

Joint Publication 3-02



Amphibious Operations



18 July 2014



PREFACE

1. Scope

This publication provides overarching joint doctrine to plan, conduct, and assess amphibious operations.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff (CJCS). It sets forth joint doctrine to govern the activities and performance of the Armed Forces of the United States in joint operations and provides the doctrinal basis for US military coordination with other US Government departments and agencies during operations and for US military involvement in multinational operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders (JFCs) and prescribes joint doctrine for operations, education, 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 objective.

3. Application

a. Joint doctrine established in this publication applies to the Joint Staff, commanders of combatant commands, subunified commands, joint task forces, subordinate components of these commands, the Services, and combat support agencies.

b. The guidance in this publication is authoritative; as such, this doctrine 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 unless the CJCS, 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:



DAVID L. GOLDFEIN, Lt Gen, USAF
Director, Joint Staff

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**SUMMARY OF CHANGES
REVISION OF JOINT PUBLICATION 3-02
DATED 10 AUGUST 2009**

- **Changed the order of the types of amphibious operations and tone of publication to form a more balanced approach to amphibious operations.**
- **Modified the decisions responsibilities matrix (renamed from primary decisions matrix); added new decision for select method of entry; added decisions for commander, amphibious force.**
- **Added discussion on when to conduct ship-to-objective maneuver or to take a beachhead or to use a combination of methods.**
- **Added discussion on littoral maneuver.**
- **Added discussion on composite warfare doctrine as it relates to amphibious operations.**
- **Expanded the discussion on Navy forces and organization that support amphibious operations and their relationship to the commander, amphibious task force.**
- **Added discussion for command and control (C2) of amphibious forces ashore.**
- **Changed the name from “amphibious support to other operations” to “amphibious forces support to crisis response and other operations” and expanded the discussion on the operation.**
- **Expanded the discussion on gaining and maintaining access during an amphibious operation.**
- **Enhanced discussion on shaping the operational environment to include the possible need for the joint force commander and joint force maritime component commander to use joint assets to set the conditions for the amphibious operation.**
- **Added discussion on force closure and aggregation.**
- **Added discussion on protection of and C2 of surface, undersea, and mine warfare assets during amphibious operations.**
- **Expanded the discussion on landing time considerations to include criteria for the execution or delay of the amphibious operation.**

- **Expanded discussion on amphibious raids and amphibious withdrawal.**
- **Added an appendix on employment and C2 of the assault follow-on echelon.**
- **Aligned planning for amphibious operations with the joint operational planning process.**
- **Modified the discussion on movement groups.**
- **Modified the discussion of support force and amphibious advance force.**
- **Modified the definitions of air support coordination section, amphibious advance force, amphibious assault vehicle launching area, amphibious construction battalion, amphibious demonstration, amphibious objective area, amphibious operation, amphibious planning, assault follow-on echelon, attack group, beach support area, boat group, casualty receiving and treatment ship, central control officer, colored beach, combat loading, close support area, distant retirement area, floating dump, follow-up, general unloading period, go/no-go, H-hour, helicopter coordination section, initial unloading period, L-hour, landing area, landing beach, landing craft availability table, landing force, landing force support party, line of departure, movement phase, movement plan, nonscheduled units, organization for embarkation, outer transport area, planning phase rehearsal phase, sea areas, sea echelon, sea echelon area, seabasing, serial, selective unloading, ship-to-shore movement, shore party, shore fire control party, tactical air officer, tactical reserve, transport group, and wave.**
- **Added definitions for the following: amphibious advance force, amphibious air traffic control center, amphibious warfare ship, and prelanding operations.**
- **Deleted the following definitions: advance force, afloat pre-positioning force, amphibious assault ship (general purpose), amphibious assault ship (multipurpose), amphibious lift, amphibious shipping, amphibious squadron, amphibious transport dock, amphibious tractor, amphibious transport group, assault craft, assault shipping, assault wave, basic tactical organization, beach group, beach party commander, boat wave, command element, dock landing ship, helicopter direction center, helicopter landing zone, helicopter transport area, helicopter wave, integrated planning, landing craft air cushion control officer, landing group commander, landing ship, numbered wave, on-call wave, preassault operations, service troops, vertical takeoff and landing aircraft, vertical landing zone, vertical and/or short takeoff and landing.**

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EXECUTIVE SUMMARY COMMANDER'S OVERVIEW

- Provides an Overview of Amphibious Operations
 - Presents Amphibious Operations Command and Control
 - Explains the Conduct of Amphibious Operations
 - Describes Types of Amphibious Operations
 - Discusses Support to Amphibious Operations
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Overview of Amphibious Operations

Amphibious operations require the unique ability to operate across air, land, and sea.

An amphibious operation is a military operation launched from the sea by an amphibious force (AF) to conduct landing force (LF) operations within the littorals. The littorals include those land areas (and their adjacent sea and associated air space) that are predominantly susceptible to engagement and influence from the sea.

Applications

Amphibious operations use maneuver principles to transition ready-to-fight combat forces from the sea to the shore in order to achieve a position of advantage over the enemy. During combat operations, maneuver, in conjunction with fires (organic and supporting), is essential to gaining access where the enemy least expects it.

Characteristics of Amphibious Operations

The characteristics of amphibious operations include: the integration of amphibious task force (ATF) and LF, gaining and maintaining access for entry into the operational area, AFs are task organized based on the mission, and unity of effort. Certain amphibious operations (e.g., assaults and raids) seek to **exploit the element of surprise and capitalize on enemy weakness** by projecting and applying combat power precisely at the most advantageous location and time. Other types of amphibious operations may be conducted more deliberately with an intent of making various audiences aware of intended actions (e.g., demonstrations and crisis response and other operations).

Command and Control

The organization of the amphibious force should be sufficiently flexible to meet the planned phases of the contemplated operation and any development that may necessitate a change in plan.

Joint force commanders (JFCs) may decide to establish a functional component command to integrate planning; reduce JFC span of control; and significantly improve combat efficiency, information flow, unity of effort, weapon systems management, component interaction, or control over the scheme of maneuver. The commander, amphibious force (CAF) is the officer in overall command of an amphibious operation. The commander, amphibious task force (CATF) and commander, landing force (CLF) are subordinate commanders to the CAF. CATF is the Navy officer designated in the initiating directive as the commander of the ATF. CLF is the officer designated in the initiating directive as the commander of the LF for an amphibious operation.

Command and Control (C2) of Amphibious Forces (AFs)

The JFC establishes unity of command over AFs by either retaining operational control (OPCON) over the Service or functional component commands executing the amphibious operation or by delegating OPCON or tactical control of the AF. The JFC may also delegate this responsibility to a subordinate commander. If the JFC organizes along functional lines, functional component commanders will normally exercise OPCON over their parent Services' forces and tactical control over other Services' forces attached or made available for tasking. Depending upon the purpose and scope of the mission, subordinate commanders that may be designated as the CAF include the joint force maritime component commander (JFMCC) or the commander of a naval task force or group under the JFMCC.

AF Organization

AFs are task organized based on the mission. Each task group may be organized separately, or several may be combined based upon operational requirements. The **navy forces** of the AF, which may consist of US and multinational forces, are task organized according to the numerous separate but interrelated tasks required to meet the operational requirements. The largest ATF to conduct an amphibious operation would be led by a fleet commander. A mid-size ATF would be led by an expeditionary strike group. A small ATF could be led by an amphibious ready group commander, and a single ship could also serve as an ATF conducting theater security cooperation or other operations. The **LF** consists of ground combat units and any of its combat support and

combat service support units. The LF may be composed of United States Marine Corps and United States Army forces, other US forces, and multinational forces. When Marine Corps forces are employed as the LF, they will be task organized into a Marine air-ground task force, the Marine Corps' principal organization for missions across the range of military operations. The Marine air-ground task force is functionally grouped into four core elements: a command element, a ground combat element, an aviation combat element (ACE), and a logistics combat element.

C2 of Surface and Undersea Operations During Amphibious Operations

The sea combat commander, when assigned, plans, directs, monitors, and assesses surface warfare and antisubmarine warfare tasks to protect the force from surface and subsurface threats during AF movement to the amphibious objective area (AOA) and as the LF transitions to and from the landing area. If a sea combat commander is not assigned, the duties may be assigned to separate surface warfare and antisubmarine warfare commanders. The mine warfare commander has similar responsibility for threats from naval mines. The officer in tactical command determines who will be assigned to these positions; they may not be assigned within the AF.

C2 of Surface Ship-to-Shore Movement

The relationships and authorities for the CATF, CLF, and commanders of other forces assigned to the AF during ship-to-shore movement are established in the initiating directive. **The CATF is responsible for debarkation and ship-to-shore movement until termination of the amphibious operation**, at which time the responsibilities for off-load of follow-on forces and follow-up shipping and logistics over-the-shore operations may be passed to another organization designated by higher authority. The Navy control group keeps the CATF, CLF, and other designated commanders informed of the progress of the surface movement from ship-to-shore, including the actual landing of the waves and the visible progress of operations ashore.

C2 of Air Operations During Amphibious Operations

The JFC may accomplish this in the air through designation of a joint force air component commander, area air defense commander, and airspace control authority for the joint operations area (JOA). If established, the joint force air component commander uses joint air to support amphibious operations within the AOA, as required through coordination with the JFMCC.

Air operations conducted within the AOA are controlled by the ATF and/or LF air staff as designated. When the JFC establishes an AOA within the JOA, the supported commander is responsible for all actions within the AOA. Any joint air operations that support operations in the AOA or would have an impact on operations in the AOA should be controlled by, or coordinated with the CAF. Under the ATF, **the Navy tactical air control center (Navy TACC) typically onboard the amphibious flagship controls all air operations** within the allocated airspace regardless of mission or origin to include supporting arms and assault breaching. **The Marine Corps tactical air command center (Marine TACC), when established ashore, provides the facilities for the ACE commander and staff to conduct air operations.** If the ACE is afloat, the Marine TACC may be incrementally phased ashore. Initially, a Marine tactical air direction center is established ashore subordinate to the Navy TACC and is responsible for air operations in the landward sector of the operational area. The direct air support center is an organization within the Marine air command and control (C2) system that serves as the central coordination point for all direct support air requests.

C2 of Operations Ashore

When afloat, the CLF and staff plan, direct, and monitor the LF actions from the landing force operations center on the ATF's flagship. **When C2 is phased ashore, the LF combat operations center assumes control from the landing force operations center.** The supporting arms coordination center incrementally phases responsibility for fire support coordination to the force fires coordination center and fire support coordination center as control is shifted ashore. Supervision of the direct air support center transitions from the Navy TACC to the Marine TACC as air control is passed ashore. Depending on the type and scope of amphibious operation being conducted, C2 may remain afloat and not transfer ashore. Forward-deployed Marine expeditionary units conducting small-scale operations routinely exercise C2 afloat. For larger-scale amphibious operations, this may be more difficult, and the CLF should consider the shipboard limitations in communications systems and available spaces to conduct C2 in order to determine how much of the C2 can remain afloat and which elements of the C2 may need to transition ashore.

Conduct of Amphibious Operations

General Concepts for the Conduct of Amphibious Operations

Regardless of the type of amphibious operation, the CATF and CLF plan and execute operations based on maneuver warfare philosophy and the following general concepts:

- All actions focus on achieving the commander's objectives.
- The sea is used as maneuver space. Operations should create freedom of action for the AF, while creating a tempo greater than the enemy can withstand.
- A key to successful AF operations is the ability to maneuver across the littorals to overcome area denial challenges, gain entry, and project power ashore as necessary.
- The preferred tactic for AFs operating against coastal defenses is to avoid or bypass the strong points and to exploit gaps in these defenses.
- The complexity of amphibious operations and the vulnerability of the AF as it builds combat power ashore require the full integration of organic assets as well as those of other joint and multinational forces.

Planning

The tenets of successful amphibious planning are commanders' involvement and guidance and unity of effort. The nature of amphibious operations gives rise to planning procedures that are both intricate and unique. This intricacy stems from the complex detail required to fully coordinate the landing of troops, equipment, and supplies by air and surface means; maximize maneuver, speed, and available fire support; and minimize the vulnerability of the AF. Amphibious planning is conducted as part of the joint operation planning process using the Adaptive Planning and Execution system to facilitate and integrate planning activities that occur either as deliberate planning or crisis action planning.

Embarkation

The embarkation phase is the period during which the forces, with their equipment and supplies, are embarked in assigned ships. The primary goal of this phase is the orderly assembly of personnel and materiel and their embarkation in a sequence designed to meet the requirements of the LF concept of operations ashore. Plans for assembly of amphibious warfare ships 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.

Rehearsals

Rehearsal is the period during which the prospective operation is practiced to:

- Test the adequacy of the C2; all plans, such as ship-to-shore movement, communication, naval surface fire support; and the timing and sequence of detailed operations.
- Test the integration and combat readiness of participating forces.
- Familiarize all echelons with the plan.
- Test communications and information systems.

Movement

In amphibious operations, the movement plan is the naval plan providing for the movement of the ATF 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.

Action

In an amphibious operation, the action phase is the period of time between the arrival of the AF in the operational area and the accomplishment of their mission. 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. LF operations ashore begin with the landing of the first scheduled wave by surface means, vertical insertion, or airborne landing. Elements of the LF quickly transition from an organization for landing to an organization for combat in order to accomplish the LF missions ashore. Once fully established ashore, the LF conducts tactical operations similar to normal land operations but remains dependent on at-sea forces for support.

Types of Amphibious Operations

The five types of amphibious operations are: amphibious raid, amphibious demonstration,

An **amphibious raid** is an operation involving a swift incursion into or the temporary occupation of an objective to accomplish an assigned mission followed by a planned withdrawal. An amphibious raid may be conducted to

amphibious assault, amphibious withdrawal, and AF support to crisis response and other operations.

temporarily seize an area in order to secure information, confuse an adversary, capture personnel or equipment, or to destroy a capability. An **amphibious demonstration** is a show of force intended to influence or deter an enemy's decision. An amphibious demonstration's intent is to deceive the enemy, causing the enemy to select an unfavorable course of action. An **amphibious assault** involves the establishment of an LF on a hostile or potentially hostile shore. An amphibious assault requires the swift buildup of combat power ashore, from an initial zero capability to full coordinated striking power as the attack progresses toward AF objectives. The assault begins on order after sufficient elements of the assault echelon arrive in the operational area and specified operational criteria for landing are met. For an assault, the action phase ends when conditions specified in the initiating directive are met, as recommended by the CATF and CLF and approved by the JFC or designated commander. **Amphibious withdrawals** are operations conducted to extract forces in ships or craft from a hostile or potentially hostile shore. They may be conducted under enemy pressure or under operational urgency in permissive, uncertain, or hostile environments to obtain forces needed elsewhere or to remove forces whose mission is completed. **AFs support to crisis response and other operations** focuses on providing a rapid response to crises, deterring war, resolving conflict, promoting peace, and supporting civil authorities in response to domestic crises. AFs routinely conduct support to other operations such as security cooperation, foreign humanitarian assistance, noncombatant evacuation operations, peace support operations, recovery operations, or protecting US facilities and personnel abroad.

Support to Amphibious Operations

Support for amphibious operations are the enablers that support execution.

Support for amphibious operations can be broken down into intelligence, fire support, communications, logistics, protection, and seabasing.

Intelligence

The following intelligence capabilities are required to support amphibious operations:

Because amphibious operations are

- Interoperable information systems that provide timely dissemination of information for amphibious planning, rehearsals, and execution.

characterized as the most complex and difficult of military operations, intelligence activities must consider all aspects of the operational environment that drives timely and informed decision making.

- Information management systems to include C2 applications and collaborative information sharing to coordinate collection and dissemination efforts. These systems support information management plans, which should be integrated into and fully support mission requirements.
- Standoff collection assets capable of satisfying ATF and LF requirements from over the horizon.
- Intelligence dissemination systems linking widely dispersed forces afloat and ashore.
- Flexible intelligence assets capable of rapidly transitioning ashore with minimal degradation of support.

Fire support

Fire support planning and coordination in amphibious operations are continuous processes seeking timely and appropriate application of force to achieve the objectives within the operational area.

Properly planned and executed lethal and nonlethal supporting fires are critical to the success of an amphibious operation. AFs in the AOA or area of operations normally require fire support for operations such as beach reconnaissance, hydrographic survey, removal of beach and underwater obstacles, and mine countermeasures. The LF normally requires fire support against shore targets before, during, and after the initial landings. Once sufficient area is seized ashore, artillery can be landed to provide additional fire support. Until ground fire support means (e.g., mortars, rockets, and cannon artillery) of the LF are landed and ready to provide support, fire support is provided by close air support, naval surface fire support, and, in limited cases, direct and indirect fires from adjacent friendly forces.

