitions play a vital role, complementing and supplementing NSFS, filling the void for LF artillery not yet ashore, and attacking targets tasked to other supporting arms or beyond their range.

From the beginning of the action phase until a short time after the first waves land, the LF is normally supported by scheduled fires.

Overall fire support requirements consist of the type, timing, and duration of supporting fires needed to support each operational phase of the operation. These requirements are reviewed and revised as detailed planning progresses. **Detailed fire support requirements** are the CLF’s specific recommendations to the CATF and are the basis for the detailed fire support plans of the LF. These requirements include specific targets to be attacked and the delivery means recommended, amounts of ammunition to be expended and schedules for delivery, and individual LF elements to be supported and the types of support required. The **fire support plan** consists of the detailed requirements for lethal and nonlethal fires for the various phases of the amphibious operation. **Targeting** is the process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities. The AF may organize an integrated targeting board to provide broad fire support and targeting oversight functions and will provide, at a minimum, liaison officers to this targeting board and may provide liaison officers to the senior joint targeting board if established.

Air support of the amphibious operation includes all air operations conducted in fulfilling air support requirements of all forces assigned to the AF. In an amphibious operation, the principal tasks of aviation assets are to gain and maintain air superiority in the objective area, to isolate the objective area, and to provide close support to the ground forces. The CATF assumes

responsibility for control of all air operations upon arrival in the objective area. Control is exercised through the Navy TACC. As soon as conditions permit, air control agencies are established ashore that parallel the Navy control agencies afloat.

Artillery does not normally participate in early action ashore except in rare cases when positioned on off-shore islands or peninsulas as a subsidiary landing. During the initial phases of an amphibious operation, NSFS and aircraft normally provide the bulk of the fire support. Based on the CLF's decision and the concept of fires, the artillery fire support plan is formulated to provide maximum support to the scheme of maneuver. Special planning and efforts before embarkation are necessary to ensure that artillery can be committed expeditiously to support the attack.

The CLF is responsible for determination of LF requirements for NSFS, including selection of targets to be attacked in preassault preparation operations, those to be fired on in support of the LF assault, and the timing of these fires in relation to the LF scheme of maneuver. Immediately before H-hour, major emphasis is placed on the destruction and neutralization of adversary defenses most dangerous to the successful landing of LF teams. Deep support fires usually are delivered by ships assigned in general support. Within assigned zones of responsibility and on a prearranged schedule, ships neutralize known adversary targets, interdict adversary lines of communications, attack targets of opportunity, execute counter battery fire, reinforce fires of direct support ships as directed, and conduct missions assigned by the supported unit.

Logistics

An amphibious operation is characterized by the requirement to transfer the necessary logistic support to sustain the rapid projection of combat power ashore.

The logistic plan must provide seamless support to the LF during the initial phases of the action phase (when most support is sea-based) and after the LF is well established ashore. Logistic planning must consider the orderly assembly and embarkation of personnel and material based on anticipated requirements of the LF scheme of maneuver ashore, the establishment and maintenance of a logistic system in the operational area that will ensure adequate support to all elements of the AF, and the preservation of operations security during logistic planning. Primary factors determining the nature and extent of the CSS is the LF mission and the expected duration of the operation.

Key logistic concepts that must be considered are, (1) selective and general unloading time periods; (2) phasing of beach support areas (BSAs) into combat service support areas (CSSAs); (3) defending the BSA or CSSA; (4) the early provision of combat essential supplies such as rations, water, ammunition, and fuel; (5) the establishment of TACLOGs and the LFSP; (6) seabasing and the sea level plan; (7) embarkation, movement, and rehearsal support; and (8) LF aviation.

In coordination with the CATF, the CLF develops plans for selective unloading of supplies in the objective area. The CATF allocates landing ships and craft required to carry supplies from ship-to-shore and to establish floating dumps. Together, in the plan for landing supplies, the CLF and CATF plan the ship-to-shore movement of supplies and equipment so that it is responsive to LF requirements. During the early stages of the attack, the ATF ships are the primary supply source for the LF. As the operation progresses, several supply installations may be established within the beachhead by other CSS units of the LF. When adequate supply levels have been attained in installations ashore and transportation means are available, supply support of LF units will be provided from these areas. Involvement of the **engineer staff** is essential in the planning and execution of all phases of amphibious operations. The nature of engineer support for the LF in amphibious operations ranges from combat engineer support of a pioneer nature for the assault units to general engineer and CSS functions for the LF. The normal engineer tasks (mobility, countermobility, survivability, and general engineering) are applicable. **Maintenance operations** support the administrative and functional needs of the LF units at the organizational (unit) and intermediate levels. The LF maintenance plan should be based on an assumption that initial capabilities in the amphibious objective area, especially once ashore, will be limited. **Transportation** consists of movement of personnel, supplies, and equipment by water, air, or surface means. Transportation requirements are mainly based on two factors — the character of the operation and the types and quantities of supplies required in the objective area. The primary mission of the **health service support** (HSS) elements of the LF is to save life and limb, and to maintain the fighting strength of the force by restoring the sick and injured back to full duty. HSS also includes measures to prevent and control disease and sickness. Casualties that required medical attention that exceeds the capabilities of the LF HSS are stabilized and prepared for movement to another medical treatment facility, normally aboard ATF shipping. Once a secure

airhead is established, stabilized casualties may be moved by aeromedical evacuation direct to higher levels of care.

Command, Control, Communications, and Computer Systems

Amphibious operations require a flexible command and control system capable of supporting rapid decisions and execution of a high tempo of operations.

The AF must have the ability to plan for, provide C2 for, and support all functional areas (fires, aviation, intelligence, and CSS, etc.) afloat and ashore. CATF and CLF are mutually responsible for command, control, communications, and computer (C4) systems that support planning.

The LF communications plan must be compatible with the overall communications plan of the AF. Further, each major command of the LF must have compatible and interoperable communications that will support the tactics and techniques employed by that force, support each phase of the amphibious operation, be sufficiently flexible to accommodate necessary changes in the plan, be developed with a full understanding of radio communications limitations, and include plans for dealing with adversary electronic countermeasure actions.

During the **planning phase**, the worldwide Defense Message System, supplemented by SECRET Internet Protocol Router Network electronic mail and secure telephone, provides the major communications means. During **embarkation**, the CLF is normally responsible for planning and providing LF C4 systems at the piers and/or beaches within the embarkation areas, to include coordinating the use of established facilities (military or civilian). The **rehearsal phase** of the amphibious operation gives the CLF the opportunity to test the LF communications plan. Under ideal conditions, the rehearsal will involve all elements of the force and attempt to fully test the C4 systems involved without violating communications security procedures. During the **movement phase**, the CATF normally restricts the use of equipment to prevent disclosure of locations, movements, and intentions of the force. The LF plan must address how the commander will communicate with LF units embarked on different ships, and possibly even separate movement groups, during these periods of radio silence. During the **action phase**, both the ATF and LF rely primarily on radio communications as the means for exercising C2. Communications for control and coordination of landing ships, landing craft, and other waterborne vehicles moving from the transport area to landing areas are provided primarily by the CATF through a Navy control group. Communication nets for the control and coordination of the assault support

helicopters are established and maintained by the CATF through the Navy TACC and helicopter direction center. Whether supervised by the ATF's supporting arms coordinator or the LF's force fires coordinator, the supporting arms coordinating center coordinates and controls all organic and nonorganic fires in support of the AF until the LF establishes adequate control and communications facilities ashore.

The command post (CP) movement from ship-to-shore must be accomplished in a manner that provides for communications continuity during the entire action phase. A CP movement from ship-to-shore is normally made in two or more echelons, depending on the type and size of the headquarters. In any case, each echelon requires a near equal communications capability. When an advance party (or reconnaissance party) is sent ashore before the major echelons of a CP, direct radio communications are required between the advance party and the CP afloat.

CONCLUSION

This publication establishes joint tactics, techniques, and procedures for planning and conducting joint amphibious operations from the perspective of the LF. An LF is a Marine Corps or Army task organization, or combination, formed to conduct operations during the planning, embarkation, rehearsal, movement, and action phases of amphibious operations. The LF must execute rapid, and focused actions in support of the joint force commander's campaign or operation. LF operations can take place across the range of military operations, from military operations other than war to a major theater war. All actions of the LF during all of the phases are centered on decisive maneuver and accomplishment of the mission and must focus on achieving the operational objectives of the AF.

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CHAPTER I

CONCEPT, ORGANIZATION, AND COMMAND AND CONTROL

“Ever since the days of the Phoenicians, the ability to land on defended shores has been a source of strength for those who possess it and a source of concern for those who must oppose it.”

Gen. Robert H. Barrow, USMC, *Assault from the Sea*

1. General

a. An **amphibious operation** is a military operation launched from the sea by an amphibious force (AF), embarked in ships or craft with the primary purpose of introducing a landing force (LF) ashore to accomplish the assigned mission. Amphibious operations can take place across the range of military operations, from military operations other than war to a major theater war. Types of amphibious operations include assaults, withdrawals, demonstrations, raids, and other amphibious operations in a permissive, uncertain, or hostile environment. Amphibious operations consist of five phases (see Figure I-1).

b. An **AF** is an amphibious task force (ATF) and an LF, together with other forces that are trained, organized, and equipped for amphibious operations.

(1) An **ATF** is a Navy task organization formed to conduct amphibious operations.

(2) An **LF** is defined as a Marine Corps or Army task organization, or combination, formed to conduct amphibious operations. When Marine Corps forces are employed as the LF,



An amphibious landing

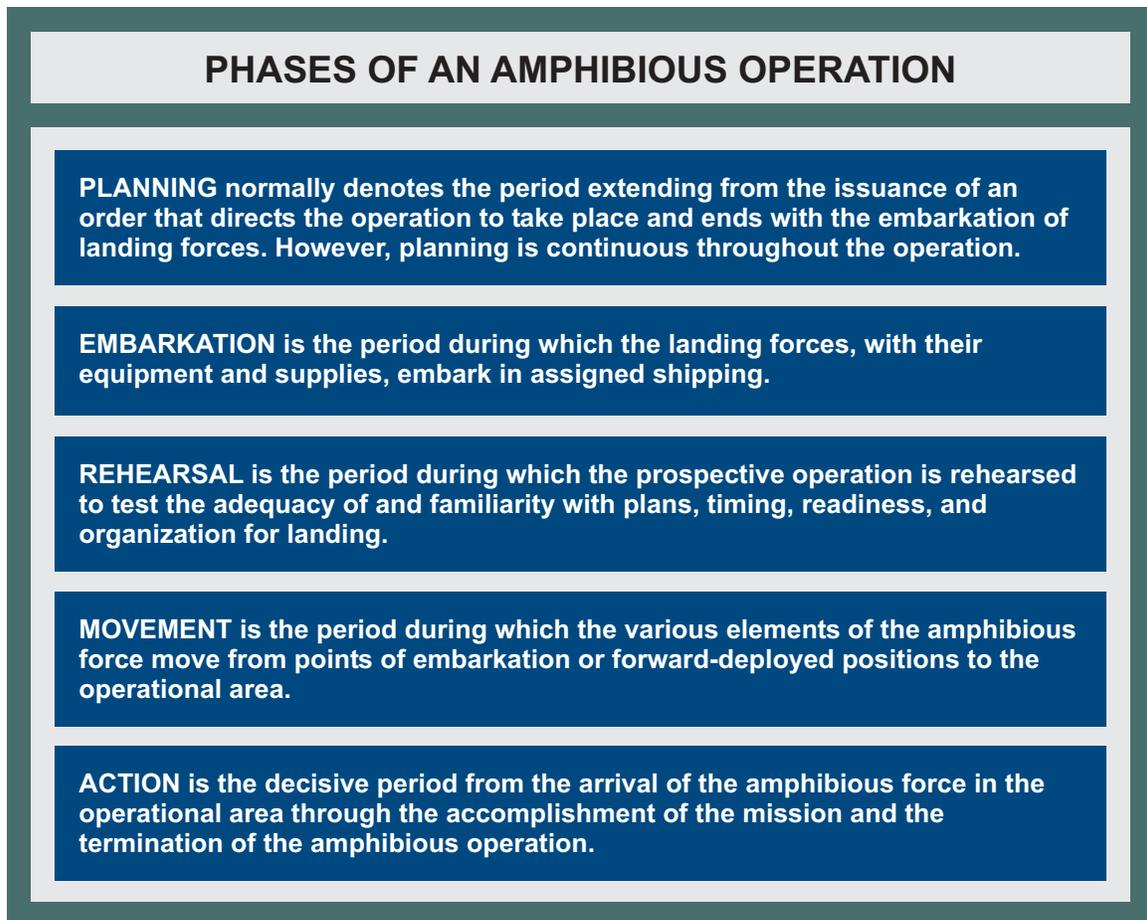


Figure I-1. Phases of an Amphibious Operation

they will be task-organized into a Marine air-ground task force (MAGTF) composed of ground combat, aviation combat, and combat service support (CSS) units operating under one command element. If Army forces comprise the LF, the maneuver battalion, brigade, division, or corps will also be task-organized with appropriate combat and CSS capabilities.

c. The terms “commander, landing force” (CLF) and “commander, amphibious task force” (CATF) are used throughout this publication solely to clarify the doctrinal duties and responsibilities of these commanders and do not connote titles or command relationships within the AF.

2. Concept of Landing Force Operations

The CLF must execute rapid and focused actions if the amphibious operation is going to successfully support the joint force commander’s (JFC’s) campaign or operation objectives. Regardless of the type of amphibious operation, the CLF is expected to plan and execute operations based on the following general concepts.

a. All actions of the LF and the ATF must **focus on achieving the operational objectives of the AF**. The concept of operations (CONOPS) ashore is centered on decisive maneuver and accomplishment of the mission.

b. Operations should create freedom of action for the LF, and other elements of the AF, while **creating a tempo faster than that of the adversary**. The CLF should exploit evolutionary advances in precision targeting systems, waterborne/airborne transportation craft, information operations (IO), and other advances that allow for the introduction of a flexible force at the time and place of his choosing. Maneuver of the LF can begin well away from the shoreline as the CLF looks upon the **sea as an avenue of approach for the LF**.

c. Most LF operations will begin with limited, if any, combat power ashore. Therefore, it is imperative that commanders **seek to pit friendly strength against adversary weakness**. Attacking adversary critical vulnerabilities will help assure relative superiority in the operational area.

d. The preferred tactic for AFs operating against coastal defenses is to exploit gaps in these defenses and thereby avoid or bypass strongpoints. LF operations that **emphasize intelligence, deception, and flexibility** will help identify and create gaps while also enhancing the security of the entire joint force.

e. The complexity of amphibious operations and the vulnerability of the LF as it projects combat power ashore and maneuvers to accomplish assigned tasks requires an exceptional degree of operational coherence with the **full integration of organic assets as well as those of other joint and multinational forces**. The CLF realizes the maximum effectiveness of his operations by using all available capabilities.

f. **LFs are capable of a variety of tasks** to help accomplish the AF commander's mission. The following are representative, but not all-inclusive, tasks that may be performed.

- (1) Airfield and/or sea port seizure for the introduction of follow-on forces.
- (2) Deliberate assault against a defended beachhead.
- (3) Security operations for United States embassies, consulates, and other appropriate locations.
- (4) Tactical recovery of aircraft and personnel.
- (5) Noncombatant evacuation operations.
- (6) Mass casualty evacuation.
- (7) Foreign humanitarian assistance operations.

- (8) Maritime interception operations.
- (9) Peace operations.
- (10) Strikes and raids.

3. Landing Force Organization

The LF consists of ground combat units and any of its associated support units assigned to the CLF to conduct the amphibious operation. The LF may be composed of Marine Corps and/or Army forces, multinational, and other forces made available to the LF commander. The LF can be organized in one of three functional forms:

a. **Organization for Embarkation.** Temporary task organization established to ensure that embarkation efforts facilitate operational planning. Prior to the action phase of the amphibious operation, modification of this organization may be necessary to facilitate the landing.

b. **Organization for Landing.** Whenever possible, the organization for landing should closely resemble the organization for combat in order to facilitate the rapid transition and employment of combat power ashore.

c. **Organization for Combat.** LF units are tasks organized to facilitate mission success ashore. This organization is based on the LF CONOPS. Organization for combat should be established as soon as possible once LF units are ashore.

4. Command and Control

a. **General.** The command relationships established among the CATF, CLF, and other designated commanders of the AF is an important decision. The type of relationship chosen by the common superior commander, or establishing authority, for the AF should be based on mission, nature and duration of the operation, force capabilities, command and control (C2) capabilities, battlespace assigned, and recommendations from subordinate commanders. Command relationship options include either an operational control (OPCON), tactical control (TACON), or support relationships as described in Joint Publication (JP) 0-2, *Unified Action Armed Forces (UNAAF)*. **Typically a support relationship is established between the commanders and is based on the complementary rather than similar nature and capabilities of the ATF and LF. However, it is not the intent to limit the common superior's authority to establish command relationships as appropriate.**

b. **Establishing Directive.** An establishing directive is essential to ensure unity of effort within the AF. Normally, the commanders within the AF will develop a draft establishing directive during the planning phase to provide the specifics of the command relationship. The commanders within the AF submit the draft establishing directive to the establishing authority for approval. The establishing directive is normally issued to specify the purpose of the support relationship, the effect desired, and the scope of the action to be taken. Regardless of the command

relationships, the commanders designated in the order initiating the amphibious operation are coequal in planning matters and decisions. Any differences that cannot be resolved are referred to the establishing authority.

Refer to JP 0-2, Unified Action Armed Forces (UNAAF), JP 3-0, Doctrine for Joint Operations, and JP 3-02, Joint Doctrine for Amphibious Operations, for more information on command relationships.

c. **Parallel Chains of Command.** As discussed in JP 3-02, *Joint Doctrine for Amphibious Operations*, the chain of command within the LF will not be the only one within the AF. Other embarked units, belonging to the ATF and other assigned forces, are responsible to chains of command different than that of the LF. **Except in emergencies, no commander, should make decisions that affect the plans, disposition, or intentions of a corresponding commander without consultation with the commander concerned.** In emergency situations, the commander finding it necessary to take action will notify the corresponding commanders of the action at the earliest practicable time.

d. **Command of the Landing Force.** The most senior Marine Corps or Army operational commander assigned to the AF will normally command the LF. Special consideration should be given to the established command relationship within the LF because of the requirement to reorganize the LF during different phases of the amphibious operations (planning, embarkation, rehearsal, movement, and action).

e. **Multinational LF Operations.** In some cases, the LF may include forces from more than one nation, and in such cases, the command relationships between the different commanders are based on international agreements and defined in the order initiating the amphibious operation.

5. Operational Areas

a. **General.** To assist in the coordination and deconfliction of joint action, JFCs may define operational areas or joint areas. The size of these areas and the types of forces employed within them depend on the scope and nature of the crisis and the projected duration of the operation. **Amphibious operations normally require a three dimensional geographic area, within which is located the amphibious force's objective(s).** The operational area must be of sufficient size to conduct necessary sea, land, and air operations required to execute the mission of the amphibious force. In addition, JFC's employ various maneuver and movement control and fire support coordinating measures to facilitate effective joint operations. These measures include boundaries, phase lines, objectives, coordinating altitudes to deconflict air operations, air defense areas, amphibious objective areas, submarine operating patrol areas and minefields. **JFCs may use boundaries to define areas of operations (AOs) for land and naval forces.** Within the designated AO, the supported commander will synchronize maneuver, fires, and interdiction. To facilitate this synchronization, such commanders have the authority to designate the target priority, effects, and timing of fires within their AOs. **The operational area that may be assigned to an amphibious force in an order initiating the amphibious operation are an**

amphibious objective area (AOA) or an AO normally in conjunction with a high density airspace control zone (HIDACZ).

(1) **An AOA** is a geographical area (delineated for C2 purposes in the order initiating the amphibious operation) within which is located the objective(s) to be secured by the amphibious force. This area must be of sufficient size to ensure accomplishment of the amphibious force's mission and must provide sufficient area for conducting necessary sea, air, and land operations.

(2) **An AO** is an operational area defined by the JFC for land and naval forces. AOs do not typically encompass the entire operational area of the JFC, but should be large enough for component commanders to accomplish their missions and protect their forces.

(3) **A HIDACZ** is airspace designated in an airspace control plan or airspace control order in which there is a concentrated employment of numerous and varied weapons and airspace users. A HIDACZ has defined dimensions that usually coincide with geographical features or navigational aids. Access to a HIDACZ is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapon status within the HIDACZ. For additional guidance on boundaries and synchronization of joint efforts within land and naval AOs, refer to JP 3-0, *Doctrine for Joint Operations*.

b. **Assigned Area.** The commander designated in the order initiating the amphibious operation is responsible for airspace control, defense of friendly forces, and direction and deconfliction of supporting arms. The order initiating the amphibious operation will also specify the degree of authority that the designated commander has over supporting forces entering the assigned geographic area. The designated commander will request the air control measures required for inclusion in the establishing directive (for a support relationship) or in the concept of operations to further ensure success of the mission.

c. **Disestablishment of Assigned Area.** Once the type of operational area (AOA or AO) is defined, it is not necessarily dissolved upon termination of the amphibious operation. The operational area may be required for the coordination of follow-on logistic support of the operation. As with its establishment, disestablishing the area is the decision of the establishing authority (with CATF or CLF recommendations) and should be delineated in the order initiating the amphibious operation or in follow-on orders.

6. Air Command and Control

a. Assignment of airspace allows the JFC to exercise C2 of forces, deconflict high volumes of aircraft and missiles, and defend the force. During amphibious operations, the JFC's airspace control authority will normally designate the maritime commander as the control authority for a specific airspace control area during the conduct of the amphibious operation. The complexity and size of an amphibious operation directly affects the amount of airspace allocated. Under the ATF, **the Navy tactical air control center (TACC) will normally be the established agency responsible for controlling all air operations within the allocated airspace until a land-based air control agency is established ashore.** To facilitate an orderly transfer of control,

specific functions may be incrementally passed from the ATF to facilities ashore as they become operational.

(1) **Direct Air Support Center (DASC).** The DASC serves as the central coordination point for all direct air support requests from the LF. Normally located with the senior fire support control center, the DASC assigns direct air support aircraft to terminal control agencies. The DASC is **usually the first major LF air control agency to come ashore.**

(2) **Tactical Air Direction Center (TADC).** Subordinate to the Navy TACC until the complete transition of air C2 to the LF, the **TADC is responsible for air operations in the landward sector of the operational area.** Upon completion of its build-up and when functions are passed from afloat to ashore, the Marine TADC assumes the title and responsibilities of the Marine tactical air command center (TACC).

(3) **Marine Tactical Air Command Center.** The senior air C2 agency of the Marine Corps is the Marine TACC. It is normally the only LF agency capable of accepting full responsibility for the allocated airspace from the ATF. When the LF is an Army task organization, the agency is the US Air Force air and space operations center (AFAOC). After the complete transition of C2 of air operations ashore, the Navy TACC then becomes a TADC in support of the Marine TACC (or AFAOC).

b. **Termination of the Amphibious Operation.** When the AF is dissolved, the air control and defense responsibilities in the area are passed to the appropriate commander in accordance with the establishing authority's guidance.

Refer to Chapter III of JP 3-02, Joint Doctrine for Amphibious Operations, for more detailed information of air C2 during amphibious operations.

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CHAPTER II PLANNING

“Amphibious warfare requires the closest practicable cooperation by all the combatant services, both in planning and in execution, and a command organization which definitely assigns responsibility for major decisions throughout all stages of the operation.”

Admiral Henry K. Hewitt USN, *Dictionary of Military and Naval Quotations*

1. General

The nature of amphibious operations gives rise to planning procedures that are both intricate and unique. Planning intricacy stems from the complex detail needed to fully coordinate the assault landing of troops, equipment, and supplies and maximizing maneuver, speed, and available fire support while minimizing AF vulnerability. The uniqueness of amphibious planning stems from the interrelationships of ground, sea, space, special operations, and air forces that support and sustain the assault.

a. **Amphibious Planning Tenets.** Amphibious planning is a continuous process, proceeding from receipt of the establishing directive to termination of the amphibious operation. Amphibious planning is characterized by:

(1) **Top-Down Planning.** The complexity of amphibious operations requires AF commanders to drive the planning process. Most primary decisions made during the planning process are mutual ones, and so their guidance and intent are central to planning and must be translated into a design for action by subordinates. Their decisions during the planning process are required before additional steps in the process can proceed.

(2) **Unity of Effort.** Unity of effort allows the AF commanders to effectively focus the AF on mission accomplishment. **They must view their battlespace as an indivisible entity**, for operations or events in one area may have profound and often unintended impact on other areas and events.

(3) **Integrated Planning.** Integrated planning in amphibious operations has two parts.

(a) **The AF commanders and their staffs should assemble in the same locality.** The LF staff should embark alongside the ATF staff and develop a parallel and concurrent planning schedule. Subordinate AF units must also achieve the same level of coordination. Other supporting organizations must also be considered.

(b) **Planning across functional areas.** The use of the functional areas (force application, C2, battlespace awareness, focused logistics, and force protection) as planning frameworks enables AF commanders and planners to integrate the planning effort and supervise the plan. The key to this part of integrated planning is the assignment of appropriate personnel to represent each functional area.

b. **Planning Directive.** Following receipt of the order initiating the amphibious operation, the AF commanders will issue a coordinated planning directive to ensure that plans are synchronized, integrated, thorough, and completed in the time allowed. **The planning directive specifies the plan of action and milestones to complete each major step in the planning process** (see Figure II-1), and the timeline for the development of operation plans (OPLANs), operation orders (OPORDs), operation general matters (OPGENs), and operation tasks (OPTASKs).

2. Primary Decisions

The LF OPLAN/OPORD will begin to take shape as the CATF and CLF begin to agree on the ten primary decisions made during the amphibious planning process (see Figure II-2). In some cases, these decisions may have been made by the establishing authority and promulgated in the order initiating the amphibious operation. **In the case of mutual decisions, both commanders must concur or the decision is referred to the establishing authority for resolution.** The ten primary decisions of the amphibious planning process are:

a. **Determine AF Mission(s).** The CLF may have a separate but supporting mission assigned by the AF commander or may develop a coordinated mission statement with the CATF through

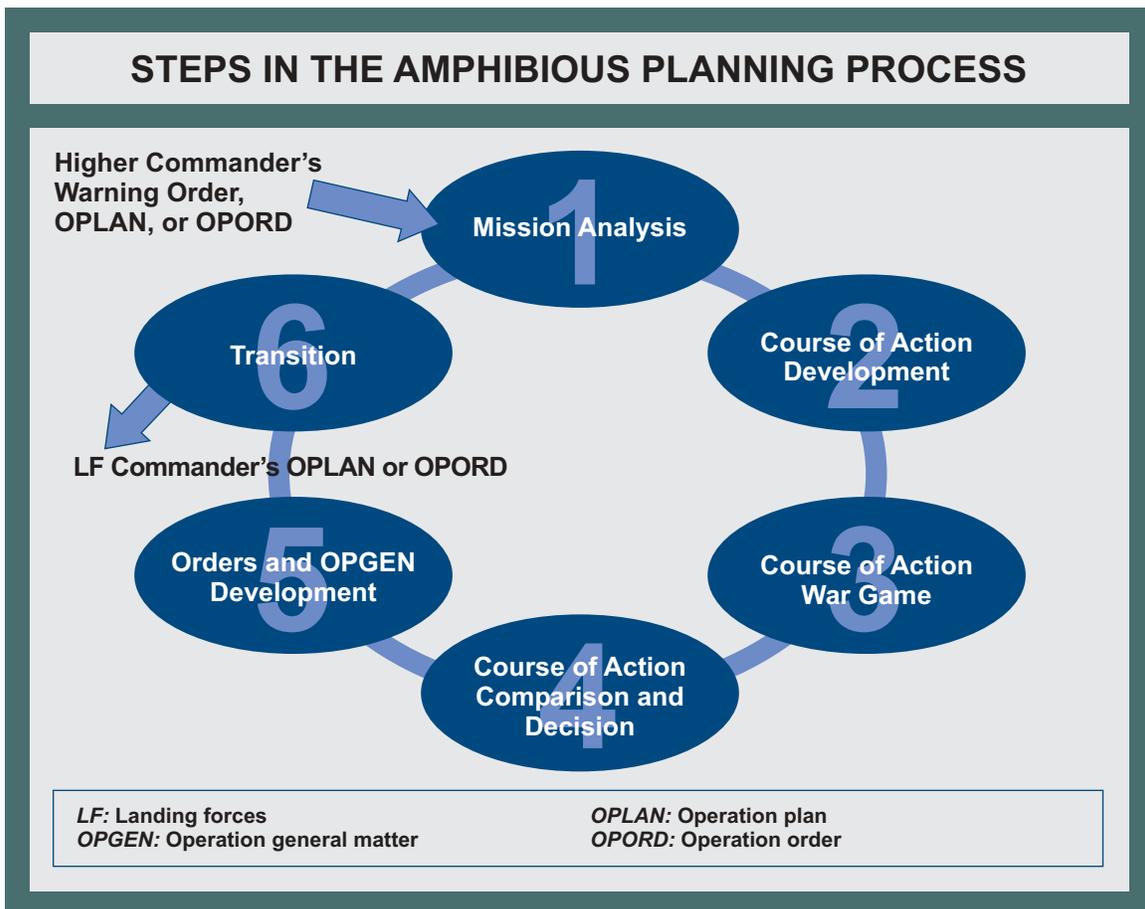


Figure II-1. Steps in the Amphibious Planning Process

PRIMARY DECISIONS RESPONSIBILITIES MATRIX			
PRIMARY DECISION	May be contained in the order initiating the amphibious operation	Decision	Decision made not later than step
1. Determine Amphibious Force Mission(s)	X	Mutual	1
2. Select Amphibious Force Objective(s)	X	Mutual	1
3. Determine Courses of Action for Development	X	Mutual	2
4. Select Course of Action		Mutual	4
5. Select Landing Areas		Mutual	4
6. Select Landing Beaches		Mutual	4
7. Determine Sea Echelon Plan		CATF	4
8. Select Landing Force Objectives		CLF	4
9. Select Landing Zones and Drops Zones		CLF	4
10. Select Date and Hour of Landing	X	Mutual	4

CATF: Commander, Amphibious Task Force CLF: Commander, Landing Force

Figure II-2. Primary Decisions Responsibilities Matrix

a mutual decision. **In either case, the CLF will use the assigned mission as the starting point for the LF plan.**

b. **Select AF Objective(s).** AF objectives are physical objectives, either terrain, infrastructure (e.g., ports or airfields), or forces, that must be seized, secured, or destroyed in order to accomplish the mission. AF objectives are designated in alphabetical order (e.g., AF Objective A and AF Objective B). **The selection of AF objectives is a mutual decision** and will play a key role in the development of the LF mission statement.

c. **Determine Courses of Action (COAs) for Development.** Normally, the LF planners will provide LF COAs for the ATF planners to build supporting COAs, while ATF planners provide LF planners with the tactical capabilities and limitations of all ATF assets. At a minimum, COAs include the general area for a landing, scheme of maneuver, designation of the main

effort, and task organization. **The selection of AF COAs is a mutual decision** and these selected COAs will be wargamed and compared based on criteria established by the commanders.

d. **Select COA.** At this point, a COA is selected and the COA CONOPS is prepared (including fire support planning guidance). The CONOPS gives an overall picture of the operation, including the transit, formation for landing, and the scheme of maneuver for accomplishing the AF objectives. **Both commanders prepare mutually supporting COAs.** The LF COA is based on the following considerations:

- (1) Mission of the LF and forces available.
- (2) Nature and extent of the designated landing area, including the characteristics of the beaches, practicable helicopter landing zones (HLZs), and near-shore environment.
- (3) Adversary capabilities.
- (4) Nature, extent, and locations of airfields, airfield sites, and air control and warning sites.
- (5) Nature and extent of the practicable airborne drop and landing zones (LZs).
- (6) Supportability by naval and air elements.

e. **Select Landing Areas.** The landing area is that part of the operational area within which the landing operations of an AF are conducted. It includes the beach, the approaches to the beach, the transport areas, the fire support areas (FSAs), the airspace occupied by close support aircraft, and the land included in the advance inland to accomplish the initial objectives. **The selection of the landing area is a mutual decision** based on the needs and considerations of the commanders (see Figure II-3). Factors influencing the selection of the landing area include:

- (1) **Suitability of the landing area for attainment of the LF objectives.** Landings should be made near objectives to facilitate their early seizure and accomplishment of the LF mission. The landing area should maximize the element of surprise whenever possible.
- (2) **Adversary forces.** The advantages of landing near objectives may be offset by dispositions of adversary forces. The following questions should be considered:
 - (a) Is adequate fire support available to destroy or neutralize the defenses before landing?
 - (b) Are adequate logistic and fire support available if the landing area is not near the LF objectives?