Communications

Amphibious operations require a flexible communications system capable of supporting rapid decision making and execution to maintain a high tempo of operations. These systems must be reliable, sufficient for the mission, flexible, sustainable, survivable, and as expeditionary as the AF. Communications system architecture should provide strategic and tactical connectivity to a variety of tailored AFs, multinational partners, United States Government departments and agencies, as well as other commanders and participants in the amphibious operation.

Logistics

The CATF and the CLF have co-responsibility for determining overall logistic requirements for the AF. Those requirements that cannot be supported from resources available within the ATF are directed to the

applicable Service component through the chain of command as established in the initiating directive. From the combat service support standpoint, the ship-to-shore movement is divided into two time periods. The selective unloading period is responsive to the requirements of LF units. Movement of combat service support elements to the landing beaches or landing zones closely follows the combat elements. Normally, general unloading is undertaken when sufficient troops and supplies have been landed to sustain the momentum of the attack and when areas are able to handle the incoming volume of supplies.

Protection

Protection of the AF is essential for all amphibious operations, but especially during ship-to-shore movement. The JFMCC will synchronize and coordinate operations between the AF and other forces (special operations forces and other naval and joint forces) to counter and neutralize enemy aircraft, submarines, surface combatants, small boats, land-based antiship cruise missiles, coastal defenses, mines, and other potential threats to the AF en route to and within the AOA to gain local maritime and air superiority.

Seabasing

Seabasing is the deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea without reliance on land bases within the JOA. Operations from a sea base allow for rapid movement to the area of crisis and the buildup of combat power while in international waters without political restrictions. The decision to conduct seabasing operations depends on the tactical situation and the scope and intensity of the assigned mission.

CONCLUSION

This publication provides overarching joint doctrine to plan, conduct, and assess amphibious operations.

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CHAPTER I

OVERVIEW OF AMPHIBIOUS OPERATIONS

“A landing on a foreign coast in the face of hostile troops has always been one of the most difficult operations of war.”

Captain Sir Basil H. Liddell Hart (1895-1970)

1. General

a. An amphibious operation is a military operation launched from the sea by an amphibious force (AF) to conduct landing force (LF) operations within the littorals. The littorals include those land areas (and their adjacent sea and associated air space) that are predominantly susceptible to engagement and influence from the sea. Amphibious operations require the unique ability to operate across air, land, and sea. Amphibious operations require integrated command and control (C2) to achieve unity of effort, increased speed of action, and coordinated application of sea control and power projection capabilities. The term amphibious operation has often stirred visions of wave upon wave of amphibious assault vehicles (AAVs) and landing craft approaching a well-defended beach in straight lines, such as those well-known amphibious assaults that were necessary in World War II. While those amphibious assaults are a matter of historical record, they are not the only, or even the most likely form of amphibious operations. AFs have and continue to conduct operations as a part of larger military operations in permissive, uncertain, and hostile environments. Current AFs are more operationally maneuverable with the ability to launch from over the horizon (OTH), and, in some cases, proceed directly to the objective by air and surface means.

b. An AF is an amphibious task force (ATF) and LF together with other forces that are trained, organized, and equipped for amphibious operations. An ATF is a Navy task organization formed to conduct amphibious operations. This may include various combinations of Navy, Military Sealift Command (MSC), and Maritime Administration assets. An LF is a Marine Corps or Army task organization formed to conduct amphibious operations. An AF is a self-deploying, self-sustaining, combined arms team capable of conducting simultaneous, disparate, geographically dispersed or concentrated operations.

c. Effective C2 of amphibious operations is complicated by the nature of the operational environment, the integration of disparate forces with different but supporting tasks, and the coordination required to optimize supporting forces. AFs and amphibious operations, no matter their makeup or application, are complex, and inherently joint.

d. The ability to operate within the maritime domain, conduct operations from OTH, dynamically size and organize the force, and limit reliance on infrastructure ashore allows amphibious operations to be conducted during any phase of a larger joint operation or campaign.

e. Sustainment of AF, especially the LF during the earliest stages of execution, is complex and presents unique planning considerations for commanders and their staffs.

f. Amphibious operations are generally categorized into five types: raid, demonstration, assault, withdrawal, and AF support to crisis response and other operations.

2. Applications

a. Amphibious operations use maneuver principles to transition ready-to-fight combat forces from the sea to the shore in order to achieve a position of advantage over the enemy. During combat operations, maneuver, in conjunction with fires (organic and supporting), is essential to gaining access where the enemy least expects it. It provides a position of advantage in order to destroy or seriously disrupt the enemy's cohesion through a variety of rapid, focused, and unexpected actions that create a turbulent and rapidly deteriorating situation with which the enemy cannot cope. In noncombat situations, the AF projects appropriate forces and resources ashore to provide the most timely and effective support. Certain amphibious operations (e.g., assaults and raids) seek to **exploit the element of surprise and capitalize on enemy weakness** by projecting and applying combat power precisely at the most advantageous location and time. Other types of amphibious operations may be conducted more deliberately with an intent of making various audiences aware of intended actions (e.g., demonstrations and crisis response and other operations).

b. The ability to conduct amphibious operations from the sea, without the requirement for diplomatic clearance or host-nation support, provides the joint force commander (JFC) with flexible and sustainable options. Additionally, the ability to conduct OTH operations enhances security, aids force protection efforts, provides additional maneuver space, and improves the ability to achieve surprise. Conducted alone, or in conjunction with other military operations, amphibious operations can be designed to support a number of JFC objectives as characterized by the five types of amphibious operations.

3. Types of Amphibious Operations

a. **Amphibious Raid.** An amphibious raid is a type of amphibious operation involving swift incursion into or temporary occupation of an objective followed by a planned withdrawal. Amphibious raids may be conducted to temporarily seize an area in order to secure information, confuse an adversary, capture personnel or equipment, or to destroy a capability. They may also be executed in conjunction with a larger JFC mission to defeat specific enemy centers of gravity (COGs).

b. **Amphibious Demonstration.** An amphibious demonstration is a show of force where a decision is not sought and no contact with the adversary is intended. A demonstration's intent is to deceive the adversary, causing the adversary to select an unfavorable course of action (COA). For the JFC, an amphibious demonstration may serve as a supporting operation in a campaign in order to deny the use of areas or facilities to the enemy or to fix enemy forces and attention in or on a specific area. It can also be used to demonstrate the capability and resolve of the joint or combined force, thus reinforcing diplomatic efforts to ease tensions and maintain regional security.

Refer to Joint Publication (JP) 3-13.4, Military Deception, for more information.

c. **Amphibious Assault.** An amphibious assault involves the establishment of an LF on a hostile or potentially hostile shore. The organic capabilities of AFs, including air and fire support, logistics, and mobility, allow them to gain access to an area by forcible entry. The salient requirement of an amphibious assault is the necessity for swift introduction of sufficient combat power ashore to accomplish AF objectives. An amphibious assault may be designed to comprise the initial phase of a campaign or major operation where the objective is to seize and establish a military lodgment, e.g., ports, airfields, and advance bases; to support the introduction of follow-on forces; to occur simultaneously with other operations (e.g., Army airborne operations); or to deny freedom of movement by adversaries.

For more information on other types of forcible entry operations, refer to JP 3-18, Joint Forcible Entry Operations.

d. **Amphibious Withdrawal.** An amphibious withdrawal is the extraction of forces by sea in ships or craft from a hostile or potentially hostile shore. The withdrawing force may or may not be part of the AF and may not even be familiar with amphibious operations. Conducting an amphibious withdrawal may cause the temporary debarkation or cross-decking of embarked LF elements.

e. **AF Support to Crisis Response and Other Operations.** A type of amphibious operation that contributes to conflict prevention and crisis mitigation. AFs routinely conduct amphibious operations in response to crises and support to other operations such as: security cooperation, foreign humanitarian assistance (FHA) (to include disaster relief), noncombatant evacuation operations (NEOs), peace operations, or recovery operations.

4. Characteristics of Amphibious Operations

a. **Integration of the ATF and LF.** The key characteristic of an amphibious operation is the close coordination and cooperation between the ATF and LF. Shared planning responsibilities and the reliance of both forces on each other during execution are hallmarks of amphibious operations. Integration of forces required to execute operations while simultaneously being tasked to conduct separate and distinct tasks while supporting other components' operations are common in amphibious operations and require trust between the commanders and their staffs. History shows that commonly shared experiences, developed during predeployment training and workups, can enhance the chances of success.

b. **Gaining and Maintaining Access.** An amphibious operation requires the AF to gain and maintain access for entry into the operational area. This access is critical to the success of an amphibious operation. Access may be granted by a nation as a result of previous military engagements or diplomatic actions. In other cases, access may need to be gained by shaping the operational area through supporting operations. The JFC may need to employ maritime, air, land, special operations forces (SOF), cyberspace forces, and space assets in order to shape the operational environment. The JFC and joint force maritime component commander (JFMCC) should shape the amphibious objective area (AOA) or area of operations (AO) with maritime and other joint forces prior to the commencement of the

amphibious operation to establish the level of maritime and air superiority necessary for the amphibious operation to occur. The JFC or JFMCC may employ a support force, which is a temporary organization comprised of initial and crisis response forces and SOF in the AO, which assist in preparing the AO for amphibious operations by conducting operations such as surveillance and reconnaissance, beach studies, military deception (MILDEC), seizure of supporting positions, mine countermeasures (MCM), preliminary bombardment, underwater demolitions, and air interdiction. Integration of other Service components and SOF will enable complementary supporting operations. An AF, in conjunction with other joint assets, must have the capacity to continuously support forces ashore during all phases of an amphibious operation.

c. **AFs are task organized based on the mission.** AFs routinely deploy with similar task organizations and can be quickly reinforced or augmented with other assets. No standard organization is applicable to all situations that may be encountered in an amphibious operation. The C2 capabilities of the ATF and LF facilitate the accomplishment of multiple and diverse missions and the integration of joint and multinational forces.

d. **Unity of Effort.** The inherent complexity of amphibious operations normally requires the JFC's personal attention and timely decisions for numerous planning, integration, and support activities to achieve unity of effort. Regardless of the command relationship between commander, amphibious task force (CATF) and commander, landing force (CLF), all commanders require shared intelligence, a shared understanding of the operational environment, a common operational picture, understanding of the JFC's intent, and open communications between the staffs. The effects of modern weapons and sensors can extend hundreds of miles both seaward and landward, further highlighting the need for closely integrated application of capabilities throughout the operational area. The JFC or JFMCC should integrate all of the naval assets such as strike, undersea warfare, and surface warfare (SUW) while at the same time coordinating the joint capabilities required for an amphibious operation. In addition, commanders of theater special operations commands and Navy and Marine Corps component commanders should also establish complementary relationships that support amphibious operations.

5. Capabilities

a. AFs can be tailored and scaled to support a specific mission or situation and repositioned to respond to a changing situation or modification of the concept of operations (CONOPS). AFs can alleviate unnecessary political and logistical burdens on host nations by operating from the sea base and reducing the footprint ashore. This adaptability and versatility allows additional options for the JFC that do not limit the activities of the other components.

b. AFs can operate in a wide variety of terrain, weather conditions, and environments, to include chemical, biological, radiological, and nuclear (CBRN) environments.

c. Routinely forward-deployed AFs provide the JFC with a force proficient in time-sensitive planning and capable of rapid response in crisis situations. They can perform a

wide range of mission-essential tasks to facilitate the accomplishment of the joint force mission.

6. Initiating an Amphibious Operation

Amphibious operations commence with the initiating directive, issued by the commander with establishing authority, to the AF commanders to conduct military operations. It is issued by the combatant commander (CCDR), subunified commander, Service component commander, or JFC delegated overall responsibility for the operation. **The initiating directive may come in the form of a warning order, an alert order, a planning order, or an operation order (OPORD).** The complete information required to conduct an amphibious operation may come from a combination of these orders (e.g., a warning order followed by an alert order or OPORD). The initiating directive normally provides the following information:

- a. The establishing authority's mission, intent, and CONOPS.
- b. Designation of required commanders, establishment of their command relationships, and provision of special instructions (SPINS) as required to support the AF organization and mission. SPINS may include an establishing directive when a support relationship is established among designated commanders of the AF. The establishing directive is discussed in detail in Chapter II, "Command and Control."
- c. Designation of the AF's assigned, attached, and supporting forces.
- d. Assignment of operational areas as appropriate.
- e. Assignment of tasks.
- f. Assignment of responsibility and provision of necessary coordinating instructions for the conduct of supporting operations.
- g. Target dates for execution of the operation.
- h. Critical characteristics of the physical, military, or civil condition (e.g., location of toxic industrial material [TIM], storage sites for weapons of mass destruction [WMD], critical items of the civil infrastructure).
- i. Additional coordinating instructions, as required.

7. Force Closure and Aggregation

The JFC should consider both the time it will take to close the force and how the AF will be aggregated with other forward-deployed or surge forces to support operations. While forward-deployed AFs routinely conduct relatively small-scale amphibious operations to enhance regional security and contribute to conflict prevention or crisis mitigation, larger-scale amphibious operations may require additional forces. This may involve aggregating other forward-deployed AFs in the same theater, in adjacent theaters, and surging AFs from

the continental United States. While a forward-deployed AF accommodates the most likely missions to be encountered during deployment, surged AFs typically conduct planning and embarkation for a specific mission and may include compensating for any capability shortfalls in the forward-deployed AFs.

8. Phases of an Amphibious Operation

Amphibious operations generally follow distinct phases, though the sequence may vary. The phases are planning, embarkation, rehearsal, movement, and action (PERMA) (see Figure I-1).

a. While planning occurs throughout the entire operation, it normally dominates staff actions prior to embarkation. Successive phases bear the title of the dominant activity taking place within the phase and are covered in more detail later in the text.

b. When AFs are forward deployed, or when subsequent tasks are assigned upon completion of the original mission, the sequence of phases may differ. This sequence accounts for the new mission, reconstitution of forces, and initial cross-decking of staff components or forces to support planning, preparation, and future actions. This sequence flows from embarkation, through planning, rehearsal, movement to the operational area, and ends with action. An amphibious operation could be planned or executed within any of the six phases of a major operation or campaign as discussed in JP 3-0, *Joint Operations*, and JP 5-0, *Joint Operation Planning*.

9. Terminating an Amphibious Operation

The criteria for how and when to terminate amphibious operations are discussed during operational design. The termination of the amphibious operation is predicated on the accomplishment of the amphibious mission per the specific conditions contained in the initiating directive. **Upon completion of the amphibious operation, the establishing authority will provide direction for retasking or reassignment of the AF.**

Phases of an Amphibious Operation

Planning

The planning phase normally denotes the period extending from the issuance of an initiating directive that triggers planning for a specific operation and ends with the embarkation of landing forces. However, planning is continuous throughout the operation. Although planning never ends, it is useful to distinguish between the planning phase and subsequent phases because of the change that may occur in the relationship between amphibious force commanders at the time the planning phase terminates and the next phase begins.

Embarkation

The embarkation phase is the period during which the landing force with its equipment and supplies, embark in assigned shipping. The landing plan and the scheme of maneuver ashore will influence which staffs and units are embarked on which ships, the number and type of landing craft that will be embarked, and how the units will be phased ashore. The organization for embarkation needs to provide for flexibility to support changes to the original plan. The extent to which changes in the landing plan can be accomplished may depend on the ability to reconfigure embarked forces.

Rehearsal

The rehearsal phase is the period during which the prospective operation is rehearsed to:

- Test the adequacy of plans, timing of detailed operations, and combat readiness of participating forces.
- Provide time for all echelons to become familiar with plans.
- Test communications and information systems.

Rehearsal may consist of an actual landing or may be conducted as a command post exercise.

Movement

The movement phase is the period during which various elements of the amphibious force move from points of embarkation or from a forward-deployed position 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.

Action

The action phase is the period from the arrival of the amphibious force in the operational area, through the accomplishment of the mission and the termination of the amphibious operation.