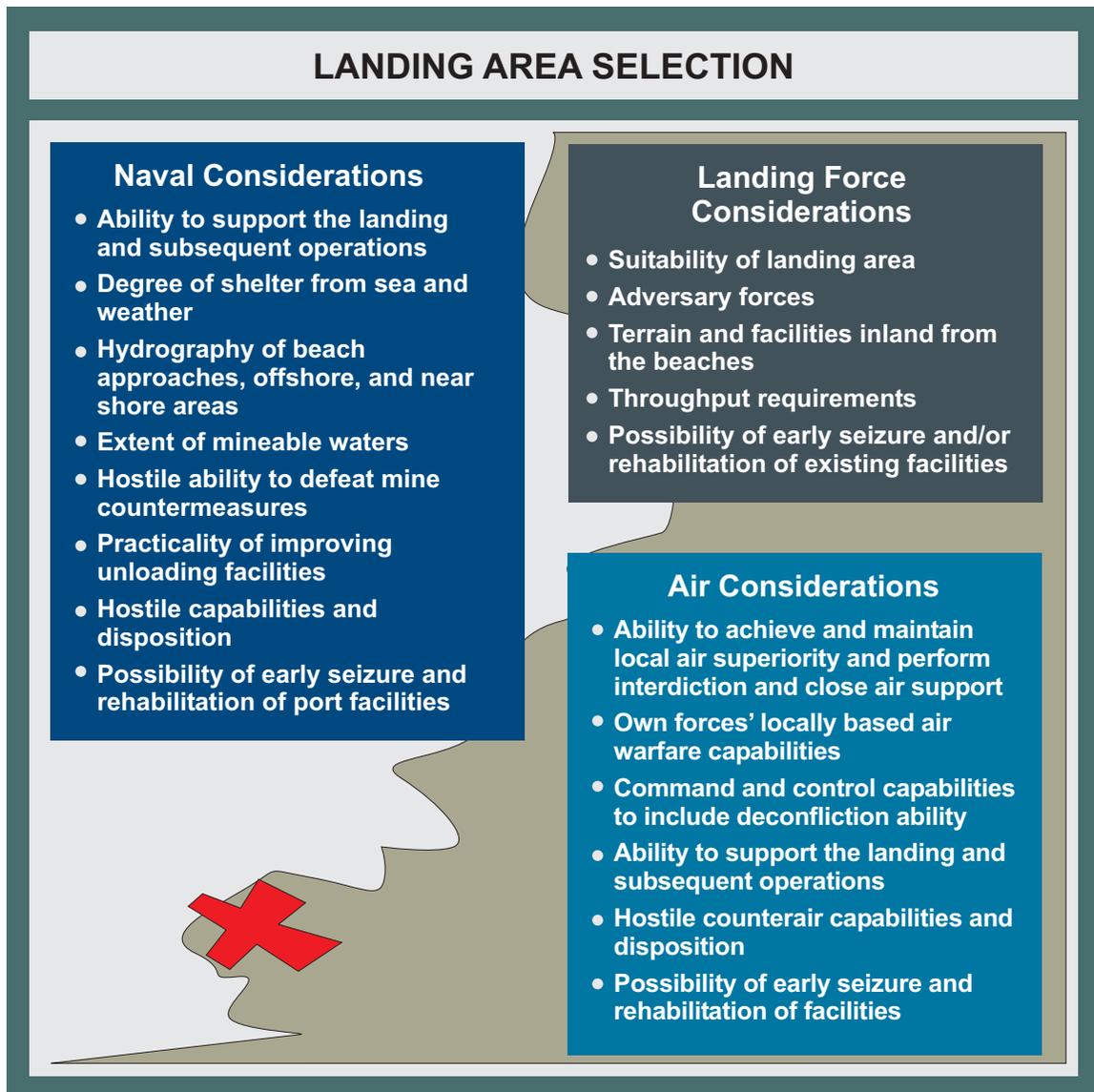


Figure II-3. Landing Area Selection

(c) What are the adversary capabilities to reinforce the defensive positions and/or redeploy those forces?

(3) **Terrain and facilities inland from the beaches.** The most desirable terrain for a landing is gently rising topography that forms a well-defined coastal ridge at such distance inland, and of such relief, as to mask the landing beach. Such a conformation increases the effectiveness of fire support and provides cover, concealment, and protection for landing of successive waves. LF objectives essential to securing the beachhead should be located on defensible ground.

(4) **Throughput requirements.** The landing area should have adequate road networks, port facilities, HLZs, and landing beaches that will expedite the flow of logistics, including the landing of heavy engineering and aviation support equipment.

(5) **Possibility of early seizure and/or rehabilitation of existing facilities.** The early seizure or rehabilitation of existing airfields, air defense sites, warehouses, rail terminals, docking piers, and other facilities will greatly improve the transition of combat power ashore.

f. **Select Landing Beaches.** A landing beach is that portion of a shoreline usually required for the landing of a battalion landing team (BLT). **Landing beaches are selected from within the selected landing areas through a mutual decision.** Principal factors in the selection of landing beaches (in addition to those previously described for selection of landing areas) are:

- (1) The LF CONOPS ashore.
- (2) Offshore approaches and expected weather and tidal conditions.
- (3) Suitability for landing craft and amphibious assault vehicles (AAVs).
- (4) Capacity for landing supplies and equipment (throughput).
- (5) Beach trafficability, number/location of beach exits and nearby infrastructure.
- (6) Location, type, and density of beach obstacles, underwater obstacles, mines, and apparent gaps in both mines and obstacles.
- (7) Nature of the terrain immediately inland from the beaches.
- (8) Suitability of communication facilities, including roads, railroads, waterways, and airfields or air facilities.
- (9) Adversary coastal defenses, including known dispositions, strengths, and capabilities.

g. **Determine Sea Echelon Plan.** The sea echelon plan is the distribution plan for amphibious shipping and includes operating areas for air, surface and subsurface defensive assets, mine countermeasures (MCM) assets, replenishment assets, as well as amphibious shipping. As adversary horizons are reduced, the sea echelon area will necessarily shift closer to the coast in order to maximize throughput and speed of the offensive. **The CATF determines the sea echelon plan, but the CLF should be keenly aware of the impact it will have on both landing and fire support plans.**

h. **Select LF Objectives.** LF objectives facilitate the attainment of AF objectives and/or ensure the continuous landing of forces and material. LF objectives are normally designated by LF and a number (e.g., LF Objective 1). **LF objectives are selected by the CLF,** taking into consideration the following:

- (1) **AF Mission and Objectives.** The AF objectives are an expression of the mission and are major factors in developing LF objectives. This mission will dictate the selection of LF

objectives at such distances as would provide reasonable protection of the AF objectives from adversary indirect fire weapons. The LF usually will not redesignate AF objectives as LF objectives. If an AF objective is large and the CLF wants to consider it as two or more separate entities, the CLF can subdivide the objective and designate the components as separate LF objectives.

(2) **LF Mission Analysis.** A review of the specified and implied tasks derived during mission analysis will identify potential LF objectives.

(3) **Terrain.** In addition to identification of key features such as bridges, communication centers, and choke points, etc., terrain must be examined from a defensive perspective. The adversary avenues of approach must be identified because they will be important factors in selecting LF objectives.

(4) **Adversary Situation.** If firm adversary positions are known, the selection of objectives may be easier, but the absence of information does not preclude planning and only increases the importance of flexibility within the plan.

(5) **Available Resources.** LF objectives must provide sufficient depth to the force beachhead but not overextend the LF. If conducting amphibious operations without establishing a force beachhead, the tactical range of transportation and fire support assets will be a constraint when selecting LF objectives.

i. **Select LZs and Drop Zones (DZs).** An LZ is a specified zone used for the landing of aircraft while a DZ is a specific area upon which airborne troops, equipment, or supplies are air dropped. Fixed-wing LZs and DZs are designated when airborne or air-transported forces are employed. **The CLF selects LZs and DZs** based on considerations such as:

- (1) The LF COA ashore.
- (2) Location, type, and density of anti-aircraft installations.
- (3) Ease of identification from the air.
- (4) Suitability and capability for the landing and takeoff of helicopters.
- (5) Available approach and retirement lanes.
- (6) Requirements for air, naval, and ground fire support.

j. **Select Date and Hour of Landing.** The date and hour of the landing are selected **by mutual decision** unless they are specified in the order initiating the amphibious operation. **H-hour** is the time the first maneuver elements are scheduled to touch-down on the beach or an LZ, and in some cases, the commencement of countermine breaching operations. **L-hour** is

defined in amphibious operations as the time at which the first helicopter of the helicopter-borne assault wave touches down in the LZ.

(1) The principal **LF considerations in the selection of D-day** include availability and readiness of forces; present and projected adversary situation; seasonal conditions in the area under consideration; local conditions of weather, tide, current, and phase of moon (duration of darkness and daylight); designation of limiting dates by higher authority; and coordination with advance force operations.

(2) The principal **LF factors in the selection of H-hour and/or L-hour** include known adversary routine; duration of daylight; need for tactical surprise; favorable conditions of wind, tide, and phase of moon; requirements for conducting certain operations during hours of darkness; and most effective employment of air and naval gunfire support.

k. After the primary decisions have been made, the AF commanders and staffs begin to develop OPLANs, OPORDs, OPGENs, and OPTASKs. The LF staff must maintain constant contact with the ATF staff to ensure continued synchronization and integration of their efforts. **Depending upon time available, once final drafts of the OPORD and OPGEN have been completed, a crosstalk and confirmation brief should be conducted between the commanders and staffs.**

3. Landing Force Planning Process

The amphibious planning process is based on joint and Service planning models and affords the component the ability to conduct both deliberate and crisis action planning. The CATF, CLF, and their staffs conduct internal planning concurrently using the same model as the AF commander. Interactions among planners during various steps of the planning process allow a coordinated effort that maintains flexibility, makes efficient use of time available, and facilitates continuous information sharing within the AF.

a. **Mission Analysis.** Mission analysis is the foundation of the planning process. Its purpose is to review and analyze orders, guidance, and other information provided by the establishing authority, and to produce an LF mission statement. The CLF will provide planning guidance upon the completion of this step that will focus the staff during step two, COA development. **During this step the LF commander must analyze the AF mission. Mission analysis activities produce outputs that are vital to subsequent steps in the planning process. The required outputs are the mission statement, commander's intent, and commander's planning guidance.** Some of the essential tasks of this step are:

(1) Identify the intent of the AF commander and purpose of the operation.

(2) Identify all specified, implied, and essential tasks for the LF.

(3) Prepare and refine intelligence while identifying the commander's critical information requests.

- (4) Determine assumptions and validate them when possible.
- (5) Determine restraints and constraints.
- (6) Analyze centers of gravity (COGs).
- (7) Develop CLF mission statement and issue warning order to subordinate units.
- (8) Issue CLF planning guidance and begin staff estimates.

b. COA Development. During COA development, **LF planners use the mission statement (which includes the higher headquarters commander's tasking and intent), commander's intent, and commander's planning guidance to develop COAs.** Each COA is examined to ensure that it is suitable, feasible, acceptable, distinguishable, and complete with respect to the current and anticipated situation, the mission, and the commander's intent. Before COA development can begin, planners must have a mission statement, commander's intent, and commander's planning guidance.

(1) Factors that impact LF COA options include:

- (a) Commander's planning guidance.
- (b) Adversary force disposition and force capabilities.
- (c) Adversary critical vulnerabilities.
- (d) Scheme of maneuver (including air and maritime).
- (e) Designation of main effort and requirement for supporting effort(s).
- (f) Quantity and type of landing craft, transport aircraft, and escort aircraft.
- (g) Available fire support.
- (h) Impact sequential and simultaneous operations have on the amphibious operation.
- (i) Rules of engagement.
- (j) LF task organization, including the designation of a reserve if applicable.

(2) COA development activities produce outputs that drive subsequent steps in the planning process. Required outputs of the planning process are the commander's designated COAs for wargaming, commander's wargaming guidance, and commander's evaluation criteria. The number and detail of the COAs to be developed depend on the time available for planning,

but at a minimum, these options will include the structure of the LF, the associated lift requirements, and a general LF scheme of maneuver for each COA.

c. **COA War Game.** **COA wargaming allows the staff and subordinate commanders to gain a common understanding of friendly and possible adversary COAs.** See Chapter VII, “Intelligence,” for a discussion of development of adversary COAs. This common understanding allows the LF to determine the advantages and disadvantages of each COA and forms the basis for the commander’s COA comparison and decision. It is prepared by the LF staff and subordinate commanders. COA wargaming involves a detailed assessment of each COA as it pertains to the adversary and the battlespace. Each friendly COA is wargamed against selected threat COAs. COA wargaming assists planners in identifying strengths and weaknesses, associated risks, and asset shortfalls for each friendly COA. COA wargaming may identify branches and sequels that require additional planning. Short of actually executing the COA, wargaming provides the most reliable basis for understanding and improving each COA. Asked to project swift, uninterrupted combat power ashore from an initial zero capability, **the CLF may want to always wargame against the adversary COA that is most dangerous to his own.** Once all COAs have been wargamed, the LF staff will prepare the results in the form of initial task organization, required assets and identified shortfalls, updated information requirements, listing of critical events and/or decision points, refined staff estimates, and subordinate commanders’ estimates of supportabilities. Prior to the next step in the planning process, the CLF must provide the commander’s evaluation criteria for the COA comparison. During wargaming, the CLF will continue to:

- (1) Evaluate each COA independently.
- (2) Remain unbiased and avoid making premature decisions.
- (3) Assess the suitability, feasibility, acceptability, distinguishability, and completeness of each COA.
- (4) Note and record advantages and disadvantages of each COA while developing potential support requirements from the ATF and other supporting forces.
- (5) Develop new requests for information.
- (6) Identify any additional tasks that may have been overlooked earlier in the process.

d. **COA Comparison and Decision.** In COA comparison and decision, **the CLF evaluates all friendly COAs against established criteria, then against each other and selects the COA that he believes will best accomplish the mission.** The CLF may also refine his mission statement and CONOPS and choose any branch that needs further attention from the LF staff.

(1) All LF COAs are compared against the evaluation criteria to give the CLF an understanding of the relative merit of each COA. Regardless of which COA (whether with or without modification) is chosen, the staff must review the LF mission to ensure that all essential

tasks are satisfied by the selected COA. **The COA selected by the CLF guides the preparation of the LF CONOPS** — the basis for all actions within the operational area.

(2) Wargamed COA(s) graphics and narratives, including information on the commander's evaluation criteria, assist COA comparison and decision making. The output of COA comparison and decision provides the basis for orders development. The required output of this step is the COA.

e. **Orders Development.** **The orders development step in the planning process communicates the commander's intent, guidance, and decisions in a clear, useful form that is easily understood by those executing the order.** Various portions of the order such as the mission statement and staff estimates, have been prepared during previous steps of the planning process. The chief of staff or executive officer, as appropriate, directs orders development. The order contains only critical or new information, not routine matters normally found in standing operating procedures. The initial task organization, mission statement, commander's intent, COA, and specified and implied tasks are required inputs to orders development. The primary LF document produced during this planning step is the landing plan.

f. **Transition.** The purpose of the transition is to **provide a successful shift from planning to execution.**

(1) Transition is a continuous process that requires a free flow of information between commanders and their staffs by all available means. Transition occurs at all levels of command. A formal transition normally occurs on staffs with separate planning and execution teams.

(2) For transition to occur, an approved order or plan must exist. The approved order or plan, along with the products of continuing staff actions, forms the input for transition. A confirmation brief is given by a subordinate commander after he receives his order or plan. Subordinate commanders brief the higher commander on their understanding of commander's intent, their specific task and purpose, and the relationship between their unit's missions and other units in the operation. This brief allows the commander to identify gaps in the plan, identify discrepancies between his and subordinate commander's plans, and learn how subordinate commanders intend to accomplish their mission.

(3) The outputs of a successful transition are subordinate commanders and staffs that are ready to execute the order and possible branches and sequels.

(4) Environmental Considerations. Environmental considerations should be factored into the planning, training, and execution of joint landing force operations.

See JP 3-0, Doctrine for Joint Operations; JP 3-34, Engineer Doctrine for Joint Operations; JP 4-04, Joint Doctrine for Civil Engineering Support; and Field Manual (FM) 3-100.4/Marine Corps Reference Publication 4-11B.

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CHAPTER III EMBARKATION AND DEPLOYMENT

“Amphibious flexibility is the greatest strategic asset that a sea power possesses.”

Sir B. H. Liddell Hart, *Deterrence or Defense*

1. General

The embarkation phase is **the period during which the LFs, with their equipment and supplies, are embarked in assigned shipping.** The primary goal of this phase is the orderly assembly and loading of personnel and materiel to assigned shipping in a sequence designed to meet the requirements of the LF CONOPS ashore.

Detailed guidance on the organization for embarkation, planning, and execution of this phase of the operation, including Military Sealift Command (MSC) support to amphibious operations and associated special considerations, is provided in JP 3-02.2, Joint Doctrine for Amphibious Embarkation, and Naval Warfare Publication (NWP) 3.02.21, MSC Support of Amphibious Operations. Also see JP 3-17, Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations.

2. Deployment

a. **Deployment Planning.** General plans for deployment may be contained in various OPLANs prepared in accordance with the Joint Operation Planning and Execution System. These theater-level plans are validated and refined during the planning stage of the operation. From the LF perspective, deployment planning includes the following actions:

- (1) Determination of total lift requirements for troops, equipment, and supplies.
- (2) Determination of lift availability by type (airlift, amphibious shipping, and MSC shipping).
- (3) Determination of staging bases, airfields, roads, railroads, and other facilities available to support embarkation and deployment.
- (4) Organization of LF troops, equipment, and supplies into temporary organizations for embarkation, movement, and unloading/landing.

b. **Echelonment of Forces.** Under ideal conditions, the CLF would reach the operational area with the preponderance of his force embarked aboard amphibious shipping. LF fixed-wing tactical aviation would deploy into air bases within striking distance of the objective area. **In the majority of amphibious operations, the LFs will require or be supported by significant intertheater and intratheater airlift and sealift.** During deployment planning, decisions are reached to provide for a time-phased echelonment of troops, equipment, and supplies into the objective area, not only because of the limited availability of airlift and sealift but also for

control purposes to support the employment and sustainment of forces. **Normally, three separate transportation echelons are required for the amphibious assault: assault echelon (AE), assault follow-on echelon (AFOE), and follow-on.**

(1) **The AE** of the LF consists of those assault troops, vehicles, aircraft, equipment, and supplies required to initiate the assault landing. The AE includes the elements that arrive in the operational area on or, in some cases, prior to D-day aboard amphibious shipping, air-transported units such as airborne forces that are scheduled for the initial assault, and self-deploying aircraft and air-transported support units required for the initial assault.

(2) **The AFOE** is required to support and sustain the assault. In order to accomplish its purpose, the AFOE is normally required in the objective area no later than five days after commencement of the assault landing.

(3) **Follow-on personnel, equipment, and supplies** may be transported by sealift or airlift. This echelon provides the logistic pipeline to sustain the LF. In addition, the follow-on echelon may provide forces for base development and tactical forces for subsequent operations ashore. Follow-on forces, and the ships and aircraft carrying these forces, are not a part of the ATF. These forces will normally fall under the operational or tactical control of the commander responsible for executing follow-on or subsequent operations.

c. **Deployment Decisions.** The establishing directive will normally contain a listing of forces assigned, including transportation assets for sealifted forces. **The initial task of the CLF is to compare what must be lifted with the lift capacity of the transportation assets allocated.** The initial, notional lift requirements are continuously refined to develop the detailed actual lift requirements of the forces involved.

(1) The process of determining which forces, supplies, or equipment are to move with a particular echelon is normally in a constant state of change and does not lend itself to a formal estimating process. For that reason, **there is no formally established deployment estimate.** However, the CLF can assess lift requirements for various mixes of the forces considered for deployment.

(2) **No formally established procedures serve to assist the CLF in determining which units, supplies, and equipment are to be moved in a specific echelon.** The decisions are normally dictated by operational considerations or orders.

(3) CLF's primary concern in most cases will be to **place maximum combat power in the amphibious shipping of the AE, together with adequate CSS and supplies to sustain the LF during the initial stages of the operation.** When shipping is limited, commanders at all levels must make difficult choices of what to take, what to leave behind, and what to assign to each echelon.

3. Embarkation

a. **Embarkation Planning Principles.** The purpose of embarkation planning is to embark the LF in such a way as to **maximize throughput at sea while accommodating the CONOPS ashore**. Each operation presents a unique set of embarkation requirements. The embarkation plan for each operation will provide for loading arrangements and an organizational structure that are specifically tailored to support the operation. The following four principles must be observed in planning embarkation of the LF for an amphibious operation:

(1) First and foremost, **embarkation plans must support the AF CONOPS**, including the landing plan and associated throughput requirements, scheme of maneuver ashore, and the plan for landing supplies. Personnel, equipment, and supplies must be loaded in such a manner that they can be unloaded to maximize the speed of the operation in the sequence required to support operations ashore.

(2) Embarkation plans must **provide for the highest possible degree of unit self-sufficiency**. Troops should not be separated from their combat equipment and supplies. Weapon crews should be embarked in the same ship with their weapons, radio operators with their radios, drivers with their vehicles, and commanders and staffs with their units. In addition, each unit should be embarked with sufficient combat supplies to sustain its operations during the initial period ashore.

(3) **Plans must provide for rapid unloading in the objective area.** At higher echelons, distributing subordinate units across multiple embarkation organizations facilitates rapid unloading. At the individual ship level, a balanced distribution of equipment and supplies throughout the ship will ensure an even, near simultaneous unloading of all holds.

(4) Plans **must provide for dispersion of critical units and supplies among several ships**. The CLF must ensure that the loss of one or a few ships will not critically degrade the combat capability of the LF and prevent mission accomplishment.

b. **The sea echelon concept introduces other planning considerations to the embarkation process.** Sea echelon plans, developed by CATF, will phase ships into the unloading areas in the proper sequence to support the landing plan. If the embarkation of troops, equipment, and supplies does not correspond to the phased entry of ships into the unloading area, the AF will experience a disruption of the landing plan, inadequate logistic support to the LF, and an unacceptable concentration of shipping.

c. **Seabased Logistics.** In amphibious operations of limited scope, **logistic support for the LF may be provided from ATF shipping, with minimal buildup of CSS ashore**. Seabasing will influence embarkation planning in such areas as the need for adequate permanent workspaces for LF staffs and maintenance operations, and the need for accessibility to certain classes of supply that might normally be stowed for administrative offload.

d. **Plans for assembly of assault shipping and movement of troops to embarkation points are prepared by the CATF and CLF**, respectively, as separate documents in the form of movement orders and embarkation and loading plans. These plans must be coordinated and distributed as soon as possible to permit initiation of preliminary movements and preparations to ensure that the embarkation is begun without delay. The plans are also distributed to area and base commanders concerned.

(1) Some of the CATF's main responsibilities include:

- (a) Allocating shipping and sealift.
- (b) Providing ship's loading characteristics pamphlets to the CLF.
- (c) Organizing Navy forces for embarkation and preparing ships' movement orders.
- (d) Advising the CLF on support forces' embarkation requirements.
- (e) Approving LF embarkation and loading plans that are coordinated with the combat cargo officers (CCOs) of the individual ships.

(2) The CLF is responsible for:

- (a) Determining LF requirements for assault shipping.
- (b) Developing LF organization for embarkation.
- (c) Determining embarkation support requirements such as materials handling equipment (MHE), staging areas in the embarkation area, port facilities, etc.
- (d) In conjunction with the CCOs, preparing the detailed embarkation and loading plans.

(3) Other commanders within the AF must:

- (a) Provide their lift requirements to the CATF.
- (b) Organize their units for embarkation and loading.
- (c) Participate in embarkation planning meetings.
- (d) Coordinate with the CLF if using the same embarkation site(s).

e. **Organization for Embarkation.** The organization for embarkation is a temporary task organization within each element of the AF. The organization for embarkation conforms to the

circumstances of the deployment and the requirements of the expected tactical situation. Upon completion of the embarkation phase, these task organizations normally dissolve. Shipping assigned to transport the LF to the operational area is formed into tactical groupings by the CATF. The number and types of ships assigned to each of these groupings is determined by the size and composition of the LF organization for embarkation. **The LF organization for embarkation consists of embarkation groups, units, elements, and teams.** Corresponding echelons are formed within the ATF.

(1) The **embarkation group** is the highest echelon in the organization for embarkation, normally formed around a major subdivision of the LF (division, wing, Marine expeditionary brigade). The parallel Navy echelon is called the transport group.

(2) The **embarkation unit** is the next embarkation echelon below the embarkation group level. The number of embarkation units formed will vary, depending on the LF organization for landing and geographic locations of the embarkation areas and of the troop units. The parallel Navy echelon is called the transport unit.

(3) The **embarkation element**, when formed, is the subordinate echelon to the embarkation unit. The parallel Navy echelon is called the transport element — usually formed when the number of ships in the transport unit exceeds that which can be properly controlled by a single commander.

(4) The **embarkation team** is a temporary administrative formation of all personnel with supplies and equipment embarking or to be embarked (combat loaded) aboard a single ship. The parallel Navy organization is the ship.

f. **Types of Loading.** The manner in which a ship is loaded may determine the availability of troops for landing and the order in which equipment and supplies will be unloaded. Task forces are seldom alike; equipment and supplies differ, and the priority in which materiel is required ashore varies with the assigned mission. **The two general methods of loading amphibious ships are administrative loading and combat loading.**

(1) **Administrative Loading.** Administrative loading is defined as a loading method that gives primary consideration to achieving maximum use of billeting and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used. Administrative loading is not suitable for amphibious assault operations.

(2) **Combat Loading.** Combat loading is defined as a loading method that gives primary consideration to the facility with which troops, equipment, and supplies can be unloaded ready for combat rather than to economical use of ship space. Combat loading is the arrangement of personnel and the stowage of equipment and supplies in a manner designed to conform to the anticipated tactical operation of the organization embarked. Each individual item of equipment and supply must be stowed aboard the ship so it can be unloaded at the time and in the sequence that will most effectively support the planned scheme of maneuver ashore. Whenever possible, each ship must be loaded to provide maximum flexibility to meet changes in the tactical plan

and facilitate discharge of cargo to meet emergency calls for equipment or supplies. Three methods of combat loading may be employed, depending on the mission, organization, types of equipment assigned to the force (including ships), and the planned tactical employment of the force. These methods are as follows:

(a) **Combat Unit Loading.** Combat unit loading is the loading of an assault element of the LF, with its essential combat equipment and supplies, in a single ship, in such a manner that it will be available to support the tactical plan on debarkation. Combat unit loading provides maximum flexibility to meet changes in the tactical plan and is the most common type of combat loading in embarkation load planning.

(b) **Combat Organizational Loading.** Combat organizational loading differs from combat unit loading in that it is conducted without regard to tactical considerations on debarkation. It permits debarkation of complete units and equipment that will be available for tactical employment after assembly ashore. This method is more economical in ship space than combat unit loading.

(c) **Combat Spread Loading.** Combat spread loading is one method by which the desired dispersion of LF personnel, equipment, and supplies among various ships is achieved. This method is commonly used when loading organizations are equipped with numerous vehicles and/or large amounts of heavy equipment and to preserve some combat/ground force capability if ship losses occur. Combat spread loading also permits maximum flexibility and a rapid buildup ashore.

g. The **CLF and appropriate subordinate commanders prepare embarkation plans** issued to accompany the OPLAN/OPORD. These plans require the participation of all LF units and close coordination with the AF staff, ATF staff, commanders of the individual ships, area or base commanders at the aerial point of embarkation and seaport of embarkation (SPOE), and a host of other agencies such as local police, public highway authorities, and government contracting offices. At a minimum, embarkation plans will include:

- (1) LF organization for embarkation and assignment to shipping.
- (2) Supplies and equipment to be embarked; including details such as weights, cubic footage, and square footage.
- (3) Location and assignment of embarkation areas.
- (4) Command, control, communications, and computers (C4) arrangements for embarkation, including the temporary use of facilities and equipment belonging to the local commander.
- (5) Schedules, movement details, and embarkation sequence of personnel and material in conformity with embarkation schedules announced by the CATF.

(6) Instructions covering the operation of MHE.

(7) Additional instructions covering the loading and handling of special weapons.

h. **Transportation Coordination.** Several transportation agencies may influence the movement of AFs. Some of these agencies include the US Transportation Command and its transportation component commands: MSC, Military Surface Deployment and Distribution Command, and Air Mobility Command. If required, the CLF will need to incorporate these agencies into the embarkation planning process, establishing liaison officers as needed.

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CHAPTER IV

SUPPORTING, ADVANCE FORCE, AND PREASSAULT OPERATIONS

“The advantage of sea-power used offensively is that when a fleet sails no one can be sure where it is going to strike.”

Winston Churchill, *Their Finest Hour*

1. General

The AF commanders may seek to shape their battlespace prior to the execution of the action phase of an amphibious operation. The force and the time period in which these operations are conducted typically define the operation. These shaping operations usually occur sequentially, but may in some instances occur simultaneously. They are **conducted to isolate the landing area, gain information on the adversary, and prepare the landing area for the insertion of the LF**. These operations are, in order of occurrence, supporting, advance force, and preassault operations.

a. **Supporting operations** are conducted by forces other than the AF; are ordered by a higher authority, normally based on a request from the AF commander; and **may set the conditions for the advance force** to move into the operational area.



The 54-caliber (Mk 45) lightweight gun provides surface combatants accurate naval gunfire against fast, highly maneuverable surface targets, air threats and shore targets during amphibious operations.

b. **Advance force operations** are conducted in the operational area by a task-organized element of the AF, **prior to the arrival of the main AF** in the operational area. The LF commander must be able to utilize all available joint and naval capabilities during this phase.

c. **Preassault operations** are conducted by the AF upon its arrival in the operational area and **prior to the time of the assault or decisive action, normally delineated by H- and L-hour**. The LF commander must have favorable conditions set that enable forces to seize and hold an airhead and or beachhead to ensure the continuous landing of troops and material and provide the space to conduct follow-on operations.

2. Supporting Operations

a. **Supporting operations are conducted by forces that are not assigned to the AF and are normally those tasks that cannot be completed by the advance force.** These operations support the AF CONOPS at sea and ashore and facilitate mission accomplishment. Supporting operations are ordered by the JFC, or a designated commander, based on requests for certain actions from the amphibious force commanders. Supporting operations are normally conducted by naval, air, space, and special operations forces prior to the arrival of the advance force, but may occur at any time before or after H-hour/L-hour.

b. Some of the potential tasks to be accomplished by these supporting forces are:

- (1) Gain and maintain air and maritime superiority in the operational area.
- (2) Detection, interdiction, destruction, or neutralization of specific targets in the area.
- (3) Intelligence collection.
- (4) MCM operations in the landing area.
- (5) Special operations.

3. Advance Force Operations

a. **The advance force conducts operations within the established operational area prior to the arrival of the AF.** The advance force may be assigned a smaller operational area (AOA or AO) if it has sufficient assets to control it. Advance forces are task-organized to perform tasks that may include, but are not limited to:

- (1) MCM operations with emphasis on the clearance of mines in the transport areas, FSAs, and sea approaches to the landing beaches;
- (2) Pre-D-Day landings and amphibious demonstrations.

(3) Air interdiction, naval surface fire support (NSFS), and other actions to prepare assault objectives.

(4) Hydrographic reconnaissance, obstacle clearance, and preparation of the landing beaches and seaward approaches;

(5) Reconnaissance and surveillance of AF objectives, landing beaches, LZs, DZs, and high speed avenues of approach into the landing area. The collection effort should focus on satisfying priority intelligence requirements (PIRs) and determining if the required conditions for the assault have been established.

(6) Neutralization or destruction of adversary high-payoff targets.

b. Advance force operations range from reconnaissance to bombardment of the landing area by air, naval surface fires, and even artillery if firing positions are available. Overt actions are usually meant to either shape the battlespace within the operational area or to deceive the adversary as to the real objectives. If not directed by higher authority, the decision to employ an advance force is made early in the planning cycle, normally during COA development. The AF commanders **must weigh the relative advantages and disadvantages of operational/tactical surprise and the requirements for preparation of the landing area.**

(1) **Surprise.** Complete surprise is difficult to attain against an alert adversary, and the prospect of achieving it will decrease with efforts to isolate the operational area. If possible, the landing areas and LF objectives should remain unknown to the adversary until the commencement of the ship-to-shore movement. When surprise is a principal consideration for success, but is not achieved, the AF may suffer heavier losses and possibly mission failure.

(2) **Preparation of the Landing Area.** When the landing area is extensively organized for defense or the offshore areas are heavily mined, the AF commanders may elect to conduct advance force operations. In this case, the destruction or neutralization of the fixed defenses far outweighs the disadvantage of disclosing the selected landing area. Conversely, advance force operations may not be prudent when the landing area selected is lightly defended and the main defending force is held in reserve — waiting employment against the AF's main effort.

c. Commanders and staffs plan advance force operations in a manner similar to planning the amphibious operation. The command relationships within the advance force must be specified in the order initiating the operation. **The LF CONOPS should never be based on the assumption that these forces will always be available for tasking by the CLF upon the arrival of the AF into the operational area.** Regardless, the CLF will have to evaluate the missions assigned to the advance force and assume the following additional planning responsibilities:

(1) Form a landing group or subordinate task organization, designating the advance force landing and/or reconnaissance group commander and providing the requisite staff and forces to accomplish assigned LF tasks.

(a) A landing group commander is used when landings or strikes are conducted by LF units of the advance force.

(b) A reconnaissance group commander is used when LF units conduct only reconnaissance and surveillance missions.

(2) Determine and submit requirements for NSFS, intelligence reports, air support, space support, reconnaissance, etc.

(3) Determine C4 systems requirements.

(4) Determine special operations forces (SOF) support requirements and coordinate command relationships with the advance force commander.

(5) Designate fire support coordination center (FSCC) and/or fire support element (FSE) personnel to augment the advance force supporting arms coordination center (SACC).

(6) Modify embarkation and landing plans (cross-deck equipment and personnel as required) to support the advance force operations.

4. Pre-assault Operations

a. **Final preparations of the landing area are usually under the control of the CATF and CLF.** Preassault operations are usually of a more overt nature directly supporting the landing plan itself. Some examples include:

(1) Demolition of obstacles, clearance of mines, breaching of minefields and barriers to the beach.

(2) Overt marking of usable channels, direct action missions, target acquisition (TA) and spotting for NSFS, and initial terminal guidance for designated assault landings.

(3) Planned air strikes against adversary installations along the route to and in the vicinity of the beaches, DZs, and LZs.

(4) NSFS in accordance with the LF concept of fires, including destruction or neutralization of high payoff targets that might interfere with the approach and final deployment of the LF or otherwise interfere with the operation.

b. Assets used to conduct these operations may reduce the resources available for tasking at H- and L-hour. The CLF must ensure that inherent risks associated with preassault operations do not critically impair the CONOPS ashore. Some of the planning considerations may include:

(1) Ammunition (naval, aviation ordnance, artillery, etc.) expenditure and fuel consumption prior to the landing.

(2) Loss of equipment prior to D-day, including losses due to maintenance and repair, and especially those high demand, low density items.

(3) Loss of personnel due to adversary action, sickness, and required “down time” (such as recovery periods for long range reconnaissance teams, aircrews, etc.).

(4) Resupply and rearming schedule for the AF, or lack thereof.

(5) LF requirement to support other forces prior to and after D-day (such as SOF, multinational, Department of State, etc.).

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CHAPTER V SHIP-TO-SHORE MOVEMENT

“Picture puzzles are child’s play compared with this game of working an unheard-of number of craft to and fro, in and out, of little bits of beaches.”

Sir Ian Hamilton, *Gallipoli Diary*

1. General

Ship-to-shore movement is that portion of the action phase of an amphibious operation that includes **the deployment of the LF from assault shipping to designated landing areas**. The plan for ship-to-shore movement is developed by the CATF and CLF to ensure that troops, equipment, and supplies are landed at the prescribed times, places, and in the formation required by the LF scheme of maneuver. Waterborne forces, helicopterborne forces, or a combination of the two may execute the movement.

a. **Ship-to-shore movement is perhaps the most critical part of the action phase of amphibious operations.** During this period, the LF and assault shipping are most concentrated. Landing craft, AAVs, and helicopters are vulnerable to adversary fire, not to mention the natural hazards of weather, sea state, and surf conditions. Movement control requirements are complex and must be coordinated precisely with supporting arms.

b. Ship-to-shore movement commences on the order to “land the landing force.” As developed seaports and airports become available, they are used to supplement traditional beach operations and the ship-to-shore organization is revised accordingly. Unloading operations are divided into two periods.