Figure I-1. Phases of an Amphibious Operation

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CHAPTER II COMMAND AND CONTROL

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

Admiral Henry K. Hewitt, US Navy (1887-1972)

1. General

a. The organization of the AF should be sufficiently flexible to meet the planned phases of the contemplated operation and any development that may necessitate a change in plan. **Sound organization provides for unity of effort through unity of command, centralized planning and direction, and decentralized execution.**

Refer to JP 1, Doctrine for the Armed Forces of the United States, for more details on joint force organization.

b. All joint forces include Service component commands that provide administrative and logistic support. The JFC may conduct operations through the Service component commanders or, at lower echelons, Service force commanders. This relationship is appropriate when stability, continuity, economy, ease of long-range planning, and scope of operations dictate organizational integrity of Service forces for conducting operations. The JFC has full authority to assign missions, redirect efforts, and direct coordination among subordinate commanders. The JFC should allow Service tactical and operational assets and groupings to function generally as they were designed with the intent being to meet the requirements of the JFC while maintaining the tactical and operational integrity of the Service organizational structure.

c. JFCs may decide to establish a functional component command to integrate planning; reduce JFC span of control; and significantly improve combat efficiency, information flow, unity of effort, weapon systems management, component interaction, or control over the scheme of maneuver.

d. The commander, amphibious force (CAF) is the officer in overall command of an amphibious operation. The CATF and CLF are subordinate commanders to the CAF. The terms CATF and CLF are used throughout this publication solely to clarify the doctrinal duties and responsibilities of these commanders. CATF is the Navy officer designated in the initiating directive as the commander of the ATF. CLF is the officer designated in the initiating directive as the commander of the LF for an amphibious operation. During operations, amphibious commanders may be referred to by either their operational command titles (e.g., amphibious squadron and Marine expeditionary unit [MEU] commanders) or assigned task force designators (e.g., Commander, Task Force 62.1).

e. Command relationships during multinational operations are based on international standardization agreements or on bilateral agreements between nations and will be defined in the initiating directive.

Refer to JP 3-16, Multinational Operations, and Allied Tactical Publication-8, Doctrine for Amphibious Operations, for more information on North Atlantic Treaty Organization amphibious operations.

SECTION A. COMMAND AND CONTROL OF AMPHIBIOUS FORCES

2. Overview

The JFC achieves unity of effort in pursuit of amphibious objectives by establishing unity of command over AFs. The JFC establishes unity of command over AFs by either retaining operational control (OPCON) over the Service or functional component commands executing the amphibious operation or by delegating OPCON or tactical control (TACON) of the AF. The JFC may remain the common superior to the CATF and CLF, thereby directly performing the role as the CAF. The JFC may also delegate this responsibility to a subordinate commander. Depending upon the purpose and scope of the mission, subordinate commanders that may be designated as the CAF include the JFMCC or the commander of a naval task force or group under the JFMCC. If, and when delegated, forces, not command relationships, are transferred between commanders. When forces are transferred, the command relationship that the gaining commander will exercise (and the losing commander will relinquish) over those forces must be specified.

a. The JFC will organize the AF in such a way as to best accomplish the mission based on the CONOPS.

b. The command relationships established between the CATF and CLF and other designated commanders are important decisions. The relationship chosen by the common superior commander, or establishing authority, between the CATF, CLF, and other designated commanders should be based on the mission, nature and duration of the operation, force capabilities, operational environment, and recommendations from subordinate commanders. While the full range of command relationship options as outlined in JP 1, *Doctrine for the Armed Forces of the United States*, is available; in amphibious operations, Service component commanders normally retain OPCON of their respective forces. If the JFC organizes along functional lines, functional component commanders will normally exercise OPCON over their parent Services' forces and TACON over other Services' forces attached or made available for tasking.

(1) 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 either an OPCON or TACON command relationship.

(2) Support is a command authority. This relationship is appropriate when one organization should aid, protect, complement, or sustain another force. The designation of

the supported and supporting role of the AF commanders is important as it conveys priorities to the commanders and staffs who are planning or executing the operation.

(3) Regardless of the command relationships, when the initiating directive is received, unique relationships are observed during the planning phase. **The AF commanders are coequal in planning matters.** Planning decisions should be reached on a basis of common understanding of the mission, objectives, and tactics, techniques, and procedures (TTP) and on a free exchange of information. Any differences between commanders that cannot be resolved are referred to the establishing authority. If a change in the mission occurs after commencement of operations or if an amphibious operation is initiated from an afloat posture, coequal planning relationships (either as described above or as specified in the initiating directive) will apply to any subsequent planning.

(4) **An establishing directive is essential whenever the support command relationship will be used within the AF.** Normally, the CATF and CLF will develop a draft establishing directive during the planning phase to provide the specifics of the support 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. It may also include, but is not necessarily limited to, the following:

- (a) Forces and other resources allocated to the supporting effort.
- (b) Time, place, level, and duration of the supporting effort.
- (c) Relative priority of the supporting effort.
- (d) Authority, if any, of the supporting commander(s) to modify the supporting effort in the event of an exceptional opportunity or an emergency.
- (e) Degree of authority granted to the supported commander over the supporting effort.
- (f) Force protection responsibilities afloat and ashore.

(5) The CATF and CLF will identify the events and conditions for any shifts of the support relationship throughout the operation, ideally during the planning phase, and forward them to the establishing authority for approval. See Figure II-1 for examples of when the relationship might shift between commanders.

(6) A supported commander may be designated for the entire operation, a particular phase or stage of the operation, a particular function, or a combination of phases, stages, events, and functions. Unless limited by the establishing directive or the initiating directive, **the supported commander has the authority to exercise general direction of the supporting effort.** General direction includes the designation and prioritization of targets or objectives, timing and duration of the supporting action, and other instructions necessary for coordination and efficiency. The establishing authority is responsible for

Mission	Supported Commander
Assault	CATF, then CLF
Raid with coastal threat	CATF, then CLF, then CATF
Inland raid with no coastal threat	CLF
Demonstration	CATF
Withdrawal	CLF, then CATF
Foreign humanitarian assistance	CATF or CLF

* Actual supported-supporting commanders will be designated by the establishing authority based on the specific mission requirements.

Legend
 CATF commander, amphibious task force CLF commander, landing force

Figure II-1. Examples of Shifts in the Support Relationship

ensuring that the supported and supporting commanders understand the degree of authority that the supported commander is granted.

(a) If not specified in the initiating directive, the CATF and CLF will determine who has primary responsibility for the essential tasks during mission analysis in the planning process.

(b) In an operation of relatively short duration, the establishing authority will normally choose one commander as supported for the entire operation.

(c) When there is no littoral threat to the ATF the establishing authority may designate the CLF as the supported commander for the entire operation.

(d) During the movement phase, the CATF may be designated the supported commander based on having responsibility for the major action or activity during that phase. The CATF may be designated the supported commander based on capabilities for airspace control and the CLF's air defense for the entire operation if, for example, the LF does not intend to establish a Marine Corps tactical air command center (Marine TACC) ashore.

(e) Considerations for shifts in the support relationship include, but are not limited to the following:

1. Responsibility for the preponderance of the mission.
2. Force capabilities.

3. Level and type of threat.
4. Type, phase, and duration of operation.
5. C2 capabilities.
6. Operational area assigned.
7. Recommendations from subordinate commanders.

(f) The supporting commander determines the forces, tactics, methods, procedures, and communication methods to be employed in providing this support. The supporting commander will advise and coordinate with the supported commander on matters concerning the employment and limitations of the support, assist in planning for the integration of the support into the supported commander's effort as a whole, and communicate support requirements throughout the supporting commander's organization. The supporting commander has the responsibility to ascertain the needs of the supported force and take full action to fulfill them within existing capabilities, consistent with priorities and requirements of other assigned tasks. The establishing authority is responsible for resolving issues when notified by either the supported or supporting commander that the supporting commander cannot fulfill the needs of the supported commander.

(g) The AF and other forces may be embarked for what could be extended periods of time on the same platforms but responsible to different or parallel chains of command. Such parallel chains of command create special requirements for coordination. **Except in cases of emergencies, no significant decision will be made by a commander in a chain of command that affects the plans, disposition, or intentions of a commander in another chain of command without prior consultation.** In emergency situations, the commander making an emergency decision will notify corresponding commanders of the action at the earliest practicable time.

3. Amphibious Force Organization

a. **Task Organization.** AFs are task organized based on the mission. No standard organization is applicable to all situations that may be encountered in an amphibious operation. Each task group may be organized separately, or several may be combined based upon operational requirements. Task organizing allows an operational commander to subdivide subordinate forces and assign authority and responsibility to plan and execute based on mission, platform capability, geography, or other issues and challenges, thus enabling a more reasonable span of control. Flexibility is essential. At the JFC or JFMCC's discretion and as promulgated in the initiating directive and establishing directive, task forces may be combined and other forces added or deleted as dictated by operational requirements. Task designators are used by US and North Atlantic Treaty Organization naval forces that assign forces in a task force, task group, task unit, and task element hierarchical structure.

b. **Navy Forces.** The navy forces of the AF, which may consist of US and multinational forces, are task organized according to the numerous separate but interrelated

tasks required to meet the operational requirements. The largest ATF to conduct an amphibious operation would be led by a fleet commander. This could be an amphibious assault using amphibious warfare ships from both coasts, or an amphibious assault against a powerful enemy. A mid-size ATF would be led by an expeditionary strike group (ESG). A small ATF could be led by an amphibious ready group (ARG) commander, and a single ship could also serve as an ATF conducting theater security cooperation or other operations.

(1) Navy forces that are part of the ATF or support the ATF may include:

(a) **ARGs.** Forward-deployed ATFs are normally organized into ARGs with three amphibious warfare ships (an amphibious assault ship (general purpose) [LHA]/amphibious assault ship (multipurpose) [LHD], amphibious transport dock [LPD], and dock landing ship [LSD]). These ships, each with its flight deck and well deck (with the exception of LHA-6 and LHA-7), can, or will be able to embark, deploy, and land elements of an LF in an assault by tiltrotor aircraft, helicopters, landing craft, amphibious vehicles, and by combinations of these methods. An ESG may be formed to provide additional amphibious warfare expertise and advocacy in the event of more complex operations. ESGs are prepared to provide a deployable, scalable, flag officer led command element (CE) with task organized naval forces to fulfill CCDR and fleet commander operational requirements up to Marine expeditionary brigade (MEB)-sized amphibious operations. ESGs may be supported by other forces (e.g., antisubmarine warfare [ASW] platforms or SUW platforms) based on mission and CCDR requirements.

1. The LHD and LHA each has a full length flight deck and hangar to support helicopter, tiltrotor, and vertical/short take-off and landing aircraft. Well decks provide for ship-to-shore movement of landing craft and AAVs. The CATF and CLF and their staffs are normally embarked on these ships.

2. The LPD lands troops, equipment, and supplies using landing craft, AAVs operating from its well deck, and helicopters operating from its flight deck.

3. The LSD lands troops, equipment, and supplies using landing craft and AAVs using its well deck. It has the ability to render limited docking and repair services to small boats and craft.

(b) **Movement Group(s).** Composition of these groups includes amphibious warfare ships from the assault echelon (AE), assault follow-on echelon (AFOE) shipping and follow-up shipping and, if employed, pre-positioning forces.

(c) **Control Group(s).** Personnel, ships, and craft designated to control the waterborne ship-to-shore movement.

(d) **Navy Tactical Air Control Group.** A ship-borne organization established to operate a Navy tactical air control center (Navy TACC) and a tactical air direction center (TADC) for control of air operations within the AOA or operational area.

(e) **Surface Fire Support Group(s).** Surface combatants assigned to the ATF to provide surface fire support of the assault landings and LF operations ashore.

(f) **Carrier Strike Group (CSG).** CSGs listed in the initiating directive or establishing directive assigned to or in support of the ATF to provide air, surface, and subsurface protection and strike warfare. They establish the maritime and air superiority needed to conduct the amphibious operation.

(g) **Screening Group.** A screening group provides protection to the ATF en route to and during operations in the AOA. Within the screening group, elements are task organized to provide specific functions; e.g., air and missile defense, SUW, or ASW, in accordance with the Navy's composite warfare commander (CWC) doctrine described in Appendix C, "Composite Warfare Doctrine."

(h) **Mine Warfare (MIW) Group.** MIW capable units conduct offensive and defensive naval mine operations in support of the ATF.

(i) **Naval Beach Group.** A group that can be organized to provide traffic control, shore-to-ship communications, beach and surf salvage, causeway and fuel support to the beach party, landing craft, logistics, and provide ship-to-shore movement support to the CLF. Its specific organization depends on the number of beaches through which the LF will land and the size of the units using the beaches.

(j) **Maritime Pre-Positioning Squadron.** Forward stationed with equipment and supplies ready to support or augment an AF of any size, the maritime pre-positioning squadron is comprised of a mix of dry cargo/ammunition ships; large, medium-speed roll-on/roll-off (RO/RO) ships; and other ships and can provide tailored vehicles, supplies, and equipment augmentation.

See Navy Tactics, Techniques, and Procedures (NTTP), 3-02.14, The Naval Beach Group, and JP 3-02.1, Amphibious Embarkation and Debarcation, for additional information on the naval beach group.

(2) A Navy adaptive force package may be created for specific objectives or missions. Packages may range from modified naval platforms with tailored crew and equipment to blending atypical units and personnel such as naval mobile construction and maritime civil affairs personnel.

(3) The CATF will exercise OPCON over the ARGs, movement, transport, control, and tactical air control groups in all cases. Other groups may fall under CATF OPCON as specified in the initiating directive or establishing directive. At a minimum, however, CATF will exercise TACON of forces from each of these other groups while they are conducting operations inside the AOA.

For further details on C2 of Navy forces, see JP 3-32, Command and Control for Joint Maritime Operations, and Navy Warfare Publication (NWP) 3-56, Composite Warfare Doctrine.

c. **LFs.** The LF consists of ground combat units and any of its combat support and combat service support (CSS) units. The LF may be composed of United States Marine Corps (USMC) and United States Army (USA) forces, other US forces, and multinational

forces. If LF capabilities are required by the CATF, the CLF will make decisions as to the appropriate LF capabilities to be made available TACON to the CATF. If USA forces comprise part of the LF, they will be task organized with appropriate combat and sustainment capabilities to support the LF. Army forces may provide intratheater ship-to-shore transport to include landing craft, cargo handling, logistics, traffic control, and engineering capabilities. When Marine Corps forces are employed as the LF, they will be task organized into a Marine air-ground task force (MAGTF), the Marine Corps' principal organization for missions across the range of military operations. The MAGTF is functionally grouped into four core elements: a CE, a ground combat element (GCE), an aviation combat element (ACE), and a logistics combat element (LCE). The basic structure of the MAGTF never varies, but the number, size, and type of Marine Corps units comprising each of the four elements are mission dependent.

(1) Organizations that can be assigned as LF include the Marine expeditionary force (MEF), MEB, MEU, and in some cases, a special purpose Marine air-ground task force (SPMAGTF).

(a) **MEF.** A MEF is the largest MAGTF and is the Marine Corps principal warfighting organization. The size and composition of a deployed MEF can vary greatly depending on the requirements of the mission. A MEF is normally built around a GCE infantry division, a Marine aircraft wing, and a Marine logistics group; the largest respective Marine Corps ground, air, or logistic units. **A MEF is capable of missions across the full range of military operations, including amphibious assault and sustained operations ashore in any environment.** It can operate from a sea base, land base, or both, and typically deploys with more than 45,000 personnel with up to 60 days of sustainment. The ACE consists of a Marine aircraft wing with fixed-wing, rotary-wing, and tiltrotor groups. The LCE is a combat logistics force that is organized to provide the full range of CSS to the MEF. The MEF headquarters can serve as a joint task force (JTF) headquarters. When operating as part of a JTF, the MEF commander can operate as a functional component commander. MEFs are capable of self-sustained forcible entry to overcome challenges to access. It can seize and hold beachheads, airfields, and ports to enable the introduction of follow-on forces. The MEF can then remain in theater to conduct the full range of military operations in support of the joint operation or campaign.

(b) **MEB.** The MEB is a tailorable and scalable mid-sized MAGTF that is typically led by a one-star general officer. It is normally built around a GCE of a reinforced infantry regiment. The ACE consists of a Marine aircraft group with fixed-wing, rotary-wing, and tiltrotor squadrons. The LCE is a combat logistics regiment that is organized to provide the full range of CSS to the MEB. A MEB is capable of deployment and employment via amphibious warfare ships and intratheater airlift and sealift. It can operate by itself with a self-sustainment capability of 30 days. It may include up to 19,000 personnel with up to 30 days of supply (DOS). The MEB can conduct forcible entry operations. The MEB is designed to aggregate with other MEBs, MEUs, and other pre-positioning force assets to fight as the MEF.