Amphibious assault vehicle maneuvers on the beach.

(1) **The initial landing and unloading period** is primarily tactical in character and must provide rapid build-up of combat forces ashore and be responsive to LF requirements ashore.

(2) **The general unloading period**, if required, is primarily logistic-oriented and emphasizes rapid completion of the unloading of required personnel and materiel. The order to commence general unloading is given by the CATF once he and the CLF mutually agree that conditions ashore are favorable.

2. Responsibilities

a. **The CATF is responsible for preparation and coordination of the ship-to-shore movement plan.** However, detailed planning can begin only after the scheme of maneuver ashore is reconciled with the operational maneuver of support shipping at sea such that positional advantage and air and surface envelopment from the sea to LF objectives ashore will be seamless. The CATF will coordinate with the CLF for changing situations that affect the amphibious operation as revealed by intelligence sources or LFs ashore.

b. **The CLF is responsible for determining LF requirements for the ship-to-shore movement and presenting them to the CATF.** The CLF provides information on the availability of organic assets (helicopters and amphibious vehicles) to the CATF and prepares the documents contained in the LF landing plan.

c. Commanders of other forces assigned to the AF (including those assigned for movement to the operational area for tasks not part of the amphibious operation) are responsible for determining and presenting their requirements to the CATF.

3. Planning for Ship-to-Shore Movement

a. Planning for the ship-to-shore movement follows a general sequence of development (see Figure V-1). Detailed planning for the ship-to-shore movement cannot begin until after the LF CONOPS ashore is approved. Likewise, the completed landing plan will drive embarkation planning. Principal factors that influence ship-to-shore movement planning include:

(1) **Tactical integrity of the LF.** The organization for landing must closely mirror the tactical formations of the LF and ensure adequate C2 for the respective commanders. As much as feasible, the LF should embark on assigned shipping, landing craft, AAVs, and helicopters along normal organizational lines.

(2) **Required degree of concentration or dispersion of assault shipping.** The CATF will prepare and implement the sea echelon plan to minimize the threat to ATF shipping in the transport area and to reduce the area requiring MCM operations.

(3) **Available assault shipping and ship-to-shore movement assets.** The type and quantity of assault shipping and ship-to-shore movement craft will influence every aspect of the

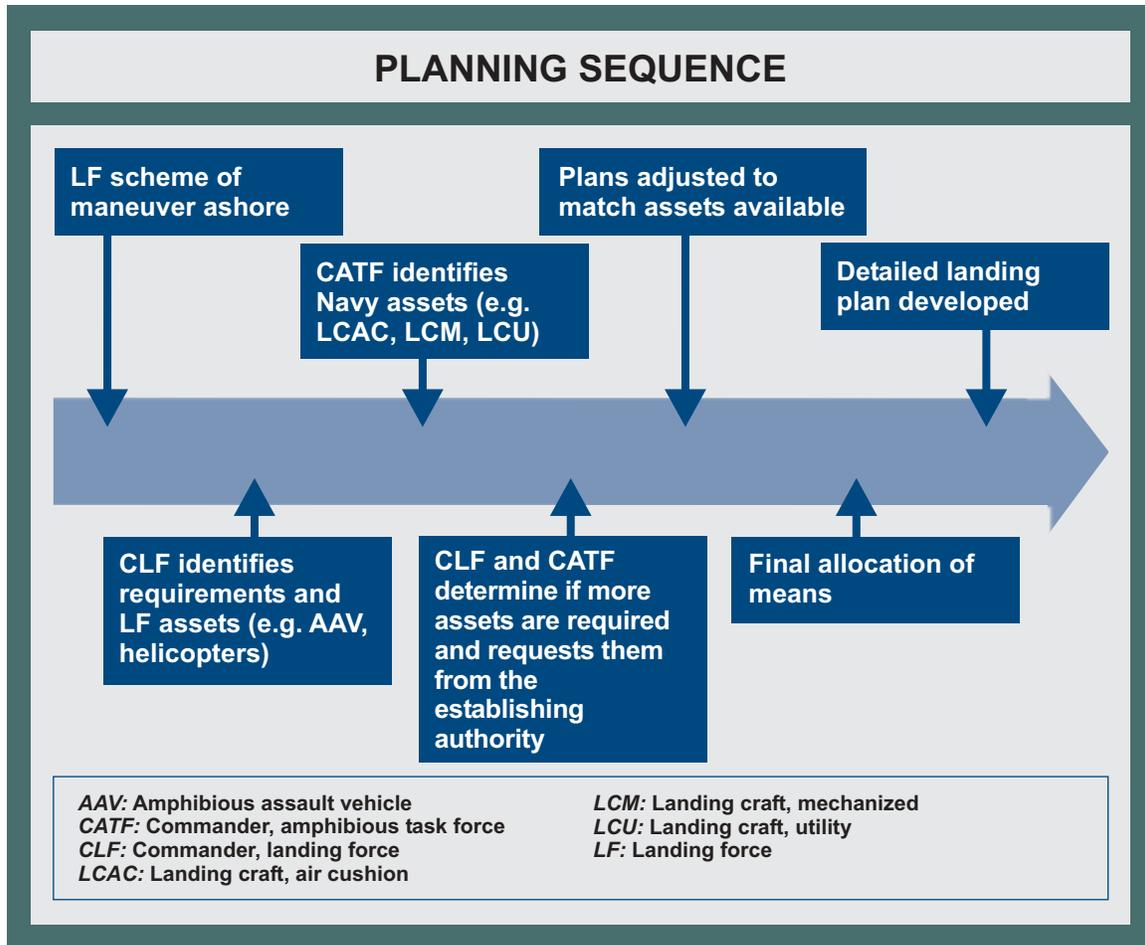


Figure V-1. Planning Sequence

planning and execution of the operation. The inherent capabilities and characteristics of available ATF assets must play a key role in the development of the LF CONOPS.

(4) **Defense of the AF.** The defense of the AF is a matter of mutual concern to the entire AF and the JFC. At times, commanders and their staffs must consider the use of LF assets (such as aircraft, anti-air missiles, crew-served weapons, etc.) in the defense of the ATF. Defense comprising active and passive measures must be provided during all phases of the amphibious operation, but particularly during the vulnerable period of ship-to-shore movement. **Active defense** includes counterair operations, antisubmarine and anti-small-boat screens, covering forces, electronic warfare (EW), deceptive lighting, smoke, NSFS, sneak attack defense, MCM, and nuclear, biological, and chemical defense. **Passive defense** places major emphasis on dispersion, mobility, and information operations.

(5) **Flexibility.** The ship-to-shore movement plan must have sufficient flexibility to exploit adversary critical vulnerabilities that may become apparent only after the commencement of the landing.

(6) **Over-the-Horizon (OTH) Operations.** Initiated beyond visual and radar range of the adversary shore, this ship-to-shore movement increases transit distance and time, complicates C2 and may strain the logistic capabilities of the LF. OTH movement requires a fluid landing plan that contains alternate landing sites, based on real time intelligence and accurate hydrographic reconnaissance reports. Interoperable C2 systems for maintaining situational awareness and a common tactical picture for the CATF and CLF are absolutely essential in OTH operations.

b. The landing plan is prepared after the final allocation of means has been made and represents the integrated sum of detailed plans for waterborne and airborne ship-to-shore movement prepared by corresponding ATF and LF echelons at all levels. **The landing plan, details the numbers of landing craft and helicopters available for use and the exact personnel and equipment that will be loaded on each.** The documents that comprise the landing plan should be incorporated in annexes to operation and administrative plans and orders. Figure V-2 lists those documents and who is responsible for them.

See Appendix A, “The Landing Plan,” and Appendix B, “Sample Landing Plan for a Regimental Landing Team Landing by Surface and Helicopter,” for detailed information about the development and contents of the landing plan.

4. Amphibious Demonstration

a. **An amphibious demonstration is a show of force conducted to confuse the adversary as to the time, place, or strength of the main operation.** It is crucial that the adversary receive a convincing impression of preparations for a landing. All visible, audible, and electronic aspects of the demonstration must appear authentic. The decision to conduct a demonstration is made by the JFC or higher authority based on recommendations of the CATF and CLF and other appropriate commanders. Although boat and helicopter waves do not normally land during a demonstration, there are planning considerations for the CLF associated with this operation.

(1) **Proximity to the main landing.** The demonstration must be close enough to the main area so that the CATF and CLF can execute adequate C2 over the operation, but sufficiently separated from the main effort to avoid interference.

(2) **Suitability of the demonstration site.** The area must be suitable for an actual landing in order to make it plausible to the adversary.

(3) **Available forces and equipment.** Normally, landing craft (including AAVs), helicopters and personnel involved in the demonstration will not be available for use during the main landing. At times, the CLF may be able to conduct the demonstration with empty landing craft, but increased ranges of adversary observation devices make it more difficult to deceive an adversary using this technique.



Figure V-2. Landing Plan Documents

(4) **Supporting arms available.** The demonstration force will execute supporting arms within the scope that ensures credibility — potentially detracting from the effort in support of the main landing.

(5) **Time available.** The ATF and LF staffs will need adequate time to plan, rehearse, and conduct the demonstration. Detailed planning for the demonstration will be very similar to the main effort, including individual documents such as the landing and fire support plan.

b. On completion of the demonstration, the force is dissolved and its elements are reassigned in accordance with the OPORD or OPLAN. Once again, the LF CONOPS and OPLAN must address the inherent risks associated with preassault operations.

5. Organization for Landing

Planning for the ship-to-shore movement involves the coordinated efforts of the LF and ATF. As a distinct portion of the action phase of the amphibious operation, **the ship-to-shore movement requires specific organizations for command, control, and coordination of the elements of the force.** The ATF and LF organizations should parallel one another to facilitate execution of the landing plan and LF scheme of maneuver ashore.

a. **LF Organization.** The detailed organization of the LF will be different with each operation, but the general task organization will remain the same. As discussed earlier, the Marine Corps will organize as MAGTFs to conduct LF operations, but will further organize into “landing teams” to facilitate the ship-to-shore movement and initial operations ashore. When Army forces are employed as the LF, they will generally consist of a ground combat division, brigade, or battalion that is task-organized with other combat, combat support, and CSS units. As with the MAGTF, the Army LF will also organize into “landing teams” that are based around ground maneuver units within the LF.

(1) **Divisions.** Although smaller organizations may be employed in appropriate cases, the reinforced infantry division is the basic self-contained tactical organization for the conduct of amphibious assault operations. Landing support and aviation units are included in the LF organization for landing. Those specifically designated CSS and aviation units scheduled to land during the initial assault, and over the same beaches as the assault divisions, are included in the landing plans of the assault divisions.

(2) **Regiments or Brigades.** The regimental landing team (RLT) or brigade landing team is a task-organized assault element consisting of an infantry regiment or brigade reinforced by those support elements required. This reinforcement usually includes subordinate BLTs and combat and CSS elements.

(3) **Battalions.** The BLT is the basic organization of the LF for ship-to-shore movement planning. The BLT consists of an infantry battalion or similar unit reinforced by such supporting and service units as may be attached for the movement. Because the BLT is a specific tactical organization for landing, it should be differentiated from the infantry battalion or similar organization. For ship-to-shore movement, the BLT is further organized for waterborne and/or helicopterborne movement.

(a) For movement by landing craft and amphibious vehicles, the BLTs are formed into boat flotillas, boat groups, boat waves, and boat teams. Insofar as practicable, the tactical integrity of troop units should be maintained within boat waves and boat teams. The ATF landing craft are also organized by boat flotillas, groups, and waves. A boat team consists of LF personnel assigned to an individual landing craft.

(b) For movement by helicopter, the BLTs are formed into helicopter flights, waves, and teams.

(4) **Task groupings** of tanks, artillery, antitank, engineer, and other supporting arms or service units may be formed to support initial operations ashore, but not integrated into a BLT.

(5) **Reserve forces are organized in a manner similar to their assault counterparts.** Although not tailored for a specific beach or LZ, reserve forces are normally prepared to conduct an assault landing by either landing craft or helicopter movement.

b. **ATF Organization.** The amphibious shipping, landing craft, AAVs, and organic aviation are organized to correspond to the tactical organization of the LF. As mentioned earlier, this organization includes boat waves, boat groups, and boat flotillas.

(1) A **boat wave** consists of **landing craft or AAVs** that carry troops, equipment, or cargo that are to be **landed simultaneously**.

(2) The **boat group is a collection of boat waves** to be landed as scheduled waves at a designated beach. One boat group is organized for each BLT (or equivalent) to be landed in the first trip of landing craft or amphibious vehicles.

(3) The **boat flotilla** is an organization of **two or more boat groups**. For example, a boat flotilla would be all of the boat waves (organized into boat groups) scheduled to land on Green Beach and Blue Beach.

c. **Organization of Sea Areas.** Sea areas in the vicinity of the objective area are selected and designated by the CATF or higher authority in order to minimize the possibility of interference between components of the AF and other supporting forces, and to maximize force defense and speed of the offensive. **Those portions of the sea areas in the landing area in which the ship-to-shore movement is conducted are of particular concern to the LF.** The ATF commander, in coordination with the LF commander, plans the necessary approach and retirement lanes, checkpoints, rendezvous points and aids to navigation to facilitate the control and coordination of ship-to-shore movement.

6. Supply and Movement Categories

a. Ship-to-shore movements of LF troops, equipment, and supplies are broadly classified by type as waterborne movement and helicopterborne movement. For convenient reference in planning the ship-to-shore movement, **two categories of supplies and five categories of movement** are employed.

(1) **LF supplies** are all those supplies and equipment that accompany the LF in AE and AFOE shipping and comprise the projected supply support to sustain the LF until the AF mission is accomplished. This supply category is further broken down into prescribed loads, pre-positioned emergency supplies, and remaining supplies.

(2) **Resupply** consists of the supply support transported into the objective area by the follow-up shipping subsequent to the landing of the AEs and AFOEs. Resupply also includes host-nation and inter-Service support.

(3) **Movement categories** consist of scheduled waves, on-call waves, nonscheduled units, pre-positioned emergency supplies, and remaining LF supplies.

b. **Landing serial** is an element or group of elements within a series that is given a numerical or alphabetical designation for convenience in planning, scheduling, and control.

(1) For embarkation purposes, a **serial** is a troop element or grouping of supplies and equipment that are to be embarked entirely in one ship, **landed as a unit on one beach or HLZ**, and landed at approximately the same time.

(2) A serial number is an arbitrary number assigned to each serial **to identify each element of the LF**, in either the AE or the AFOE, to be **landed before general unloading**. Serial numbers are primarily reference numbers and in no way indicate, in themselves, a priority or sequence of landing. The purposes of serial numbers are to:

(a) Act as a code to identify the grouping of units or equipment.

(b) Provide speed, brevity, and security in communication.

(c) Provide a means of preparing status reports and verifying that all elements ordered to land are landed.

(3) Early in planning, the **CLF allocates blocks of consecutive serial numbers to each LF element** on the basis of the administrative organization. Further sub-allocations are made until each unit has been given a block of serials.

(4) **The serial assignment table** is a table that shows the serial number, the title of the unit, the approximate number of personnel; the material, vehicles, or equipment in the serial; the number and type of landing craft and/or amphibious vehicles required to boat the serial; and the ship on which the serial is embarked.

c. **Scheduled waves** transport the initial assault elements of the LF with their prescribed loads of equipment and supplies, either by waterborne or helicopterborne means. The time, place, and formation for landing are predetermined jointly by the CATF and CLF. For waterborne movement, forces in scheduled waves are assigned first priority of use for landing craft and AAVs. For helicopterborne movement, scheduled waves may require multiple lifts to completely insert the assault elements.

(1) **Scheduled waves begin landing at H-hour and L-hour**. They are landed at the direction of the CATF and in accordance with a precise time schedule.

(2) After waterborne waves have crossed the line of departure (LD), or helicopterborne waves have left the departure point, the landing of scheduled waves proceeds without change except in extreme emergency.

(3) Scheduled waves are composed predominantly of initial assault elements and designated elements of the landing force support party (LFSP) necessary to establish initial control and coordination of unloading operations on the landing beaches.

(4) **Scheduled waves are serialized.**

d. **On-call waves** consist of those elements of the LF with their initial combat supplies which probably will be **needed ashore at an early hour; however, the time and place of landing cannot be accurately predetermined.** They are elements subject to immediate or emergency call and are positioned so as to be available for landing shortly after H-hour/L-hour.

(1) For waterborne movement, on-call waves are usually boated shortly after the scheduled waves and may be held in readiness at the LD. However, **if adequate numbers of landing craft are not available, some on-call elements may be required to wait for a second trip of landing craft.**

(2) Helicopterborne on-call waves are retained in a **standby status aboard ship or airborne aboard transport helicopters in holding** until called ashore.

(3) Because the units in on-call waves have a high priority for landing, their number should be kept to a minimum consistent with transportation asset availability and expected requirements ashore. **The landing of any other elements may be preempted to permit the landing of on-call waves.**

(4) Such units as the assault unit reserves, direct support artillery, combat engineers, tanks, and landing support elements not contained in scheduled waves are usually boated in this category.

(5) **On-call units are serialized.**

e. **Nonscheduled units** are the remaining units of the LF, in either the AE or AFOE, with their initial combat supplies, whose **landing is expected before the commencement of general unloading.**

(1) Nonscheduled units are **normally not boated or landed until requested.** They are third in priority below scheduled and on-call for use of landing craft or helicopters. The need for these LF elements ashore is usually not of an urgent nature.

(2) Once started, **landing of nonscheduled units may be interrupted** to permit landing of on-call waves, pre-positioned emergency supplies, or other selected supplies or equipment for which there is a greater requirement ashore.

(3) This category includes the combat, combat support, and CSS elements of the LF not included in the scheduled or on-call waves. Examples are LF reserve, general support artillery, LFSP elements, antiaircraft units, aviation ground support units, and headquarters elements.

(4) **Nonscheduled units are serialized.**

f. **Pre-positioned emergency supplies** are designated by the LF commander to meet expected critical needs for supply replenishment early in the action phase of amphibious operations. These supplies are **available for immediate delivery to units ashore**. This category is further divided into floating dumps and pre-staged helicopter-lifted supplies.

(1) **Floating dumps** are temporary groups of selected supplies that are prepackaged and placed in landing craft, ships, or amphibious vehicles for emergency delivery to units ashore. Floating dumps are employed **primarily in support of surface assault elements**.

(2) Floating dumps are boated and report to the primary control ship after H-hour. They usually are directed to remain in the vicinity of the primary control ship, **prepared to land as directed by the primary control officer**.

(3) Floating dumps are dispatched to the beach when requested by the appropriate commander in the LF. Their availability in dedicated landing craft avoids critical delays in the delivery of needed supplies to the beach.

(4) Once a floating dump has been committed, it **should normally be immediately reconstituted** unless supply levels ashore are sufficient to obviate the further requirement for such assets or assets are unavailable.

(5) Uncommitted floating dumps are dissolved once sufficient supply levels have been established ashore. The landing craft or amphibious vehicles are landed and the supplies stored in the beach support area(s) (BSAs). The craft and amphibious vehicles are then released for other uses.

(6) **Floating dumps are not serialized.**

(7) Similar to floating dumps, **pre-staged helicopter-lifted supplies** are pre-packaged units of **selected supplies that are positioned aboard helicopter transports and other suitably configured ships for rapid air delivery to units ashore**. Pre-staged helicopter-lifted supplies may be employed in support of both helicopterborne and surface assault units.

(8) Supplies are dispatched to the beach or LZs when requested by the appropriate LF commander ashore.

(9) Once a unit of pre-staged helicopter-lifted supplies has been committed, it **should normally be reconstituted** unless supply levels ashore are sufficient to obviate the further requirement for such assets.

(10) Uncommitted pre-staged helicopter-lifted supplies are landed as transportation (surface or air) becomes available and stored in designated combat service support areas (CSSAs) ashore.

(11) Movement of these supplies ashore should be coordinated closely with the LFSP to minimize handling and maximize aircraft and landing craft utilization.

(12) Pre-staged helicopter-lifted supplies may be assigned serial numbers in order to facilitate the identification and delivery of specific supplies.

g. **Remaining LF supplies** consist of replenishment supplies and equipment not included in the unit commander's prescribed loads, floating dumps, or pre-staged helicopter-lifted supplies. These supplies constitute the major portion of supplies transported into the operational area in AE and AFOE shipping. Certain supplies in this category may be selectively unloaded to ensure prescribed dump levels are maintained ashore, but **the bulk of remaining supplies are landed during general unloading.**

h. **Free boats**, though not a formal landing category, are used to transport unit commanders, command groups, or liaison elements to the beach. Free boats, when available, can be amphibious vehicles, landing craft, or helicopters.

(1) Free boat requirements are established by the CLF based on C2 requirements expressed in the landing plan. Requirements are weighed against landing craft and amphibious vehicle availability. Free boats are **assigned a lower priority than either scheduled or nonscheduled waves.**

(2) Free boats **load and land at the request of the senior officer assigned to the serial**, through coordination with the appropriate control agency.

(3) Free boats are **serialized for administrative purposes.**

i. **C2 helicopters** may be assigned for C2 of helicopter units. While the functions of the C2 helicopter may seem similar to the free boat, these assets can be part of the scheduled or on-call helicopter waves.

(1) Depending on the tactical situation, the helicopter and helicopterborne unit commanders or their representatives should be carried in the same helicopter. This facilitates C2 and permits consultation if changes in the landing plan are required by the situation.

(2) **C2 helicopters are serialized.**



A landing craft, air cushion heads for shore

7. Movement Control

a. **The CATF is responsible for control of the ship-to-shore movement of both waterborne and helicopterborne assault forces.** Initially, the entire ship-to-shore movement is centrally controlled to permit coordination of support with the landing of the assault elements. Later, as circumstances permit, control of the waterborne movement is decentralized for efficient and rapid handling. The helicopterborne movement, however, remains under centralized control.

b. **The control of the movement of landing ships, landing craft, amphibious vehicles, and helicopters from sea echelon areas to landing beaches and HLZs is exercised through a Navy control group.** The system for the control of the ship-to-shore movement is governed by the landing plan. The maximum area over which effective control of the ship-to-shore movement may be exercised varies in each situation and is, in large part, governed by communications capabilities. **The CLF influences the execution of the ship-to-shore movement through the tactical-logistical group (TACLOG) afloat and the LFSP ashore.**

c. **The Navy control group** keeps the CATF, CLF, and other designated commanders informed of the progress of the movement from ship-to-shore, including the actual landing of the waves and the visible progress of operations ashore. The organization of the Navy control group is based on the arrangement and number of landing beaches used by the AF. The CATF designates control ships and control officers, as appropriate. The Navy control group is specifically designed and organized to support the LF organization for landing. The Navy control group uses control measures; such as approach lanes, boat lanes, and transfer line, to facilitate the control of the movement. The primary agencies of the Navy control group include the following:

(1) **Central (Force) Control Officer.** This Navy officer is normally located aboard the CATF's flagship to coordinate the overall ship-to-shore movement of surface assault units, including landing craft, air cushion operations.

(2) **Primary Control Officer (PCO).** A primary control ship and PCO are designated for each transport group involved in the landing of a regiment or BLT, or their equivalent.

(3) **Combat Cargo Officer.** This officer is the CATF's representative for all phases of embarkation. He is the LF TACLOG's link for planning and coordination with all individual ships' CCOs, operation officers, and first lieutenants.

Detailed description and use of these control measures can be found in NWP 3-02.1 and Marine Corps Warfighting Publication (MCWP) 3-31.6, Ship-to-Shore Movement.

d. **LFSP** is a temporary, special category task organization of the AF that contains a shore party support element, a helicopter assault support element, and a Navy beach group element. **The primary mission of the LFSP is to facilitate the landing and movement of troops, equipment, and supplies across beaches and into LZs, ports, and airfields.** Additionally, the LFSP assists in evacuating casualties and prisoners of war from the beaches and LZs and the retraction and salvaging of landing craft. The LFSP is **task-organized from elements of the ATF and LF with C2 normally provided by the LF.**

A full discussion of the functions and organization of the naval beach group can be found in Naval Tactics, Techniques, and Procedures 3-02.14 (Rev A), The Naval Beach Group.

e. Helicopter units that transport serials from the landing plan are normally subordinate units of the LF, but execute the ship-to-shore movement in accordance with the Navy control group's overall plan. This plan includes the provision for transfer of control of LF helicopter operations to the CLF once adequate C2 facilities and capabilities are ashore. Individuals and agencies involved in the control and coordination of helicopterborne movement include:

(1) The Navy **TACC**, a staff organization under the CATF, is organized and equipped to exercise control and/or coordination of all aircraft, including helicopters, in the operational area. During the helicopter ship-to-shore movement, the Navy TACC coordinates helicopter movements with supporting arms and other air operations, and maintains the current status of helicopters, fixed-wing aircraft, and landing platforms.

(2) The **tactical air control center officer (TACCO)**, located in the Navy TACC, establishes the aviation C2 systems and is responsible for all Navy TACC operations.

(3) The **helicopter transport group commander** is responsible for matters related to flight control of helicopters. This control is exercised through the helicopter direction center (HDC) and the helicopter logistic support center.

(4) The **helicopter coordination section (HCS)** is the specific section of the Navy TACC that coordinates all helicopter operations. The HCS is organized into two units. The helicopter coordination unit deals directly with the actual employment and coordination of the helicopters. The helicopter advisory unit maintains current data for the Navy TACC on items such as available aircraft, location of aircraft, status of landing platforms, and progress of the helicopterborne waves. **Personnel from the aviation element of the LF normally augment the HCS.**

(5) The detailed control and direction of helicopter movements is normally decentralized to the **HDC**. Subordinate to the Navy TACC, the HDC is located aboard the flagship of the helicopter transport group commander. Under the supervision of the Navy TACC, the HDC controls the movement of all assault helicopters and reports to the Navy TACC on status and location of assigned aircraft. When directed by the Navy TACC, the HDC may control escort aircraft and medical evacuation (MEDEVAC) helicopters as well. The HDC normally coordinates all changes to the helicopter-related documents of the landing plan.

f. The TACLOG is a temporary task organization established for the principal purpose of advising and assisting the Navy control group during ship-to-shore movement (see Figure V-3). The TACLOG is not part of, but is closely associated with, the ATF's movement control agencies. **The TACLOG must be manned by personnel intimately involved in the development of the landing plan and capable of making rapid, sound decisions concerning ship-to-shore movement based on the commander's guidance and intent.**

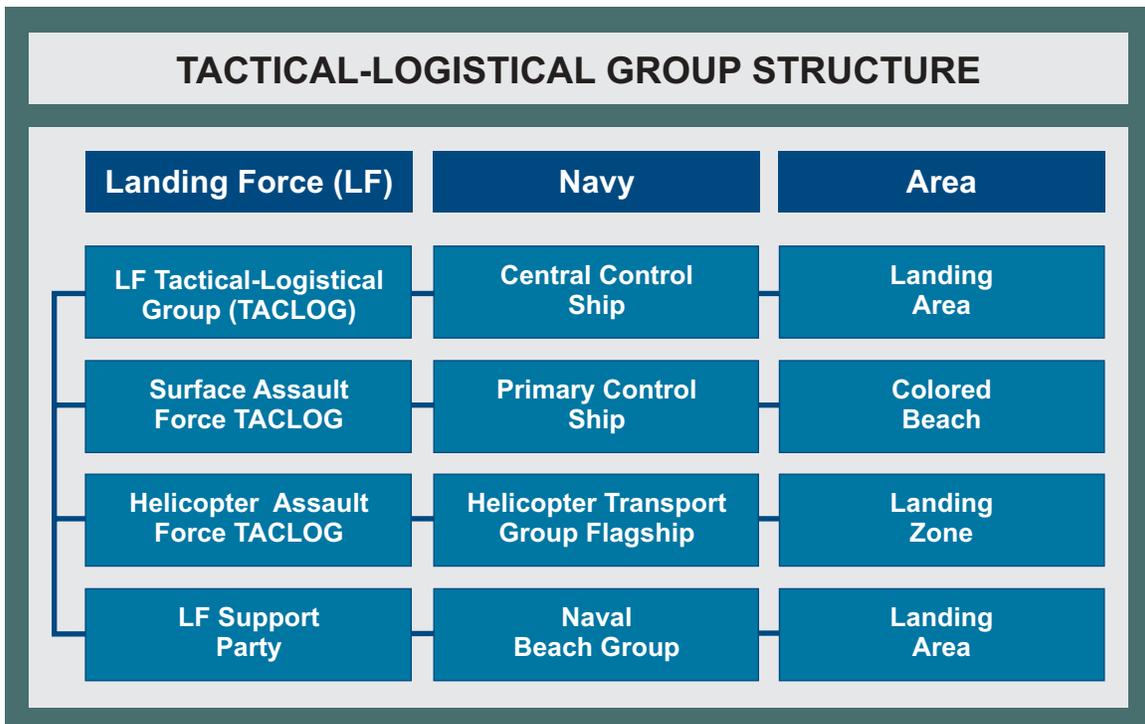


Figure V-3. Tactical-Logistical Group Structure

(1) TACLOGs at the various echelons of the LF (e.g., RLT and BLT) **serve as the coordinating link between the Navy control organization and LF commanders.** The groups advise their Navy counterparts on the location of troop units, supplies, and equipment; boat requirements for serials; adjustments in the landing sequence; and special requirements of the commanders ashore. TACLOGs maintain detailed records of the times when serials are requested, dispatched, and landed.

(2) LF personnel assigned to the TACLOG must have intimate knowledge of the OPOD, the embarkation order, the concept for CSS, and the individual ship's loading plans. The TACLOG is normally composed of representatives from the operations (G/S-3) and logistics (G/S-4) sections and the embarkation officer of the LF unit(s) embarked. Representatives from subordinate LF units are usually assigned, too, during the period when the main elements of those units are being boated and landed.

(3) **TACLOG Officer in Charge (OIC).** Because the initial stages of the action phase are, in some aspects, a tactical maneuver, consideration should be given to initially designating the CLF's G/S-3 representative as the OIC. As the operation progresses into the general unloading phase, the G/S-4 member may be better suited to assume the OIC responsibilities. In any case, the OIC has the responsibility for organizing the TACLOG and planning its operation. **The OIC must possess a thorough knowledge of the capabilities and limitations of ship-to-shore movement assets.** This knowledge, coupled with his grasp of the OPLAN (especially the landing plan annexes), will enable the TACLOG to respond to the needs of the LF. **Operating requirements for the TACLOG (personnel, communications, and ship spaces) should be identified early in the planning phase.**

(4) **LF embarkation officer** is responsible for **advising the TACLOG OIC** on the exact location of all classes of supply and equipment, including the nature of stowage and ATF constraints/restraints that may affect ship-to-shore movement. The embarkation officer may coordinate the general unloading phase while the TACLOG OIC and other designated personnel move ashore.

(5) **CSS Representative.** This TACLOG member is normally from the G/S-3 of the senior CSS unit within the LF and brings in-depth knowledge of the capabilities, limitations, and employment of the LFSP and other CSS. Additionally, the CSS representative advises the TACLOG OIC on any specific requirements that apply to CSS vehicles and equipment during ship-to-shore movement or the withdrawal phase (if one is planned).

(6) **Communication personnel** assigned to the TACLOG will vary based on the number of communication nets allocated. The communication equipment and personnel required to support the TACLOG will be provided by a combination of LF units and the ship on which the TACLOG is located. **The primary responsibility for establishing the C4 systems within the TACLOG rests with the CLF.** Therefore, it is **imperative the CLF identifies the required ATF support early in the planning process** and brings it to the attention of the CATF and JFC.

g. The **LF TACLOG** is normally embarked aboard the central control ship and collocated with the central control officer. It monitors the operations of the LFSP and the TACLOGs of all subordinate LF elements, intervening only when necessary. The specific responsibilities of the LF TACLOG are to:

(1) Provide movement control liaison officers to the CCO, Navy TACC and SACC.

(2) Coordinate with subordinate TACLOGs and resolve issues requiring CLF attention.

(3) Advise the CCO, Navy TACC, SACC, and CLF on changes to the landing plan and emphasize their impact on the tactical situation ashore and overall LF mission accomplishment.

(4) As directed, periodically update the CLF on the progress of the ship-to-shore movement.

h. **Subordinate elements of the LF, if not directed to do so, may choose to establish TACLOGs** that parallel the Navy control group agencies located on their respective ships. If established, these TACLOGs will maintain direct contact with the LF TACLOG located aboard the central control ship.

(1) **LF commanders conducting landings over a colored beach normally establish their own TACLOG.** RLTs, or their equivalent, are the most likely unit to stand up a formal TACLOG. Battalions normally do not establish a formal TACLOG unless they are conducting independent operations or are landing over a separate beach beyond the control of the RLT.

(2) **LF commanders executing battalion-sized or larger helicopterborne movements may choose to establish a separate TACLOG.** If so, it is normally located aboard the flagship of the helicopter transport group commander and may be collocated with the HDC. If a helicopterborne assault operation involves more than one RLT, or is conducted from widely dispersed shipping, more than one special purpose TACLOG may be necessary.

i. The specific responsibilities of a subordinate TACLOG (waterborne movement) are to:

(1) Coordinate pre-D-day and pre-H-hour transfers involving LF personnel and equipment.

(2) Monitor all scheduled waves and provide recommendations to the PCO for the landing of on-call and nonscheduled serials and supplies.

(3) Process and coordinate requests from the LF commanders; e.g., coordinate the use of floating dumps, on-call serials, free boats, etc.

(4) Advise the PCO on the priority of landing serials when the landing plan must be altered because of the tactical situation — loss of landing craft, critical resupply needed by the LF units ashore, etc.

(5) Maintain a record by date-time group (DTG) of scheduled, on-call and nonscheduled serials, and LF supplies, indicating those requested and those landed.

(6) As directed by the CLF, update the LF TACLOG on the progress of the landing at the respective beaches.

(7) Anticipate LF requirements and coordinate landing of nonscheduled elements.

(8) Within established limits, represent the LF (subordinate) commander on ship-to-shore decisions.

(9) Coordinate with LFSP and other CSS personnel on matters of logistics that will affect operations ashore.

j. The subordinate unit TACLOG (helicopterborne movement) has the responsibility to:

(1) Coordinate pre-D-day and pre-H-hour transfers involving LF personnel and equipment.

(2) Monitor all scheduled helicopter waves and provide recommendation to the Navy TACC, via HDC, on the employment of on-call and nonscheduled serials and supplies.

(3) Process and coordinate requests from the appropriate LF commanders. The helicopter support team (HST) accompanying the assault force will normally pass logistics requests from the commander.

(4) Advise the helicopter logistics coordinator, or appropriate agency, of the location of requested items and recommend the type and number of helicopters required to transport the items.

(5) Advise the helicopter logistics coordinator and the LF TACLOG on matters pertaining to changes in the landing sequence or landing plan, emphasizing their impact on the tactical situation ashore.

(6) Maintain a record by DTG of scheduled, on-call, and nonscheduled serials and LF supplies to indicate those requested and those landed.

(7) As required, update the LFTACLOG on the progress of helicopterborne operations.

(8) Anticipate LF requirements and coordinate landing of nonscheduled and nonserialized elements.

(9) Within limits, represent the LF (subordinate) commander in decisions affecting the ship-to-shore movement.

8. Conduct of Ship-to-Shore Movement

a. The commencement of landing craft loading and enplaning and the timing of other ship-to-shore movement preparations are dependent on the designated H-hour and L-hour. All elements must be prepared to modify plans on short notice to conform to changes in H-hour.

b. Prior to H- or L-hour, surface movement control group personnel are cross-decked, as required, to ships of the control group. Helicopter movement control groups take assigned stations and initiate actions as required to meet the time schedule for initial landings.

c. The loading of personnel, equipment, and supplies of the scheduled waves is tedious work and time consuming. Whether using landing craft, amphibious vehicles, or helicopters, the LF must develop and adhere to a strict time schedule based on the established H-hour. Preparations are made for debarkation of on-call and nonscheduled units and for dispatching these units when required.

d. **Scheduled Waves (Waterborne).** Scheduled waves are normally landed according to plan, regardless of the developing situation. When practicable, the first scheduled wave is dispatched by the CCO with other waves being regulated by the various PCOs.

e. **On-call Waves (Waterborne).** The landing of on-call waves and pre-positioned emergency supplies is initiated as the situation requires and continues until these categories are ashore. On-call waves are usually located in the vicinity of primary control ships in order to be available for landing with as little delay as possible. When the commander ashore desires the landing of an on-call unit, he notifies his TACLOG of the desired place and time (if appropriate) of landing. The Navy control officer then directs the landing of the unit. Pre-positioned emergency supplies are located in proximity to the appropriate control officer who directs their landing as requested by the troop commander concerned.

f. **Nonscheduled units and remaining LF supplies.** Nonscheduled units and remaining LF supplies are landed in accordance with the requirements of the LF. On rare occasion, these categories may be landed before completion of on-call waves and pre-positioned emergency supplies. Nonscheduled units and previously designated supplies are normally requested by serial until the commencement of general unloading. The responsibility for their landing is assigned by the CATF to the commanders of the cognizant control organizations. In the landing of nonscheduled units, the maximum coordination between LF and ATF control organizations is essential to ensure responsiveness and efficient use of landing ships and craft. The control officers concerned regulate the movement of the ships and craft in accordance with instructions from appropriate commanders and requests from the TACLOG. **Any changes in the landing sequence, no matter how slight they may seem, will invariably disrupt the flow of the offload and may result in unintended delays.** The following basic procedures apply for the landing of nonscheduled units.

(1) The CLF requests the landing of the nonscheduled units and notifies the CATF of any requested modifications to the landing sequence as soon as possible.

(2) The CLF continually reviews the progress of the landing and submits periodic and timely requests to the CATF for landing needed units and items of supply.

g. **Schedule waves (helicopterborne).** Helicopterborne ship-to-shore movement is normally completed during the initial unloading period. In fact, helicopters usually must make several trips to land and supply the LF units going ashore. Scheduled waves are launched on a prescribed time schedule to ensure the timely arrival in the LZs in accordance with the LF operation plan. The prescribed launch times will be based on many factors such as distance to the LZ, speed of the aircraft, prevailing weather (wind) conditions, etc.

h. **On-call waves (helicopterborne).** Because of the urgent nature of landing on-call waves, elements or items in other landing categories may be preempted to permit their landing. The number of on-call units or items must be kept to a minimum if their high-priority status is to be preserved.

i. **Nonscheduled waves (helicopterborne).** The landing of nonscheduled, helicopterborne waves commences upon completion of scheduled landings into the LZs. Once started, this process may be interrupted to permit the landing of on-call or other selected units or supplies based on the request of the appropriate LF commander. Furthermore, unforeseen circumstances, such as the requirement for LF helicopters for other tactical missions, may also interrupt the landing of nonscheduled waves. Once the helicopterborne ship-to-shore movement is completed, transport helicopters are employed to meet tactical and logistical requirements of LF operations ashore as directed by the CLF. Helicopter movement in these operations will be controlled by appropriate tactical air control agencies.

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CHAPTER VI OPERATIONS ASHORE

“In landing operations, retreat is impossible. To surrender is as ignoble as it is foolish. . . . Above all else remember that we as the attackers have the initiative. We know exactly what we are going to do, while the enemy is ignorant of our intentions and can only parry our blows. We must retain this tremendous advantage by always attacking: rapidly, ruthlessly, viciously, and without rest.”

**George S. Patton, Jr., General Order to the 7th Army
before the Sicily landings, 1943**

1. General

In an amphibious operation, **LF operations ashore begin with the landing of the first scheduled wave, by surface means, or vertical takeoff and landing (VTOL) insertion.** Elements of the LF quickly transition to organization for combat and conduct operations to accomplish the LF mission. Once fully established ashore, the LF conducts tactical operations similar to normal land operations but remains dependent on at-sea forces for support. As the operation progresses and support is established ashore, the degree of dependence is reduced.

a. **Command Relationships.** The established command relationships during amphibious operations will vary depending on the mission. However, after the initial stages of the action phase of the amphibious operation, and even more so once LF operations ashore are well underway, **the CLF will usually be the supported commander within the force.** Variations in responsibilities and authorities will be dictated by the individual situation and specified in the appropriate orders and directives. **The naval component will normally continue to be the supporting command until forces ashore are no longer dependent on throughput over the shore.**

Refer to Chapter II of JP 3-02, Joint Doctrine for Amphibious Operations, for more information on support/supported command relationships during amphibious operations.

b. **Organization for the action phase of an amphibious operation is based on the parallel organization of the ATF, LF, and other designated forces.** LF organization for landing is the specific tactical grouping of forces for accomplishment of the assigned mission. Tactical integrity of landing elements is maintained insofar as practicable during ship-to-shore movement. The ATF and LF organizations should parallel one another to facilitate execution of the landing plan and the LF scheme of maneuver ashore.

c. **The CATF is responsible for overall control of both surface and air ship-to-shore movement** and exercises central control to permit coordination of support for LF elements. Later, as circumstances permit, control of surface movement is decentralized for efficient and rapid execution. However, due to airspace coordination concerns, aircraft movement remains under the control of the CATF, through the Navy TACC.

d. The CLF is responsible for the overall planning and execution of LF operations ashore. To guide LF operations ashore, the CLF and his staff develop the LF OPLAN.

2. Landing Force Operation Plan

Much of the information that must be included in the LF OPLAN is so detailed, specialized, and technical that it does not lend itself for inclusion in the main body of the document. Therefore, much of the detailed information will be included in the OPLAN by way of annexes and appendices. During the initial preparation of the plan, the LF staff will need to develop the essential items necessary to frame the overall OPLAN. The LF CONOPS ashore, the plan for fire support, and the concept for CSS are produced based on the CLF's guidance and intent.

a. **CONOPS Ashore.** The development of the concept of LF operations ashore is an evolutionary process. The concept developed during detailed planning is a refinement of the initial concept developed during preliminary amphibious planning. Ultimately, the detailed concept is included in the OPLAN. The operational and logistic requirements of subordinate elements and changes in the adversary situation may necessitate modifications to this concept, but it must always provide additional clarity to the LF commander's intent. **The detailed CONOPS ashore amplifies CLF's decisions and indicates how he visualizes the operation.**

(1) **Scheme of Maneuver.** Included in the CONOPS, the scheme of maneuver is a plan for the execution of a tactical COA. It includes objectives, types of offensive maneuver to be employed, distribution of forces, and necessary control measures. In formulating the scheme of maneuver for an amphibious operation, the principles of ground combat remain valid. However, variations of application may be necessary due to the character of the operation.

(2) **Landing Plan.** The landing plan is essentially the plan for the ship-to-shore movement of the LF. It is predicated on the scheme of maneuver ashore and the means available to move the LF ashore.



Kandahar, Afghanistan. Marines on a light armored vehicle prepare to go on patrol as an AH1W Super Cobra helicopter flies overhead in support of Operation ENDURING FREEDOM.

For additional information on ship-to-shore movement and the landing plan, see Chapter V, “Ship-to-Shore Movement,” Appendix A, “The Landing Plan,” and Appendix B, “Sample Landing Plan for an Regimental Landing Team Landing by Surface and Helicopter.”

b. **Plan of Supporting Fires.** Fire support has a major effect on the development of the LF OPLAN. Until the LF’s organic artillery is ashore, NSFS and aviation assets (fixed- and rotary-wing) are normally the only means of fire support for the LF. A portion of these assets may also be tasked to defend the AF as a whole, limiting their availability to the LF.

For additional information on supporting arms, see Chapter VIII, “Fire Support Planning and Coordination.”

c. **Plan for the Employment of LF Aviation.** The plan for the employment of LF aviation to support operations ashore is integrated with the overall air plans of the CATF and AF commanders. Air operations performed by ATF and LF aviation elements, and other supporting air forces, complement one another and constitute a collective capability for support of the amphibious operation. When the LF is a MAGTF, the MAGTF commander retains OPCON of organic aviation assets for use in support of the ground combat element (GCE) and the overall mission. The MAGTF commander provides excess sorties and sorties for air defense, long-range interdiction, and long-range reconnaissance to the JFC in accordance with JP 0-2, *Unified Action Armed Forces (UNAAF)*.

d. **Plan for the Employment of the LF CSS.** The plan for the employment of the LF CSS is expressed in the concept for CSS. This document establishes the logistic support plan for the LF from the embarkation phase through the termination of LF operations ashore.

3. Planning Considerations

a. **The LF mission is developed early in the planning process after careful analysis of the AF mission and only after all specified and implied tasks are identified and understood.** The mission is translated into specific LF objectives by the CLF, objectives that serve as the primary basis for determining the LF scheme of maneuver, fire support, organization for combat, formation for landing, landing plan, and logistic support requirements. The mission developed by the commander, and as amplified by the CONOPS ashore, is the principal means by which the commander ensures that his intent is understood and accomplished in detailed planning and execution of the operation (see Figure VI-1).

b. **Development of Combat Power Ashore.** In the amphibious attack, combat power is progressively phased ashore during the action phase. **Initially, the LF is able to exert only a small fraction of its total potential power.** Tactical operations are initiated by small units that are normally only supported by NSFS and attack aircraft. Before long, the preponderance of the LF is ashore and functioning as a cohesive organization exerting its maximum combat power. The echelonment reflected in the organization for landing provides for the orderly progression and development of combat power.

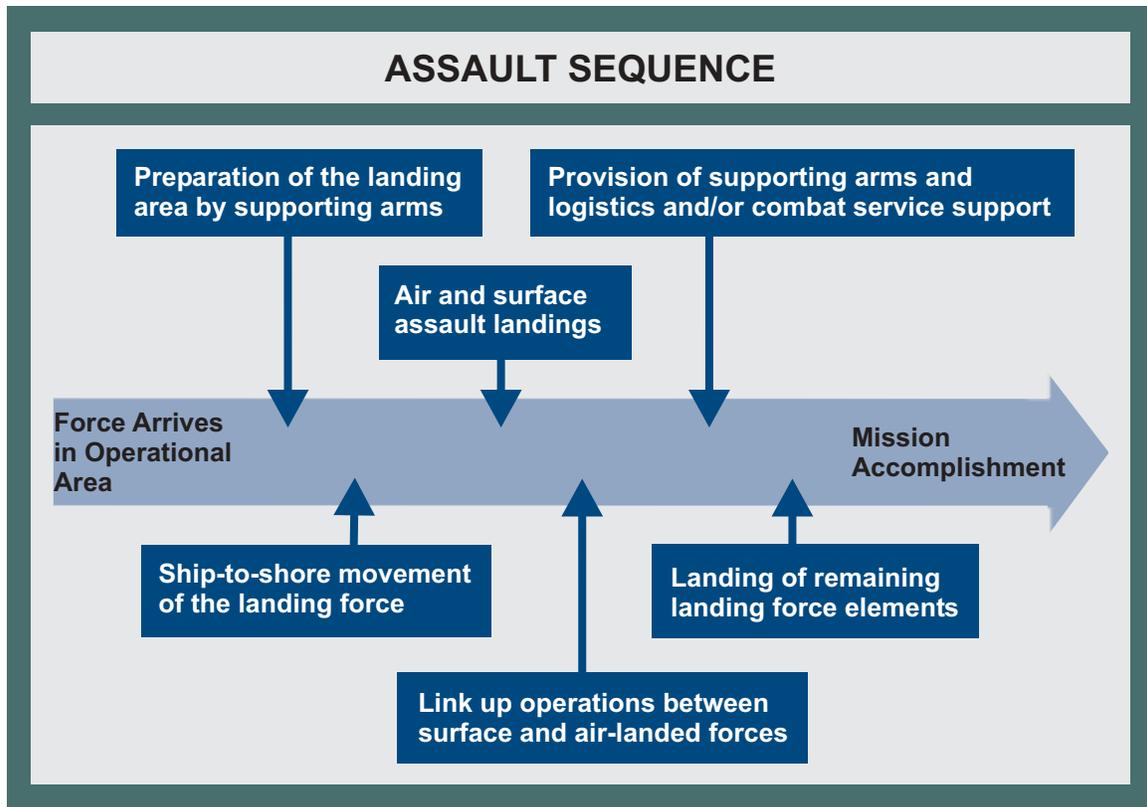


Figure VI-1. Assault Sequence

c. **Echelons of the LF** normally include the AE and AFOE. At times, pre-positioned forces may also augment the LF but are not usually associated with the AE or AFOE echelons.

(1) **AE.** The AE is that element of a force comprised of tailored units and aircraft assigned to conduct the initial assault on the operational area. **The AE is normally embarked in amphibious assault ships, but may also include other elements (such as airborne and air assault forces) positioned at other locations.** Naval shipping transporting the AE are combat loaded with troops, equipment, and supplies that typically provide at least fifteen days of sustainment.

(2) **AFOE.** The AFOE is that echelon of the assault troops, vehicles, aircraft, equipment, and supplies which, although not needed to initiate the assault, are required to support and sustain the assault. **The AFOE is normally required in the operational area no later than five days after commencement of the assault landing.** The AFOE is organized for landing and embarkation based on anticipated requirements of operations ashore.

(3) **Maritime Pre-positioning Force (MPF) and Afloat Pre-positioning Force (APF).** **MPF and APF operations that augment the LF will normally occur before the arrival of the AFOE.** MPF and APF operations deploy a combat ready MAGTF (size can vary) or US Army maneuver unit into a “permissive” location within the operational area. These additional troops, supplies, and equipment may then be transported by the ATF or other means into the landing area to reinforce or augment the AE.

d. The time required to phase the LF's combat power ashore depends on many factors and the CATE, CLF and their staffs must develop the OPLAN based on best estimates. Some of those factors affecting the build up of combat power ashore include:

- (1) Availability, by type and number, of ship-to-shore movement assets.
- (2) Capacity (including throughput considerations) of landing beaches and LZs.
- (3) Degree of adversary interference with the landing.
- (4) Extent of fire support available to the LF prior to establishing organic assets ashore.
- (5) Terrain, weather, and sea conditions in the landing area.
- (6) Available maneuver space and trafficability considerations in the landing area.

e. **Phasing Ashore.** The LF will seldom be able to secure control of the landward section of the landing area in a single landing. Therefore, the CLF will have to phase units and capabilities ashore during the execution of the OPLAN/OPORD. Intermediate objectives and phase lines may be used to coordinate and track the phases of LF operations ashore. Phasing can revolve around many factors, e.g., time, (in relation to H-hour, L-hour, or D-day), distance (intermediate objectives or phase lines), terrain (crossing of obstacles), or event-driven (linkup with helicopterborne forces or seizure of an offshore fire support position). Regardless of the method used, the CLF must ensure that the plan is based on sound decisions and the capabilities of the LF as a whole. **Especially during the landing of scheduled waves, the action phase is characterized by decentralized execution of the plan by subordinate commanders.** The concept for phasing ashore the LF's combat power should plan for the reestablishment of centralized control of the LF. This **reestablishment of centralized control normally progresses from lower to higher echelons successively.**

f. **Support Capabilities of Other Elements of the ATF.** In developing plans, the CLF must consider all elements of the AF, as well as other forces that will be able to support his CONOPS.

g. **Other Plan Requirements.** This document does not discuss, in detail, all the functional planning responsibilities normally associated with an OPLAN. The planning factors that do not differ significantly from land combat; such as psychological operations, public affairs, civil-military operations, IO, and offensive/defensive operations in general, remain valid and are part of the entire planning process but will not be addressed in this chapter.

4. Landing Force Organization

LF elements are initially organized for embarkation and remain in this organization until the ship-to-shore movement commences. They are then reorganized for landing based on the scheme of maneuver ashore and the capabilities of the available ship-to-shore movement assets.

Once ashore, the LF reorganizes again for combat. However, **the organization for combat is actually the start point for all organizational planning.** By using inverse planning, the LF staff can tailor the organization for landing that most closely reflects the organization for combat. Furthermore, by using the organization for landing as the start point for embarkation planning, the LF staff can develop an embarkation plan that will enable the LF to efficiently execute the landing plan without the need for extensive cross-decking of personnel and equipment.

a. **Organization for Combat.** In simple terms, this LF organization involves the combination of infantry, reconnaissance, armor, artillery, aviation, CSS, and other units that the CLF determines will best accomplish the assigned mission. The LF should adopt this organization as soon as practicable following the landing(s) of the AE.

(1) External fire support means made available to the LF may be organized to support the specified task groups formed. Such forces normally include artillery units (not organic to the division), NSFS, and tactical aviation.

(2) **CSS installations and units are organized and located to support the LF and combat support forces.** Centralized control of CSS is efficient, but it is often necessary to decentralize control to those elements that support the tactical elements, particularly when these task organizations have been assigned independent missions.

b. **Organization for landing** is the tactical grouping of the LF for the ship-to-shore movement. The LF is organized to execute the landing and to conduct initial operations ashore in accordance with the commander's CONOPS. **The major subordinate elements of the LF should be capable of independent operations during the initial stages of the landing and operations ashore** — when centralized C2 is difficult to execute. For example, a regimental commander will need time to establish C2 over the separate battalions, which may have landed across different beaches and/or LZs. The organization for landing should also provide for:

- (1) Maximum combat power at the point of landing.
- (2) Depth to the assault to ensure flexibility and a sustained buildup of combat power.
- (3) Dispersion of the force as consistent with other requirements.
- (4) Sufficient flexibility to exploit weaknesses found in the adversary defenses.
- (5) Timely establishment/employment of tactical and administrative support systems ashore.
- (6) Closest possible resemblance to the organization for combat.

c. **Organization for embarkation** is the last of the three organizations published once the other two have been developed. This organization is used by the LF during the movement phase of the amphibious operation and is discussed more in Chapter III, "Embarkation and Deployment."

For more detailed information on embarkation planning, see JP 3-02.2, Joint Doctrine for Amphibious Embarkation.

5. Landing Force Scheme of Maneuver

The formulation of the scheme of maneuver for an amphibious assault is based on the same fundamentals of warfare normally associated with all military operations. However, there are a few conditions and considerations that may require particular attention.

a. **The fundamental goal is to introduce the LF ashore to accomplish the assigned mission.** Normally starting from a zero combat capability ashore, the LF seeks the early seizure of key objectives through aggressive offensive action to disrupt adversary defenses, permit the rapid landing of supporting units, and contribute to the early development of full combat power ashore.

b. **The scheme of maneuver may support the rapid build up of combat power ashore rather than the immediate seizure of AF objectives.** The scheme of maneuver may allow the engagement of the adversary on ground chosen by the CLF and at a time that gives the LF a marked advantage.

c. **The landing of the force at separate locations can create problems in achievement of mass,** with attendant difficulties in C2, fire support, and other functional areas. The CLF can overcome this obstacle by ensuring that the major elements of the LF fully understand the mission, commander's intent, and are task-organized to act independently during the early stages of the operation.

d. The types of combat units in the LF task organization and their strength influence the scheme of maneuver.

(1) LFs that have organic or attached combat support and CSS capabilities are usually better suited for amphibious operations than LFs comprised of infantry units alone.

(2) Armored elements, if able to be landed early in the operation, provide substantial combat power and mobility for the LF.

(3) Artillery in the AE may be either self-propelled or towed. Self-propelled artillery is well suited for certain conditions and is landed in the same manner as armor. Towed artillery may be best transported by helicopter until landing craft become available.

(4) Combat engineer units will normally be attached to infantry and mechanized units to provide immediate, responsive decentralized support. Later, engineer forces may be reorganized to provide normal direct or general support.

(5) Air defense units organic to the LF are established ashore early to provide for the landward extension of an air defense system. They will be part of the CATF's integrated air defense system until such time control is phased ashore.

e. The LF scheme of maneuver should meet certain key requirements:

(1) Its primary purpose should be to seize those objectives requisite to the buildup and establishment of the LF ashore.

(2) Utilize all avenues of approach proximate to the selected beaches and LZs.

(3) Supportable by NSFS, missiles, and aircraft, especially until the landing of artillery.

(4) LF echelons should be capable of initial success without dependence on other assault units.

(5) Provide for the development of mutual support between units as the attack progresses.

(6) Provide for early establishment of CSSAs as required.

6. Reserves

The CLF will usually plan to withhold a portion of the force during the initial stages of the action phase. **The LF reserve must be capable of landing when and where desired in order to best influence the tactical situation as it develops ashore.**

a. Subordinate units of the LF will normally not have their own reserve due to the limited ship-to-shore movement assets and the need to commit all landing groups to maximize combat power ashore. On-call waves are the normal means with which the ground commander can influence the action ashore.

b. Commitment of the reserve in an amphibious assault may be more complex than in normal land operations.

(1) When afloat, the reserve may be delayed pending availability of landing craft, amphibious vehicles, or helicopters, plus the time required for debarkation and movement ashore.

(2) Employment of the reserves may delay the movement of other assault formations because all elements of the LF must share the same ship-to-shore movement assets.

(3) Landing of the reserve by surface means depends on the availability of landing craft as well as a suitable landing beach near the area of intended employment.

c. When keeping the reserve afloat is no longer any advantage, it is landed and positioned ashore to facilitate future employment. This action should not be undertaken until sufficient area has been seized ashore to permit adequate maneuver room.

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CHAPTER VII INTELLIGENCE

“To lack intelligence is to be in the ring blindfolded.”

General David M. Shoup USMC, Remarks to headquarters staff, 1960

1. General

a. Intelligence support to amphibious operations differs from intelligence support to other military operations in a number of ways: the significant challenges posed by a lack of AF intelligence, surveillance, and reconnaissance (ISR) assets in the operational area during the planning phase; a heavy initial reliance on national and theater collection assets; the transition ashore; and the requirement to provide predictive analysis to compensate for relatively longer periods of uncertainty. However, **the basic nature of ISR does not change in amphibious operations. Intelligence is still required to assess basic infrastructure data, weather and terrain, and threats to friendly forces in the area of interest.**

b. Accurate and timely intelligence is the keystone for planning and decision making. **Because of the difficulty in altering plans significantly during the initial assault, the requirement for intelligence has special relevance to the LF in an amphibious operation.** Amphibious operations involve extensive planning in all functional areas to ensure that personnel, ships, aircraft, landing craft, and supporting fires are synchronized to arrive at specific points at specific times to take advantage of adversary critical vulnerabilities and expedite combat power build-up and sustainment ashore. **This requires comprehensive intelligence preparation of the battlespace (IPB),** including collaboration of intelligence and operational staff members to ensure that COAs are feasible and that adversary capabilities, vulnerabilities, COAs, and COGs are identified and taken into consideration.

c. AF intelligence operations are conducted across strategic, operational, and tactical levels of war. From National Military Strategy considerations down to tactical doctrine, intelligence analysis reveals adversary COGs, strengths, and vulnerabilities. **Intelligence also assesses potential for maneuver offered by the battlespace, to include identifying the most advantageous landing areas and beaches.** Intelligence support throughout the operation provides a solid foundation for effective force protection efforts for the AF.

d. The functioning of the intelligence process may differ between amphibious operations and land combat, particularly in the planning and direction and collection phases. This difference exists because the **LF organic collection assets have limited opportunities before advance force operations,** making the LF heavily dependent on national, theater and ATF assets.

2. Required Capabilities

a. The needs of the LF are all encompassing, ranging from the location of underwater obstacles, to trafficability of soil on the beach, to the capacity of bridges on egress routes, to the ground slope and conditions in potential HLZs. Adversary capabilities must be determined

based on detailed study of all order of battle factors, in-depth terrain, hydrography, and weather analysis. From the assessment of adversary capabilities, the intelligence officer must develop and present his appraisal of the adversary's probable COAs.

b. The LF has certain intelligence requirements (IRs):

(1) Detailed terrain, weather, and hydrographic analysis to identify suitable zones of entry (e.g., beaches, HLZs, DZs, etc.).

(2) Information systems interoperability with national, theater, multinational, and joint force intelligence organizations, to provide intelligence in time for amphibious planning and rehearsals.

(3) Standoff collection assets capable of satisfying ATF and LF requirements from OTH.

(4) Intelligence dissemination systems linking widely dispersed forces afloat and ashore.

(5) Flexible intelligence assets capable of rapidly transitioning ashore with minimal degradation of support.

(6) Accurate current intelligence on adversary composition and disposition.

c. **In some cases, to avoid compromise of the operation, the only current intelligence available before the operation will be in forms such as imagery, signals intelligence, or human intelligence reports.** These sources of information, although valuable supplements, may be susceptible to deception or manipulation and may not be timely or accurate.

3. The Intelligence Process and Landing Force Operations

During the embarkation phase, amphibious and LF intelligence efforts are directed from the intelligence center established within the AF. This intelligence center collocates ship's company, AF, and other embarked component intelligence-related activities in order to task-organize to perform intelligence work necessary for completion of the mission. While personnel and material remain organic to their respective commands, they may task-organize to perform intelligence work necessary to support completion of the mission. The intelligence center should draw on the unique strengths and core competencies of each component involved. For example, the LF may provide the intelligence collection manager while the ATF provides the EW resources coordinator. The intelligence center should have connectivity with other intelligence units located on other ships and reachback abilities.

a. **Planning and Direction.** The primary driver of the intelligence process is the operational commander's critical intelligence requirements (CCIRs) and PIRs. These become standing guidance for planning intelligence efforts and prioritizing intelligence collection, processing, exploitation, production, and dissemination. ATF and LF commanders nominate PIRs to ensure

unity of the intelligence effort to meet their respective needs. Additionally PIRs should be re-validated and updated on an as needed basis to ensure they remain relevant to the current operational situation.

b. **Collection.** During the planning phase, collection is primarily conducted by national, theater, and other joint assets. These high demand, low density systems have limitations that may often result in an incomplete intelligence picture. Advance force or pre-assault collection operations by ATF, LF, and other naval assets are often required to confirm and further develop the operational picture.

(1) An **intensive pre-assault intelligence effort** will provide the LF the detailed information required to conduct the landing and operations ashore. Amphibious reconnaissance, a landing conducted by elements of the AF that maintain a low profile and normally involve stealth rather than force, can collect detailed information before the ship-to-shore movement. The decision to undertake any collection effort must weigh the need for particular information against the risk that collection operations may expose the commander's intent.

(2) A **collection plan** must be prepared and implemented early in the planning process. Collection planning must provide for the continuous collection of information throughout all phases of the operation. The commander provides guidance to the collection effort by determining and announcing his CCIRs. **The collection plan must be integrated with the overall scheme of maneuver and plan for fire support.** This close integration of intelligence collection, scheme of maneuver, and fire support ensures no wasted resources in the targeting effort by the AF. The LF will normally require support from ATF and other component collection assets, such as unmanned aerial vehicles and the Joint Surveillance Target Attack Radar System, to adequately address LF requirements. Much of this support will be coordinated through the AF collection plan and the establishing directive for the designated support relationship.

c. **Processing and Exploitation.** AF intelligence sections will normally concentrate on their particular areas of expertise, satisfying their own commander's requirements while contributing a broad-scope product to the general intelligence production effort. For example, LF intelligence should analyze the land battlespace, to include the adversary's C2, ground forces, logistics, and reserves, while ATF intelligence could analyze adversary maritime forces and coastal defense threats. Air threats are normally analyzed from a combined AF perspective.

d. **Analysis and Production.** All available processed information is integrated, analyzed, evaluated, and interpreted to create products that will satisfy the AF commanders' requirements. **LF intelligence products will focus on the adversary's capability to disrupt LF operations** and are normally categorized as indications and warning, current intelligence, general military intelligence, target intelligence, and counterintelligence.

e. **Dissemination and Integration.** Intelligence must be disseminated in a timely manner to ensure that it is integrated into the amphibious planning and decision-making processes. Advances in technology have improved intelligence dissemination between afloat forces, but limitations still exist in the quantity and quality of intelligence exchanged. The immense volume

of data required (especially critical graphic products that must be distributed during the planning phase) can overtax communications and intelligence systems. Units located on ships not equipped with the latest C4 and intelligence systems should receive first priority for delivery by nonelectronic dissemination assets. Intelligence personnel at all levels, working in coordination with unit operations and communications information systems officers, must develop plans that provide dissemination of meaningful intelligence in a timely manner to all elements of the AF.

f. **Evaluation and Feedback.** Commanders and staffs throughout the AF must provide feedback if they are not receiving timely, accurate, usable, complete, and relevant information to support the operation. Within the intelligence center, the AF intelligence personnel also evaluate the intelligence process to improve performance.

4. Landing Force Intelligence Planning

a. Mission Analysis

(1) **Preliminary intelligence studies and estimates are developed on receipt of the establishing directive or on being alerted for the potential operation.** Preliminary planning may include an analysis of the operational area and the possible impact of terrain, hydrography, weather, and cultural features on the proposed operation. The most favorable areas for executing the landing are determined and additional intelligence requirements defined. Studies of beaches, ports, communications networks, existing air facilities, and terrain provide an initial basis for determining the number and types of LF elements that can be accommodated and supported within possible landing areas. These studies assist in the initial engineering and other service support requirements.

(2) **Many of the ten primary decisions made during the amphibious planning process are based on the initial intelligence estimate.** The initial estimate serves to orient the CLF and operational planners to the battlespace and the nature of the threat, aid in the development of commander's intent by outlining what is operationally possible and most advantageous, and formulating commander's guidance to help shape intelligence operations. As a minimum, the initial estimate should provide the commander with information on the general weather conditions expected in the objective area; key terrain and manmade features and avenues of approach; the location, nature, and extent of available beaches; and the general composition, strength, and disposition of adversary forces in the area, including all available information on the adversary's chemical, biological, radiological, nuclear, or high-yield explosives capabilities.

b. COA Development.

Intelligence operations support COA development in several ways.

(1) Defining operational possibilities through the IPB process. Certain portions of the IPB process may be included as an annex or distributed as separate studies and reports, such as:

- (a) Weather studies.
- (b) Astronomical and tidal data.

- (c) Beach, LZ, and DZ studies.
- (d) Trafficability studies.
- (e) Airfield and potential airfield studies.
- (f) Special studies on adversary forces.
- (g) Surveys of the civilian populace and cultural resources.
- (h) Studies on the terrain impact on C4.

(2) Continuously updating the view of the battlespace and estimates of adversary capabilities, intentions, and activities.

(3) Providing focus on the adversary through identification of threat COGs, critical vulnerabilities, and potential COAs, with emphasis on the most likely and most dangerous COAs.

(4) Assisting in the prioritization of targets of interest to the LF.

c. **COA Analysis.** Intelligence operations assist COA analysis by:

(1) Identifying and refining likely and dangerous adversary COAs and their potential impact on the LF and actions and/or reactions to friendly COAs under consideration.

(2) Playing the role of the adversary during wargaming of COAs.

(3) Developing an independent evaluation of each friendly COA based upon an understanding of the operational situation and the potential threat response as well as on the ability to provide intelligence support to that COA.

(4) Helping to focus commanders and their staffs on the threat and environment, with emphasis on the degree of uncertainty and resulting risk associated with each friendly COA.

d. **Plans and Orders Development.** Once the AF COA has been mutually selected by the CATF and CLF, intelligence operations begin to provide specific and detailed current intelligence. **This detailed intelligence becomes the intelligence annex to the LF OPLAN/OPORD.** It prescribes the conduct of intelligence operations and activities and is a medium through which information and intelligence may be disseminated, reconnaissance and surveillance missions assigned, and other intelligence tasks and procedures stated. Drafts of the intelligence annex should normally be distributed to other commanders in advance of the OPLAN for use as planning studies. The volume and complexity of the material in the intelligence annex dictates the use of appendixes.

5. Intelligence Support to Landing Force Operations Ashore

a. Intelligence operations must ensure a continuous flow of timely, pertinent, and tailored intelligence throughout the LF to maintain a shared picture of the battlespace while rapidly identifying new IRs of commanders and the operating forces. **Intelligence support operations involve the satisfaction of a much larger body of IRs, involving a significantly greater degree of detail.** Additionally, time is a greater factor during the execution of operations than it was during planning. While days, weeks, and longer periods often are available during planning, **intelligence support to current operations must be planned, executed, and the resulting intelligence products provided in hours, minutes, and even seconds.** Finally, the uncertainty and disorder inherent in the initial stages of LF operations are significant, and the clash of opposing forces normally result in significant and fundamental changes in the situation that existed prior to landing.

b. **Intelligence Focus During Execution.** Intelligence support provided to the LF during operations ashore focuses on providing practical information that provides an exploitable advantage over the adversary. Accordingly, intelligence operations focus on providing situational awareness, identifying the latest adversary activities and friendly opportunities, aiding friendly maneuver and targeting, and supporting force protection — all while continuing to support future operations planning. Three key factors for ensuring effective intelligence support during these operations are:

(1) As IRs will always exceed available intelligence resources, intelligence operations must be focused where they can have the greatest impact and value. A detailed, well thought out concept of intelligence support in accordance with the CLF's intent and synchronized to LF CONOPS will lead to the best allocation of intelligence capabilities.