(c) **MEU.** A MEU is organized as a MAGTF with approximately 2,400 Marines and Sailors and consists of a CE, a reinforced infantry battalion, a reinforced

composite aviation squadron, and a task organized LCE (combat logistics battalion). The forward-deployed MEU is uniquely organized, trained, and equipped to provide the JFC with an expeditionary force. It fulfills the Marine Corps' forward, sea-based deployment requirements and deploys with up to 15 days of supplies. Two to three MEUs are normally deployed forward supporting geographic combatant commander requirements. They can rapidly deploy and be employed via amphibious warfare ships, by airlift, through marshalling with pre-positioned force assets, or any combination thereof. In terms of employment, **a MEU will not normally conduct opposed amphibious operations and can only conduct amphibious operations of limited duration and scope.** Its expeditionary warfare capabilities make it extremely useful for crisis response, immediate reaction operations such as NEO, FHA, limited objective attacks, raids, and for acting as an advance force for a larger follow-on MAGTF.

(d) **SPMAGTF.** The SPMAGTF is organized, trained, and equipped with narrowly focused capabilities to accomplish specific missions. It is designed to accomplish a wide variety of expeditionary operations but its missions are usually limited in scope and duration. It is configured to accomplish specific mission(s) for which a MEF/MEB/MEU would be inappropriate or too large. A SPMAGTF may be any size but is usually MEU-sized or smaller. It may embark, for example, on an amphibious warfare ship, such as an LPD or LSD, to support operations involving security cooperation and other missions.

(2) **LF Organizational Shifts.** As an amphibious operation unfolds, the LF will undergo a series of organizational shifts in order to meet the requirements associated with embarkation for seaborne movement, vertical and surface maneuver throughout the littoral, and the conduct of operations ashore to accomplish the LF mission. Reverse planning is normally employed in preparation for these shifts, with the organization for the LF mission ashore (or in the case of routinely deployed AFs, likely missions) informing organization for landing and organization for embarkation. This planning is both iterative and detailed. Amphibious operations that involve AFs already forward deployed may require substantial adjustments to how forces were previously embarked and organized for landing.

(a) **Organization for LF Mission(s) Ashore.** The CLF will organize combat, combat support, and CSS forces in accordance with the CONOPS to accomplish the LF mission. (For some missions, this may more accurately be described as the "organization for combat.") This organization is informed by the overall AF CONOPS, especially with regard to what C2, aviation, and logistics functions might be retained afloat, as well as a determination on whether or not to establish a floating reserve.

(b) **Organization for Landing.** The CLF will normally organize ground units into company landing teams, battalion landing teams (BLTs), or regimental landing teams to maneuver through the littoral by various vertical and surface means. Subordinate ground unit commanders will further organize their units as needed for embarkation in assigned aircraft, landing craft, or amphibious vehicles. Notionally, it would appear desirable that the organization for landing mirror the organization for the LF mission. In all but the smallest-scale operations, however, such alignment is unlikely for a number of reasons. Troops projected inland via helicopters or tiltrotor aircraft may require surface-landed vehicles for subsequent ground maneuver. Key resources, such as crew-served weapons and

communications equipment, are normally spread-loaded in order to ensure loss of a single platform does not equate to a complete loss of particular capability. Individuals or small units may be attached to a team only for landing and, once ashore, detach to perform their specialized tasks. Sound planning, well-established unit standard operating procedures, and effective rehearsals are essential to ensuring that landing teams can rapidly transition into the organization for the LF mission.

(c) **Organization for Embarkation.** Based on information provided by the CATF about the available ships, the CLF determines the organization for embarkation. The CLF is normally embarked on the flagship with the CATF in order to promote effective coordination during subsequent phases of the operation. Similarly, for larger operations subordinate echelons within the LF are embarked in the corresponding groups and squadrons of the ATF, with subordinate commanders within the LF embarked on the same ships as their opposite numbers from the ATF. Just as key resources are spread-loaded in the organization for landing, the same principle applies to the organization for embarkation. Even if the organization for the LF mission calls for them to be employed in larger formations, units with a high equipment density, such as artillery, armor, and light armored reconnaissance, will normally be sub-divided into smaller elements and assigned to regimental landing teams and BLTs for embarkation and landing. This is done so that the loss of a single ship does not result in catastrophic loss of LF capability.

For more information see Chapter III, “Conduct of Amphibious Operations,” Section B, “Embarkation,” and JP 3-02.1, Amphibious Embarkation and Debarkation.

(3) In amphibious operations, the LF may potentially transfer from the JFMCC to the joint force land component commander as the operation progresses; however, the CATF and CLF supporting relationship may remain with the amphibious warfare ships acting as a sea base. An example of this is Task Force-58 during Operation ENDURING FREEDOM in which the ATF remained under the JFMCC and the LF transitioned to the joint force land component commander after land operations in Afghanistan commenced.

(4) LF control organizations, which may be temporary and situational dependent, formed to support amphibious operations include: the tactical-logistical (TACLOG) group and the landing force support party (LFSP) for ship-to-shore movement; the beach operations group (BOG), the port operations group (POG), and the arrival airfield control group (AACG); and the Marine TACC.

d. **Other Forces.** Amphibious operations are often supported by other forces that are not part of the AF. These forces will serve for specific tasks, such as help in amphibious advance force operations, protecting the AF or shaping the operational environment. Supporting naval and air resources, as well as SOF, are assigned by the JFC or appropriate component commander to support the mission of the AF (and LF, when landed) during the amphibious operation. The support request may be originated by CATF or CLF. The initiating directive should provide the relationships of these forces with the AF. CATF or CLF will exercise coordination and control, as prescribed in the initiating directive, over forces not a part of the AF when such forces are operating within the AOA after the arrival of the amphibious advance force or the main body. When such forces are merely passing

through the AOA, control will be exercised only to the extent of preventing or minimizing mutual interference or for force protection purposes. Maritime SOF, which includes naval special warfare forces and Marine Corps SOF, may be employed in support of an amphibious operation as part of the amphibious advance force or conducting other supporting operations.

Refer to NWP 3-05, Naval Special Warfare, for more information.

4. Operational Areas

a. **Amphibious operations normally require a three-dimensional geographic area, within which is located the AF's objective(s).** JFCs employ various maneuver and movement control and fire support coordination measures (FSCMs) to define operational areas for land and maritime forces and to facilitate effective joint operations. These measures include boundaries, phase lines, objectives, coordinating altitudes to deconflict air operations, air defense areas and zones, AOAs, submarine operating patrol areas, and minefields. Within the designated joint operational area, the designated commander synchronizes maneuver, fires, and interdiction. The operational areas that may be assigned to an AF in an initiating directive are an AOA or an AO normally in conjunction with a high-density airspace control zone (HIDACZ). An AOA is normally established for amphibious operations, and air control procedures are identical to HIDACZ procedures.

(1) An **AOA** is a geographical area (delineated for C2 purposes in the initiating directive) within which is located the objective(s) to be secured by the AF. This area should be of sufficient size for conducting necessary maritime, air, and land operations in direct support of the amphibious operation, but not be so large as to be beyond the CATF's control capability or ability to defend. The AOA is three dimensional to include the waters below and the airspace above.

(2) An **AO** is an operational area defined by the JFC for land and maritime forces and should be large enough for component commanders to accomplish their missions and protect their forces. Within the AO the JFC specifies maritime (surface and subsurface) and air defensive areas in addition to the HIDACZ, used for air control measures.

For additional guidance on boundaries and synchronization of joint efforts within land and maritime AOs, refer to JP 3-0, Joint Operations.

b. **Disestablishment of Operational Areas.** The operational area is not necessarily dissolved upon termination of the amphibious operation. It may be required for the sustainment of follow-on forces or to support other missions as assigned. As with its establishment, **disestablishing the operational area is the decision of the establishing authority** (with CATF or CLF recommendations) and should be delineated in the initiating directive or in follow-on orders.

SECTION B. COMMAND AND CONTROL OF SURFACE AND UNDERSEA OPERATIONS DURING AMPHIBIOUS OPERATIONS

5. Command and Control of Surface Forces

The sea combat commander, when assigned, plans, directs, monitors, and assesses SUW and ASW tasks to protect the force from surface and subsurface threats during AF movement to the AOA and as the LF transitions to and from the landing area. If a sea combat commander is not assigned, the duties may be assigned to separate SUW and ASW commanders. The mine warfare commander (MIWC) has similar responsibility for threats from naval mines. **The officer in tactical command (OTC) determines who will be assigned to these positions; they may not be assigned within the AF.** The surface warfare commander (SUWC) is responsible to the CWC for protection of the force against surface threats. The SUWC collects, evaluates, and disseminates SUW surveillance information and plans and manages the employment of SUW forces. SUW forces include air, surface, and subsurface naval and assigned joint operational elements that are capable of executing SUW tasks. US Navy ships are multi-mission and may be assigned primary missions other than SUW. Other joint force assets may be tasked to participate in the SUW mission and may function in both supported and supporting roles.

For more information on SUW operations, see NWP 3-20, Navy Surface Warfare Manual.

6. Command and Control of Antisubmarine Warfare Forces

a. ASW missions will be centrally planned, typically under the direction of the JFMCC or a Navy component commander, and executed in a decentralized manner in support of the JFC's CONOPS. ASW is extremely complex, requiring the coordination and integration of multiple platforms and systems in order to mitigate the risks posed by enemy submarines.

b. The theater ASW commander is normally designated as a task force or task group commander subordinate to a Navy component commander or JFMCC. The theater ASW commander supports other maritime commanders (i.e., CATF) in the conduct of tactical ASW to defend the AF and typically provides ASW support to afloat forces as they transit through the joint operations area (JOA) and while they operate in the AOA.

For more information on ASW, see NTTP 3-21.1, Antisubmarine Warfare Commander's Manual.

7. Command and Control of Naval Mine Warfare Forces

a. Naval MIW in support of amphibious operations includes both the employment of naval mines by friendly forces and the use of air, surface, and underwater platforms to conduct MCM and remove or reduce the enemy mine threat to friendly AF. The MIWC is responsible for all aspects of MIW. The mine countermeasures commander (MCMC) is responsible for all MCM forces, and is usually subordinate to the MIWC. Normally, both of these commanders will be assigned to support amphibious operations. However, in smaller-scale operations, or where the use of friendly mines is not anticipated, the MCMC can also act as the MIWC.

b. Often, MIW operations will be required preparatory to amphibious operations, during the execution of those amphibious operations, and continuing after the amphibious operations are complete. During preparations for amphibious operations, the MIWC will usually be a subordinate commander to the JFMCC or JFC. Since any anticipated employment of friendly mines may use air assets, close liaison will be required between the MIWC, JFMCC, and the joint force air component commander (JFACC).

c. The CATF has overall responsibility for MIW within the maritime areas of the AOA. The MIWC and MCMC will act as supporting commanders to the CATF and normally exercise OPCON of Navy MCM forces. During the planning process, a line of demarcation will be determined for the transition of responsibility between the CATF and CLF for MCM in the AOA. Seaward of this line of demarcation, CATF—supported by MIWC and MCMC—will be responsible for MCM on the beach, in the surf zone (SZ), and at sea.

Additional discussion of the fundamentals of MIW C2 and its role in support of amphibious operations can be found in JP 3-15, Barriers, Obstacles, and Mine Warfare for Joint Operations, NWP 3-15 (Vols. I and II), Naval Mine Warfare, and NTTP 3-15.24, Mine Countermeasures in Support of Amphibious Operations.

8. Command and Control of Surface Ship-to-Shore Movement

a. The relationships and authorities for the CATF, CLF, and commanders of other forces assigned to the AF during ship-to-shore movement are established in the initiating directive. Responsibilities for ship-to-shore movement include:

(1) The CATF, in close coordination with the CLF, **prepares the overall ship-to-shore movement and landing plans.** During the execution of the amphibious operation, the CATF is overall responsible for ship-to-shore movement but will coordinate with the CLF to adjust for changing situations that affect the amphibious operation as revealed by intelligence sources or forces ashore. **The CATF is responsible for debarkation and ship-to-shore movement until termination of the amphibious operation,** at which time the responsibilities for off-load of follow-on forces and follow-up shipping and logistics over-the-shore (LOTS) operations may be passed to another organization designated by higher authority. In the case of an amphibious assault, the operation will normally be terminated only after the entire AFOE is ashore.

(2) The Navy control group keeps the CATF, CLF, and other designated commanders informed of the progress of the surface movement from ship-to-shore, including the actual landing of the waves and the visible progress of operations ashore. A control group consists of personnel, ships, and craft designated to control the waterborne ship-to-shore movement. The CATF and transport group commanders designate control ships and control officers, as appropriate. The organization of the Navy control group is based on the arrangement and number of landing beaches used by the AF and is specifically designed to support the LF's organization for landing. The Navy control group uses control measures, such as approach lanes and boat lanes, to facilitate control of movement. The primary agencies of the Navy control group include the following:

(a) **Central Control Officer (CCO).** This Navy officer is normally located aboard the CATF's flagship to coordinate all surface ship-to-shore movement. If there is only one colored beach, there is no need for a CCO and thus, the primary control officer (PCO) will work directly for the CATF. The CCO:

1. Plans and supervises the surface ship-to-shore movement.
2. Organizes the Navy control group to best support the landing plan.
3. Maintains liaison with the tactical air officer (TAO).
4. Maintains liaison with the TACLOG group.

(b) **PCO.** The PCO is embarked in a primary control ship assigned to control the movement of the landing craft and amphibious vehicles. A PCO is assigned for each colored landing beach to:

1. Provide detailed plans, called primary control ship intentions message, to conduct the ship-to-shore movement for amphibious operations across a colored beach no later than 48 hours prior to the activity.

2. Coordinate landing craft operations within a designated area following the initial action.

3. Maintain the current location and status of ships, landing craft, and boats assigned to conduct a landing on a colored beach.

4. Monitor surf and weather conditions and recommend the termination of boat operations should conditions warrant.

5. Maintain the status of debarkation or embarkation.

6. Land scheduled waves at the colored beach at the specified time.

7. Arrange for fueling boats and provide rest and food for boat crews.

8. Provide liaison to the surface-borne TACLOG group detachment.

9. Conduct landing craft or amphibious vehicle salvage operations.

(c) **Secondary Control Officer.** When designated, the secondary control officer embarks in the secondary control ship and is the principal assistant to the PCO. The secondary control officer's primary duty is to assume PCO duties in an emergency or if the PCO has to go off-station. The secondary control officer will maintain duplicate control records and plots required of the PCO and monitor PCO radio circuits.

Detailed description and use of these control measures can be found in NTTP 3-02.1M/Marine Corps Warfighting Publication (MCWP) 3-31.5, Ship-to-Shore Movement.

(3) The CLF **determines LF requirements for the ship-to-shore movement and presents them to the CATF**. The CLF provides information on the availability of organic assets (airborne and amphibious vehicles) to the CATF and prepares the documents contained in the LF landing plan.

(4) The 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) present their requirements to the CATF.

b. Ship-to-shore movement should be synchronized with those agencies providing secure routes to the beach or landing zone (LZ) in order to provide appropriate cover without placing the units conducting the operation at undue risk during this vulnerable period.

c. Organizations and agencies may be established to support the ship-to-shore movement plan. These organizations and agencies (i.e., terminal service battalion, amphibious construction battalion, or cargo handling and port group units) may be required to support the off-load of merchant ships.

“The doctrine and performance of marines and airmen matured in Pacific campaigns as the hesitancy and missteps of Guadalcanal, New Guinea, and Tarawa were heeded. Coordinated amphibious assault and air warfare became irrepressible.”

“Struggle for the Marianas,” Captain Bernard D. Cole, US Navy, 1995

SECTION C. COMMAND AND CONTROL OF AIR OPERATIONS DURING AMPHIBIOUS OPERATIONS

9. Joint Air Operations

a. Joint air operations in support of the AF are performed with air capabilities and forces made available by components in support of the JFC’s or AF’s objectives. To create synergy and avoid duplication of effort, the JFC synchronizes and integrates the actions of assigned, attached, and supporting capabilities and forces in time, space, and purpose. The JFC may accomplish this in the air through designation of a JFACC, area air defense commander (AADC), and airspace control authority (ACA) for the JOA. If established, the JFACC uses joint air to support amphibious operations within the AOA, as required through coordination with the JFMCC. Air operations conducted within the AOA are controlled by the ATF and/or LF air staff as designated.

b. When the JFC establishes an AOA within the JOA, the supported commander is responsible for all actions within the AOA. Any joint air operations that support operations in the AOA or would have an impact on operations in the AOA should be controlled by, or coordinated with the CAF.

c. The JFACC staff will create an air operations directive to promulgate guidance for each air tasking order (ATO) and the successive planning steps for the JOA. This order is

then issued to the joint air operations center for execution. Beyond the AF's organic air requirements, AF air planners support the JFACC's ATO and the air operations directive with excess sorties passed to the establishing authority for tasking. Likewise, the air operations directive is used to deconflict and coordinate organic sorties and by the theater air control system for overall control of AF assets.

For more information, see JP 3-30, Command and Control for Joint Air Operations.