(2) Intelligence collection, production, and dissemination plans are developed to support the execution of LF tactical operations, the engagement of targets, the protection of the force, and the selection of branches and sequels to the OPLAN. Close and continuous coordination between intelligence and LF operations personnel is essential to maintain common situational awareness of ongoing and planned future operations, monitor potential adversary reactions, identify new opportunities, and assess the impact of friendly actions on the adversary.

(3) Intelligence operations during LF operations ashore must support the CLF's operational tempo by focusing on satisfying the CCIRs and supporting the LF's main effort.

CHAPTER VIII

FIRE SUPPORT PLANNING AND COORDINATION

"I am persuaded that unless troops are properly supported in action, they will be defeated."

Field Marshal Maurice, Comte de Saxe
Mes Rêveries, 1732

1. General

a. Properly planned and executed supporting fires are critical to the success of an amphibious operation. At the beginning of an assault, the LF relies upon aircraft support and NSFS. Once sufficient area is seized ashore, artillery can be landed to provide additional fire support.

b. Both the ATF and the LF will require fire support during the amphibious assault.

(1) Naval forces in the operational area normally require fire support for operations such as beach reconnaissance, hydrographic survey, removal of beach and underwater obstacles, and minesweeping. In addition, aircraft and ships capable of providing fire support must be allocated to protect the force from air, surface, or subsurface attack.

(2) The LF normally requires fire support on shore targets before, during, and after the initial landings. Until ground fire support means (e.g., mortars, rockets, and cannon artillery) of the LF are landed and ready to provide fire support, all fires must be provided by aircraft and NSFS.

(3) Since the availability and contemplated employment of one supporting weapon system influences the requirements for the others, the fire support requirements of all components of the AF must be considered together in planning the employment of fire support means.

2. Responsibilities

Commanders at each level of the LF have certain fire support responsibilities.

a. **Establishing a fire support coordination agency at each appropriate level of the LF** for accomplishment of fire support coordination responsibilities during planning and execution of the operation.

(1) Detailed integration of the fire support agencies of the ATF and LF.

(2) Flexible, parallel C2 architecture that allows for decentralized fire support control, when applicable.

b. Determining requirements for air, NSFS, and artillery fire support and ensuring that the fire support requirements, if filled, will provide the support needed.

- c. Coordinating requests for fire support.
- d. Presenting the coordinated requests for NSFS and air support to the CATF.
- e. Developing the LF concept of fires to support the scheme of maneuver.
- f. Conducting target analysis and selection.
- g. Establishing or recommending fire support coordinating measures (FSCMs), as required.

3. Fire Support Systems

Fires in support of amphibious operations (amphibious fire support) are the synergistic product of three subsystems: TA, C2, and attack resources.

a. **Target Acquisition.** TA systems and equipment perform the key tasks of target detection, location, tracking, identification, and classification in sufficient detail to permit the effective attack of the target.

(1) **Organic.** The typical AF has numerous organic TA assets, such as reconnaissance units, sea-air-land teams, unmanned aerial vehicles, shipboard and artillery counterfire radars, naval aviation, and ground sensors, as well as other observers, spotters, and controllers.

(2) **Nonorganic.** The typical AF has the capability to exploit the information provided from nonorganic aerial systems (manned and unmanned), subsurface, surface (ground and sea), theater, and national systems.

(3) **Intelligence Integration.** The intelligence center established within the AF supports the TA system by coordinating the use of limited collection assets throughout the operational area.

b. **C2 Agencies.** C2 systems bring all information together for collation and decision making. Vertical and horizontal coordination is essential, requiring a hierarchy of mutually supporting fire support coordinators (FSCs) and agencies. The establishing directive or the order initiating the amphibious operation should identify responsibilities for fire support planning by providing guidance on the timing, priority, and desired effects of fires.

See Chapter I, "Concept, Organization, and Command and Control," for more information.

(1) **SACC.** Upon initiation of planning, a SACC is established. The SACC **plans, coordinates, and controls all organic and nonorganic fires within the operational area in support of the AF.** It is located aboard an amphibious ship or appropriate ship configured with the requisite C2 facilities, enabling coordination of all forms of supporting fires (land-, air-, and sea-based). The designated commander may choose either the ATF's supporting arms coordinator (SAC) or the LF's force fires coordinator (FFC)/fire support officer (FSO) to supervise the

SACC, which is manned by **fire support personnel from both the ATF and LF**. The organization of the SACC is typically the same for any size amphibious operation; however, variations in operations may require specific needs. The organization described below is therefore to be used only as a guide:

(a) **NSFS Section.** The ATF staff mans the NSFS section. This section monitors the naval gun fire control net, support net, and other gunfire nets as appropriate. The LF staff provides liaison to the section.

(b) **Air Support Section.** This section is manned by members of a Navy Air Control Agency (e.g., tactical air control squadron or tactical air control group) and directed by the air support coordinator who reports to the TACCO. This section supports the Navy TACC by **controlling, supporting, or transferring control to subsidiary tactical air direction controllers afloat or ashore**. The section is located in the SACC and coordinates with the Navy TACC to assist in the deconfliction of air missions, routes, and requests for fires. The LF normally provides personnel to this section, especially when the LF has fixed-wing aviation elements.

(c) **Target Information Center (TIC).** The TIC is responsible for targeting information and intelligence. The ATF target intelligence officer, ATF air intelligence officer, LF target information officer, and other personnel as required, man the TIC. TIC members will normally operate in the SACC. The ATF target intelligence officer supervises the TIC and maintains close liaison with ATF and LF intelligence and operations staff. The LF target information officer normally works in the intelligence center of the AF. When the LF headquarters moves ashore, the TIC is dissolved.

(2) **Force Fires Coordination Center (FFCC)/FSE.** The FFCC is the Marine Corps' senior fire support coordination agency and is responsible for the planning, execution, and coordination of all organic and nonorganic fires for the MAGTF. The FFCC is normally found at the Marine expeditionary force level. The FSE is the Army equivalent and is normally at the corps level of operations. Prior to control being passed ashore, the FFCC/FSE incrementally assumes responsibility for fire support planning and coordination from the SACC. The FFCC is organized and supervised at the MAGTF-level by the FFC. The FSO executes similar duties as the corps level FSE. Both organizations operate at the tactical and operational level addressing current and future fire support issues.

(3) **FSCC/FSE.** The FSCC is the fire support coordination agency within the GCE of the MAGTF. FSCCs are established at the battalion, regiment, and division level. The Army establishes an FSE at the corresponding levels of their maneuver units. The FSCC/FSE plans, coordinates, and executes all forms of fire support with the assigned area of the GCE or another appropriate unit. The FSCC is organized and supervised by the FSC who is responsible to the appropriate level GCE operations officer for GCE fires. FSCCs are initially subordinate to the SACC, and if the FFCC is established ashore, subordinate to that agency.

(4) **Advance Force SACC.** Although normally only one SACC is active at any one time, advance force operations may require the establishment of a fire support agency to coordinate fires in support of the neutralization or destruction of adversary high-payoff targets or the emergency extraction of SOF or reconnaissance units. The advance force SACC must maintain situational awareness on the insertions and extractions of teams, locations of teams ashore, and mine warfare operations within the area, to include sea and air assets. The AF SACC assumes responsibility as the primary fire support agency from the advance force SACC, upon its arrival in the operational area.

c. **Attack Resources.** Attack systems include fires delivered from air, surface, land, and subsurface attack systems. Navy, Marine Corps, Army, and Air Force aircraft may perform air-to-surface attack, including EW, within the operational area. Land-based attack systems typically include Marine Corps and Army artillery, mortars, rockets, missiles, and EW systems. Sea-based attack systems include Navy guns, missiles, and EW systems.

(1) **Organic.** The AF's organic attack resources are capable of delivering lethal and nonlethal fires, and include naval aviation, NSFS, EW systems, artillery, and mortars.

(2) **Nonorganic.** The SACC and the FFCC coordinate and control nonorganic attack resources in support of the amphibious operation. Aircraft, missiles, rockets, guns, SOF, and nonlethal systems attacking targets within the operational area must be coordinated through the senior fire support coordination agency.

4. Fire Support Planning

Fire support planning in preparation for an amphibious operation is more centralized than that for subsequent operations ashore. For example, in preparation for an amphibious operation, fire support requirements are integrated and coordinated at each echelon and then forwarded to the next echelon for approval and further integration and coordination. In subsequent operations ashore, LF elements may develop and execute fire support plans in their assigned areas that are not fully integrated with the ATF and other commands within the operational area.

a. Planning Considerations

(1) **Commander's Guidance.** Commanders shape the battlespace with fires to assist both maritime and land maneuver forces and use maritime and land maneuver forces to exploit fires. **When developing the concept of fires, the supported commander will formulate the "commander's guidance for fires."** It is from this guidance that supporting and subordinate commanders and fire support personnel begin to frame the role of fire support in the plan. The commander's guidance for fires should articulate the effects desired on the adversary's capabilities and how these effects will contribute to the overall success of the operation. The designated commander identifies targets that are critical to the success of the operation (high-payoff targets), force protection issues, and any prohibitions or restrictions on fire support. A clear determination of the adversary's COGs, decisive points, and critical vulnerabilities is central to fire support planning.

(2) The CATF is responsible for the overall coordination of supporting fires. Overall coordination of supporting fires, whether by the SACC or by the FFCC, is supervisory rather than the detailed coordination accomplished at lower echelons. The SACC and FFCC plan fires for the deep, close, and rear battle. The principle of coordination at the lowest possible echelon applies. **Commanders have the authority to approve or disapprove the use of supporting arms within their assigned area.**

(3) The CLF is responsible for coordination of LF requests for fire support during all phases of an amphibious operation.

(4) The commander responsible for the overall coordination of supporting fires should also have control over those fires. When control of direct air support is passed from the CATF to the CLF, the situation normally permits a concurrent shift in responsibility for control of NSFS and for the overall coordination of supporting fires. If, after such a shift of responsibility, returning control of one function or another to afloat facilities becomes necessary, the difficulties in the separation of responsibility for supporting arms may be accepted on a temporary basis.

(5) Aviation plays a major role throughout the operation. Pre-D-day air support provides for aerial reconnaissance, attack of adversary positions and fortifications, air defense for preassault operations, and mine laying and clearing operations. On D-day and subsequently, air support is expanded to include delivery of personnel and cargo into the objective area, EW, and offensive air support of ground forces. In the early stages of the assault, air-delivered munitions play a vital role, complementing and supplementing NSFS, filling the void for LF artillery not yet ashore, and attacking targets tasked to other supporting arms or beyond their range.

b. Fire Support Requirements

(1) **Overall fire support requirements** consist of the type, timing, and duration of supporting fires needed to support each operational phase of the operation. The CLF's air and NSFS requirements for each operational phase is normally the basis for initial allocation planning. These requirements are reviewed and revised as detailed planning progresses. Commanders of subordinate echelons submit artillery requirements to the CLF. In estimating the number and type of aircraft, NSFS ships, and artillery units for any operational phase, due consideration is given to the mission, the scheme of maneuver, and the requirement for coordination among the three arms.

(2) **Detailed fire support requirements** are the CLF's specific recommendations to the CATF concerning the use of available fire support means to accomplish preparation of the objective area or to provide fire support to the LF subsequent to landing. As such, these recommendations are the basis for the detailed fire support plans of the LF. These requirements include specific targets to be attacked and the delivery means recommended, amounts of ammunition to be expended and schedules for delivery, and individual LF elements to be supported and the types of support required.

c. **Fire Support Plan.** The fire support plan consists of the detailed requirements for lethal and nonlethal fires for the various phases of the amphibious operation. The air, NSFS, and artillery representatives, under the supervision of the FSC, prepare the fire support plan. The plan accommodates the fire support requests of subordinate units. The plan requires close and continuous coordination among supporting arms representatives and corresponding staff representatives of the AF and other components. Once the LF fire support requirements are forwarded to the CATF, they are incorporated into the AF NSFS and air plans, respectively. These plans are normally distributed in the form of annexes or appendixes to the AF OPLAN/OPORD and become the basis for similar documents to the LF OPLAN/OPORD.

d. **Targeting.** Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities.

(1) **Joint Targeting Cycle Phases.** Targeting is a cyclic process involving six phases: commander's objectives, guidance, and intent; target development, validation, nomination, and prioritization; capabilities analysis; commander's decision and force assignment; mission planning and force execution; and combat assessment.

(2) **Targeting Board for the AF.** The AF commander may organize an integrated targeting board to provide broad fire support and targeting oversight functions. These functions may include: coordinating desired effects; providing targeting guidance and priorities (targeting objectives, high-value and high-payoff targets); identifying restricted or prohibited targets; preparing the amphibious target list; evaluating the effectiveness of fires; and establishing and shifting of FSCMs. The designated commander during the period within which the targets are attacked has final approval authority over the fire support plan. Targets identified for servicing by forces outside the AF are normally first forwarded to the battle force/group strike warfare commander and then, if necessary, to the next higher-level targeting board, if established, for consideration. The AF will provide, at a minimum, liaison officers to this targeting board and may provide liaison officers to the senior joint targeting board (i.e., the JFC's joint targeting coordination board), if established. Targeting timelines for the AF should be synchronized with the timelines established by the JFC to allow the most efficient contribution of nonorganic assets.

(3) **Submission of target nominations for supporting operations.** The AF may seek to shape its designated (but not activated) operational area prior to the arrival of AFs through target nominations for attack by other components' forces. Restrictions on the attack of certain targets may also be requested, if the designated AF commander desires to exploit them at a future time, such as certain adversary communications sites or bridges.

Refer to JP 3-0, Doctrine for Joint Operations, JP 3-02, Joint Doctrine for Amphibious Operations, JP 3-09, Doctrine for Joint Fire Support, and JP 3-60, Joint Doctrine for Targeting.

5. Fire Support Coordination

From the beginning of the action phase until a short time after the first waves land, the LF is normally supported by scheduled fires (see Figure VIII-1). As the control agencies (e.g., forward observers and NSFS spotters) of the LF become operational ashore, all practicable close support fires from all supporting arms are provided as requested by LF units. Coordination is accomplished at the lowest echelon possible. This same principle applies in the planning of subsequent planned fires. Planning is accomplished as required at each level of the LF before daily fire support plans are transmitted to the next higher level for similar action.

6. Air Support

Air support of the amphibious operation includes all air operations conducted in fulfilling air support requirements of all forces assigned to the AF. Because of the importance of air support operations and the necessity for complete coordination of the use of airspace within the operational area, air support planning is extensive and detailed.

a. **Aviation Tasks.** In an amphibious operation, the principal tasks of aviation assets are to gain and maintain air superiority in the objective area, to isolate the objective area, and to provide close support to the ground forces. Other air operations of particular interest to the LF may include the use of aircraft for reconnaissance and observation, artillery and NSFS spotting, air delivery of troops and supplies, evacuation of casualties, EW, and deception.

b. Airspace Control

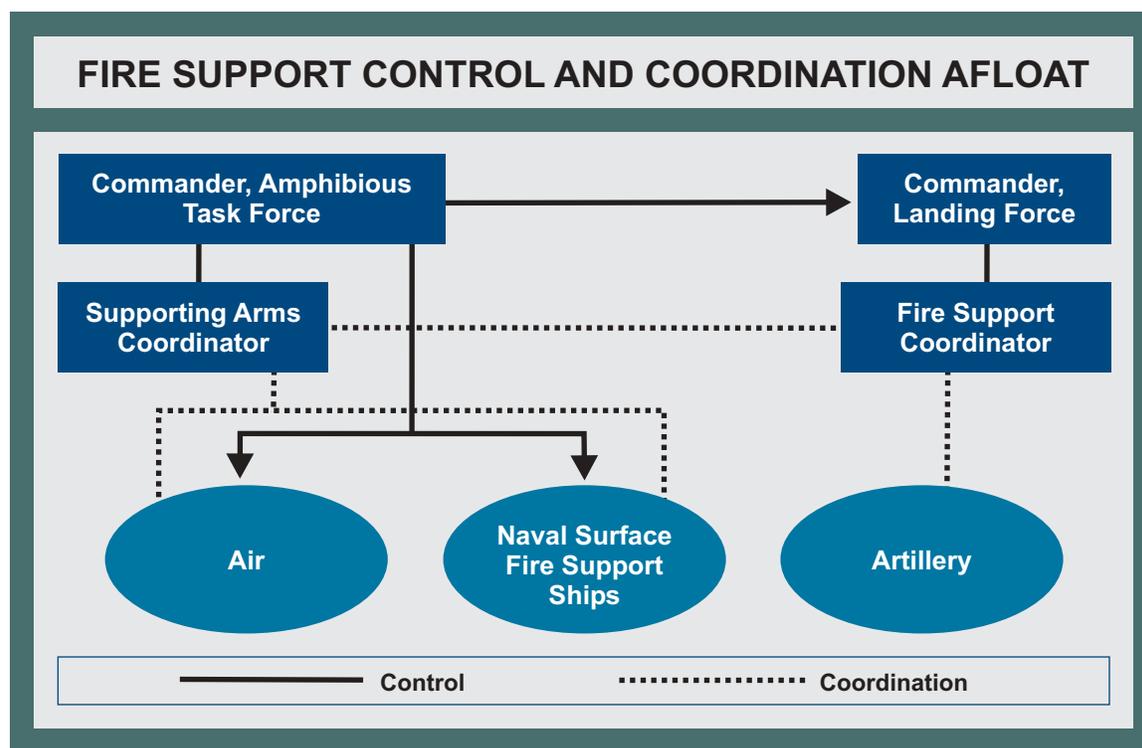


Figure VIII-1. Fire Support Control and Coordination Afloat

(1) The CATF assumes responsibility for control of all air operations upon arrival in the objective area. Control is exercised through the Navy TACC. Subordinate TADCs, as designated in advance, monitor air control circuits in readiness to assume all or part of the duties of the Navy TACC if required.

(2) When subordinate amphibious task groups (ATGs) are formed for operations in widely separated landing areas, the CATF normally delegates to each attack group commander authority over air support in his respective landing area. The attack group commander exercises control through a TADC. Overall control, which includes daily planning and execution of air operations, is retained by the CATF and exercised through the task force Navy TACC.

(3) As soon as conditions permit, air control agencies are established ashore that parallel the Navy control agencies afloat.

(a) The control agencies ashore are initially in a standby status, monitoring all air control circuits. Upon recommendation of the CLF (or the appropriate agencies ashore), the CATF may pass control of air operations to the CLF or to another air control agency as specified by the JFC. The passage of control may be incremental. After passage of any or all control, the Navy control centers afloat continue to monitor appropriate circuits, ready to resume control if necessary.

(b) When the CATF passes control of air operations to the CLF, the latter exercises control of air operations through his Marine TACC.

See Chapter I, "Concept, Organization, and Command and Control," and JP 3-02, Joint Doctrine for Amphibious Operations, for a discussion of air C2 in amphibious operations.

c. Air Support Planning Responsibilities

(1) **CATF responsibilities** include the determination of overall requirements of the AF, determination of air support capabilities, coordination of all air support requests, and preparation of an air plan.

(2) **CLF responsibilities** include the determination of LF air support requirements, determination of LF air support capabilities, submission of plans for deployment of aviation elements ashore, and preparation of an air plan.

See JP 3-09, Joint Doctrine for Fire Support, JP 3-30, Command and Control of Joint Air Operations, and JP 3-60, Joint Doctrine for Targeting, for more information.

(3) Air Support Planning Considerations

(a) **Centralized Control System.** All aircraft operating within the objective area must be under centralized control. A tactical air control system capable of providing the requisite

centralized control must be organized. A combination of positive and procedural control measures may be required.

(b) **Early Seizure of Airfields.** Plans will usually provide for rapid seizure of existing airfields or airfield sites, and sites for early warning and air control facilities to provide for the early deployment ashore of air elements, and to extend the radius of warning and control.

(4) **LF Air Support Planning.** The LF plans for the employment of LF aviation to support the ship-to-shore movement and scheme of maneuver ashore. Basic planning also establishes requirements for air support by the other elements of the AF. Any adversary facilities to be captured intact must be specified and exempted from destruction.

(a) Recommendations and requests from subordinate echelons of the LF are evaluated and consolidated with overall LF requirements into a comprehensive request for air support. In determining overall requirements, considering pre-D-day requirements separately from D-day and post D-day requirements is advisable.

(b) LF requests for **pre-D-day air operations** concern primary intelligence needs and offensive air operations to reduce adversary forces and defensive installations in the landing area. The scope of pre-D-day operations may be limited by the need for surprise. The standard joint tactical air strike request is used for air support requests.

(c) LF request for **air support of operations ashore commencing on D-day** includes the tasks to be accomplished, desired effects, expected targets, number and type of aircraft desired, suggested ordnance to be employed, times at which required, and coordination provisions. The request may be in the form of an air schedule with amplifying instructions appended. During the ship-to-shore movement, preplanned air strikes assist in creating exploitable gaps within the landing area. During the critical period when landing craft, amphibious vehicles, and helicopters are making the final run to the beach or LZ, aircraft integrated with NSFS to support maneuver assist in neutralizing the beaches, LZs, approach routes, and adjacent key terrain features as the LF comes ashore.

(d) **Post-D-day air support** can only be planned in general because requirements will depend on the tactical situation ashore and will not be fully known in advance. Applicable pre-D-day and D-day air operations are continued.

(5) **Air Support During the Assault**

(a) **Before Air Support Control Agencies are Established Ashore.** Until the tactical air control parties (TACPs) arriving with assault units are established ashore, close air support (CAS) missions are executed under the direction of the tactical air coordinators (airborne) (TAC(A)s) and the terminal control of the forward air controllers (airborne). When the TACPs are established ashore, they request CAS from the Navy TACC. The Navy TACC assigns aircraft to missions as requests are received. As the landing progresses, air control elements to be established ashore land and prepare to operate shore-based facilities for control of air operations.

(b) **Air Support Control Agencies Established Ashore.** As air support control agencies are established ashore, they function initially under the Navy TACC afloat. These agencies subsequently operate under the designated authority when control of CAS has been passed ashore by the CATF. In any case, requests are sent by the TACP directly to the air control agency, which assigns aircraft to CAS missions. TACP requests are monitored by the SACC and FSCC/FSE.

(c) **Terminal Phase.** The terminal phase of CAS strikes is executed under the control of a forward air controller (ground and/or airborne). CAS missions are executed only on the approval authority granted by the commander of the supported LF.

7. Artillery Support

During the initial phases of an amphibious operation, NSFS and aircraft normally provide the bulk of the fire support. Subsequent to landing, artillery may assume a greater role in providing fires to the LF, complementing the capabilities of aircraft and NSFS.

a. **Planning Considerations.** The nature of the amphibious operation creates artillery support problems that must be considered during planning.

(1) **Except in rare cases** when positioned on off-shore islands or peninsulas as a subsidiary landing, **artillery does not participate in early action ashore.** Although the early landing of artillery is desirable, other equally important requirements may be competing for available landing means. In such cases, other supporting arms must be relied on.

(2) Artillery should not be landed until potential firing positions are outside the range of adversary direct fire.

(3) Initial mobility ashore may be restricted by terrain or limited means of transport.

(4) The number and type of ships and landing craft—may dictate the manner, and frequently, the time of initial commitment of artillery to action.

b. **Artillery Fire Support Planning Responsibilities.** Early in the planning phase, an artillery estimate of supportability is prepared to determine which of the commander's proposed COAs can be best supported by artillery. The estimate is considered by the CLF in arriving at the preferred COA. After the CLF has identified the desired COA and CONOPS, an estimate of artillery requirements is prepared. The primary purpose of this estimate is to determine the amount and type of artillery fire support required to support the operation. Finally, the plan for the employment of artillery is prepared and becomes the artillery tab to the fire support appendix to the operations annex to the OPORD.

c. Estimate of Artillery Fire Support Requirements

(1) The initial estimate of the artillery requirements determines the amount and type of weapons, ammunition and fuzes, special equipment, and transportation needed for the COA.

(2) Each of the following factors determines the final artillery estimate:

- (a) Mission of the LF and scheme of maneuver ashore.
- (b) Adversary situation and known/suspected indirect fire capabilities.
- (c) Characteristics of the operational area.
- (d) Estimated duration of the operation.
- (e) Integration of other fire support means

d. **Artillery Fire Support Plan.** Based on the CLF's decision and the concept of fires, the artillery fire support plan is formulated to provide maximum support to the scheme of maneuver. In developing the plan for artillery fire support, the following factors must be considered:

- (1) Support of initial landings, if possible.
- (2) Available ships, landing craft and helicopters.
- (3) Organization for combat and zones of fire for subordinate LF units.
- (4) Potential firing areas/positions in the landing area.
- (5) Reconnaissance and selection of firing positions and available observation capabilities.
- (6) Time of landing.
- (7) Countermortar and counterbattery fires.
- (8) Logistic factors, including prime movers, ammunition resupply, combat loading limitations, etc.
- (9) Communications.

e. **Embarkation of Artillery.** Special planning and efforts before embarkation are necessary to ensure that artillery can be committed expeditiously to support the attack.

(1) The organization for embarkation should preserve the tactical integrity of task-organized units as established in the organization for combat and should facilitate early entry into action. Artillery units attached to the LF are embarked with those units (firing units attached

to RLTs/BLTs). Artillery units retained in their field artillery organization (corps artillery) are normally organized as separate embarkation units to facilitate control.

(2) Regardless of the artillery organization for embarkation, the following elements are usually embarked with nonartillery units:

(a) Forward observer teams are embarked with the infantry or maneuver companies/battalions.

(b) Direct support artillery liaison parties are embarked with their respective FSCCs/FSEs.

(c) Senior artillery headquarters personnel who will work in the SACC, and eventually establish the FFCC/FSCC/FSE ashore, should be embarked with the CLF on the command ship.

(d) Aerial artillery observers are embarked with the aviation units that will provide aerial observation capabilities to the LF.

(e) Reconnaissance parties are embarked in ships from which they can most expeditiously accomplish their missions.

f. Ship-to-Shore Movement of Artillery

(1) Waterborne Movement

(a) Artillery units normally land on call. During the planning phase, the exact time and place of landing the artillery units can seldom be determined. The time of artillery landing will depend on a number of physical and situational variables.

(b) Forward observers land with the infantry or maneuver companies, and the artillery liaison parties land with the FSCC/FSEs. These personnel make recommendations to the appropriate commanders concerning the landing of reconnaissance parties of direct support units if those parties are not included in scheduled waves.

(c) The artillery reconnaissance parties are landed as early as the tactical situation ashore permits. These reconnaissance parties are composed of battery and battalion commanders (or their representatives), communications personnel sufficient to establish the communications systems, survey personnel who begin survey operations, and guides to direct firing units to position areas.

(d) As soon as possible following initiation of reconnaissance, battery and battalion commanders request the landing of their units. For early entry into action, commanders must carefully estimate time and space factors involved, and accordingly initiate this request in advance of the estimated time that position areas will be suitable for occupation.

(e) Following approval of the request to land firing units, appropriate orders are issued and the units proceed ashore. To expedite movement, direct support units may be boated or launched before initiation of the request for landing and rendezvous near the line of departure.

(f) After firing units are ashore, remaining elements, including vehicles, ammunition, supplies, and personnel are phased into the position areas as soon as practicable.

(2) Helicopterborne Movement

(a) Direct support artillery will normally be attached to the supported infantry and will be embarked in the same shipping. This arrangement facilitates the ship-to-shore movement and ensures that the artillery will be landed as early as practicable.

(b) Before the landing, a complete map and aerial photograph reconnaissance must be accomplished to determine initial position areas, landing sites, and routes from landing sites to position areas.

(c) The artillery forward observers and liaison parties land in the same manner as for a waterborne movement.

(d) The reconnaissance party is usually included in the third or fourth scheduled wave. Because of space limitations, this party will not be as large as that for a waterborne landing. The reconnaissance will consist mostly of selecting and marking a position for each weapon, selecting routes to positions from landing sites, selecting ammunition unloading points, and preparing for lay of the weapons and establishing initial fire control.

(e) Fire support units may be landed on call, following the same procedure as in scheduled waves. As an example, a BLT with both artillery and mortars may find it desirable to land the mortars in scheduled waves and the artillery battery on call.

(f) A high priority must be given to the movement of an adequate initial supply of ammunition. Resupply should be planned with additional quantities palletized and air dropped on an on-call basis.

8. Naval Surface Fire Support

a. **The CATF is responsible for preparation of the overall NSFS plan, based on the requirements submitted by the CLF and on the Navy requirements.** The planning includes allocation of gunfire support ships and facilities. He also is responsible for the general policy as to priority of types of targets to be taken under fire. The CLF is responsible for determination of LF requirements for NSFS, including selection of targets to be attacked in preassault preparation operations, those to be fired on in support of the LF assault, and the timing of these fires in relation to the LF scheme of maneuver. The CLF coordinates the timing, priorities, and desired effects of fires with the CATF. During an amphibious operation, this can be described in the establishing directive.

b. Control of NSFS is exercised by, and passes to, different commands and agencies as the operation progresses. Arrangements must be made to provide appropriate commanders the proper facilities for control of NSFS.

(1) **Advance Force Commander.** The advance force commander has control of NSFS during advance force operations. Control is normally exercised through the advance force SACC.

(2) **CATF.** The CATF assumes control of NSFS upon arrival in the objective area. Control is exercised through the SACC.

(3) **Subordinate ATGs.** When subordinate ATGs are formed and separate landing areas are designated, the CATF may delegate to each attack group commander control of NSFS in the landing area, retaining only overall control as it applies to the operation as a whole.

(4) **CLF.** When the CLF establishes the necessary control facilities ashore, control of NSFS may be passed to him. He then has the authority to assign NSFS missions directly to the fire support ships. The CATF, or his designated subordinate, retains responsibility for allocation of available fire support ships, logistic support of fire support ships, and functions of OPCON of fire support ships other than fire control.

c. **NSFS Organization**

(1) **Naval Organization.** Briefly, the naval echelons involved in surface fire support are as follows:

(a) **AF.** The AF is the highest echelon directly concerned with the NSFS of the amphibious operation.

(b) **Fire Support Group.** The fire support group is usually subdivided into fire support units and/or elements for efficient and effective delivery of gunfire support.

(c) **Fire Support Unit.** When necessary for flexibility in organization, an echelon called the fire support unit may be interposed between the fire support group and fire support element. The fire support unit will function similarly to the fire support group. Fire support unit commanders normally do not deal directly with LF agencies.

(d) **Fire Support Element.** Each fire support group (unit) is divided into smaller task elements of fire support ships, regardless of type operating in the same general locality.

(e) **Individual Fire Support Ship.** The individual fire support ship is the basic echelon in NSFS. Its function is to deliver gunfire support under the control or direction of the agency to which assigned. The ship deals directly with the LF agencies.

(2) **LF Organization.** The LF organization for control and employment of NSFS provides special staff or liaison representation at every level from and including the infantry battalion or comparable troop unit to the highest troop echelon present.

(a) **LF NSFS Section.** If established, the LF NSFS section provides NSFS communications and facilities for LF headquarters, performs NSFS special staff functions, and directs fires of assigned general support ships.

(b) **Division NSFS Section or Team.** The division NSFS section or team provides NSFS communications and facilities for division headquarters, performs NSFS special staff functions, and directs employment of assigned support ships.

(c) **Regimental or Brigade NSFS Liaison Team.** The regimental or brigade NSFS liaison team provides communications, liaison, and direction of NSFS in support of an infantry regiment or comparable unit. In addition, the team directs the fire of assigned general support ships.

(d) **Battalion Shore Fire Control Party (SFCP).** The battalion SFCP includes a NSFS liaison team and a NSFS spotting team. The NSFS liaison team is specifically organized to handle NSFS liaison matters for the supported commander, while the spotting team is charged with requesting and adjusting fires of assigned direct support ships and general support ships.

d. NSFS Plans

(1) **Pre-D-Day NSFS Plans.** The primary objective of pre-D-day NSFS is preparation of the landing area for the assault. The plan usually includes the following elements:

(a) Assignment of ships to FSAs and zones of fire.

(b) Announcement of ammunition allowances and plans for replenishment.

(c) Communications instructions.

(d) Designation of targets, provision for damage assessments, and acquisition of target intelligence.

(e) Provision for availability of spotting aircraft and reference to appropriate air support plans, to include potential CAS operations.

(f) Provision for coordinating with minesweeping, underwater demolition, and air operations.

(g) Provision for recording target information and reporting latest intelligence data to the CATF.

(2) **D-Day NSFS Plans.** Essential elements of the plan for NSFS operations on D-day include:

(a) Initial assignment of ships to FSAs, zones of fire, and in direct and general support of specific LF units.

(b) Announcement of ammunition allowances and plans for replenishment.

(c) Location when required, of landing craft approach and retirement lanes, aircraft ingress/egress routes and necessary coordinating instructions. These same instructions will be found in the appropriate portions of the related air support plan.

(d) Communication instructions and procedures for transfer of control.

(e) Designation of targets, target areas, deep support areas, and probable routes of approach of adversary reinforcements.

(f) Provisions for spotting aircraft.

(g) Instructions for massing fires of several ships.

(h) Provisions for coordination with the ship-to-shore movement, minesweeping, underwater demolition, artillery, and air operations.

(i) Closely timed neutralization of remaining adversary defenses to cover the waterborne and helicopterborne ship-to-shore movements, and support of the landing, deployment, and advance of troops.

(j) Prompt and effective delivery in direct support of LF units.

(k) Disruption of adversary systems of command, communication, and observation by destruction, neutralization, interdiction, and harassment.

(l) Isolation of the landing area and defense against adversary counteroffensive action by massed fires on probable routes of approach with particular provisions for countermechanized programs.

(3) **Post D-Day.** Post D-day NSFS plans provide for:

(a) Fires on the flanks of the landing area and fires against targets of opportunity.

(b) Defensive targets, night fires, illumination, countermechanized fires, and any special fires utilizing the inherent capability of gunfire ships and available munitions as required.

e. **NSFS Support During the Landing**

(1) **Final Preparation of the Landing Area.** This fire is designed to destroy or neutralize adversary forces that might interfere with the approach and final deployment of the AF and to assist in isolation of the landing area. NSFS is used to support underwater demolition and minesweeping operations. Immediately before H-hour, major emphasis is placed on the destruction and neutralization of those adversary defenses most dangerous to the successful landing of LF teams.