10. Defensive Counterair

a. **The AADC bears overall responsibility for air defense activities of the joint force, to include defense from missile threats.** The AADC may designate subordinate regional air defense commanders (RADC) for specific geographic regions to accomplish the joint force mission. Additionally, sector air defense commanders (SADCs) may be designated within and subordinate to RADCs. **The RADC is normally established within the ATF organization and is responsible for the airspace allocated for amphibious operations, including but not limited to the AOA (if established).** The CATF coordinates joint air requirements in support of active defense plans and procedures with the AADC. The CATF usually assigns an air and missile defense commander (AMDC), normally located on the most capable air defense platform, to carry out air and missile defense operations. The AMDC coordinates with the Navy TACC to maintain a current air picture.

b. **When an AOA is established, the airspace assigned to the AF usually includes a margin of airspace surrounding the AOA called the amphibious defense zone (ADZ).** An ADZ is the area encompassing the AOA and the adjoining airspace required by accompanying naval forces for the purpose of air defense. The actual size and shape of an ADZ is dependent on the capabilities of air defense platforms assigned to the CATF; the size of the AOA; and agreement between the AF's RADC, the AADC, and adjacent AMDCs. Within the ADZ, the appropriate AF air defense agency (RADC, SADC) maintains positive identification of all aircraft and conducts air defense with the authority to engage in accordance with established rules of engagement (ROE) and AADC established procedures.

c. Planning Considerations

(1) A coherent air defense plan requires commanders to conduct coordinated planning with all supporting and adjacent commanders and the JFC to establish a robust C2 arrangement. Effective air defense operations require a control system that functions despite a high volume of friendly aircraft operations within the operational area and the difficult overland target detection environment present in amphibious operations.

(2) The area air defense plan is written with detailed engagement procedures that are consistent with the airspace control plan (ACP) and operations in the AOA. The geographic arrangement of weapons and the location of specific types of air defense operations, as well as specific procedures for identification of aircraft, are important factors to include in planning.

(3) The designated commander will request the airspace coordinating measures (ACMs) to be included in the establishing directive (for a support relationship) or CONOPS.

Refer to JP 3-01, Countering Air and Missile Threats, and JP 3-52, Joint Airspace Control, for additional information.

11. Airspace Control in Amphibious Operations

a. Assignment of airspace allows the JFC to exercise C2 of forces and deconflict high volumes of different types of aircraft and missiles. During amphibious operations, **the ACA will normally further delegate the control authority for a specific airspace control area to the CATF.** The complexity and size of an amphibious operation directly impacts the amount of airspace allocated. Airspace requirements, to include a defined ceiling for C2 of amphibious operations, should be established in coordination with the JFACC to clearly delineate responsibilities in and around the AOA/AO and still support missions performed by the JFACC.

See JP 3-52, Joint Airspace Control, for further information on control authority designation.

b. An AOA and AO include airspace in which there may be a concentrated number of airspace users and varied weapons such as artillery, missiles, and naval surface fire support (NSFS). This airspace has defined dimensions that usually coincide with specific geographical features or navigational aids. Access to AOA airspace or HIDACZ (used when an AO is assigned) is controlled by the Navy TACC. These airspace control measures are typically initiated by the CATF as the primary user. The ACA approves these measures on behalf of the JFC.

c. The level of air control allocated to the AF depends on the ACM required for the operation. Considerations for establishing this airspace include:

- (1) Airspace control capabilities of the AF.
- (2) Entry and exit routes and procedures into and out of the AOA or HIDACZ and to the target area.
- (3) Air traffic advisory as required. Procedures and systems should be considered for air traffic control service during instrument meteorological conditions.
- (4) Procedures for expeditious movement of aircraft into and out of the AOA or a HIDACZ.
- (5) Coordination of fire support, as well as air defense weapons control orders or status within and in the vicinity of the AOA or HIDACZ.
- (6) Range and type of NSFS available.
- (7) Location of enemy forces inside, and in close proximity to the AOA or HIDACZ.

(8) At a minimum, the AOA or HIDACZ should cover the ATF's landing area and extend inland to the LF's objectives, which may be beyond the fire support coordination line. Additionally, the AOA or HIDACZ should be large enough to accommodate the flow of aircraft into and out of the amphibious operations airspace.

(9) Range and maximum ordinate of joint force ground based artillery, rocket, and mortar systems.

d. Under the ATF, **the Navy TACC typically onboard the amphibious flagship controls all air operations** within the allocated airspace regardless of mission or origin to include supporting arms and assault breaching. Regardless of where actual airspace control is exercised, close and continuous coordination between airspace control and air defense agencies is essential. Emphasis will be placed on simple, flexible air traffic control plans. AFs operating in a nonradar environment will rely exclusively on procedural control. **Amphibious air control plans employ a combination of positive and procedural control methods.**

(1) **Positive Airspace Control.** Positive airspace control uses radar; electronic warfare (EW) support; identification, friend or foe; selective identification feature; visual means; digital data links; and elements of the air defense network communications system to positively identify, track, and direct air assets.

(2) **Procedural Airspace Control.** Procedural controls supplement those methods utilized in positive airspace control. Procedural control will be used when electronic or visual identification, tracking, or communication means are unavailable or inadequate to provide positive airspace control. Procedural airspace control relies on a combination of previously agreed on and promulgated orders and procedures.

e. To facilitate unity of effort and minimal interference along adjacent boundaries, the AF air control agency coordinates the items listed in Figure II-2 with the ACA. The JFMCC may be designated the control authority for a specific airspace control area or sector for the accomplishment of a specific mission and can thus establish ACMs in the AOA without further coordination. Assignment of airspace allows the JFC to exercise C2 of forces,

Coordination Responsibilities

- Procedures to coordinate flight information.
- Clearance of aircraft to enter and depart the airspace sector.
- Procedures to assist and coordinate with airspace control elements that respond to adjacent or supporting component commanders.
- Procedures to deconflict operations during transitional operations and during operations in overlapping airspace areas.

Figure II-2. Coordination Responsibilities

deconflict high volumes of aircraft and missiles, and defend forces. During amphibious operations, the JFMCC, CAF, or CATF is normally designated as the control authority. The complexity and size of an amphibious operation directly determines the amount of airspace allocated. The level of airspace control allocated to the AF depends on the type of ACM approved for the operation. If an AOA is established, air control procedures are identical to HIDACZ procedures. If only an AO is established, the AF will normally request that the ACA establish a HIDACZ over this geographic area. A HIDACZ is airspace designated in an ACP or airspace control order (ACO) in which there is a concentrated employment of numerous and varied weapons and airspace users. Access is normally controlled by the CATF or CLF who can direct a more restrictive weapons status within the designated area. For air defense, the ADZ includes the AOA plus a buffer zone so that the incoming threat can be engaged before it crosses into the AOA. The ACP provides the basic information needed to operate within the AOA or HIDACZ. Changes to established procedures will be coordinated with all airspace users. The ACO and SPINS to the ATO may contain changes to airspace control procedures and should be reviewed daily by all users of amphibious airspace.

12. Navy Tactical Air Control Center

The Navy TACC is the senior Navy amphibious air control agency. The functions of the Navy TACC may be spread across several ships. **The Navy TACC coordinates the types**



The air traffic control section provides initial safe passage, radar control, and surveillance for close air support aircraft in the operational area.

of ACMs and controls all air operations within the operational area for the duration of the operation or until an air control agency is established ashore. Once a land-based air control agency receives control of all LF air operations, the Navy TACC may become a TADC supporting the land-based air control agency. The Navy TACC has five sections, four of which control and integrate aircraft.

a. **Air Traffic Control Section (ATCS).** The ATCS is located in the Navy TACC and provides initial safe passage, radar control, and surveillance for close air support (CAS) aircraft and all other aircraft entering, operating within, or traversing the amphibious airspace. It coordinates search and rescue operations and can provide early detection, identification, and warning of aircraft. The ATCS also controls and routes rotary-wing CAS aircraft and assault support aircraft and coordinates with the amphibious air traffic control center (AATCC) onboard the large-deck amphibious warfare ship(s) during amphibious operations. In amphibious operations, the AATCC is the primary direct control agency for the helicopter and tiltrotor aircraft group/unit commanders operating under the overall control of the Navy TACC.

b. **Helicopter Coordination Section (HCS).** The HCS coordinates rotary-wing air operations with the AATCC in the ATF. HCS tasks are to:

- (1) Coordinate assault support requests.
- (2) Coordinate ship-to-shore movements.
- (3) Resolve conflicts in rotary-wing tasking.

c. **Air Support Coordination Section (ASCS).** The ASCS provides quick reaction to satisfy requests from the LF for CAS. It is located in the supporting arms coordination center (SACC) and is the section of the Navy TACC designated to coordinate, control, and integrate all direct support aircraft (i.e., CAS) and assault support operations. The SACC is a single location on board an LHA or LHD in which all communication facilities incident to the coordination of fire support from artillery, air, and NSFS are centralized. This is the Navy counterpart to the fire support coordination center (FSCC) utilized by the LF.

d. **Air Defense Section (ADS).** The ADS, located in the Navy TACC, provides early detection, identification, and warning of enemy aircraft and through liaison with the air defense commanders receives missile warning information. The ADS provides the CATF and CLF (until the CLF establishes a SADC or RADC) an oversight and coordination staff for the conduct of offensive and defensive air defense.

e. **Plans, Execution, and Support Section.** The plans cell participates in targeting effort as air operations subject matter experts through the targeting board. The sections planning coincides with the ATO process. The section forwards excess air sorties and air support requests to the establishing authority for tasking and allocation. The input from the targeting board is processed by the ATO planning, production, and execution cell. This cell normally produces the following amphibious products: the ACO, the ATO, SPINS, and additional fire support asset requests. If the Navy TACC is acting as the joint air operations

center for an enabling JFACC, the plans cell section may be required to produce the air apportionment recommendation for the JFC.

13. Command and Control for Air Ship-to-Shore Movement

Aircraft units employed in the air ship-to-shore movement are subordinate elements of the LF. Plans include provisions for shifting control of aircraft operations to the CLF when the situation ashore permits. **During the ship-to-shore movement, the CATF coordinates and controls air operations through the Navy TACC.** Within the Navy TACC, the air ship-to-shore movement is controlled by the TAO, and the HCS will control all flights into the LZs. The TAO and CCO should coordinate respective ship-to-shore movement plans. If the operation does not require a TAO, then the HCS will work directly for CATF. Control of air ship-to-shore movement is further delegated to the AATCC. Once established ashore, the CLF coordinates and controls air operations through the Marine TACC if stood up, otherwise the Marine direct air support center (DASC) may provide procedural control under the supervision of the Navy TACC.

14. Marine Corps Tactical Air Command Center

The Marine TACC, **when established ashore, provides the facilities for the ACE commander and staff to conduct air operations.** If the ACE is afloat, the Marine TACC may be incrementally phased ashore. Initially, a Marine TADC is established ashore subordinate to the Navy TACC and is responsible for air operations in the landward sector of the operational area. On completion of its build-up and when airspace management functions are passed from afloat to ashore, the Marine TADC assumes the title and responsibilities of the Marine TACC. The Navy TACC may then become a TADC, in support of the Marine TACC if the AOA or AO with HIDACZ is still established. Otherwise, the Navy TACC would control the air over the water, while the Marine TACC would control the air over the land. Initially, the Marine TACC would generally use procedural control while the Navy TACC would continue to rely on positive control, which includes radar and identification, friend or foe transponder.

15. Direct Air Support Center

The DASC is an organization within the Marine air C2 system that serves as the central coordination point for all direct support air requests. Based on the tactical situation, the DASC is normally located with the senior of the GCE, either the FSCC or the MAGTF force fires coordination center (FFCC). The DASC assigns direct air support aircraft to terminal control agencies, provides aircraft ingress and egress route instructions, and disseminates advisory information. When control is afloat, the Navy TACC supervises the DASC's operations. When control is ashore, the Marine TADC or Marine TACC supervises the DASC's operations. The DASC is normally the first major LF air control agency to come ashore, typically landing about the same time as the FSCC.

16. Tactical Air Operations Center

The tactical air operations center (TAOC) is the ACE commander's principal air defense agency for conducting surveillance, airspace control, tactical air battle management, and air

and missile defense. It also provides safe passage, radar control, and surveillance for CAS aircraft en route to and from target areas. Until the Marine TADC or Marine TACC is established ashore, the TAOC normally reports to the Navy TACC. The TAOC, or elements thereof, typically deploy with the land elements of a MEB or a MEF. The TAOC's capabilities incrementally increase as the size of the land force component increases.

17. Air Command and Control Procedures and Coordination

The air C2 procedures described below are frequently associated with an established AOA or operational area.

a. **Pre-D-Day Operations.** Prior to the commencement of amphibious operations, airspace control and air defense operations throughout the operational area will be the direct responsibility of the ACA and AADC, respectively, as designated by the JFC. Control is exercised through the designated air control agency. Subordinate TADCs, as designated, monitor air control circuits in readiness to assume all or part of the duties of the air control agency.

b. **Amphibious Advance Forces.** An amphibious advance force is a temporary organization within the AF, which precedes the main body to the AOA or operational area. Its function is to participate in preparing the objective for the main assault by conducting such operations as reconnaissance, seizure of supporting positions, MCM, preliminary bombardment, underwater demolitions, and air interdiction. **If amphibious advance force operations are conducted in the AOA or operational area, the designated commander normally exercises air C2 through an amphibious advance force commander.** The amphibious advance force commander controls air operations in the designated area through an air control agency tailored and trained for the mission. CATF typically assumes responsibility for local airspace control and air defense operations on arrival of the AF in the AOA or operational area.

c. **Control of Attack Groups.** An attack group is a subordinate task organization to an ATF formed for operations in widely separated landing areas. The attack group is composed of units designated to transport, protect, land, and initially support a landing group. **The CATF normally delegates authority for control of airspace and air operations in the immediate area surrounding the respective landing areas to each attack group commander.** The attack group commander exercises control through a local air control and defense agency consisting of airborne elements, an escorting surface combatant, or a TADC on the appropriate attack group ship. Overall direction of air operations as they apply to the amphibious mission is normally retained by the CATF and exercised through the designated air control agency.

d. **Air Tasking.** The CATF and CLF are responsible for coordinating the air support requirements for the AF through the preparation of an air allocation request. An air allocation request message provides, among other things, the vehicle to identify unfilled air requirements.

For more information, see JP 3-30, Command and Control for Joint Air Operations.

e. **Termination of the Amphibious Operation.** On termination of the amphibious operation, the AF will be dissolved, and air control and defense responsibilities in the area passed to the appropriate commander in accordance with the establishing authority's guidance.

18. Transition from Tactical Air Control Center to Tactical Air Command Center

a. Both the Navy and the Marine Corps air control systems are capable of independent operations; however, in the conduct of an amphibious operation, elements of both systems are used to different degrees from the beginning of the operation until the control is phased ashore. In some cases, it might be neither necessary nor desirable to transfer authority ashore. Under the CATF, the Navy TACC will control all air operations, to include supporting arms, regardless of mission or origin within the AOA or HIDACZ.

b. As the amphibious operation proceeds, C2 of aviation operations may either be transitioned ashore as Marine air C2 is established on the ground, or may stay aboard naval shipping dependent upon the situation and the desires of the CLF. As the operation progresses, the CLF, having the capability to control air operations, may establish C2 systems ashore and then incrementally accept responsibility for various C2 functions from the CATF. When full capability is achieved, the CLF may assume full air control responsibility from the CATF. Air C2 functions may be sequenced in five phases:

(1) Phase one is characterized by the arrival of various supporting arms controllers ashore; namely the tactical air control party (TACP), forward observers, air support liaison teams, and NSFS spot teams.

(2) In phase two, the DASC is normally the first principal air control agency established ashore. When control is afloat, the Navy TACC supervises the DASC's operations.

(3) In phase three, the TAOC moves ashore.

(4) In phase four, the senior organization of the Marine air control group is established ashore and functions as the Marine TADC under control of the Navy TACC.

(5) Phase five is characterized by the passage of command responsibility ashore. The Marine Corps TADC assumes the role of the Marine TACC. Once the Marine TACC receives control of all LF air operations, the Navy TACC may become the TADC (afloat) supporting the land-based air control agency. The CATF will normally be assigned RADC or SADC responsibility for the seaward sector of the operational area.

See NTP 3-02.1.3, Amphibious/Expeditionary Operations Air Control, for more details.