(2) **Fires in Close Support of the Initial Assault.** NSFS is continued on those adversary forces that could prevent the landing until the safety of the leading waves requires these fires to be lifted. The final approach of the leading waves of assault craft, amphibious vehicles, or helicopters necessitates a shift of the scheduled fires inland from the landing beaches or outward from the LZs. The major portion of the fires delivered in close support of the landings consists of large- and medium-caliber prearranged fire delivered on a closely fixed schedule in the zones of action of assault landing teams. Because the actual rate of advance and the estimated rate of advance may not coincide, the CATF, through the SACC, retards or accelerates the movement of scheduled fires as requested by the CLF. Close supporting fires continue until the SFCP with the assault landing teams are in a position to conduct the fires of the assigned direct support ships. At this time, the SFCPs start adjusting fires.

(3) **Deep Support Fires.** Deep support fires usually are delivered by ships assigned in general support. Each such ship is assigned a zone of responsibility that it covers by fire and observation. Within assigned zones of responsibility and on a prearranged schedule, ships neutralize known adversary targets, interdict adversary lines of communications (LOCs), attack targets of opportunity, execute counter battery fire, reinforce fires of direct support ships as directed, and conduct missions assigned by the supported unit.

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CHAPTER IX

LOGISTICAL SUPPORT OF LANDING FORCE OPERATIONS

“Unloading is the world-wide difficulty of amphibious operations.”

Vice Admiral T. S. Wilkinson, *To Samuel Eliot Morrison, 1944*

1. General

An amphibious operation is characterized by the rapid buildup of combat power ashore. Associated with this projection of combat power is the attendant requirement to transfer the necessary logistic support ashore to sustain the LF. **CSS for amphibious operations must be designed to support the initial assault while transitioning to a mix of sea-based and shore-based logistics.**

a. **Logistics** is the science of planning and carrying out the movement and maintenance of forces, normally encompassing the scope of activity required to support the formation, movement, engagement, disengagement, and disestablishment of military forces in the very broad functional areas of materiel, transportation, health services, and related services. Logistic support is concerned with maintenance and movement of forces on a sustained, continuous basis.

b. **CSS** involves the essential logistic functions, activities, and tasks necessary to sustain all elements of operating forces in an operational area. **In LF operations, CSS includes but is not limited to that support rendered by service troops in ensuring the required levels of supply, maintenance, transportation, engineer, health services, and other services are available.**

c. The amphibious shipping and other Navy assets supporting the operation are logistically supported by the Naval Fleet Auxiliary Force.

d. Because logistics and CSS have essentially the same broad meaning, they will be used interchangeably except where distinction is necessary.

e. **Objectives.** Logistic planning for the LF must provide for accomplishment of the following objectives:

- (1) Combatant commander or subordinate JFC's intent and concept of operations.
- (2) The orderly assembly and embarkation of personnel, supplies, and equipment of the LF.
- (3) The establishment and maintenance of a responsive and adequate CSS system in the operational area to sustain the LF.

(4) The initiation of a logistic system to support subsequent operations ashore after termination of the amphibious operation and to support base development and garrison forces (if such development is directed by higher headquarters).

2. Responsibilities

a. **The CATF is normally responsible for determining overall logistic requirements for the AF.** The CATF has the following logistic planning responsibilities:

(1) Coordinating logistic requirements for all elements of the ATF.

(2) Determining requirements that can be met by internal resources. Those which cannot be directed to a higher authority or the appropriate Service through the chain of command.

(3) Establishing priorities and allocating resources to meet the logistic requirements of the ATF.

(4) Notifying appropriate responsible agencies early in the planning phase of any unusual requirements or special supplies or equipment required.

(5) Providing the means required for the establishment and operation of a logistic system in the designated operational area.

(6) Developing plans for handling enemy prisoners of war (EPWs) and civilian evacuees and internees.

(7) Developing the overall plan for health service support (HSS), including patient movement.

(8) Preparing the logistics annex to the OPLAN.

(9) Determining the overall logistic requirements of the forces assigned.

(10) Determining and allocating the means to meet the logistic requirements of the forces assigned.



A CH-53 Sea Stallion helicopter operates from the deck of the USS Theodore Roosevelt in support of Operation ENDURING FREEDOM.

(11) Ensuring the promulgation of the overall schedule to include plans for the assembly of shipping at points of embarkation.

(12) Reviewing and approving embarkation and loading plans.

(13) Ensuring the organization of assigned shipping into levels as necessary for continued support of the LF OPLAN.

b. The CLF is responsible for the following:

(1) Determining overall logistic requirements of the LF, including units, special equipment, and shipping.

(2) Determining and allocating the means to meet logistic requirements of the LF.

(3) Determining logistic requirements that cannot be met by the LF and submission of these requirements to the supported commander, CATF, or designated commander as appropriate.

(4) Developing plans for the assembly of supplies and equipment to be embarked, including the supplies and equipment of other assigned forces for which the LF is responsible.

(5) Preparing the LF embarkation and ship loading plans and orders, in coordination with the CATF.

(6) Planning for the coordination of logistics required by all elements of the LF.

(7) Planning for the conveyance and distribution of logistics required by the LF.

(8) Preparing the logistics annex to the LF OPLAN.

c. **Mutual Responsibilities**

(1) The CATF and CLF determine the separate and combined CSS requirements for the Navy and LF, respectively. The CATF then determines the ability of available naval forces to provide the required support. Unfulfilled requirements are forwarded by the CATF to higher authority.

(2) The CATF is responsible for the overall plans for handling prisoners of war and for casualty handling and care.

(3) The CATF allocates available ATF CSS resources (such as shipping, landing craft, and Navy units) to the CLF. The CLF then allocates these resources, as appropriate, to support the LF.

- (4) Some logistic plans concern all elements of the AF:
 - (a) Assignment to shipping, embarkation, and loading plans.
 - (b) Plans for supply and resupply, including provisions for debarkation and unloading (the ship-to-shore movement).
 - (c) HSS planning.
 - (d) LFSP plans.
 - (e) Engineer plans to support the construction (or repair) of expeditionary facilities such as airfields/runways, debarkation points (beachhead or pierside) and garrison structures.

3. Planning Considerations and Factors

a. The logistic plan must provide seamless support to the LF during the initial phases of the action phase (when most support is sea-based) and after the LF is well established ashore. Logistic and CSS planning for an amphibious operation is a continuous, detailed process that begins with the logistic and CSS estimates based on the LF mission. Coordination between the CONOPS and logistic plans must reflect a full recognition of the capabilities of the LF's logistic system and ATF support capabilities. The requirements of LF units for cargo and troop space in assault shipping must be adjusted precisely to support the landing plan and operations ashore.

b. Planning Considerations

- (1) Orderly assembly and embarkation of personnel and material based on anticipated requirements of the LF scheme of maneuver ashore.
- (2) Establishment and maintenance of a logistic system in the operational area that will ensure adequate support to all elements of the AF, and subsequent support of base development and garrison forces as directed.
- (3) Preservation of operations security during logistic planning.

c. **Planning Factors.** The primary factor determining the nature and extent of the CSS is the LF mission. The expected duration of the operation will also play a key role during support planning. Many other factors must be considered:

- (1) Characteristics of the area: climate, weather, and terrain; indigenous resources and available host-nation support; local transportation system; adversary capabilities and expected interference with logistic functions; and requirements to support the civilian population.
- (2) Strength and composition of the LF, characteristics of operations to be supported, and tasks requiring special supplies and equipment.

(3) Distance to the objective area and capability and dependability of forces providing resupply to the area.

(4) Additional logistic responsibilities on termination of the amphibious operation.

(5) Requirements for base development and reconstruction or rehabilitation of ports and airfields.

4. Key Concepts

a. **Selective and General Unloading.** From the CSS standpoint, the ship-to-shore movement is divided into two clearly distinguishable time periods:

(1) **Selective Unloading.** The selective unloading period is primarily tactical in character and must be instantly responsive to the requirements of LF units. During the early part of the ship-to-shore movement, CSS is provided on a selective basis from sources afloat. Movement of CSS elements to the landing beaches or LZs closely follows the combat elements. As the assault progresses, CSS units are established ashore, and support is provided both from within the BSA and from sources afloat.

(2) **General Unloading.** Normally, general unloading is undertaken when sufficient troops and supplies have been landed to sustain the momentum of the attack and when areas are adequate to handle the incoming volume of supplies. When adequate assault supplies are ashore, and the BSA is organized and operating satisfactorily, the CLF recommends to the CATF that general unloading begin.

b. **BSA and CSSA.** As the operation progresses and CSS units are phased ashore, the initial landing support organization is disestablished and its functions are assumed by the LFSP. BSAs, initially developed by the landing support elements, may be consolidated or expanded into CSSAs to provide continued support to the LF. The need for CSSAs and their number, size, and capabilities are situation dependent, but they are primarily influenced by the scope and duration of the operation.

c. **BSA/CSSA Defense.** The CLF normally assigns the mission of defending the BSA or CSSA to the senior tactical commander ashore. To clarify responsibility, the LF OPOD will specify the rear area security commander and the task organization designated to perform this mission.

d. **Critical Early Requirements.** CSS in the initial stages of the amphibious operation is principally concerned with the provision of combat essential supplies such as rations, water, ammunition, and fuel. These critical items are normally drawn from LF stocks transported by AE and AFOE shipping. Other essential services, including medical support, are provided within the capabilities of the AF. Other CSS functions are of secondary importance during the early stages of the ship-to-shore movement and will normally not be involved in the scheduled waves.

e. **TACLOGs and the LFSP.** The CLF places special emphasis on the importance of CSS coordination during the ship-to-shore movement by establishing TACLOGs and the LFSP.

These organizations are discussed in Chapter V, “Ship-to-Shore Movement.”

f. **Seabasing and the Sea Echelon**

(1) **Seabasing.** In some cases, it may be undesirable or unnecessary to transfer substantial LF supplies and CSS organizations ashore. **Seabasing allows for the majority of CSS assets to remain at sea and be sent ashore only when needed.** In such cases, additional consideration must be devoted during the planning phase to ensure that CSS capabilities are balanced aboard those amphibious ships best suited to provide support.

(2) **Sea Echelon.** The sea echelon plan normally reduces the concentration of amphibious ships in areas near the beach. The majority of shipping will remain in distant sea operating areas until called forward in accordance with established priorities. In such cases, the **out-of-sequence landing of supplies and equipment will cause delays in the established schedule.** Specific provisions may be required to ensure rapid evacuation of casualties to more distant primary casualty receiving and treatment ships (CRTSs).

g. **Embarkation, Movement, and Rehearsal Support.** Although the primary emphasis of CSS planning is to develop a CSS system to support the LF, the force must also be supported while en route. Support required in the embarkation areas may include the operation of camps and mess facilities in staging areas, road maintenance, and equipment maintenance. LF CSS requirements during the movement phase are primarily provided by the ATF but the LF must plan for administrative and maintenance requirements. CSS requirements during and after rehearsals may be extensive (especially if equipment repairs are necessary) and must be incorporated into the plan.

h. **LF Aviation.** During amphibious operations, fixed-wing aviation elements may be located outside the landing area, requiring a task-organized CSS detachment for support. When LF aviation is phased ashore into the operational area, the CSS requirements (especially engineering and transportation) will be extensive.

5. Planning Sequence

Following receipt of the establishing directive, logistics/CSS planning proceeds concurrently at all levels throughout the ATF. The CATF is responsible for consolidating the total requirements of the force and allocating the available means for support. The LF CONOPS ashore is the basis for detailed CSS planning, which generally proceeds in the following sequence, although major steps may overlap:

- a. The CATF and CLF determine their overall logistic requirements.
- b. Other designated commanders in the AF determine their logistic requirements and forward requests for additional support to the AF commander, through the CATF.
- c. If AF logistic support is insufficient, and request for additional requirements cannot be met, affected commanders will have to adjust plans as appropriate.
- d. The CATF, CLF, and other designated commanders formulate logistic plans.

6. Logistic Plans

When all logistic requirements and means are determined, the appropriate logistic, personnel, CSS, and embarkation plans are prepared. Few logistic matters will affect only one element of the AF. Therefore, ATF and LF staffs must coordinate logistic and CSS plans from the very beginning stages of the mission analysis. Normally, the LF logistic plan will address two major categories of support: **initial supply and sustainment**.

a. **Initial Supply.** Initial supply comprises the logistic levels carried as accompanying supplies in assault shipping, both AE and AFOE, to provide required initial support for the assault landing and initial operations ashore. Initial supply/logistics planning include:

(1) ATF planning provisions:

(a) Loading ships with supplies to prescribed levels as much as practicable considering the embarkation of troops.

(b) Rations for the LF while embarked.

(c) Special facilities required for refueling and maintenance of aircraft, landing craft, amphibious vehicles, and other equipment as well as fuel for boat pools, beach groups, transportation pools, and other shore components.

(d) Water for the LF ashore until supply from sources ashore is available.

(2) LF planning provisions:

(a) Assembly and loading of supplies to be landed with the LF in such a manner as to ensure availability for issue before and during debarkation.

(b) Establishment of pre-positioned emergency supplies (floating dumps) containing limited amounts of selected supplies for emergency issue.

(c) Establishment of selected pre-staged supplies for ship-to-shore movement by VTOL aircraft (pre-staged VTOL-lifted supplies).

(d) Selective discharge of required supplies in accordance with the landing plan.

(e) Positive and efficient control of the movement of supplies from ship to desired locations ashore.

(f) Establishment of logistic heads ashore (if required) and the distribution of those supplies to forward units.

b. **Sustainment.** Sustainment comprises logistic support transported to the landing area in follow-up shipping and aircraft to support tactical operations ashore. **Wherever possible, sustainment planning should encompass the concept of direct ship-to-user delivery.**

(1) Sustainment is provided through either one or a combination of the following systems:

(a) Maintaining shipping and aircraft in an on-call status to be ordered into the landing area by the CATF, as requested by the CLF.

(b) Establishing fixed schedules for bringing shipping or aircraft into the landing area automatically as planned by the CLF.

(2) Factors affecting decisions in this regard depend primarily on:

(a) Distance between the landing area and loading points.

(b) Availability of forward sheltered ports or anchorages for use as regulating stations.

(c) Requirement for convoy escort.

(d) Availability of aircraft dedicated for sustainment lift.

(e) Hostile activity on LOCs.

(f) Plans for civil engineering support, including facilities required to accommodate supplies and the phase-in of LF units to handle supplies.

(g) Availability of manpower, MHE, and lighterage to offload shipping.

(h) Availability of logistics over-the-shore resources.

c. Logistic plans are prepared by the CATF, CLF, and other designated commanders of the AF and include the following:

(1) Primary source(s) of supply and responsibilities.

- (2) Levels of supply to be carried in AE, AFOE, and follow-up shipping.
- (3) Control and distribution of supplies.
- (4) Plan for landing supplies.
- (5) Resupply responsibilities, schedules, and sources.
- (6) Air delivery responsibility, procedures, and methods.
- (7) Schedule for replenishment of the units of the ATF.
- (8) Captured material disposition instructions.
- (9) Salvage instructions.
- (10) Retrograde.
- (11) Casualties.

7. Landing Force Supply Planning

The types and quantities of supplies taken into the operational area directly affect the requirement for air and surface transportation. For ease of control and planning for an amphibious operation, requirements for supply support are stated under two major categories — LF supplies and resupply.

a. **Determination of Requirements.** Overall requirements for supply support of the LF indicate the total tonnage to be moved into the operational area during a given period. Based on the statement of overall requirements for supply support, general requirements for the logistic support of the LF, including requirements for assault shipping and aerial resupply, are stated to higher authority.

(1) **Days of Supply (DOSs).** The first step in estimating overall requirements for supply support is to determine the DOSs. The DOSs is based on standard Service planning factors and logistics planning factors for the operation (see paragraph 6 above). In calculating the DOSs, the requirements for each separate class of supply are considered.

(2) **Stockage Objective.** The second step is to calculate the stockage objective for each class of supply. In operations of limited scope, limiting the stockage objective to 30 DOSs may be desirable. However, even the limited objective may not be reached until the latter stages of the assault.

(3) **Factors Influencing Stockage Objective.** The amounts and types of supplies carried in the assault shipping must be compatible with the shipping space available and must

meet the minimum requirements for support of the LF until termination of the amphibious operation. Before the stockage objective can be finally determined, the following factors must be carefully considered:

- (a) Adversary capabilities.
- (b) Availability of fixed-wing cargo aircraft.
- (c) Availability of shipping and distances involved.
- (d) Availability of ports and airfields.

(4) **Landing force operational reserve material (LFORM)/mission load allowance** is a package of contingency supplies pre-positioned in amphibious ships to reduce loading time in contingencies. The LFORM package comprises Classes I (packaged operational rations), III(A) and III(W) (petroleum, oils, and lubricants), IV (field fortification material), and V(A) and V(W) (ammunition). However, other selected items can be included to support specific deployments and/or contingency operations at the discretion of the CLF.

b. The Plan for Landing Supplies. In coordination with the CATF, the CLF develops plans for selective unloading of supplies in the objective area. The CATF allocates landing ships and craft required to carry supplies from ship-to-shore and to establish floating dumps. Together, in the plan for landing supplies, the CLF and CATF plan the ship-to-shore movement of supplies and equipment so that it is responsive to LF requirements. TACLOGs are established to ensure that responsiveness is achieved. In developing the plan for landing supplies, the following factors are considered:

- (1) Types and amounts of supplies to be carried ashore by LF units as prescribed loads.
- (2) Types and amounts of supplies to be established in floating dumps and pre-staged helicopter-lifted supplies.
- (3) Levels of supply to be established ashore.
- (4) Techniques that ensure the orderly, rapid buildup of supply levels ashore, such as:
 - (a) Use of landing craft and vehicles carrying assault troops to ferry designated types and amounts of supplies ashore on each trip.
 - (b) Provision for the mobile loading of each vehicle of the LF not involved in the lift of the assault elements ashore.
 - (c) Means for facilitating the transfer of supplies from ship-to-shore, including the most efficient use of pallets, containers, cargo nets, and slings.

c. **Supply Operations Ashore.** During the early stages of the attack, the ATF ships are the primary supply source for the LF. Prior to the establishment of landing support ashore, critical supplies are furnished directly to the requesting unit by the CSS element, through the TACLOG, from amphibious shipping. Subsequent to the establishment of landing support units ashore, combat elements are supplied through shore-based CSS facilities. As the operation progresses, several supply installations may be established within the beachhead by other CSS units of the LF. When adequate supply levels have been attained in installations ashore and transportation means are available, supply support of LF units will be provided from these areas. Supply sources may be augmented by the aerial delivery of supplies by fixed-wing aircraft operating from bases outside of landing area. The ships of the ATF continue as the primary source of immediate resupply for the LF.

(1) **Supply control and distribution** are accomplished at both the LF level and at the lowest levels that have an organic supply capability; e.g., battalion. These levels are most important within the overall function of supply, especially during the critical transition from sea-based to shore-based supply support during an amphibious operation. Adherence to the following principles during the transitional and ashore stages of the operation will result in a control and distribution system that is reliable, flexible, and responsive.

(a) **Control.** The flow of supply should be direct from source to consumer; supplies should be rehandled as infrequently as possible.

(b) **Distribution.** The distribution system may provide either supply point distribution, wherein the unit draws supplies from a central location, or unit distribution, wherein the supplying agency delivers supplies to the unit. During the initial stages of the amphibious assault, unit distribution is normally required and is effected through the organization for landing support in conjunction with the TACLOG and consists of delivery of pre-positioned emergency supplies. During later stages of the operation, as additional CSS units phase ashore and supplies are built up, supply point distribution may be employed.

(2) **Salvage** is the term applied to materiel that has become unserviceable, lost, abandoned, or discarded, but which is recoverable. It includes captured adversary equipment. Unit commanders at all levels are responsible for salvage collection and evacuation within their respective unit areas. Designated salvage organizations receive and process salvage received from combat units.

8. Landing Force Engineer Planning

Involvement of the engineer staff is essential in the planning and execution of all phases of amphibious operations. **The nature of engineer support for the LF in amphibious operations ranges from combat engineer support of a pioneer nature for the assault units to general engineer and CSS functions for the LF.** The normal engineer tasks (combat, topographic, mobility, countermobility, survivability, and general engineering) are applicable.

a. **Combat Engineers.** Combat engineer elements will normally be attached to the assault infantry units to perform a variety of tasks such as engineer reconnaissance, obstacle breaching and installation, development of BSAs, VTOL site preparation, construction of beach exits, combat trails and pioneer roads, tactical bridging, integration of environmental planning issues, and water and bath services.

b. **General Support Engineers.** General support engineer elements will normally perform deliberate clearing of obstacles, vertical and horizontal construction, provision of utilities (including potable water and mobile electric power), installation and operation of bulk fuel systems ashore, maintenance and repair of routes of communication, topographic support, environmental management support, advanced airfield preparation, and bridge construction/maintenance. It is desirable for general support engineer elements to relieve combat engineer elements of responsibilities in rear areas as early as possible.

c. **Naval Construction Forces (NCFs).** The NCFs are the combined construction units of the Navy, including primarily the mobile construction battalions and the amphibious construction battalions. These units are part of the operating forces and represent the Navy's capability for advanced base construction.

(1) **Naval Construction Regiment (NCR).** When Naval mobile construction battalions (NMCBs) are deployed in number, an accompanying NCR will be deployed to serve as the C2 coordinator for the CATF/CLF and assigned naval construction support units.

(2) **NMCB.** The NMCB provides construction support to Navy, Marine Corps, and other forces in military operations; and conducts defensive operations as required by the circumstances of the deployment situation. The NMCB provides a major deliberate construction capability and is employed to provide facilities that require extensive technical control and construction capability. The NMCB can be employed in expanding or constructing airfield complexes, constructing forward operating bases, repairing or developing ports, constructing major temporary or semi-permanent camps, extensively repairing or rebuilding principal bridges, and installing large-scale utilities systems (i.e., well drilling, water purification and distribution systems, pipeline/bulk fuel handling systems). When NCFs are assigned to the LF, these units will normally be attached to the CSS element.

(3) **Amphibious Construction Battalion (PHIBCB).** The PHIBCB provides designated elements to CATF, supports the naval beach group during the initial assault and early phases of an amphibious operation, and assists the landing support element in operations that do not interfere with the PHIBCB's primary mission.

(4) **NCF Planning Considerations.** Engineer planning proceeds concurrently with tactical planning and other CSS planning. The organization for engineer support is based on the tasks to be accomplished and the priority established for principal tasks. The engineer appendix to the OPLAN or OPORD will include priorities for construction, road and bridge repairs, airfield development, concept of engineer operations, and control of Class IV engineer material. Planning considerations include:

- (a) Capabilities of assigned engineer units.
- (b) Requirements for new construction.
- (c) Requirements for repair, maintenance, and improvement of facilities such as ports, railroads, roads, and airfields.
- (d) Transportation and support requirements of civil engineer support equipment (CESE) and Class IV construction materials.
- (e) Limited beach trafficability of CESE.
- (f) Requirements for the repair, rehabilitation, and operation of existing utilities systems.
- (g) Announced priorities for semi-permanent construction.
- (h) Requirements for base development as established by higher authority.

9. Landing Force Maintenance Planning

Maintenance operations support the administrative and functional needs of the LF units at the organizational (unit) and intermediate levels. LF commanders, the senior CSS unit commander, and the LF G/S-4 and staff share responsibilities for maintenance planning.

a. **Planning Considerations.** The LF maintenance plan should be based on an assumption that initial capabilities in the operational area, especially once ashore, will be limited. The maintenance plan should provide for:

- (1) Clearly defined maintenance capabilities and responsibilities during each phase of the operation.
- (2) Early landing of maintenance personnel and critical repair parts.
- (3) Simple and responsive maintenance request procedures, including use of floating dumps if applicable.
- (4) Decentralized execution of maintenance action through contact teams and mobile repair facilities.
- (5) Executing repairs as rapidly and as close to the using unit as possible.
- (6) Coordinated employment of maintenance support with other CSS functions.

(7) Provisions for battlefield salvage of large combat systems or vehicles via maintenance channels.

b. **Planning Requirements.** All LF units must determine their maintenance requirements and compare them against their organic (unit level) capabilities. Shortfalls must be identified during the planning process and forwarded to higher and/or supporting unit commands. An estimate of maintenance requirements includes an in-depth examination of each of the following:

(1) Available personnel: required skills and quantity.

(2) Repair parts: consumables and secondary repairable items.

(3) Tools and equipment: type, quantity, and location.

(4) Facilities support requirements during embarkation, movement, and rehearsal and action (including BSAs and CSSAs).

(5) Requesting and reporting procedures, including data requirements, routing, distribution, and means of transmission.

(6) Transportation requirements for equipment recovery and salvage, contact teams, and distribution of repair parts and materials.

(7) External maintenance units or agencies available for support.

(8) Assistance/coordination with other subordinate CSS elements.

10. Landing Force Transportation Planning

Transportation consists of movement of personnel, supplies, and equipment by water, air, or surface means. Transportation requirements are mainly based on **two factors — the character of the operation and the types and quantities of supplies required in the objective area.** Transportation tasks may include unloading and transfer of supplies ashore, forwarding of LF supplies and materials from the landing site(s), and operating the land transportation system (marking of routes, convoy control, etc.) within the operational area.

a. Transportation Requirements

(1) Requirements are normally stated in tons of supplies and equipment, gallons of fuel, or number of personnel to be moved during a particular period. The estimated distances of these movements will also play a key role in the planning estimate.

(2) Detailed requirements state the specific numbers, types, and capacities of vehicles, bulk fuel facilities, and aircraft required at specific times and places. They also state the schedules of operation and routes to be traversed.

(3) Plans for the employment of engineer, maintenance, service, and control personnel can be developed. Particular consideration must be given to the supply of aviation fuel. Although initiating air operations ashore through the use of packaged fuel is possible, continuing supply of aviation fuel requires the installation of bulk fuel systems and a high-capacity mobile liquid fuel transport capability ashore as soon as possible.

(4) The demarkation line between ATF and LF responsibilities for bulk petroleum, oils, and lubricants supply is normally the high water mark. Delivering and transporting fuel to internal storage distribution areas is an LF responsibility.

b. **Planning Considerations.** Transportation planning is influenced by:

- (1) The adequacy of the LOCs in the landing area (roads, rail, and waterway).
- (2) The extent of degradation of LOCs by weather, adversary action, and use.
- (3) The requirements for handling bulk fuel and water.
- (4) The availability of helicopters for transportation.

c. **Transportation in the Operational Area**

(1) The CLF, in coordination with the CATF, develops plans to sustain LF operations ashore.

(2) The CLF establishes priorities for movement and ensures adequate movement and traffic control within the LF operational area, optimizing the use of assets and facilities.

(3) The LF CSS plan makes provision for:

(a) Transportation assets scheduled for landing during the initial landing and unloading period.

(b) Combat loads prescribed for each vehicle prior to landing and once ashore.

(c) Attachment of transportation units to combat, combat support, or CSS elements of the LF.

(d) LF traffic control measures employed ashore.

11. Health Service Support Planning

The primary mission of the HSS elements of the LF is to save life and limb, and to maintain the fighting strength of the force by restoring the sick and injured back to full duty. HSS also includes measures to prevent and control disease and sickness. Casualties that require medical

attention that exceeds the capabilities of the LF HSS are stabilized and prepared for movement to another medical treatment facility, normally aboard ATF shipping. Once a secure airhead is established, stabilized casualties may be moved by AE direct to higher levels of care.

a. **LF Capabilities.** HSS elements of the LF will generally include the means to establish medical treatment facilities ashore to provide:

- (1) Casualty collection, triage, and evacuation.
- (2) Emergency treatment (including dental), surgery, and stabilization.
- (3) Patient holding.
- (4) Preventive medicine, including occupational and environmental health threat, surveillance and prevention.

b. **Planning Responsibilities**

(1) The JFC, or appropriate authority, supported by the senior medical officer, normally executes the following planning tasks:

(a) Coordinates with the establishing authority for patient movement by sea or air to HSS facilities outside the operational area.

(b) Coordinates with supporting commanders for HSS assets requiring intratheater transportation.

(c) Formulates patient movement policy for the operation based on recommendations from the CATF and CLF.

(d) Establishes HSS requirements and standards for the civilian population in the operational area, when not prescribed by higher authority.

(e) Develops procedures for regulating movement of casualties and patients within the landing area in conjunction with AF commanders.

(2) The CATF is responsible for the following:

(a) Provision for HSS service for all embarked personnel between points of embarkation and the objective area.

(b) Provision for HSS personnel, supplies, and equipment for non-LF personnel ashore.

(c) In conjunction with the CLF, development of patient movement procedures within the landing area.

(d) Conduct of the seaward evacuation of patients in the landing area, including communications to support movement, receipt, and reporting of casualties.

(e) Coordination of HSS for the civilian population with nongovernmental organizations and coalition forces.

(f) Positioning and employment of hospital ships within the operational area.

(3) The CLF identifies and coordinates LF HSS requirements with the CATF before and after the commencement of operations ashore. The CLF is responsible for preparation of plans, taking into account the following:

(a) Providing HSS to LF personnel at site of embarkation.

(b) Providing HSS support to the ATF while embarked.

(c) Developing, in conjunction with the CATF, the patient movement for the operation and executing the patient movement plan ashore that supports the policy.

(d) Providing HSS to all personnel ashore in the operational area who are not otherwise provided for.

(e) Submitting HSS requirements to the CATF that cannot be met by LF capabilities and force protection requirements.

c. Patient Movement

(1) **Patient Movement Policy.** The commander will determine the maximum number of days that a patient may be held within the command for treatment. Patients who cannot be returned to duty status within that period are normally moved by the first available means, provided the travel involved will not aggravate their disabilities.

(a) The patient movement policy for the theater is prescribed at higher levels. The patient movement policy for the operational area is established by the CATF in conjunction with the CLF. The patient movement policy provides a guide in determining whether patients should continue to be temporarily hospitalized or evacuated from the operational area.

(b) The use of any specific patient movement policy for the operational area serves only as a guide for medical planning. The patient movement policy must remain flexible to meet the changes in demand placed on the limited medical treatment capability initially available in the operational area.

(c) The length of the patient movement policy influences medical personnel requirements. The most demanding medical support is needed during the casualty's admission, initial workup, resuscitative surgery, stabilization, and depending on the clinical needs, during the movement to higher level care.

(d) It is advantageous for the commander to be able to apply a balanced patient movement policy. Prolonging treatment reduces demands on transportation resources for casualties and their replacements but increases medical requirements for personnel, equipment, and supplies.

(2) **Evacuation Plan.** Plans for casualty evacuation must be well defined and widely disseminated. These plans must include at a minimum:

- (a) Identification of CRTSs.
- (b) Locations of medical treatment facilities ashore.
- (c) Communications procedures for casualty evacuation coordination.
- (d) Provisions for mass casualty evacuation.

(3) As a matter of policy, **the preferred mode of casualty evacuation is via aircraft.** The speed, range, and flexibility of aircraft serve to enhance the medical support capability of the LF. However, casualty evacuation plans must not be aircraft-dependent and must include provisions for maximum use of ground and surface means.

(4) **Chain of Evacuation.** Casualty evacuation experience during LF operations has demonstrated that there is no normal or typical chain of evacuation through which a casualty is moved from the place where wounded or injured to the medical facility best suited to meet specific treatment needs. Past experience in no way eliminates the need for a functioning and coordinated chain of evacuation using the best means of transportation to enhance the casualty's chances for survival. In planning casualty evacuation, the guiding principles include:

- (a) Each successive level of health service support in the medical support system has greater treatment capability than the preceding level.
- (b) Each casualty should advance through the system only as far as needed to meet the specific treatment need.
- (c) Medical vehicles should be used for transportation at the earliest possible opportunity.
- (d) The arrangement of patient movement between medical treatment facilities is usually administrative in nature and can be preplanned.

d. **Medical Regulating.** Medical regulating is the actions and coordination necessary to arrange for the movement of patients through the levels of care. Medical regulating is a management system that **ensures the best match of medical needs with available medical capabilities.**

(1) **Medical Regulating Plan.** This plan contains policies and procedures for evacuation and primary medical regulation of casualties to designated CRTSs in the landing area by medical evacuation VTOL aircraft or by surface craft, and provides for medical services. It also provides for secondary medical regulating evacuation of casualties by air to medical treatment facilities outside the operational area or to rear areas following medical or surgical treatment onboard the CRTSs.

(2) **Medical Regulating Agency.** The functions of the medical regulating agency include:

(a) Maintaining inventory of locations and availability of operating rooms, beds, and medical/surgical specialty teams on various treatment ships.

(b) Maintaining inventory of locations and capabilities of treatment facilities established ashore.

(c) Directing or recommending destinations for the patients.

(d) Monitoring medical materiel, blood and blood products, and medical personnel replacement requirements.

(e) Consolidating patient movement requests for casualties requiring onward evacuation.

e. **Hospitalization**

(1) **Initial Hospital Support.** Hospitalization support of LF operations is provided initially in CRTS ships of the ATF and later by appropriate medical units of the LF when they are established ashore. In most cases, however, the staff and equipment of LF medical units limit their capabilities to patient holding. Overloading is avoided to ensure that the capability to support current and future operations is not degraded.

(2) **Follow-on Hospital Support.** Follow-on hospitalization and treatment support of the LF may be provided by Navy, Army, or Air Force medical units, such as fleet hospitals and hospital ships, combat support hospitals, or expeditionary medical support units, respectively. These units may or may not be considered part of the AF.

12. Landing Force Support Party Planning

Landing support is an overall term to describe the support functions performed during the initial stages of the amphibious assault prior to the arrival ashore of the normal CSS organizations. The CLF will normally task-organize an LFSP to provide critical support.

a. **The LFSP is a temporary LF organization, composed of ATF and LF elements, that facilitates the ship-to-shore movement and provides initial combat support and CSS to the LF.** Its specific organization depends on the number of beaches or zones through which the LF will land and the size of the units using the beaches or zones. For planning purposes, the basic LFSP structure consists of the LFSP commander, the shore party, the beach party, special attachments, and ships' platoons. The CLF is responsible for organizing a system to accomplish this mission and other specific support functions within the landing area. Other missions of the LFSP are as follows.

(1) Facilitate the landing and movement of personnel, supplies, and equipment across the beach, into an LZ, or through a port.

(2) Evacuate casualties and EPWs from the beach.

(3) Beach, retract, and salvage landing ships and craft.

(4) Facilitate the establishment of the combat service support element (CSSE), aviation combat element (ACE), and naval beach group.

(a) **LFSP Commander.** The designated commander of the LFSP controls landing support operations within the landing area. The LFSP commander ensures effective landing support through close coordination with subordinate units, timely reinforcement, and consolidation of shore party and beach party elements. Initially, LFSP operations are decentralized to the shore party and beach party teams per established code (Green Beach, Red Beach 1, etc.). Control of landing support operations on these beaches resides with the shore party team commander. When the shore party and beach party groups are established ashore, they assume control of their respective teams. TACON for landing support operations on each coded beach resides with the shore party group commander. When the shore party and beach party are established ashore and the shore party commander has consolidated command of the shore party groups, the shore party and beach party groups are attached to the shore party and beach party commanders respectively with the gaining commander exercising TACON. Concurrent with this transition, the LFSP is established ashore and the shore party, beach party, special attachments, and all other LFSP units ashore are attached to the LFSP with the gaining commander exercising TACON. If the LFSP is not established ashore concurrently with the beach party and shore party, command authority for landing support operations resides with the shore party commander until the LFSP commander assumes TACON. The LFSP personnel and equipment landed are minimal as the shore party and beach party form the predominant part of the LFSP.

(b) **Shore Party.** The shore party is the LF component of the LFSP. The nucleus of the shore party is the transportation support battalion, augmented with personnel and equipment from the GCE, ACE, and other CSSE units.

(c) **Beach Party.** The beach party is the Navy component of the LFSP and is under the TACON of the LFSP commander. Personnel and equipment for the beach party come from the naval beach group.

(d) **Special Attachments.** Special attachments are provided to the LFSP for defense of the BSA and for specialized tasks.

(e) **Ships' Platoons.** A ship's platoon consists of assigned LF personnel responsible for loading, stowing, and offloading LF equipment and supplies. When a ship carries equipment and supplies that belong only to LF units embarked on that ship, the ship's platoon is sourced from the ship's embarked troops at the direction of the commanding officer (CO) of troops.

b. **Landing Force Support Considerations (see Figure IX-1).**

- (1) Combat loading of each assault ship.

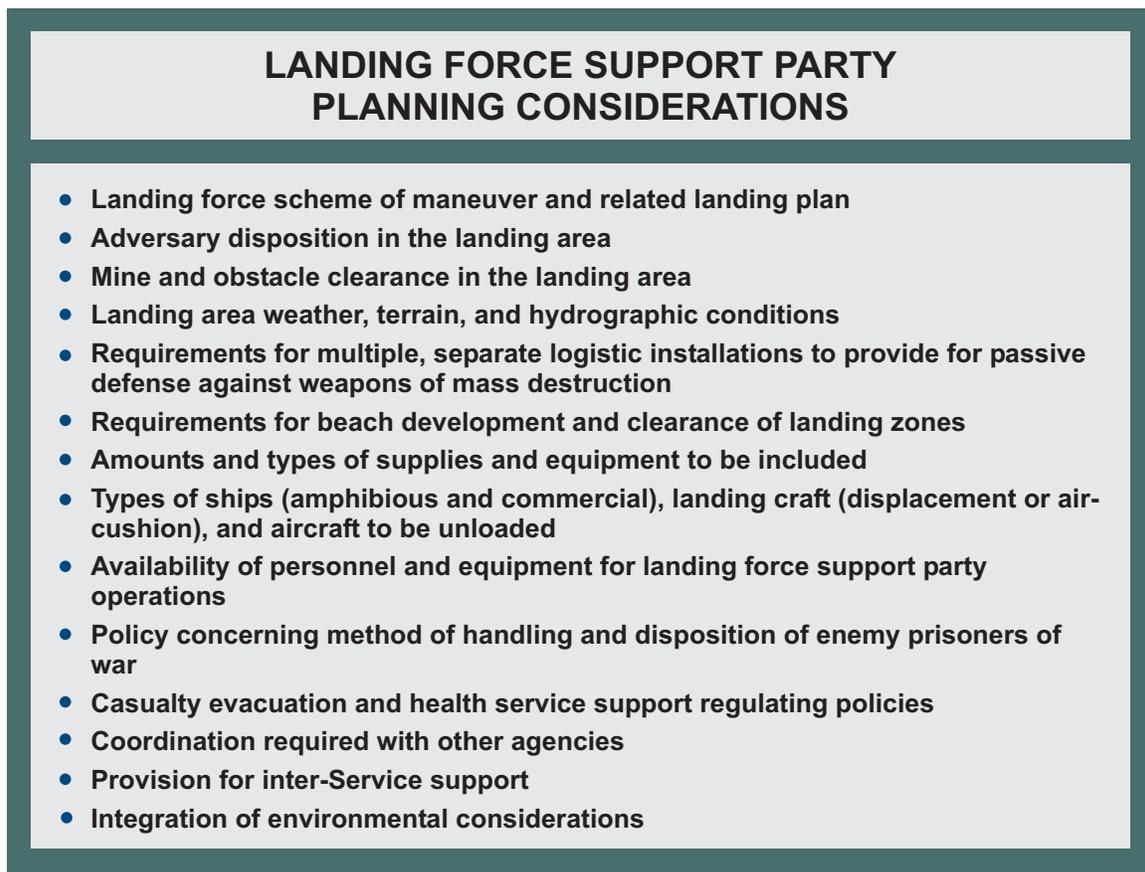


Figure IX-1. Landing Force Support Party Planning Considerations

(2) Reliable, compatible, and interoperable communications between tactical units, control elements, and landing support elements.

(3) Defense requirements of BSAs and landing areas.

(4) Composition of the AE and AFOE.

(5) Plans after seizure of the force beachhead line.

(6) Availability of personnel, supplies, and equipment for shore party operations.

(7) Casualty evacuation and disaster recovery plans.

c. Responsibilities

(1) **The CLF is responsible for the timely activation of the LFSP and the conduct of LFSP operations;** however, other AF elements contribute to its organization and employment. The CLF is responsible for the tactical employment and security ashore of all elements of the LFSP, and will integrate requirements into the fire support plan. **The CLF determines and presents requirements for support of LFSP operations to the CATF.** These requirements will be presented as early as possible in the planning phase.

(2) **The CATF is responsible for preparation of related plans that provide facilities and means to ensure effective support of LFSP operations.** Examples of such plans are the pontoon causeway and lighterage plan, unloading plan, casualty evacuation plan, and EPW evacuation plan. Integrated training of shore party and beach party elements will be conducted before embarkation begins.

d. **Employment.** The responsibility for embarking and landing the landing support units rests with the tactical unit supported. For this reason, the landing support units are attached to the tactical unit supported for embarkation and landing purposes only. The buildup of the LFSP ashore parallels the tactical buildup ashore. Landing support operations begin with the landing of the advance parties and continue until the operation is completed or until the parties are relieved. Throughout the operation, the landing support task organization changes as required.

CHAPTER X

COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTER SYSTEMS

“Communications dominate war; broadly considered, they are the most important single element in strategy, political or military.”

Alfred Thayer Mahan, *The Problem of Asia*

1. General

Amphibious operations require a flexible C2 system capable of supporting high tempo operations. **The AF must have the ability to plan for, provide C2 for, and support all functional areas (fires, aviation, intelligence, and CSS, etc.) afloat and ashore.** Initially, C4 systems that support the LF are sea-based, but as command posts and control agencies transition ashore, a ground-based system will be required for the CLF to control all aspects of the operation.

2. Responsibilities

CATF and CLF are responsible for C4 systems support planning (see Figure X-1), with the designated commander consolidating the requirements. These responsibilities are very closely tied to both commanders and are best described as mutual.

a. CLF develops a communications plan for the LF for inclusion into the CATF’s coordinated plan for employment of AF communications during the operation.

b. CLF establishes computer and network requirements of the LF while embarked so that the CATF can acquire and assign necessary shipboard C4 facilities and services to the LF.



Figure X-1. Command, Control, Communications, and Computer Systems Support Plan

Normally, the use of these shipboard facilities allow LF elements to have their complete allowance of communications equipment for the movement ashore.

- c. CLF develops a LF IO plan based on the CATF's security, deception, and EW plan.

For more information about IO, see JP 3-13, Joint Doctrine for Information Operations.

- d. CLF develops and promulgates the plan for communications connectivity with other ground forces ashore while the CATF does the same for communications connectivity with other maritime forces.

3. The Landing Force Communications Plan

The LF communications plan is normally issued as an annex to the OPLAN or OPORD and must be compatible with the overall communications plan of the AF. The actual drafting of the communications plan is the staff responsibility of the assistant chief of staff (AC/S), component command, control, communications, and computer systems staff officer (G-6). Throughout the preparation of the plan, the AC/S, G-6 must coordinate with each staff section of the LF as well as with equivalent staff officers at parallel and subordinate commands. The AC/S, G-6 counterpart on the ATF staff is the communications officer, or commonly referred to as the Navy component communications officer (N-6). The AC/S, G-6 and N-6 conduct concurrent and parallel planning addressing items such as:

- a. Allocation of shipboard radio equipment, spaces, and personnel to support LF operations.
- b. Assignment of call signs, coordinated with the CATF to facilitate handling of LF traffic over naval circuits during the movement phase.
- c. Identification of cryptographic and authentication systems that must be used by ATF and LF units.
- d. Development of communications security (COMSEC) procedures.
- e. Evaluation of assigned radio frequencies for optimal performance, to prevent mutual interference, and ensure adequacy of support for LF operations.
- f. Use of LF personnel to support the ships' communications personnel during the movement to the objective and during the initial stages of the action phase.
- g. Development of computer networks that support the LF while embarked, including procedures for the receipt and distribution of message traffic.

4. Planning Considerations

a. Each major command of the LF must have compatible and interoperable communications that will support the tactics and techniques employed by that force. Circuits provided must assure effective exercise of command and coordination of supporting fires.

b. The plan must support each phase of the amphibious operation. Although communications during the movement phase are normally provided by Navy systems, the LF communications plan must support the planning, embarkation, rehearsal, and action phases. **The communications plan must permit rapid integration of the LF circuits without undue interference with other elements of the AF.**

c. Changes in the organization of the LF, command relationships, and location of forces require maximum flexibility in the plan. Multiple purpose circuits should be used where practical in order to assist in the reduction of required bandwidth and mutual interference — especially in the landing area where the frequency spectrum can become quite congested.

d. The necessity for dispersion of the forces, combined with the rapid movement of the LF during the action phase, may overextend what are considered “normal” ranges for the LF’s communications assets. The CLF should fully consider the use of alternate means, such as visual or messenger, and the use of relay/retrans stations when developing the plan.

e. The physical environment of the amphibious operation requires an almost complete dependence on radio during the initial portion of the action phase. The employment of radio is complicated by its relative fragility, vulnerability to salt water and adversary interference, and imposition of necessary security measures. The LF communications plan must be developed with a full understanding of radio communications limitations.

f. Plans must be developed and promulgated for dealing with adversary electronic protection actions to include jamming and beaconing.

5. Landing Force Command, Control, Communications, and Computer Systems Support by Phase

a. **Planning Phase.** C4 systems connectivity between the CLF, CATF, and AF commanders and staffs must be established immediately at commencement of the planning phase. Units of the LF must ensure preservation of COMSEC even though great distances may separate the various planning headquarters. The worldwide Defense Message System, supplemented by SECRET Internet Protocol Router Network (SIPRNET) electronic mail and secure telephone, provides the major communications means during this phase.

b. **Embarkation Phase.** Before embarkation, commanders must provide for adequate C4 systems support between the AF and any external agencies involved in transportation. **The CLF is normally responsible for planning and providing LF C4 systems at the piers and/or beaches within the embarkation areas, to include coordinating the use of established facilities**

(military or civilian). A significant portion of the LF's organic communications equipment will be packed and ready for embarkation so the CLF should make arrangements with the area's local commander to provide communications support. Specifically, the plan should:

- (1) Establish ship-to-shore circuits for the control of loading (closely coordinated with the CATF).
- (2) Establish convoy control for serials moving from point of origin to SPOE.
- (3) Establish communications between the port of embarkation and the embarkation area, including the contracted use of commercial assets if feasible.
- (4) Establish communications between control points within the embarkation area.
- (5) Establish communications center and/or switching center operations within the embarkation area.

c. **Rehearsal Phase.** The rehearsal phase of the amphibious operation gives the CLF the opportunity to test the LF communications plan. Under ideal conditions, the rehearsal will involve all elements of the force and attempt to fully test the C4 systems involved without violating COMSEC procedures. By having a full-scale rehearsal, the CLF can further refine his C4 requirements and identify vulnerabilities, thus allowing for appropriate adjustments to the OPLAN or OPORD before execution. Specific considerations during the rehearsal phase include:

- (1) Maximum use of secure voice equipment and use of minimum power on electronic emitters for COMSEC reasons.
- (2) Use of call signs and frequencies for rehearsal use only.
- (3) Plan to repair or replace communications equipment damaged during the rehearsal.
- (4) Plan for, allocate, and embark expendable items (such as wire and batteries) for use during the rehearsal.
- (5) Allocate enough time to conduct an objective critique of the communications plan after the rehearsal and to modify portions of the plan as necessary.

d. **Movement Phase.** As discussed earlier, the CATF provides functionally operational spaces built on a Navy C2 infrastructure to the LF. During the movement phase, however, the CATF normally restricts the use of equipment, particularly transmitters and emitters, to prevent disclosure of locations, movements, and intentions of the force. The LF plan must address how the commander will communicate with LF units embarked on different ships, and possibly even separate movement groups, during these periods of radio silence. Some potential alternate means are helicopter messenger, visual signals, or line-of-sight radio if permitted by the emission control condition. Other LF C4 considerations during movement include:

(1) Ensuring that embarkation information is accurate and reflects the communications guard situation for all elements of the LF.

(2) Ensuring that communications officers with the ATF have an accurate list of appropriate LF units (e.g., next senior and immediate subordinate) and their assigned shipping location.

(3) Ensuring that all ATF communications officers have an accurate listing of LF personnel who have message release authorities.

(4) Ensuring that all ATF communications officers have an accurate listing of LF communications personnel embarked in their respective ships. The list should also contain clearance and access information of these LF personnel.

(5) Establishing LF communications centers, or equivalents, on all ships when major LF units are embarked.

(6) Augmentation of ATF communications facilities with LF personnel and equipment when appropriate.

e. **Action Phase.** During the action phase, both the ATF and LF rely primarily on radio communications as the means for exercising C2. Accordingly, radio silence is usually lifted by the CATF prior to H-hour in order to test all circuits before the ship-to-shore movement begins. During the initial portion of this phase, when the major LF headquarters are still afloat, LF circuits are provided by facilities specifically installed in amphibious shipping for use by LF personnel. LF communications must be complementary and generally parallel to those established by the ATF. These parallel systems usually terminate at each significant control center aboard the amphibious ships; (e.g., SACC, Navy TACC, HDC, and TACLOG). The LF communications plan must address the many operational aspects of the action phase.

(1) **Waterborne Movement.** Communications for control and coordination of landing ships, landing craft, and other waterborne vehicles moving from the transport area to landing areas are provided primarily by the CATF through a Navy control group. However, LF radio nets must be integrated into the group's plan so that LF commanders can properly monitor and control the movements of the LF, especially important when the ship-to-shore movement includes LF organic AAVs.

(2) **Helicopterborne Movement.** Communication nets for the control and coordination of the assault support helicopters are established and maintained by the CATF through his Navy TACC and HDC. LF personnel will augment the HDC and integrate LF communications into the overall aviation C2 systems. Helicopterborne movement normally generates additional, long-range communications requirements for the LF because of the inherent distances associated with helicopter operations.

(3) **Supporting Arms Coordination.** Whether supervised by the ATF's SAC or the LF's FFC, the SACC coordinates and controls all organic and nonorganic fires in support of the AF until the LF establishes adequate control and communications facilities ashore. The LF communications must include nets that integrate all agencies that interface with the SACC. These include, but are not limited to, the NSFS, the air support section, the TIC, the FFCC/FSCC/FSE of the LF, fire support observers, TACPs, forward air controller (airborne) and TAC(A), and artillery fire direction centers.

Note: Consideration must be given to shipboard hazards of electromagnetic radiation to ordnance conditions/limitations that shut down or severely limit high frequency (HF) communication capabilities (e.g., loading of ordnance on aircraft requires securing HF communications on most naval vessels).

(4) **CSS.** Selected units and agencies of the LF are required to assist the CATF in controlling and coordinating logistics during the action phase. LF communications must provide a means for the control of MEDEVAC, EPW collection, foot and vehicular traffic ashore, as well as the means to control the movement of supplies and equipment. Landing support units are required to establish communications within the CSS area. This communications network must include the Navy beach parties, TACLOG, supported LF units, HSTs and transport aircraft (if applicable), SACC, DASC (once established ashore), and other key agencies within the ATF and LF.

6. Transition of Landing Force Command Posts Ashore

a. The command post (CP) movement from ship-to-shore must be accomplished in a manner that provides for communications continuity during the entire action phase. LF units are almost entirely dependent on netted radios during the early stages before they can gradually transition to wire, wire-multichannel radio, computer network systems (SIPRNET), messengers, or other means. The conduct of this transition governs the development of the LF C4 system and is crucial to the seamless transition of effective C2 from the agencies afloat to those established ashore.

b. A CP movement from ship-to-shore is normally made in two or more echelons, depending on the type and size of the headquarters. In any case, each echelon requires a near equal communications capability which must be planned out in detail by the CLF and his staff. Furthermore, the commander, staff, and supporting personnel that make up a particular CP may be embarked on separate ships. In that case, radio communications must be established between the two or more groups of the CP as soon as practical.

c. When an advance party (or reconnaissance party) is sent ashore before the major echelons of a CP, direct radio communications are required between the advance party and the CP afloat. The type and quantity of communications equipment and personnel assigned to the advance party must be weighed against the need for those assets back at the CP during the action phase.

d. When in transit from ship-to-shore, the CLF and appropriate staff members will require communications with LF units already ashore (including the CP advance party if employed), LF units also in transit, LF units remaining on shipping, and appropriate ATF agencies afloat. The communications facilities normally available to the CLF (e.g., C2 configured helicopter or AAV) will usually not be able to satisfy the total communications requirement. Therefore, the communications facilities should be allocated to only the most essential circuits.

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APPENDIX A THE LANDING PLAN

1. General

a. Ship-to-shore movement planning for the LF is given final form and expression in the landing plan. The landing plan is prepared after the final allocation of means has been made, and represents the integrated sum of detailed plans for waterborne and airborne ship-to-shore movement prepared by corresponding ATF and LF echelons at all levels. A flexible landing plan enables CATF and CLF to gain and retain tactical initiative, enhances operational flexibility, takes advantage of adversary force dispositions and weaknesses, and employs the element of surprise to the maximum extent. The landing plan is composed of certain specific documents that present, in detail, the numbers of landing craft, helicopters, and surface craft available for use and the exact personnel and equipment that will be loaded on each, along with embarkation and landing times. The body of the landing plan is usually short, with only information of interest to all subordinate units. The bulk of the plan is a compilation of documents included as tabs and enclosures that contain the facts and figures essential for the orderly and timely execution of the landing. These documents should be incorporated in annexes to operation plans and orders.

b. The landing plan is concerned primarily with establishing relative landing priorities among the various elements of the LF and with overall coordination of ship-to-shore movement planning. Specifically, it must provide:

- (1) Priority for landing of elements of the LF.
- (2) Allocation of resources.
- (3) Allocation of serial numbers.
- (4) Correlation of the sequence for landing of all units not being landed with assault elements, but landing before general unloading.
- (5) Coordination of the landing plans of separate landing groups, if required.

2. Responsibilities

Landing plan documentation is a responsibility of both CATF and CLF. Although some documents require joint preparation by ship's COs and COs of troops (e.g., debarkation schedule and helicopter enplaning schedule), all landing plan documents are the responsibility of either the CATF or CLF.

3. Sequence of Preparation

After the available means for ship-to-shore movement have been assigned, LF plans are prepared in the following sequence:

- a. CLF allocates or specifies landing assets to subordinate elements on the basis of availability and in accordance with the CONOPS and scheme of maneuver ashore.
- b. CLF allocates blocks of serial numbers to elements of the force.
- c. CLF determines the relative landing priorities for the various elements of the force.
- d. Subordinate LF elements prepare a plan for landing based on assigned tasks and priorities. Landing plans for other forces not landing with ground combat forces are submitted to the LF commander.
- e. CLF correlates these recommendations and publishes them in the LF landing plan.
- f. Subordinate echelons make pertinent extracts from the LF landing plan, as necessary, for control and coordination.
- g. Planning for the movement of supplies ashore, for the composition of floating dumps, and for the levels of supply ashore is conducted concurrently with other ship-to-shore movement planning.

4. Naval Landing Plan

CATF develops the naval landing plan documents required to conduct ship-to-shore movement. The information contained in several of these documents is vital to the CLF in the development of his own landing plan.

- a. The **Landing Craft Availability Table** lists the type and number of landing craft that will be available from each ship of the transport group, specifies the total required for Navy use, and indicates those available for troop use. The table is the basis for assignment of landing craft for the ship-to-shore movement. It is prepared by the transport group commander or, in his absence, by the CATF.
- b. The **Landing Craft Employment Plan** provides for the assigned movement of landing craft from the various ships to satisfy Navy and LF requirements. It indicates the number of landing craft, their types, their parent ships, the ships to which they will report, the time at which they will report, and the period during which they will be attached. The plan is prepared by the transport group CO, or in his absence, by the CATF.
- c. The **Debarkation Schedule** is a plan that provides for the orderly debarkation of troops and equipment, and emergency supplies for the waterborne ship-to-shore movement. Prepared

jointly by the CO of each ship and the CO of troops embarked, it is usually prepared after the troops are aboard and is distributed to all personnel responsible for control of debarkation. Debarkation schedules are not normally prepared for units landing in amphibious vehicles or helicopters. The debarkation schedule contains the following information:

(1) The sequence in which landing craft, by type, come alongside the debarkation stations, or depart the well deck.

(2) The individual boats and boat teams or supply loads that load from each troop debarkation station and the boats into which they are loaded.

(3) Heavy equipment to be unloaded from each hatch, and the type of boat into which it is to be loaded.

(4) Free boats and their boat team numbers.

d. The **Ship's Diagram** supplements the debarkation schedule and graphically shows the location where each boat team will load.

e. The **Approach Schedule** is the schedule that indicates, for each scheduled wave, the time of departure from the rendezvous area, from the LD, and from other control points, and the time of arrival at the beach.

f. The **Assault Wave Diagram** displays the assault waves as they will appear at a specified time prior to H-hour. The diagram is consolidated jointly at the ATF/LF level and given wide distribution.

g. The **Landing Area Diagram** is prepared by CATF as an overlay for an appropriately scaled chart. It shows graphically the most important details of the landing area: beach designations, boat lanes, LDs, landing ship areas, transport areas, and FSAs in the immediate vicinity of the boat lanes. The diagram contains extracts from other documents and may have numerous enclosures containing specific information required for orderly ship-to-shore movement (such as individual anchorage assignments, boat lane buoyage instructions, etc.).

h. The **Transport Area Diagram** is prepared as an overlay for a chart of the objective area. It shows the area extending from at least 1,000 yards off the beach to seaward and at least 1,000 yards to seaward beyond the outermost berth in the designated transport area. If both an outer and inner transport area are to be used, two diagrams will be required. Overlays will include the following information as appropriate:

(1) Transport area(s) and assignment of all deep-draft ships to berths.

(2) Landing ship areas and assignment of all landing ships to berths.

(3) Amphibious assault ship operating areas as appropriate.

(4) Position of all control ships.

(5) Boat and approach lanes.

(6) LDs.

(7) AAV launching area.

(8) Causeway launching area.

(9) Beaches.

(10) Distances from the beach to the center of transport area, from the beach to the LD, from the approach lane marker ships to the LD, and the lengths of beaches.

(11) Course (true and magnetic) from LD to beaches and from approach lane marker ships to LD.

i. A **Beach Approach Diagram** is prepared by CATF as an overlay for a large-scale chart of the landing beaches. The overlay depicts an area extending from each beach seaward to 300-500 yards beyond the LD, showing the following:

(1) Designation and dimensions of landing beaches.

(2) LD.

(3) Distance from beach to LD.

(4) Position of control and medical ships and boats.

(5) Cargo transfer line information, if one is established.

(6) Return boat lanes.

j. If a sea echelon is used, specific information relating to the **Sea Echelon Area** is prepared as a diagram by the CATF in agreement with the CLF. The diagram contains the locations and limits of the sea echelon, swept transport lanes, LD, primary control ships, and beaches.

5. Landing Force Landing Plan

a. The **Amphibious Vehicle Availability Table** is a list of the type and number of vehicles available for assault landings and for support of other elements of the operation. It also indicates the ships in which the AAVs are carried to the objective area.

b. The **Landing Craft and Amphibious Vehicle Assignment Table** indicates the organization of LF units into boat teams and the assignment of boat teams to scheduled waves, on-call waves, or nonscheduled units. It may also include instructions for assigning floating dump supplies to landing craft or amphibious vehicles. The table, together with the debarkation schedule, furnishes the ship's CO with information for debarking troops and floating dump supplies. The landing craft and amphibious vehicle assignment table is prepared and promulgated at the same time as the landing diagram. Both tables are prepared by the CLF. Following are some key considerations for the assignment of units and personnel to landing craft and amphibious vehicles:

(1) A boat space is the space and weight factor used to determine the capacity of boats, landing craft, and amphibious vehicles, based on the requirements of one person with individual equipment.

(2) Allowance of boat spaces must be made for troop equipment, such as mortars, machine guns, vehicles, and heavy equipment. A smaller number of personnel embark in craft carrying such equipment. The number of boat spaces the equipment occupies is included in a separate column of the table.

(3) Tactical integrity must be maintained. Units must land in proper tactical formations.

(4) The assignment of command elements and any attached or supporting troops (such as forward observers, naval gunfire spotters, or communications personnel) is made to the craft carrying the rifle units to which they control or which they directly support. If such units are assigned to separate craft, the craft are given positions in the waves that will facilitate small unit employment on beaching. A separate wave may be organized for command elements, supporting arms, and/or antitank units.

(5) Distributing elements of command and liaison personnel among two or more landing craft reduces the risk of heavy losses in command elements. Personnel and equipment from key elements such as communications units are similarly distributed.

(6) The priority of craft assignment is assault units, supporting units, and reserve units.

c. The **Landing Diagram** provides information on the tactical deployment of units for the landing. Based on the recommendations of subordinate commanders, the landing diagram is prepared and promulgated at the same time as the landing craft and amphibious vehicle assignment table. It is distributed to all personnel responsible for controlling the formation of the boat group and its waves during ship-to-shore movement, and the information it contains is used in the preparation of assault schedules.

d. The **LF Serial Assignment Table** reflects the organization of the LF for ship-to-shore movement.

(1) A serial is a group of LF units and their equipment that originate from the same ship and that, for tactical or logistic reasons, will land on a specified beach or a specified HLZ at the same time. A serial number is assigned to each serial (group).

(2) Serial numbers are randomly assigned numbers and do not in themselves prescribe a priority in landing. They are assigned only for reference purposes and the assignment in no way precludes the use of code names, designations, or unit titles when such a use is expedient.

(3) Early in the planning stage, the LF commander allocates a block of consecutive serial numbers, on the basis of administrative organization, to each LF unit and Navy element to be landed, regardless of their location in the AE or AFOE. Allocation begins at the highest echelon. Each unit allocates a consecutive portion of its block to its subordinate units. Allocation continues until each element within the LF has a block of consecutive numbers for assignment to its subordinate and attached elements.

(4) After the landing and embarkation plans have been determined, each planning echelon assigns serial numbers from its allocated block to its units, parts of units, or groupings. It is important to note that, while allocation of blocks of serial numbers to units is based on the administrative organization, the actual assignment of individual serial numbers is based on the organization for landing. The method of assignment does not depend either on the priority or on the estimated sequence of landing of nonscheduled units.

(5) The LF Serial Assignment Table indicates the tactical units, equipment, and supplies that are to be loaded into each landing craft, amphibious vehicle, or aircraft, and may be further broken down into a Serial Assignment Table (Surface) and a Heliteam Wave and Serial Assignment Table.

e. The **Landing Priority Table** is a worksheet used at the LF level to prescribe the planned buildup of the LF ashore. It is based on the commander's tactical plan and provides a foundation for the orderly deployment of the LF in support of the plan. The table lists all major units to be landed, the order or priority, the planned time of landing, and the designated beaches and/or LZs. It is used principally when the LF is complex or when a phasing of LF units is required.

f. The **LF Sequence Table** is a complete list of the estimated landing sequence of the nonscheduled units of the LF. It is the principal document for executing and controlling the ship-to-shore movement of these units and is the basis for their embarkation and loading plans. Unless specific requests for changes are made during the execution of ship-to-shore movement, the landing proceeds in accordance with the estimated sequence shown in the LF sequence table. The table provides:

- (1) A guide to the embarkation officer in preparing loading plans.
- (2) The commander's priorities in offloading nonscheduled serials.

(3) The order vehicles and equipment of nonscheduled units should be loaded so as to be available when requested.

(4) The preferred sequence for landing nonscheduled serials.

g. The **Assault Schedule** prescribes the formation, composition, and timing of waves landing over each beach. The CLF prepares the assault schedule based on the recommendations of subordinate unit commanders.

h. The **Amphibious Vehicle Employment Plan** shows the origin, number and type, wave, destination, and contents of amphibious vehicles in initial movement and subsequent trips from ship to the beach.

i. The **Helicopter Availability Table** shows the number and models of helicopters available for a proposed helicopterborne landing. Prepared by the helicopter unit commander, it lists the helicopter units, the number of helicopters available for first and subsequent lifts, their tentative load capacity, and the ships on which they are transported.

j. Prepared by the helicopterborne unit commander in coordination with the ship's CO, the **Heliteam Wave and Serial Assignment Table** indicates the tactical units, equipment, and supplies that are to be loaded into each heliteam by its assigned serial number and the serial number of the flight and wave. It lists the weight of personnel and equipment and includes all landing categories — scheduled, on-call, and nonscheduled waves.

k. The **Helicopter Enplaning Schedule** plans for the orderly enplaning of troops, supplies, and equipment for the helicopterborne ship-to-shore movement. It shows the following:

(1) The enplaning stations on the flight deck of the ship.

(2) The sequence in which helicopters are spotted at the enplaning stations.

(3) The serialized heliteam with equipment and supplies assigned to each helicopter in each designated flight.

l. The **Helicopter Landing Diagram** illustrates the routes to and from LZs. It includes the helicopter transport area, rendezvous points, approach and retirement routes, departure and initial points, other control points, LZs and sites, and other details as necessary for clarity. The diagrams are prepared by the senior helicopter unit commander in coordination with the cognizant helicopter transport unit commanders, and are submitted via the chain of command to the CATF for approval and coordination.

m. The **Helicopter Employment and Assault Landing Table** is a detailed plan for the movement of helicopterborne troops, equipment, and supplies. It provides the landing timetable for the helicopter movement and indicates the assignment of specific troop units to specific numbered flights. Analogous to the assault schedule and landing sequence table prepared by

surface-landed units, it is the basis for the helicopter unit's flight schedules and the control of helicopter movement by the appropriate air control agency. The helicopter employment and assault landing table is prepared in close coordination by the helicopterborne unit and helicopter unit commanders.

n. The **Ground Combat Element Landing Plan** is developed by the senior GCE, who does the major portion of the detailed planning and immediate supervision of the waterborne and helicopterborne ship-to-shore movement on the part of the LF. It is developed in coordination with the related Navy organization and based on information provided by both CLF and CATF concerning forces to be landed and landing assets available. Subordinate units down to the battalion level prepare their own landing plans, including all relevant documents. These plans may be incorporated into the landing plan of the next higher unit as an appendix, or the information contained in the documents incorporated in the documents of the GCE landing plan.

o. The **Aviation Combat Element and LF Aviation Landing Plan** does not provide information concerning aviation support to ship-to-shore movement, but rather outlines the commander's plans for establishing aviation units ashore in the landing area by both air and surface means. It provides detailed plans for the landing of air elements that are embarked in assault shipping and landed with assault units or as nonscheduled units.

(1) The aviation landing plan contains the following:

(a) Plans for the echelonment and landing sequence of all aviation units to be established ashore within the landing area.

(b) Detailed landing documents for air elements that move ashore before general unloading.

(c) Applicable ship-to-shore control provisions.

(d) Information on pontoon causeways, fuel handling systems, and the landing of engineering elements and equipment necessary for aviation support ashore.

(2) **Composition of Echelons.** Elements of air control squadrons and helicopter groups comprising the first echelon are landed by helicopter to initiate operations ashore. The second echelon of these units is landed over the beaches with the heavy equipment and personnel required for sustained operations.

(a) Fixed-wing fighter and attack groups land in an initial echelon composed of personnel and heavy equipment for base operations and maintenance. This echelon is surface-lifted into the landing area and landed over the beaches. A second echelon composed of pilots, aircraft, and crew is flown into the area from land bases.

(b) The LF aviation organization for landing will differ greatly from the task organization because of the division of air groups and squadrons into elements for landing and

wide variation in the time and method of landing these elements. The landing plan must provide for a groupment of the air elements into a series of echelons based on time and method of landing. These echelons, and the time and manner of their movement to the landing area, are shown in the general paragraph in the body of the Aviation Landing Plan. Detailed composition of echelons is in a separate appendix.

(3) **Scheduled, On-Call, and Nonscheduled Elements.** Air control units, elements of the LF aviation headquarters squadrons, aviation groups, headquarters support squadrons, air base, and aviation logistics squadrons may be landed before commencement of general unloading to initiate establishment of air facilities ashore. These units are either embarked with and landed as part of the assault division(s) or are landed as nonscheduled units.

(a) Detachments of the aviation units and the CSS elements that form part of the HSTs are often landed in scheduled waves. Air support radar teams usually will be landed in on-call waves. Such elements are shown in the assault schedules (or helicopter employment and assault landing table, and helicopter wave and serial assignment table) of the division(s). Other aviation elements that are landed early in the ship-to-shore movement are serialized and shown in the division or LF landing sequence table.

(b) The LF Aviation Landing Plan lists separately those air elements that are landed in scheduled, on-call, or nonscheduled units. The landing plan also contains additional landing documents, as extracted from division and force landing plans, necessary to describe the method and sequence for landing these elements. This information is shown in the following enclosures:

1. Extracts from appropriate Assault Schedules.
2. Extracts from Helicopter Employment and Assault Landing Tables.
3. Extracts from Helicopter Wave and Serial Assignment Tables.
4. Serial Assignment Table.
5. Landing Sequence Table.

(c) Serial numbers for nonscheduled aviation elements are allocated by the LF. The assigned serials and an itemized list of personnel and equipment of air elements that are to land in scheduled or on-call waves are submitted to the CLF for coordination and approval. The division is then furnished the necessary information to provide for landing air elements with the division. Nonscheduled aviation elements are incorporated into the force landing sequence tables.