SECTION D. COMMAND AND CONTROL OF OPERATIONS ASHORE

19. Transition from Afloat to Ashore

a. When afloat, the CLF and staff plan, direct, and monitor the LF actions from the landing force operations center (LFOC) on the ATF's flagship. The LFOC provides situational awareness to the CLF and staff. **When C2 is phased ashore, the LF combat operations center assumes control from LFOC.** The functions of the combat operations center ashore mirror those of the LFOC.

b. The SACC incrementally phases responsibility for fire support coordination to the FFCC and FSCC as control is shifted ashore.

c. Supervision of the DASC transitions from the Navy TACC to the Marine TACC as air control is passed ashore. The DASC is normally the first major LF air control agency to come ashore, typically landing in the same wave as the FSCC.

d. As sufficient air defense assets are established ashore, the CLF will coordinate with the CATF to assume SADC responsibility in the landward sector of the operational area.

20. Retaining Control Afloat

a. Depending on the type and scope of amphibious operation being conducted, C2 may remain afloat and not transfer ashore. Forward-deployed MEUs conducting small-scale operations routinely exercise C2 afloat. For larger-scale amphibious operations, this may be more difficult, and the CLF should consider the shipboard limitations in communications systems and available spaces to conduct C2 in order to determine how much of the C2 can remain afloat and which elements of the C2 may need to transition ashore. By retaining C2 afloat, the CLF can take advantage of the support capabilities inherent in Navy platforms while greatly reducing the requirement for C2 nodes and associated force protection requirements ashore and enhanced movement and maneuver. To exercise C2 afloat, LF C2 should operate as an integral part of an overall naval C2 architecture. In many areas, including fire support coordination, communications, and intelligence, LF and ATF staffs may be integrated. LF tactical information systems should be fully integrated aboard ship with both local area network connectivity and broadband multichannel ship-to-ship and ship-to-shore communications connectivity.

b. If air control does not transition ashore, the Marine TACC may not be established, and the Navy TACC would, therefore, continue to provide air control and support for the LF ashore. In a similar manner, if fire support does not transition ashore, the FFCC and the FSCC may not be established, and the SACC would continue to provide fire support coordination, planning, and control.

c. When conducting amphibious operations, the CLF and the commanders of the GCE, ACE, and LCE may conduct C2 from aboard ship. The CE may remain embarked, moving ashore as the LF mission or operational situation allows. Although the GCE commander may establish an airborne or forward CE ashore, the GCE main command post (CP) may

remain afloat, at least initially. Likewise, the C2 structure of both the ACE and the LCE may remain afloat.

Refer to MCWP 3-40.1, Marine Air Ground Task Force Command and Control, for more details on sea-based C2 of air operations.

21. Ongoing Operations Ashore

When the AF is in support of ongoing operations ashore, C2 remains with the supported commander as discussed in paragraph 2, “Overview.”

22. Transition from Ashore to Afloat

As the amphibious operation progresses, the CLF may transition some C2 elements back to the sea base in order to reduce the footprint ashore. The decision on when, and how to transition C2 from ashore to the sea base is driven by the operational situation or changes to the mission.

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CHAPTER III

CONDUCT OF AMPHIBIOUS OPERATIONS

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

B.H. Liddell Hart, *Deterrence or Defense*, 1960

1. Overview

The AF executes rapid, focused operations to accomplish the JFC’s objectives. Regardless of the type of amphibious operation, the CATF and CLF plan and execute operations based on maneuver warfare philosophy and the following general concepts:

a. All actions **focus on achieving the commander’s objectives**. The CONOPS guides the decisive actions to exploit enemy vulnerabilities and attack enemy COGs and selected decisive points.

b. **The sea is used as maneuver space**. Operations should create freedom of action for the AF, while **creating a tempo greater than the enemy can withstand**. The CATF and CLF should exploit advances in areas such as EW, precision targeting systems, waterborne and airborne transportation craft that allow for the introduction of the AF at the time that supports the JFC’s CONOPS. Naval maneuver can be conducted from distances long before closing the shoreline as the sea offers many avenues of approach. It involves fighting on, above, under, and from the sea, including striking targets on a hostile or potentially hostile shore while conducting amphibious operations. Collectively, naval maneuver capabilities provide the ability to conduct operational maneuver from the sea.

c. A key to successful AF operations is the ability to maneuver across the littorals to overcome area denial (AD) challenges, gain entry, and project power ashore as necessary. Reduced signature of forces, flexibility of action, responsive fires, and control of dispersed landing sites are essential to pit AF strengths against enemy weaknesses.

d. The preferred tactic for AFs operating against coastal defenses is to avoid or bypass the strong points and to exploit gaps in these defenses. Both require not only the ability to gain timely information but require the capability to process and disseminate accurate and useful intelligence to commanders at all levels allowing for informed decision making. This also requires strong operations security (OPSEC) and the flexibility to exercise initiative to exploit opportunities and avoid or mitigate challenges. If unable to bypass the strong points, the AF will be required to neutralize an adversary’s antiaccess (A2) and AD systems.

e. The complexity of amphibious operations and the vulnerability of the AF as it builds combat power ashore require the **full integration of organic assets as well as those of other joint and multinational forces**. Clearly defining the roles and relationships of all forces involved will promote coordinated support and unity of effort.

f. The remainder of this chapter has been structured to follow the phases of an amphibious operation as discussed in Chapter I, “Overview of Amphibious Operations.” The phases are planning, embarkation, rehearsals, movement, and action (PERMA).

SECTION A. PLANNING

2. Overview of the Planning Phase

a. The planning process described herein is designed for use by any sized AF regardless of the type of amphibious operation. **The focus of the planning process is to link** the employment of the AF to the attainment of operational and strategic objectives through the design, organization, integration, and conduct of the amphibious operation within the overall joint operation or campaign. The nature of amphibious operations gives rise to planning procedures that are both intricate and unique. This intricacy stems from the complex detail required to fully coordinate the landing of troops, equipment, and supplies by air and surface means; maximize maneuver, speed, and available fire support; and minimize the vulnerability of the AF. The uniqueness of amphibious planning stems from the interrelationships between the components of the AF, between the AF and the joint force, and between the AF and supporting organizations and agencies.

b. This section discusses the operational planning for amphibious operations. Detailed planning considerations for supporting functions (e.g., fires, communications, logistics, health services, and protection) are discussed in Chapter V, “Support to Amphibious Operations,” and should be considered by planning staffs when developing the overall plan.

3. Tenets of Amphibious Planning

a. Planning for an amphibious operation is continuous, from the receipt of the initiating directive through the termination of the operation. Amphibious planning requires 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 previous situations. The tenets of successful amphibious planning are commanders’ involvement and guidance and unity of effort.

b. **Commanders’ Involvement and Guidance. The complexity of amphibious operations requires AF commanders to drive the planning process.** Top-down planning is the active participation of the AF commanders that drives the process to gain knowledge and promote understanding as a basis for decision making. Their guidance and intent are central to planning and must be translated into a design for action by subordinates. AF commanders’ decisions (e.g., AF AO, AF objectives, AF CONOPS, commanders’ critical information requirements, and promulgated essential elements of friendly information) are required before additional steps in the process can proceed.

c. **Unity of Effort.** AF commanders use unity of effort to focus their forces on mission accomplishment. AF commanders should view their operational environment as an indivisible entity, as operations or events in one area may have profound and often unintended effects on other areas and events.

d. **Integrated Planning.** There are two parts to integrated planning in amphibious operations. **The first is the assembly of the AF commanders and their staffs in the same locality.** When this is not practicable, the exchange of liaison officers to perform planning functions is necessary. During planning, and particularly in crisis situations, AF commanders conduct their planning efforts in parallel and concurrently with each other and those of their higher and supporting headquarters. The same degree of integration by AF commanders and their staffs should also be achieved with subordinate units facilitating a coordinated and thorough plan. **The second part of integrated planning occurs across functional areas.** Integrated planning is facilitated by using operational planning teams which are ad hoc organizations formed around planners from functional areas, appropriate staff representatives, subordinate and supporting command liaison officers, and other subject matter experts. The use of joint functions (C2, intelligence, fires, movement and maneuver, protection, and sustainment) enables commanders to integrate the planning effort and supervise the plan. The use of functional areas facilitates the consideration of all relevant factors and minimizes omissions. The key to this part of integrated planning is the assignment of appropriate personnel to represent each functional area.

For more information on joint operation planning, see JP 5-0, Joint Operation Planning, and JP 3-33, Joint Task Force Headquarters.

4. Planning Directive

Following receipt of the initiating directive, the AF commanders issue a coordinated planning directive to harmonize staff actions and complete required planning in the time allowed. **The planning directive specifies the plan of action and milestones to complete each major step in the planning process** and the timeline for the development of operation plans (OPLANs), OPORDs, operation general matters (OPGENs), operation tasks (OPTASKs), and other products.

5. Planning Methods

a. Amphibious planning is conducted as part of the joint operation planning process using the Adaptive Planning and Execution system to facilitate and integrate planning activities that occur either as deliberate planning or crisis action planning.

b. The rapid response planning process (R2P2) is often used by the CATF and CLF in amphibious operations involving forward-deployed ARG/MEUs. R2P2 uses a compressed timeline that provides commanders and staffs with an accelerated planning mechanism that facilitates mission execution within six hours of warning order or alert order receipt.

For more detailed information on deliberate planning and crisis action planning, refer to Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3122, Joint Operation Planning and Execution System (JOPES) Series, CJCSM 3130, Adaptive Planning and Execution (APEX) Series, and JP 5-0, Joint Operation Planning. See MCWP 5-1, Marine Corps Planning Process, for further information on R2P2. See NWP 5-01, Navy Planning, for details on the Navy planning process.

6. Primary Decisions

a. AF commanders make certain primary decisions during the planning process before further planning for an amphibious operation can proceed. The decisions and who makes them are described below and reflected in Figure III-1. In some cases, these decisions may have been made by the establishing authority and promulgated in the initiating directive. **In the case of mutual decisions, both CATF and CLF must concur, or the decision is referred to the CAF or establishing authority for resolution.**

b. During **mission analysis**, the following decisions are made:

(1) **Determine AF Mission(s).** AF commanders may decide on a coordinated mission statement or develop separate but supporting mission statements. The determination

Decisions Responsibilities Matrix		
Primary Decision	May Be Contained In the Initiating Directive	Decision
Determine amphibious force mission(s)	X	CAF*
Select amphibious force objective(s)	X	CAF*
Select course of action		CAF*
Select date and hour of landing	X	CAF*
Supporting Decisions		
Select method of entry		CATF/CLF
Select landing areas		CATF/CLF
Select landing beaches		CATF/CLF
Determine sea echelon plan		CATF
Select landing force objectives		CLF
Select landing zones and drop zones		CLF

*CATF/CLF mutually agreed upon recommendations to CAF for final concurrence.

Legend

CAF commander, amphibious force CLF commander, landing force
 CATF commander, amphibious task force

Figure III-1. Decisions Responsibilities Matrix

of a coordinated AF mission statement is a mutual decision presented to the CAF for approval. If separate but supporting mission statements are chosen, then each commander submits their respective mission statement.

(2) **Select AF Objective(s).** AF objectives are normally physical in nature such as objectives to seize terrain, infrastructure (e.g., ports or airfields) or forces that must be seized, secured, influenced, or destroyed in order to accomplish the mission. AF objectives are designated in alphabetic order (e.g., AF Objective A and AF Objective B). The selection of AF objectives is a mutual decision approved by the CAF.

c. **Develop COAs.** AF staffs further develop COAs based on the guidance from the AF commanders. Normally, the LF planners will provide an LF COA for the ATF planners to build a supporting COA. At a minimum, COAs include the general area for a landing (which may already be specified by higher headquarters), designation of the main effort, the scheme of maneuver, and the task organization. Selected COAs will be wargamed and compared based on criteria established by the commanders.

d. **COA analysis and wargaming** follows JP 5-0, *Joint Operation Planning*, guidance.

e. No later than **COA development** the following decisions should be made:

(1) **Select COA.** At this point, the CAF selects a COA and the CONOPS (including fire support planning guidance) is prepared. The CONOPS is usually a written and graphic representation, in broad outline, of the intent of both of the commanders with respect to their portion of the operation. It 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 CONOPS. For example, the LF movement ashore may be accomplished using a ship-to-objective maneuver CONOPS or, if necessary or practical, one in which a beachhead will be established.

(2) **Methods of Entry**

(a) The decision to establish beachheads or to conduct ship-to-objective maneuver is a CLF decision with input and concurrence from the CATF. Principal factors in determining whether to establish a beachhead or conduct ship-to-objective maneuver include the following:

1. For large-scale amphibious assaults involving joint forcible entry, a beachhead is normally used. For an amphibious raid, the AF may be able to conduct ship-to-objective maneuver, effectively removing a beachhead as a consideration.

2. A2/AD capabilities may severely limit ship-to-objective maneuver. A hostile or potentially hostile environment may dictate the need to have a beachhead. However, a beachhead may also present a target set that can easily be prosecuted by the enemy.

3. The AF ability to adequately C2 forces from afloat platforms, phasing ashore only those portions of C2 when needed. If unable to provide the necessary C2, a beachhead may be required.

4. For ship-to-objective maneuver, the AF should be able to sustain the LF from the sea base; otherwise a beachhead or lodgment will be necessary.

(b) **Beachhead.** As a type of lodgment, a beachhead is a designated area on a hostile or potentially hostile shore which, when seized and held, facilitates the continuous landing of troops and materiel and provides maneuver space for subsequent projected operations ashore. The CLF determines possible beachheads for each landing site and notifies CATF of the selections so they may be considered for incorporation into the landing area plan. By using littoral maneuver, the AF may be able to maneuver around enemy defenses, allowing the LF to attack and secure the beachhead from positions of advantage. The CATF and CLF consider the following in delineating the beachhead area:

1. Suitability of landing sites, including favorable configuration of the coastline from the LF perspective. Shorelines have three primary forms: convex, concave, and straight. The convex shoreline in the form of large promontories or deltas is normally the most favorable, despite its generally inferior hydrographic characteristics. It causes a dispersion of defensive forces and prevents enfilade fire on the landing beaches. The concave shoreline, particularly in the form of a bay or reentrant, is unfavorable since it provides opportunity for convergent massing of enemy fires at any point in the area and permits establishment of an organized system of interlocking sectors of fire, which are extremely disadvantageous to the attacker. However, conditions such as the existence of sheltered water and favorable beach characteristics may dictate the selection of a concave shoreline despite its otherwise unfavorable characteristics. In such case, particular consideration is given to the promontories, which form the shoulders on either flank of the landing beach and provide naturally advantageous positions for defensive weapons. The straight shoreline has no prominent indentations or promontories and is relatively less favorable since it lends itself to enemy enfilade fire. It does, however, represent a compromise between the advantages of a convex shoreline and the disadvantages of the concave shoreline.

2. The vulnerability of the seaward areas of the beach and beach approaches to enemy mining require direct input from CATF and MIWC. The most suitable landing sites are typically the most likely to be mined and may be the least favorable when MCM considerations are taken into account. Integration of the CATF's supporting MIWC in the amphibious planning process is critical to the effectiveness of MCM support for the amphibious operation.

3. Terrain inland from the beaches and routes of egress.

4. Suitability for the landing of landing craft, assault vehicles, aircraft; and as a drop zone (DZ) for the LF.

5. Adequacy of maneuver space.

TASK FORCE 58—OPERATION ENDURING FREEDOM

Initially established for the purpose of conducting amphibious raids in southern Afghanistan in 2001, Task Force 58 (TF-58) ultimately conducted an amphibious assault 350 miles inland to seize a desert airstrip south of Kandahar. Renamed Forward Operating Base (FOB) Rhino, this lodgment facilitated the introduction of additional joint forces, eventually leading to the isolation and seizure of the city. TF-58 was formed by aggregating two forward-deployed amphibious forces, the USS Peleliu ARG [Amphibious Ready Group]/15th MEU [Marine Expeditionary Unit] and the USS Bataan ARG/26th MEU and a small fly-in headquarters staff of approximately 32 personnel. Brigadier General James Mattis, USMC [United States Marine Corps], TF-58's commander, chose to employ the two MEUs separately rather than attempt a complex reorganization into a single Marine air-ground task force. The timing of the operation was coordinated with a lull in special operations elsewhere, thereby leveraging a Navy SEAL detachment for the special reconnaissance of Rhino and beach hydrographic observations to support surface landings in Pakistan while at the same time conserving TF-58 assets for the actual assault.

Employing ship-to-objective maneuver and in-flight refueling, an assault force in CH-53 helicopters from USS Peleliu seized the airfield that became FOB Rhino. Additionally, the establishment of a craft landing zone and beach landing site, coupled with the granting of diplomatic access to a C-17-capable airfield and two intermediate staging bases in northern/eastern Pakistan, proved critical for the pre-staging, buildup, and sustainment of combat forces, and refueling for the AH/UH-1 helicopters escorting the CH-53s. Within 90 minutes of the initial assault, Marine KC-130 aircraft started landing at Rhino to begin building up combat power. Three days later, US Air Force C-17 aircraft began delivering Navy Seabees, their construction equipment, and the supplies needed to improve and maintain the runway. Throughout these actions, carrier and land-based aircraft provided fire support to the landing force (LF). Following the establishment of FOB Rhino, the LF transferred from the maritime component commander to the land component commander; however, a support relationship with the amphibious task force was maintained to provide sea-based logistical, administrative, medical, and other support to the LF.

Reference: *US Marines in Afghanistan, 2001-2002: From the Sea*, History Division, United States Marine Corps, Washington, DC, 2011

6. Requirements for CSS.

(c) **Ship-to-Objective Maneuver.** As a tactical application of the concept of operational maneuver from the sea, ship-to-objective maneuver provides the AF a methodology to project forces through entry point(s) to maneuver toward or on the objective without the need to secure a beachhead in order to build combat power ashore. This option, which may be executed in a more distributed manner, may place a higher demand for landing beaches or sites and LZs. Ship-to-objective maneuver may result in a need for additional forces (such as more MIW assets, SUW assets to counter small boats, and other threats) time

to set the conditions necessary to conduct the operation, or time to clear additional sea approaches. Seabasing more of the C2, logistics, sustainment, medical support, and other capabilities allows forces using ship-to-objective maneuver to maintain momentum with a smaller footprint ashore.

For more information on seabasing, see paragraph 20, “Seabasing Considerations,” and NWP 3-62M/MCWP 3-31.7, Seabasing.

(d) **Combined Methods of Entry.** Amphibious operations may utilize lodgments to support part of the amphibious operation, while conducting ship-to-objective maneuver for other parts. In other words, a combination of the two may be necessary and advantageous to successfully complete the mission. More mobile and lighter elements of the LF, for example, may proceed directly to the objective, such as those in helicopters, tiltrotor aircraft, and AAVs, while other elements (off-loading from landing craft and lighterage to include vehicles, heavy cargo, and additional troops) may need a secure lodgment. Although not required to initiate an amphibious operation, a lodgment may be needed later for sustainment or to conduct reception, staging, integration, and onward movement for follow-on forces.

(3) **Select Landing Areas.** The landing area includes the beach, the approaches to the beach, the transport areas, the fire support areas (FSAs), the airspace above it, and the land included inland to accomplish the initial objectives. The selection of the landing area is a mutual decision (see Figure III-2).

(4) **Select Landing Beaches.** For amphibious operations, a landing beach is the portion of a shoreline required for the landing of an LF. Landing beaches are selected from within the selected landing areas. Multiple landing beaches allow the LF to achieve a position of advantage over the enemy by distributing firepower within enemy gaps that can concentrate and maneuver toward the main objective. Landing beaches that cannot be approached from several different directions should be avoided. Principal factors in the selection of landing beaches (in addition to those previously described for selection of landing areas) include:

(a) Suitability for landing craft (e.g., landing craft, utility [LCU]; landing craft, air cushion [LCAC]; and AAVs).

(b) Offshore approaches and tidal conditions.

(c) The suitability, location, and number of beach support areas (BSAs), beach exits, and nearby infrastructure. The BSA is to the rear of an LF or elements thereof, established and operated by shore party units. It contains the facilities for the unloading of troops and materiel and the support of the forces ashore; it includes facilities for the evacuation of wounded, enemy prisoners of war (EPWs), and captured materiel. Landing beaches are designated by color (blue, red, green, yellow, orange, white, and purple). Subdivisions are further designated with the addition of a number (e.g., Green Beach 1, Red Beach 1, and Red Beach 2). The highest numbered beach is 3.

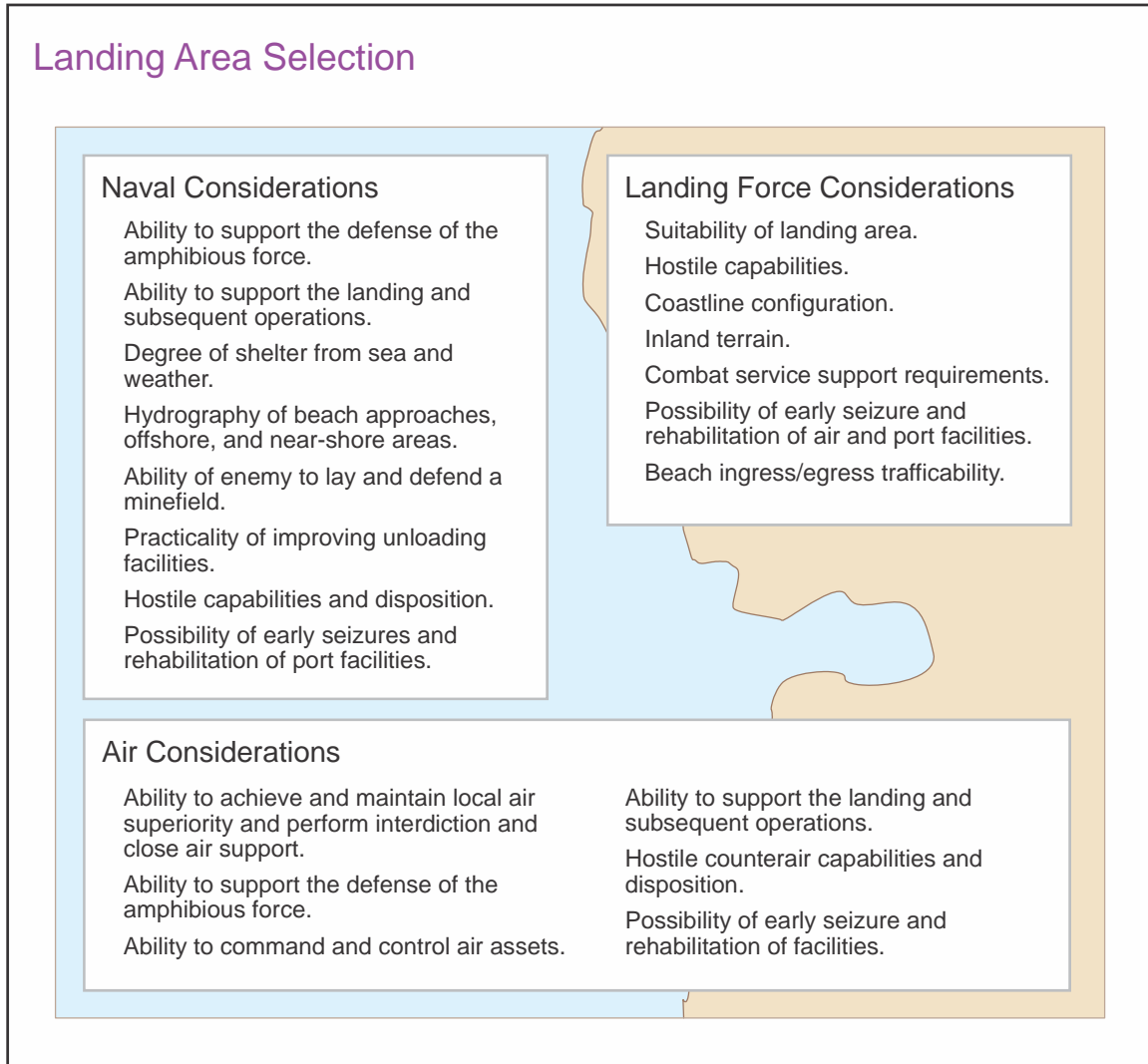


Figure III-2. Landing Area Selection

(d) The opportunity for surprise is especially important in amphibious assaults and raids, which involves a compromise between a beach which permits easy landing—with some risk of detection—and one which provides maximum security at the risk of a difficult or hazardous landing. Calm conditions are desirable, although movement through these waters may increase the difficulty of effecting surprise. Sheltered waters are usually enclosed in a bay or in the lee of islands, which can increase the risk of detection and interception.

(e) Determine requirement and feasibility of OTH operations. Consider threat, environmental conditions, likelihood of achieving surprise, and friendly force capabilities (e.g., power projection and sustainment). For additional information, see paragraph 19, “Over the Horizon.”

(f) The landing beach may also be that portion of a shoreline constituting a tactical locality (e.g., the shore of a bay) over which a force larger or smaller than a BLT may be landed.

(g) The selection of landing beaches is a mutual decision.

(5) **Determine Sea Areas.** A sea area is recommended by the CATF and designated by the establishing authority to minimize the possibility of interference between various elements of the AF and supporting forces. The CATF designs all sea areas to support the amphibious operation. Included in the sea areas are the boat lanes, the LCAC lanes, the inner and outer transport areas, the FSAs or fire support stations, the approach routes for the ships to launch the AAVs, etc. The CATF determines the sea echelon plan, which provides for the dispersion of amphibious warfare ships in either an on-call or unscheduled status to minimize losses due to enemy attacks; and to reduce the area that must be cleared for mines.

(6) **Select LF Objectives.** LF objectives facilitate the attainment of AF objectives or uninterrupted landing of forces and materiel. LF objectives are selected by the CLF.

(7) **Select LZs and DZs.** An LZ is a specified zone used for the landing of all aircraft. LZs may contain more than one landing site. A DZ is designated as a specific area on which airborne troops, equipment, or supplies are air-dropped. The CLF selects LZs and DZs.

(8) **Select Forward Arming and Refueling Points (FARPs).** Amphibious operations will often require FARPs between the ATF and the objective to minimize the sortie generation time required to support operations. These can be established within a lodgment or at intermediate LZs or DZs. FARP sites will be selected based on ease of use, ease of sustainment, and survivability.

(9) **Select Date and Hour of Landing.** The date and hour of the landing is selected by the CAF or establishing authority and may be specified in the initiating directive. **D-day** is the unnamed day on which a particular operation commences or is to commence. **H-hour**, in amphibious operations, is the time the first landing craft or amphibious vehicle of the waterborne wave lands or is scheduled to land on the beach. **L-hour**, in amphibious operations, is the time at which the first helicopter or tiltrotor aircraft of the airborne ship-to-shore movement wave touches down or is scheduled to touch down in the LZ. Since most amphibious operations are complex and involve both surface and air ship-to-shore movement, L-hour may also be expressed in terms of a time differential from H-hour (e.g., H-12 or H+30 minutes), to assist in coordinating and synchronizing the operation across a common continuum. If L-hour and H-hour coincide, utilize H-hour. **During planning, H-hour and L-hour are the scheduled or planned times for landing, but during execution, they are the actual time of landing.** For example, during planning, H-hour may be scheduled for 0800; however, for various reasons on D-day, it is determined that H-hour does not actually occur until 0900; accordingly, all events will now be based on the 0900 H-hour. If the CATF delays H-hour, the CATF will then promulgate a new H-hour. Supporting actions, such as NSFS or airborne assaults, are scheduled and conducted in relation to H-hour. In the case where the landing will be delayed from the planned H-hour, some events scheduled in planning for the period just prior to H-hour may be repeated until the new H-hour; others will be delayed and others will have to be cancelled. **H-hour and L-hour are confirmed prior to commencement of the landing based on the weather,**

enemy situation, and other pertinent factors. Landing timing considerations are shown in Figure III-3.

(10) **Determine criteria** for the execution or delay of the amphibious operation. These criteria are an established set of standards or conditions in the operational environment that the commander uses to decide to proceed or not. The CATF and CLF, for example, should establish criteria for the possible aborting of the amphibious operation. Examples of abort criteria could include loss of aircraft or necessary combat capabilities due to mechanical failures or enemy actions. Loss of capability will depend on type of mission. No-go criteria should also be established; examples include environmental conditions such as sea state, tides, and weather that would have a negative impact on the ship-to-shore movement.

f. **Orders and OPGEN Development.** OPGENs and OPTASKs are messages, used by commanders of Navy forces, to transmit orders, fragmentary orders, and tactical and operational tasks to elements of the ATF. Orders and OPGENs/OPTASKs serve as the principal means by which the commanders express their decisions, intents, and guidance.

Landing Timing Considerations	
Date for Landing	Hour for Landing
<ul style="list-style-type: none"> • Availability of forces. • Readiness of forces. • Present and projected enemy situation. • Seasonal conditions in the area under consideration. • Local conditions of weather, tide, current, phase of moon (duration of darkness and daylight). • Designation of limiting dates by a higher authority. • Coordination with preliminary operations. • Advantageous use of religious or cultural events in the area under consideration. 	<ul style="list-style-type: none"> • Known enemy routine. • Duration of daylight. • Need for tactical surprise. • Concept of operations ashore of the landing force. • Favorable conditions of wind, tide, and phase of moon. • Requirements for conducting certain operations during hours of darkness. • Most effective employment of supporting arms. • Immediately after certain countermine or assault breaching operations. • Need for simultaneous landing of surface and helicopter borne forces.

Figure III-3. Landing Timing Considerations

(1) **Order and OPGEN/OPTASK Crosstalk.** After step four of the planning process (see paragraph 5 “Planning Methods”) and primary decisions have been completed, the AF commanders develop their OPLANs, OPORDs, OPGENs, or OPTASKs. The staffs should maintain constant communication to ensure continued harmonization of their concurrent planning efforts. **Depending on time available, once final drafts of the OPORD and OPGEN/OPTASK have been completed, a crosstalk and confirmation brief should be conducted between the commanders and staffs.** The purpose of the crosstalk is to compare these documents with higher and adjacent orders to facilitate unity of effort and to identify any discrepancies or gaps. Following the staff’s correction of any discrepancies identified during the crosstalk, the OPORD and OPGEN will be submitted for approval and a confirmation brief is scheduled. A confirmation brief is given by a subordinate commander once planning is complete. The participants brief their scheme of maneuver and fire support plan and the relationship between their unit’s mission and the other units in the operation. The confirmation brief allows the higher commander to identify discrepancies between his or her order and the subordinates’ plan(s) and allows for corrective actions, if required, prior to execution.

(2) **OPTASK Amphibious Message.** CATF, in collaboration with the CLF, will develop the OPTASK amphibious message. This overarching OPTASK specifies the ATF commander’s intent, duties, and responsibilities; the operational area (e.g., AOA or AO/HIDACZ); all geographic areas (e.g., surface: inner transport areas, outer transport areas, beaches, landing craft, air cushion landing zones [CLZs], boat lanes; air: ingress, egress routes; fires: FSAs and fire support stations, no fire areas, targets), timelines for the assault; medical regulating instructions; and force protection instructions. The initial OPTASK amphibious message should be promulgated no later than 72 hours prior to the assault to allow sufficient time for the subordinate units to plan. Updates can then be promulgated as more information becomes available.

For more information on OPGENs and the OPTASK amphibious message, see Allied Procedural Publication -11, NATO Message Catalogue, and NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement.

g. **Transition** is an orderly handover of an OPLAN, OPORD, OPGEN, or OPTASK as it is passed to those tasked with execution of the operation. It provides those who will execute the plan or order with the situational awareness and rationale for key decisions necessary to allow for a coherent shift from planning to execution.

7. Assessment

Assessment is a process that measures progress of the AF toward mission accomplishment and occurs at all levels. The assessment process begins during mission analysis when the commander and staff consider what to measure and how to measure it to determine progress toward accomplishing a task, creating an effect, or achieving an objective. Assessment actions and measures, such as measures of effectiveness and measures of performance, help commanders adjust operations and resources as required; determine when to execute branches and sequels; and make other critical decisions to ensure current and future operations remain aligned with the mission and end state.

For more information on assessment, refer to JP 5-0, Joint Operation Planning.

8. Operational Environment

a. Amphibious operations will likely be planned and executed based on one of three operational environments: permissive, uncertain, or hostile.

(1) **Permissive Environment.** In a permissive environment, host country military and law enforcement agencies have the control, intent, and capability to assist operations that a unit intends to conduct. Forward-postured naval forces routinely conduct a variety of amphibious operations in permissive environments such as sea-based theater security cooperation and FHA. When conducting operations in a permissive environment, personnel and equipment going ashore are still considered an LF but are not normally referred to as such due to the cooperative nature of their missions. They are likely to organize by function or location of employment.

(2) **Uncertain Environment.** In an uncertain environment, host government forces, whether opposed to or receptive to operations that a unit intends to conduct, do not have totally effective control of the territory and population in the intended operational area. Forward-deployed AFs are frequently called on to conduct crisis response operations, such as noncombatant evacuation or embassy reinforcement, in an uncertain environment.