(4) **Ship-to-Shore Control.** To monitor the landing of air elements early in the ship-to-shore movement, the LF aviation commander provides representatives to the senior TACLOG. As changes or delays in the landing of air elements occur, the commander may then be apprised

of the situation. Schedules and tables required by aviation representatives in the HDC and the Navy TACC, in addition to those in the LF Aviation Landing Plan, may be in the air annex to the OPLAN or OPORD.

(5) **Airfields, Pontoon Causeways, Fuel Handling Systems, and Engineering Operations.** The availability of operational facilities required to establish aviation ashore determines the time of landing aviation elements. Information on the projected dates when these facilities will be complete, or engineering work will begin, is provided in the landing plan when available. This information includes estimated dates for:

- (a) Airfields achieving operational status.
- (b) Installation of pontoon causeways for landing heavy aviation assets.
- (c) Completion of fuel handling systems from the beach to the airfields or helicopter operating sites.
- (d) Landing of engineers and commencement of work on airfields.

APPENDIX B
SAMPLE LANDING PLAN FOR A REGIMENTAL LANDING TEAM
LANDING BY SURFACE AND HELICOPTER

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APPENDIX 3 (Landing Plan) to Annex R (Amphibious Operations) to Operation Plan 3-1

Ref: (a) Commander Task Force 76.2 Operation Plan 9-1
(b) NWP 3-02.1/MCWP 3-31.5

Time Zone: H

1. General

a. This plan calls for:

- (1) Landing one battalion by helicopter in Landing Zone WREN.
- (2) Landing one battalion over Beach RED in amphibious vehicles with two companies abreast.
- (3) Landing the RLT Reserve by helicopter, landing craft, and/or amphibious vehicles.
- (4) Landing combat support and combat service support elements by surface and helicopter as required.

b. For detailed instructions, see Tabs A thru J.

2. Control Measures

a. Ship-to-shore control in accordance with references (a) and (b).

b. TACLOGs organize, embark, and function in accordance with Appendix 5, Annex R to the Operation Plan.

3. Pontoon Causeways, Barges, and Transfer Lines

See Annex P to reference (a).

J. F. DOUBLEDAY
Colonel, US Marine Corps
Commanding
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Tabs:

- A. Assault Schedule
- B. Helicopter Availability Table
- C. Landing Craft Availability Table
- D. Amphibious Vehicle Availability Table
- E. Serial Assignment Table
- F. Landing Sequence Table
- G. Amphibious Vehicle Employment Plan
- H. Helicopter Landing Diagram
- J. Helicopter Employment and Assault Landing Table

Distribution: Annex Z (Distribution) to Operation Plan 3-8.

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APPENDIX C REFERENCES

The development of JP 3-02.1 is based upon the following primary references.

1. JP 1, *Joint Warfare of the Armed Forces of the United States*.
2. JP 0-2, *Unified Action Armed Forces (UNAAF)*.
3. JP 1-01, *Joint Doctrine Development System*.
4. JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*.
5. JP 2-0, *Doctrine for Intelligence Support to Joint Operations*.
6. JP 2-01, *Joint Intelligence Support to Military Operations*.
7. JP 3-0, *Doctrine for Joint Operations*.
8. JP 3-01, *Joint Doctrine for Countering Air and Missile Threats*.
9. JP 3-02, *Joint Doctrine for Amphibious Operations*.
10. JP 3-02.2, *Joint Tactics, Techniques, and Procedures for Amphibious Embarkation*.
11. JP 3-04.1, *Joint Tactics, Techniques, and Procedures for Shipboard Helicopter Operations*.
12. JP 3-05, *Doctrine for Joint Special Operations*.
13. JP 3-05.1, *Joint Tactics, Techniques, and Procedures for Joint Special Operations Task Force Operations*.
14. JP 3-07, *Joint Doctrine for Military Operations Other Than War*.
15. JP 3-09, *Doctrine for Joint Fire Support*.
16. JP 3-11, *Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments*.
17. JP 3-15, *Joint Doctrine for Barriers, Obstacles, and Mine Warfare*.
18. JP 3-17, *Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations*.
19. JP 3-18, *Joint Doctrine for Forcible Entry Operations*.

20. JP 3-52, *Doctrine for Joint Airspace Control in the Combat Zone*.
21. JP 3-60, *Joint Doctrine for Targeting*.
22. JP 4-0, *Doctrine for Logistic Support of Joint Operations*.
23. JP 5-0, *Doctrine for Planning Joint Operations*.
24. JP 5-00.2, *Joint Task Force Planning Guidance and Procedures*.
25. JP 6-0, *Doctrine for Command, Control, Communications, and Computer (C4) Systems Support to Joint Operations*.
26. Chairman of the Joint Chiefs of Staff Manual 3122.02, *Manual for Time-Phased Force and Deployment Data (TPFDD) Development and Deployment Execution*.
27. *Concept for Future Joint Operations, Expanding Joint Vision 2010*.
28. Naval Doctrine Pub 1, *Naval Warfare*.
29. FM 3-0, *Operations*.
30. FM 3-52.2, *Multiservice Procedures for the Theater Air-Ground system*.
31. FM 100-7, *Decisive Force: The Army in Theater Operations*.
32. FM 100-17, *Mobilization, Deployment, Redeployment, Demobilization*.
33. Air Force Doctrine Document (AFDD) 2-1, *Air Warfare*.
34. AFDD 2-1.1, *Counterair Operations*.
35. AFDD 2-1.3, *Counterland Operations*.
36. AFDD 2-5.2, *Intelligence, Surveillance, and Reconnaissance Operations*.
37. NWP 3-02.1, *Ship-to-Shore Movement*.
38. NWP 3-02.14, *The Naval Beach Group*.
39. NWP 3-02.21, *MSC Support of Amphibious Operations*.
40. NWP 3-09.11M, *Supporting Arms in Amphibious Operations*.
41. Marine Corps Doctrinal Publication (MCDP) 1, *Warfighting*.

42. MCDP-6, *Command and Control*.
43. MCWP 3-13, *Employment of Assault Amphibious Vehicles*.
44. MCWP 3-23, *Offensive Air Support*.
45. MCWP 3-25.10, *Low Altitude Air Defense Handbook*.
46. COMSURFWARDEVGRU TACMEMO/OH-17, *Amphibious Operations in a Mine Environment*.
47. Joint Universal Lessons Learned System (JULLS).
48. Universal Joint Task List.

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APPENDIX D ADMINISTRATIVE INSTRUCTIONS

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Users in the field are highly encouraged to submit comments on this publication to: Commander, United States Joint Forces Command, Joint Warfighting Center Code JW100, 116 Lake View Parkway, Suffolk, VA 23435-2697. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

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GLOSSARY

PART I — ABBREVIATIONS AND ACRONYMS

AAV	amphibious assault vehicle
ACE	aviation combat element MAGTF
AC/S	assistant chief of staff
AE	assault echelon
AF	amphibious force
AFAOC	Air Force air and space operations center
AFDD	Air Force doctrine document
AFOE	assault follow-on echelon
AO	area of operations
AOA	amphibious objective area
APF	afloat pre-positioning force
ATF	amphibious task force
ATG	amphibious task group
BLT	battalion landing team
BSA	beach support area
C2	command and control
C4	command, control, communications, and computers
CAS	close air support
CATF	commander, amphibious task force
CCO	combat cargo officer
CESE	civil engineer support equipment
CLF	commander, landing force
CO	commanding officer
COA	course of action
COG	center of gravity
COMSEC	communications security
CONOPS	concept of operations
CP	command post
CRTS	casualty receiving and treatment ship
CSS	combat service support
CSSA	combat service support area
CSSE	combat service support element
DASC	direct air support center
DOS	days of supply
DTG	date-time group
DZ	drop zone
EPW	enemy prisoner of war
EW	electronic warfare

FFC	force fires coordinator
FFCC	force fires coordination center
FM	Field Manual
FSA	fire support area
FSC	fire support coordinator
FSCC	fire support coordination center
FSCM	fire support coordinating measure
FSE	fire support element
FSO	fire support officer
G-3	component operations staff officer (Army division or higher staff, Marine Corps brigade or higher staff)
G-4	component logistics staff officer (Army division or higher staff, Marine Corps brigade or higher staff)
G-6	command, control, communications, and computer systems staff officer (Army division or higher staff, Marine Corps brigade or higher staff)
GCE	ground combat element (MAGTF)
HCS	helicopter coordination section
HDC	helicopter direction center
HF	high frequency
HIDACZ	high density airspace control zone
HLZ	helicopter landing zone
HSS	health service support
HST	helicopter support team
IO	information operations
IPB	intelligence preparation of the battlespace
IR	intelligence requirement
ISR	intelligence, surveillance, and reconnaissance
JFC	joint force commander
JP	joint publication
LD	line of departure
LF	landing force
LFORM	landing force operational reserve material
LFSP	landing force support party
LOC	line of communications
LZ	landing zone
MAGTF	Marine air-ground task force
MCDP	Marine Corps doctrinal publication
MCM	mine countermeasures

MCWP	Marine Corps warfighting publication
MEDEVAC	medical evacuation
MHE	materials handling equipment
MPF	maritime pre-positioning force
MSC	Military Sealift Command
N-6	Navy component communications staff officer
NCF	naval construction force
NCR	naval construction regiment
NMCB	naval mobile construction battalion
NSFS	naval surface fire support
NWP	naval warfare publication
OIC	officer in charge
OPCON	operational control
OPGEN	operation general matter
OPLAN	operation plan
OPORD	operation order
OPTASK	operation task
OTH	over the horizon
PCO	primary control officer
PHIBCB	amphibious construction battalion
PIR	priority intelligence requirement
RLT	regimental landing team
S-3	battalion or brigade operations staff officer (Army; Marine Corps battalion or regiment)
S-4	battalion or brigade logistics staff officer (Army; Marine Corps battalion or regiment)
SAC	supporting arms coordinator
SACC	supporting arms coordination center
SFCP	shore fire control party
SIPRNET	SECRET Internet Protocol Router Network
SOF	special operations forces
SPOE	seaport of embarkation
TA	target acquisition
TAC(A)	tactical air coordinator (airborne)
TACC	tactical air control center (USN); tactical air command center (USMC)
TACCO	tactical air control center officer
TACLOG	tactical-logistical group

Glossary

TACON	tactical control
TACP	tactical air control party
TADC	tactical air direction center
TIC	target information center
VTOL	vertical takeoff and landing

PART II — TERMS AND DEFINITIONS

action phase. In an amphibious operation, the period of time between the arrival of the landing forces of the amphibious force in the operational area and the accomplishment of their mission. (JP 1-02)

administrative loading. A loading system which gives primary consideration to achieving maximum utilization of troop and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used. Also called commercial loading. (JP 1-02)

advance force. A temporary organization within the amphibious task force which precedes the main body to the objective area. Its function is to participate in preparing the objective for the main assault by conducting such operations as reconnaissance, seizure of supporting positions, minesweeping, preliminary bombardment, underwater demolitions, and air support. (JP 1-02)

advance force operations. In amphibious operations, those operations conducted in the operational area by a task-organized element of the amphibious force prior to the arrival of the amphibious force in the operational area. (Approved for inclusion in the next edition of JP 1-02.)

afloat pre-positioning force. Shipping maintained in full operational status to afloat pre-position military equipment and supplies in support of combatant commanders' operation plans. The afloat pre-positioning force consists of the three maritime pre-positioning ship squadrons and the afloat pre-positioning ships. Also called APF. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

airspace control area. Airspace that is laterally defined by the boundaries of the operational area. The airspace control area may be subdivided into airspace control sectors. (JP 1-02)

airspace control authority. The commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area. Also called ACA. (JP 1-02)

amphibious assault. The principal type of amphibious operation that involves establishing a force on a hostile or potentially hostile shore. (JP 1-02)

amphibious assault landing. None. (Approved for removal from the next edition of JP 1-02.)

amphibious construction battalion. A permanently commissioned naval unit, subordinate to the commander, naval beach group, designed to provide an administrative unit from which personnel and equipment are formed in tactical elements and made available to appropriate commanders to operate pontoon causeways, transfer barges, warping tugs, and assault bulk

fuel systems, and to meet salvage requirements of the naval beach party. Also called PHIBCB. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

amphibious demonstration. A type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him. (JP 1-02)

amphibious force. An amphibious task force and a landing force together with other forces that are trained, organized, and equipped for amphibious operations. Also called AF. (JP 1-02)

amphibious objective area. A geographical area (delineated for command and control purposes in the order initiating the amphibious operation) within which is located the objective(s) to be secured by the amphibious force. This area must be of sufficient size to ensure accomplishment of the amphibious force's mission and must provide sufficient area for conducting necessary sea, air, and land operations. Also called AOA. (JP 1-02)

amphibious operation. A military operation launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a landing force ashore to accomplish the assigned mission. (JP 1-02)

amphibious planning. The process of planning for an amphibious operation, distinguished by the necessity for concurrent, parallel, and detailed planning by all participating forces. The planning pattern is cyclical in nature, composed of a series of analyses and judgments of operational situations, each stemming from those that have preceded. (JP 1-02)

amphibious raid. A type of amphibious operation involving swift incursion into or temporary occupation of an objective followed by a planned withdrawal. (JP 1-02)

amphibious shipping. Organic Navy ships specifically designed to transport, land, and support landing forces in amphibious assault operations and capable of being loaded or unloaded by naval personnel without external assistance in the amphibious objective area. (JP 1-02)

amphibious task force. A Navy task organization formed to conduct amphibious operations. The amphibious task force, together with the landing force and other forces, constitutes the amphibious force. Also called ATF. (JP 1-02)

amphibious withdrawal. A type of amphibious operation involving the extraction of forces by sea in ships or craft from a hostile or potentially hostile shore. (JP 1-02)

area air defense commander. Within a unified command, subordinate unified command, or joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capability and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components

involved will be provided, as appropriate, to the area air defense commander's headquarters. Also called AADC. (JP 1-02)

area of operations. An operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. Also called AO. (JP 1-02)

assault. 1. The climax of an attack, closing with the enemy in hand-to-hand fighting. 2. To make a short, violent, but well-ordered attack against a local objective, such as a gun emplacement, fort, or machine gun nest. 3. A phase of an airborne operation beginning with delivery by air of the assault echelon of the force into the objective area and extending through attack of assault objectives and consolidation of the initial airhead. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

assault echelon. In amphibious operations, the element of a force comprised of tailored units and aircraft assigned to conduct the initial assault on the operational area. Also called AE. (JP 1-02)

assault follow-on echelon. In amphibious operations, that echelon of the assault troops, vehicles, aircraft, equipment, and supplies that, 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. Also called AFOE. (JP 1-02)

assault phase. In an airborne operation, a phase beginning with delivery by air of the assault echelon of the force into the objective area and extending through attack of assault objectives and consolidation of the initial airhead. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

attack group. A subordinate task organization of the navy forces of an amphibious task force. It is composed of assault shipping and supporting naval units designated to transport, protect, land, and initially support a landing group. (JP 1-02)

beach group. See shore party. (JP 1-02)

beachhead. A designated area on a hostile or potentially hostile shore that, when seized and held, allows for the continuous landing of troops and materiel, and provides maneuver space requisite for subsequent projected operations ashore. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

beach party. The Navy component of the landing force support party. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

beach party commander. The Navy officer in command of the beach party. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

centers of gravity. Those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength, or will to fight. Also called COGs. (JP 1-02)

close support area. Those parts of the ocean operating areas nearest to, but not necessarily in, the objective area. They are assigned to Joint Force Maritime Component Commander or Navy Component Commander to facilitate stationing of subordinate commands. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

combat loading. The arrangement of personnel and the stowage of equipment and supplies in a manner designed to conform to the anticipated tactical operation of the organization embarked. Each individual item is stowed so that it can be unloaded at the required time. (JP 1-02)

combat service support. The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. Also called CSS. (JP 1-02)

commander, amphibious task force. The Navy officer designated in the order initiating the amphibious operation as the commander of the amphibious task force. Also called CATF. (JP 1-02)

commander, landing force. The officer designated in the order initiating the amphibious operation as the commander of the landing force for an amphibious operation. Also called CLF. (JP 1-02)

concept of operations. A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The concept of operations frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. The concept is designed to give an overall picture of the

operation. It is included primarily for additional clarity of purpose. Also called commander's concept or CONOPS. (JP 1-02)

control group. Personnel, ships, and craft designated to control the waterborne ship-to-shore movement. (JP 1-02)

course of action. 1. Any sequence of activities that an individual or unit may follow. 2. A possible plan open to an individual or commander that would accomplish, or is related to the accomplishment of, the mission. 3. The scheme adopted to accomplish a job or mission. 4. A line of conduct in an engagement. 5. A product of the Joint Operation Planning and Execution System concept development phase. Also called COA. (JP 1-02)

D-day. See times. (JP 1-02)

distant retirement area. In amphibious operations, that sea area located to seaward of the landing area. This area is divided into a number of operating areas to which assault ships may retire and operate in the event of adverse weather or to prevent concentration of ships in the landing area. (JP 1-02)

distant support area. In amphibious operations, the area located in the vicinity of the landing area but at considerable distance seaward of it. These areas are assigned to distant support forces, such as striking forces, surface action groups, surface action units, and their logistic groups. (JP 1-02)

drop zone. A specific area upon which airborne troops, equipment, or supplies are airdropped. Also called DZ. (JP 1-02)

embarkation phase. In amphibious operations, the phase that encompasses the orderly assembly of personnel and materiel and their subsequent loading aboard ships and/or aircraft in a sequence designed to meet the requirements of the landing force concept of operations ashore. (JP 1-02)

embarkation plans. The plans prepared by the landing force and appropriate subordinate commanders containing instructions and information concerning the organization for embarkation, assignment to shipping, supplies and equipment to be embarked, location and assignment of embarkation areas, control and communication arrangements, movement schedules and embarkation sequence, and additional pertinent instructions relating to the embarkation of the landing force. (JP 1-02)

fire support area. An appropriate maneuver area assigned to fire support ships by the naval force commander from which they can deliver naval surface fire support to an amphibious operation. Also called FSA. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

fire support coordination center. A single location in which are centralized communications facilities and personnel incident to the coordination of all forms of fire support. Also called FSCC. (JP 1-02)

fire support element. That portion of the force tactical operations center at every echelon above company or troop (to corps) that is responsible for targeting coordination and for integrating fires delivered on surface targets by fire-support means under the control, or in support, of the force. Also called FSE. (JP 1-02)

floating dump. Emergency supplies preloaded in landing craft or amphibious vehicles. Floating dumps are located in the vicinity of the appropriate control officer, who directs their landing as requested by the troop commander concerned. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

follow-up. In amphibious operations, the reinforcements and stores carried on transport ships and aircraft (not originally part of the amphibious force) that are offloaded after the assault and assault follow-on echelons have been landed. (JP 1-02)

follow-up shipping. Ships not originally a part of the amphibious task force but which deliver troops and supplies to the objective area after the action phase has begun. (This term and its definition are provided for information and are proposed for inclusion in the next edition of JP 1-02 by JP 3-02.2.)

force protection. Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporate the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. Also called FP. (JP 1-02)

H-hour (amphibious operations). See times. (JP 1-02)

high-density airspace control zone. Airspace designated in an airspace control plan or airspace control order, in which there is a concentrated employment of numerous and varied weapons and airspace users. A high-density airspace control zone has defined dimensions, which usually coincide with geographical features or navigational aids. Access to a high-density airspace control zone is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapons status within the high-density airspace control zone. Also called HIDACZ. (JP 1-02)

information warfare. Information operations conducted during time of crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries. Also called IW. (JP 1-02)

integrated planning. In amphibious operations, the planning accomplished by commanders and staffs of corresponding echelons from parallel chains of command within the amphibious task force. (JP 1-02)

intelligence preparation of the battlespace. An analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlespace builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process. Also called IPB. (JP 1-02)

landing area. 1. That part of the operational area within which are conducted the landing operations of an amphibious force. It includes the beach, the approaches to the beach, the transport areas, the fire support areas, the airspace occupied by close supporting aircraft, and the land included in the advance inland to the initial objective. 2. (Airborne) The general area used for landing troops and materiel either by airdrop or air landing. This area includes one or more drop zones or landing strips. 3. Any specially prepared or selected surface of land, water, or deck designated or used for takeoff and landing of aircraft. (JP 1-02)

landing beach. That portion of a shoreline usually required for the landing of a battalion landing team. However, it may also be that portion of a shoreline constituting a tactical locality (such as the shore of a bay) over which a force larger or smaller than a battalion landing team may be landed. (JP 1-02)

landing force. A Marine Corps or Army task organization formed to conduct amphibious operations. The landing force, together with the amphibious task force and other forces, constitute the amphibious force. Also called LF. (JP 1-02)

landing force operational reserve material. Package of contingency supplies pre-positioned on amphibious warfare ships. Landing force operational reserve material is maintained aboard selected amphibious ships to enhance reaction time and provide support for the embarked landing force in contingencies. Also called LFORM. (This term and its definition are provided for information and are proposed for inclusion in the next edition of JP 1-02 by JP 3-02.2.)

landing force support party. A temporary landing force organization composed of Navy and landing force elements, that facilitates the ship-to-shore movement and provides initial combat support and combat service support to the landing force. For planning purposes, the basic landing force support party structure consists of the landing force support party commander, the shore party, the beach party, special attachments, and ships' platoons. The landing force support party is brought into existence by a formal activation order issued by the commander, landing force. Also called LFSP. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

landing group. In amphibious operations, a subordinate task organization of the landing force capable of conducting landing operations, under a single tactical command, against a position or group of positions. (JP 1-02)

landing group commander. In amphibious operations, the officer designated by the commander, landing force as the single tactical commander of a subordinate task organization capable of conducting landing operations against a position or group of positions. (JP 1-02)

landing plan. 1. In amphibious operations, a collective term referring to all individually prepared naval and landing force documents that, taken together, present in detail all instructions for execution of the ship-to-shore movement. (JP 1-02)

landing site. 2. In amphibious operations, a continuous segment of coastline over which troops, equipment and supplies can be landed by surface means. (JP 1-02)

landing zone. Any specified zone used for the landing of aircraft. Also called LZ. (JP 1-02)

L-hour (amphibious operations). See times. (JP 1-02)

lighterage. Small craft designed to transport cargo or personnel from ship to shore. Lighterage includes amphibians, landing craft, discharge lighters, causeways, and barges. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

loading plan. All of the individually prepared documents which, taken together, present in detail all instructions for the arrangement of personnel, and the loading of equipment for one or more units or other special grouping of personnel or material moving by highway, water, rail, or air transportation. (JP 1-02)

logistics over-the-shore operations. The loading and unloading of ships without the benefit of deep draft-capable, fixed port facilities in friendly or nondefended territory and, in time of war, during phases of theater development in which there is no opposition by the enemy; or as a means of moving forces closer to tactical assembly areas dependent on threat force capabilities. Also called LOTS operations. (JP 1-02)

maritime pre-positioning force operation. A rapid deployment and assembly of a Marine expeditionary force in a secure area using a combination of intertheater airlift and forward-deployed maritime pre-positioning ships. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

military operations other than war. Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war. Also called MOOTW. (JP 1-02)

Military Sealift Command-controlled ships. Those ships assigned by the Military Sealift Command (MSC) for a specific operation. They may be MSC nucleus fleet ships, contract-operated MSC ships, MSC-controlled time or voyage-chartered commercial ships, or MSC-controlled ships allocated by the Maritime Administration to MSC to carry out Department of Defense objectives. (JP 1-02)

movement phase. In amphibious operations, the period during which various elements of the amphibious force move from points of embarkation to the operational area. This move may be via rehearsal, staging, or rendezvous areas. The movement phase is completed when the various elements of the amphibious force arrive at their assigned positions in the operational area. (JP 1-02)

movement plan. In amphibious operations, the naval plan providing for the movement of the amphibious task force to the objective area. It includes information and instructions concerning departure of ships from embarkation points, the passage at sea, and the approach to and arrival in assigned positions in the objective area. (JP 1-02)

naval surface fire support. Fire provided by Navy surface gun and missile systems in support of a unit or units. Also called NSFS. (JP 1-02)

operational area. An overarching term encompassing more descriptive terms for geographic areas in which military operations are conducted. Operational areas include, but are not limited to, such descriptors as area of responsibility, theater of war, theater of operations, joint operations area, amphibious objective area, joint special operations area, and area of operations. (JP 1-02)

operational control. Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON. (JP 1-02)

organization for combat. In amphibious operations, the task organization of landing force units for combat, involving combinations of command, ground and aviation combat, combat support, and combat service support units for accomplishment of missions ashore. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

organization for embarkation. In amphibious operations, the organization consisting of temporary landing force task organizations established by the commander, landing force and a temporary organization of Navy forces established by the commander, amphibious task force for the purpose of simplifying planning and facilitating the execution of embarkation. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

organization for landing. In amphibious operations, the specific tactical grouping of the landing force for the assault. (JP 1-02)

outer transport area. In amphibious operations, an area inside the antisubmarine screen to which assault transports proceed initially after arrival in the objective area. (JP 1-02)

over-the-horizon amphibious operations. An operational initiative launched from beyond visual and radar range of the shoreline. (JP 1-02)

parallel chains of command. In amphibious operations, a parallel system of command, responding to the interrelationship of Navy, landing force, Air Force, and other major forces assigned, wherein corresponding commanders are established at each subordinate level of all components to facilitate coordinated planning for, and execution of, the amphibious operation. (JP 1-02)

planning directive. In amphibious operations, the plan issued by the designated commander, following receipt of the order initiating the amphibious operation, to ensure that the planning process and interdependent plans developed by the amphibious force will be coordinated, completed in the time allowed, and important aspects not overlooked. (JP 1-02)

planning phase. In amphibious operations, the phase normally denoted by the period extending from the issuance of the order initiating the amphibious operation up to the embarkation phase. The planning phase may occur during movement or at any other time upon receipt of a new mission or change in the operational situation. (JP 1-02)

preassault operation. An operation conducted by the amphibious force upon its arrival in the operational area and prior to H-hour and/or L-hour. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

regulating point. An anchorage, port, or ocean area to which assault and assault follow-on echelons and follow-up shipping proceed on a schedule, and at which they are normally

controlled by the commander, amphibious task force, until needed in the transport area for unloading. (JP 1-02)

rehearsal phase. In amphibious operations, the period during which the prospective operation is practiced for the purpose of: (1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) ensuring that all echelons are familiar with plans; and (3) testing communications-information systems. (JP 1-02)

sea areas. Areas in the amphibious objective area designated for the stationing of amphibious task force ships. Sea areas include the inner transport area, sea echelon area, fire support area, etc. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

seabasing. In amphibious operations, a technique of basing certain landing force support functions aboard ship, which decreases shore-based presence. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

sea echelon. A portion of the assault shipping which withdraws from or remains out of the transport area during an amphibious landing and operates in designated areas to seaward in an on-call or unscheduled status. (JP 1-02)

sea echelon area. In amphibious operations, an area to seaward of a transport area from which assault shipping is phased into the transport area, and to which assault shipping withdraws from the transport area. (JP 1-02)

sea echelon plan. In amphibious operations, the distribution plan for amphibious shipping in the transport area to minimize losses due to enemy attack by weapons of mass destruction and to reduce the area to be swept of mines. (JP 1-02)

ship-to-shore movement. That portion of the action phase of an amphibious operation which includes the deployment of the landing force from the assault shipping to designated landing areas. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

shore party. The landing force component of the landing force support party, formed for the purpose of facilitating the landing and movement off the beaches of troops, equipment, and supplies; for the evacuation from the beaches of casualties and enemy prisoners of war; and for facilitating the beaching, retraction, and salvaging of landing ships and craft. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

staging area. 1. Amphibious or airborne — A general locality between the mounting area and the objective of an amphibious or airborne expedition, through which the expedition or parts thereof pass after mounting, for refueling, regrouping of ships, and/or exercise, inspection, and redistribution

of troops. 2. Other movements — A general locality established for the concentration of troop units and transient personnel between movements over the lines of communications. Also called SA. (JP 1-02)

subsidiary landing. In an amphibious operation, a landing usually made outside the designated landing area, the purpose of which is to support the main landing. (JP 1-02)

support. 1. The action of a force that aids, protects, complements, or sustains another force in accordance with a directive requiring such action. 2. A unit that helps another unit in battle. 3. An element of a command that assists, protects, or supplies other forces in combat. (JP 1-02)

supported commander. 1. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. In the context of joint operation planning, this term refers to the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. 2. In the context of a support command relationship, the commander who receives assistance from another commander's force or capabilities, and who is responsible for ensuring the supporting commander understands the assistance required. (JP 1-02)

supporting arms. Weapons and weapons systems of all types employed to support forces by indirect or direct fire. (JP 1-02)

supporting commander. 1. 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. 2. In the context of a support command relationship, the commander who aids, protects, complements, or sustains another commander's force, and who is responsible for providing the assistance required by the supported commander. (JP 1-02)

supporting operations. In amphibious operations, those operations conducted by forces other than those conducted by the amphibious force. (JP 1-02)

tactical control. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Tactical control provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task. Also called TACON. (JP 1-02)

tactical-logistical 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. Also called TACLOG group. (JP 1-02)

target information center. The agency or activity responsible for collecting, displaying, evaluating, and disseminating information pertaining to potential targets. (JP 1-02)

targeting. The process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities. (JP 1-02)

task force. 1. A temporary grouping of units, under one commander, formed for the purpose of carrying out a specific operation or mission. 2. A semi-permanent organization of units, under one commander, formed for the purpose of carrying out a continuing specific task. 3. A component of a fleet organized by the commander of a task fleet or higher authority for the accomplishment of a specific task or tasks. Also called TF. (JP 1-02)

time-phased force and deployment data. The Joint Operation Planning and Execution System database 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 the following: 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 movements to be conducted concurrently with the deployment of forces; and 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. (JP 1-02)

times. a. C-day. The unnamed day on which a deployment operation commences or is to commence. The deployment may be movement of troops, cargo, weapon systems, or a combination of these elements using any or all types of transport. The highest command or headquarters responsible for coordinating the planning will specify the exact meaning of C-day within the aforementioned definition. The command or headquarters directly responsible for the execution of the operation, if other than the one coordinating the planning, will do so in light of the meaning specified by the highest command or headquarters coordinating the planning. The Chairman of the Joint Chiefs of Staff normally coordinates the proposed date with the commanders of the appropriate unified and specified commands, as well as any recommended changes to C-day. (C-day ends at 2400 hours Universal Time (Zulu time) and is assumed to be 24 hours long for planning.) b. D-day. The unnamed day on which a particular operation commences or is to commence. (D-day ends at 2400 hours Universal Time (Zulu time) and is assumed to be 24 hours long for planning.) c. F-hour. The effective time of announcement by the Secretary of Defense to the Military Departments of a decision to mobilize Reserve units. d. H-hour. The specific hour on D-day at which a particular operation commences. e. H-hour (amphibious operations). For amphibious operations, the time the first assault elements are scheduled to touch down on the beach, or a landing zone, and in some cases the commencement of countermine breaching operations.

f. L-hour. The specific hour on C-day at which a deployment operation commences or is to commence. L-hour will be established per plan, crisis, or theater of operations and will apply to both air and surface movements. Normally, L-hour will be established to allow C-day to be a 24-hour day. g. L-hour (amphibious operations). In amphibious operations, the time at which the first helicopter of the helicopter-borne assault wave touches down in the landing zone. h. M-day. The term used to designate the unnamed day on which full mobilization commences or is due to commence. (M-day ends at 2400 hours Universal Time (Zulu time) and is assumed to be 24 hours long for planning.) i. N-day. The unnamed day an active duty unit is notified for deployment or redeployment. j. R-day. Redeployment day. The day on which redeployment of major combat, combat support, and combat service support forces begins in an operation. k. S-day. The day the President authorizes Selective Reserve callup (not more than 200,000 personnel). l. T-day. The effective day coincident with Presidential declaration of national emergency and authorization of partial mobilization (not more than 1,000,000 personnel exclusive of the 200,000 callup). m. W-day. Declared by the President, the day associated with an adversary decision to prepare for war (unambiguous strategic warning). (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

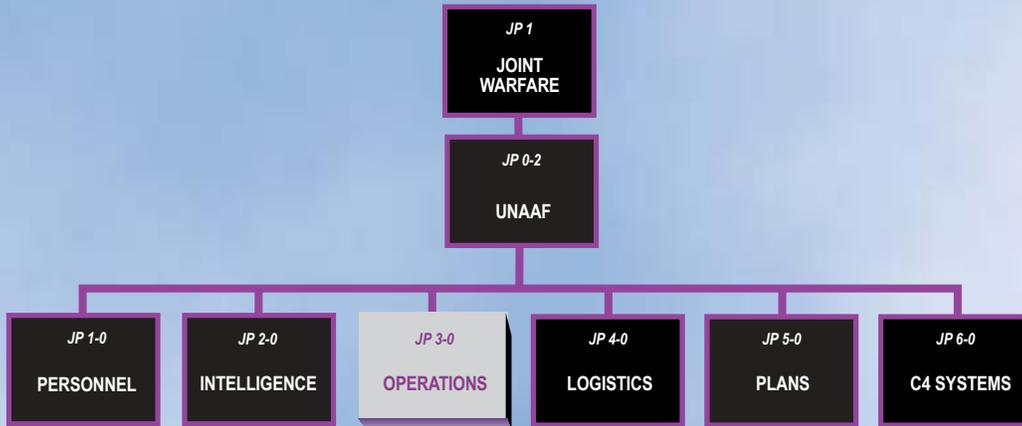
transport area. In amphibious operations, an area assigned to a transport organization for the purpose of debarking troops and equipment. (JP 1-02)

transport group. An element that directly deploys and supports the landing of the landing force (LF), and is functionally designated as a transport group in the amphibious task force organization. A transport group provides for the embarkation, movement to the objective, landing, and logistic support of the LF. Transport groups comprise all sealift and airlift in which the LF is embarked. They are categorized as follows: a. airlifted groups; b. Navy amphibious ship transport groups; and c. strategic sealift shipping groups. (JP 1-02)

vertical landing zone. A specified ground area for landing vertical takeoff and landing aircraft to embark or disembark troops and/ or cargo. A landing zone may contain one or more landing sites. Also called VLZ. (JP 1-02)

vertical takeoff and landing aircraft. Fixed-wing aircraft and helicopters capable of taking off or landing vertically. Also called VTOL aircraft. (JP 1-02)

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 3-02.1** is in the **Operations** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