(3) **Hostile Environment.** In a hostile environment, hostile forces have control, intent, and capability to effectively oppose or react to the operations a unit intends to conduct. Large-scale amphibious assault provides the nation with the capability of forcible entry from the sea; it includes actions to seize key terrain and build and sustain a beachhead or military lodgment in the face of armed opposition.

b. Regardless of the size or nature of the mission, the organization, capabilities, and techniques required to conduct large-scale amphibious assaults in a hostile environment provide the basis for adaptation to conduct the other types of amphibious operations. Once an LF has executed its initial mission ashore, it may remain ashore to support ongoing operations or re-embark in amphibious warfare ships to be available for a new mission.

9. Movement Planning Responsibilities

a. **Movement Plan.** The CATF prepares the movement plan. In operations involving several attack groups, the CATF usually prepares a general movement plan, which includes coordination measures as necessary. Subordinate force and group commanders will prepare their own detailed movement plans. **Because details of the movement depend on overall requirements of the operation, the movement plans are generally among the last to be completed.** Each movement plan is normally included as an annex to the appropriate OPLAN or OPORD.

b. **Movement Coordination with Other Forces.** Coordination measures between forces supporting the amphibious operation and the AF will normally be provided in planning guidance issued by the JFC or designated commander.

c. **Postponement Plan.** Postponement may be necessary because of weather conditions, unexpected movement of major enemy forces, or failure to meet go/no-go criteria after the AF has started its movement from final staging areas toward the operational area. A postponement plan will be prepared by the CATF and is usually promulgated as part of the OPLAN. **Usually, postponement is on a 24-hour basis, which involves backtracking or diversion of ships into a designated sea area.** A longer postponement may involve redeployment of the force to a staging area. Execution of the postponement plan will normally be controlled by the JFC or designated commander, based on the recommendations of the CATF and CLF, or other JFC.

d. **Alternate Plans.** The alternate plan for an amphibious operation may differ from the preferred plan and will necessitate branch movement plans. Movement plans should, therefore, be flexible enough for execution of alternate plans at any point between the final staging area and the operational area.

10. Sea Routes

a. **En route to the Operational Area.** Sea routes and en route points to the operational area will normally be planned by the CATF. Routes selected should lead from all possible ports of departure to the operational area. Alternate routes should also be provided to avoid interference between forces and to permit execution of alternate plans should the threat of enemy attack or weather prevent use of primary routes. Routes and route points should be named to facilitate reference. Small-scale charts, which show sea routes and route points, are prepared and included in the OPLANs and OPORDs of appropriate



USS San Antonio (LPD-17) transits the Suez Canal en route to the operational area.

ATF echelons. All sea routes should be wide enough for transport and movement group commanders to maneuver the group without interfering with the movement of other groups.

b. **Within the Operational Area. CATF determines sea routes in the operational area.** During planning, sea route selection should take into consideration the missions of various task forces, groups, units, and elements in the AF so they may proceed expeditiously to their assigned stations without interference. Sea routes to the operational area connect with sea routes within the operational area at designated points just outside the ocean operating area to minimize interference during the deployment and movement of forces from their cruising or approach formations to assigned stations or areas. Sea routes in the operational area should be selected that:

- (1) Provide a minimum of interference among ships and formations.
- (2) Provide areas clear of mines and navigational hazards to the maximum extent possible.
- (3) Provide sufficient dispersion to prevent concentrations that would make the AF a desirable target for CBRN attack.
- (4) Provide for economy of screening forces to provide protection from air, surface, subsurface, and land based threats.

11. Staging Areas

a. The CATF, in consultation with the CLF, may decide to use staging areas while en route to the operational area. The AF may stage at one or more intervening ports for logistic support, emergency repairs, or final rehearsals. Considerations include:

- (1) Availability of repair facilities and service craft.
- (2) The distance of the staging area from the landing site should minimize both risk of logistics delay and interdiction.
- (3) Anchorages are assigned to facilitate entry and sortie of transport and movement groups staging through the area while avoiding vulnerable concentrations.
- (4) Suitable areas are available to conduct rehearsals.
- (5) Provision is made for replacement or repair of critical supplies or equipment expended or damaged during rehearsal.

b. The CATF will select the staging area.

12. Sea Areas

To minimize the possibility of interference between various elements of the AF and other supporting forces, sea areas in the vicinity of the landing area will be selected by the

CATF and approved by the JFC. The sea areas will be divided into a number of operating areas as depicted in Figure III-4. These areas may be connected by mine-cleared lanes, areas, and channels.

a. **Ocean Operating Areas.** Two kinds of ocean operating areas may be selected.

(1) **Close Support Area.** A close support area is the portion(s) of the ocean operating area nearest to, but not necessarily in, the objective area. They are assigned to CSGs, surface action groups, surface action units, and certain logistic CSS elements.

(2) **Distant Retirement Area.** A distant retirement area is located to seaward of the close support area and divided into a number of operating areas in which the AF may

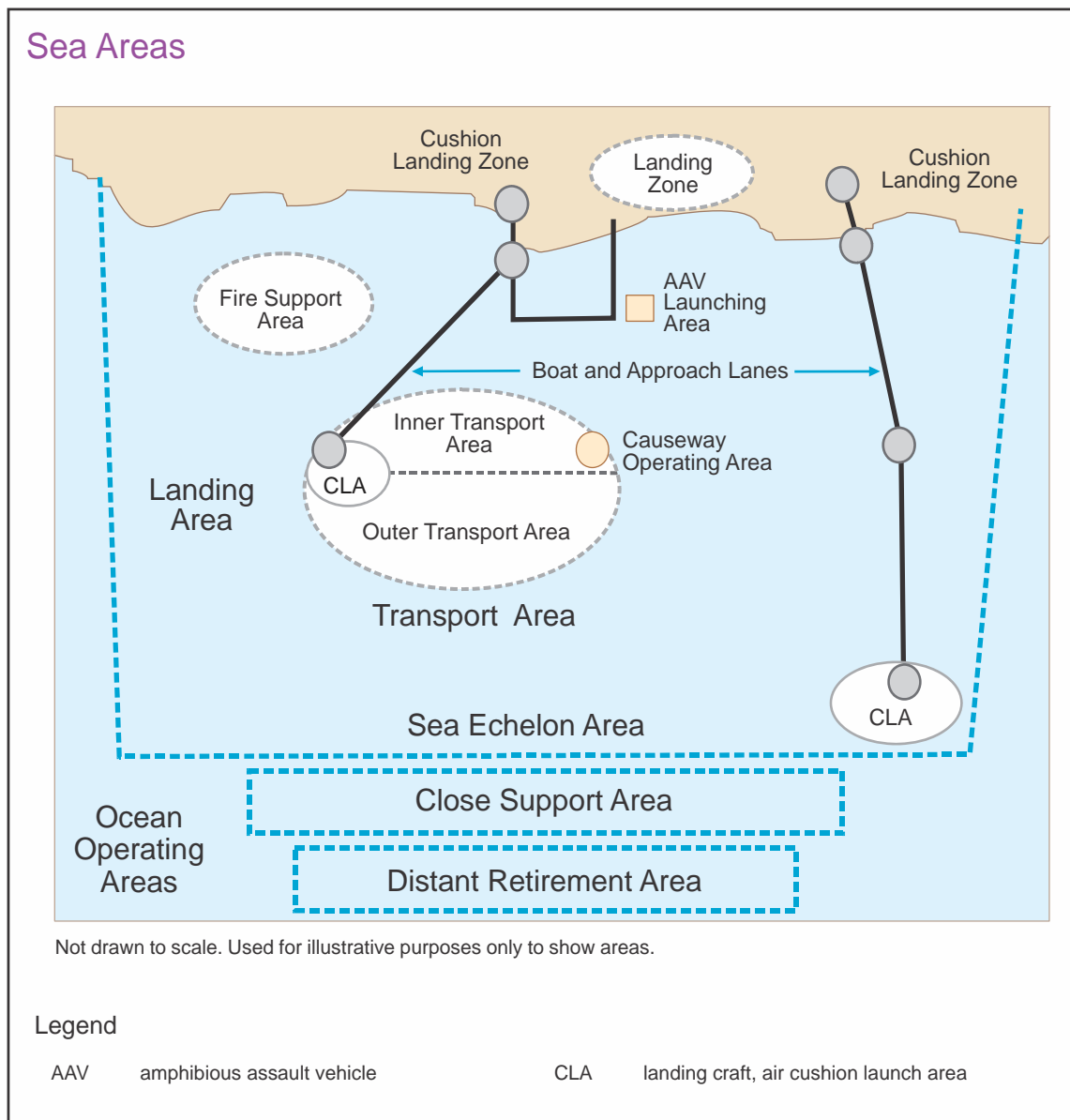


Figure III-4. Sea Areas

retire and operate in the event of postponement, heavy weather, or to prevent concentration of ships in the landing area.

b. **Sea Areas Within the Landing Area.** Areas in the landing area extending outward to the inner limits of the close support areas include:

(1) **Sea Echelon Area.** The sea echelon area is the area to seaward of a transport area from which amphibious warfare ships and surface combatants are phased into the transport area and to which these ships withdraw from the transport area. The use of a sea echelon area allows for dispersion of the force as a defense against attack but its location is not so distant that ships cannot be readily available to enter the transport area as required.

(2) **Transport Area.** A transport area is assigned to a transport organization for the purpose of debarking troops and equipment. The maximum number of ships in the transport area is determined by force protection requirements, availability of forces for MCM operations, and local hydrography and topography. Transport landing areas include:

(a) **Outer Transport Area.** An area inside the screening area used by amphibious warfare ships, surface combatants, and transports after arrival in the objective area. It is located sufficiently seaward of landing beaches to provide for effective protection against shore batteries or antiship missiles. Ships involved in the operation remain underway in this area and may initiate OTH operations or be phased into the inner transport area for a near-shore assault.

(b) **Inner Transport Area.** An area located close to the landing beach which transports may utilize to expedite unloading by reducing the distance to the beach. Considerations are: depth of water, navigational hazards, boat traffic, and enemy action.

(3) **Landing Craft, Air Cushion Launch Area (CLA).** CLAs are usually located in the transport area; however, in an OTH operation, CLAs may be located anywhere in the landing area to include the sea echelon area. The CLA (the sea component) and CLZ (the beach component) are connected by transit lanes.

(4) **AAV Launching Area.** Areas located near and to seaward of the line of departure (LOD) to which amphibious warfare ships proceed to launch AAVs.

(5) **Causeway Operation Area.** The causeway launching area is an area located in the inner transport area near the LOD clear of the approach lanes.

(6) **Boat and Approach Lanes.** A boat lane is a lane for amphibious assault landing craft, which goes from a LOD to the landing beaches. The width of the boat lane is determined by the number of craft that need to safely transit the boat lane. The beach can be wider than the boat lane and several boat lanes can serve one beach. An approach lane is an extension of a boat lane from the LOD toward the transport area. It indicates the exact route displacement landing craft use to approach the LOD from the transport area.

(7) **FSA or Fire Support Station.** A maneuver area or exact location assigned to fire support ships from which NSFS is delivered.

13. Geographic Reference Points

A complete system of geographic reference points for the operational area and surrounding ocean area should be determined during planning. The points may be used to indicate routes (particularly where the direction of the routes changes), to depict the shape and location of the areas discussed above, and for certain locations not related to areas or routes. Reference points will be encoded and defined by exact latitude and longitude.

14. Coordination During Passage

a. Forces not a part of the AF that are supporting the AF must coordinate their movement within the AOA with the ATF.

b. All commanders should remain cognizant of the general scheme and operational areas of other forces and the need for maintaining the schedule and proceeding along prescribed routes. If deviation is required, the commander of the group will determine whether to break emission control (EMCON), if established, to advise other commanders of the situation.

c. The AF, or elements thereof, may receive significant intelligence while en route to the operational area when advance forces or forces external to the AF conduct pre-D-day operations in the operational area or where remote sensor data is provided. During the extended transit period, the LF CE requires access to intelligence, surveillance, and reconnaissance products in order to determine the up-to-date enemy and friendly situation. The AF's intelligence center is responsible for timely dissemination of pertinent intelligence to the CATF and CLF. ATF ships receiving intelligence are responsible for passing it to the embarked LFs.

15. Approach to the Operational Area

a. Approach to the operational area includes the arrival of various task groups in the vicinity of the operational area. These forces aggregate as necessary according to assigned tasks and proceed to designated positions in the operational area. During this critical period, additional protective measures may be necessary. These measures may include:

(1) Counterair measures, including air strikes against enemy airfields within range of the landing area.

(2) Location and neutralization of enemy submarines, surface craft, minefields, and land-based threats that can interfere with the approach.

(3) Selection of approach routes that avoid lengthy exposure to fire from enemy land-based threats.

b. Approach of the main body is usually more complicated than that of the amphibious advance force due to the size of the force and its careful timing relative to H-hour. However, if an amphibious advance force has been employed, they may have implemented many of the necessary protective measures to protect the main body during its approach. In particular,

mine clearing assets of the advance force will normally have cleared enough of the landing area to permit the main body to approach with less risk.

c. Coordination and timing is of utmost importance in the final stages of the approach of all elements of each movement group to prevent interference between elements and permit each to arrive at its assigned position at the proper time to commence its task. The presence of advanced force elements already in the landing area may increase the complexity of the amphibious landing. The amphibious advance force commander is responsible to keep elements of the amphibious advance force from interfering with the approach of the main body. When the AF is composed of two or more task groups, the CATF normally coordinates the approach of the various task groups, but the task group commander is responsible for the movements of each individual task group.

16. Littoral Maneuver

“A comparison of the several landings leads to the inescapable conclusion that landings should not be attempted in the face of organized resistance if, by any combination of march or maneuver, it is possible to land unopposed within striking distance of the objective.”

**Major General A.A. Vandegrift, US Marine Corps
Commanding General, 1st Marine Division, 1 July 1943**

a. Littoral maneuver provides ready-to-fight combat forces from the sea to the shore in order to achieve a position of advantage over the enemy. It relies on naval and other joint forces to establish sea control and maritime superiority to provide maneuver space and to provide intelligence to uncover enemy defenses. The ability to conduct littoral maneuver provides an advantage for the AF by imposing a continuous coastal threat on the enemy that may cause dispersal of enemy forces, potentially dissipating enemy defenses. The mobility provided by naval air and surface movement platforms is then employed to exploit those gaps. Littoral maneuver allows AFs to operate across a wider geographic area, in a more decentralized manner. Informed by awareness of the enemy’s A2/AD capabilities, the ability to maneuver from OTH distances and evade detection by enemy sensors and weapons is perhaps the critical consideration for littoral maneuver.

b. Littoral maneuver in amphibious operations is an integrated approach bridging the boundary between land and sea. Ship-to-shore movement control provides the framework to accommodate the necessary coordination, while the landing plan provides the detailed documentation for executing ship-to shore movement to support littoral maneuver. Seabasing increases littoral maneuver options and directly supports and enables the landward maneuver component as discussed in paragraph 35, “Landing Force Operations Ashore.”

c. Littoral maneuver may be employed directly against an objective, including inland objectives, as the main effort; to seize infrastructure, beachheads, or lodgments that enable the arrival of follow-on forces; or to pose a continuous coastal threat that causes an adversary to dissipate forces.

17. Ship-to-Shore Movement

“It was to be a brutal day. At first light on 15 June 1944, the Navy fire support ships of the task force lying off Saipan Island increased their previous days’ preparatory fires involving all caliber of weapons. At 0542, Vice Admiral Richmond K. Turner ordered, “Land the landing force.” Around 0700, the landing ships, tank (LSTs) moved to within approximately 1,250 yards behind the line of departure. Troops in the LSTs began debarking from them in landing vehicles, tracked (LVTs). Control vessels containing Navy and Marine personnel with their radio gear took their positions displaying flags indicating which beach approaches they controlled.”

John C. Chapin, *Breaching the Marianas: The Battle for Saipan, 1994*

a. The plan for ship-to-shore movement to land troops, equipment, and supplies at the prescribed times, places, and in the formation required to support the LF scheme of maneuver is developed by the CATF and CLF. Ship-to-shore movement is the portion of the amphibious operation that includes the deployment of the LF from amphibious warfare ships to designated landing areas and LZs and is perhaps the most critical part of the action phase.

b. **The most difficult and complex ship-to-shore movement occurs during an amphibious assault.** The AE is comprised of units and craft assigned to conduct the initial assault on the operational area. Assault troops, vehicles, aircraft, equipment, and supplies that are not needed to initiate the assault, but are required to support and sustain the assault, are known as the AFOE. The AFOE will usually come in after the AE has conducted the initial assault. During ship-to-shore movement, the LF, landing craft, aircraft, and amphibious warfare ships are most concentrated and vulnerable to enemy fire, not to mention the natural hazards of weather, sea state, and surf conditions. Movement control requirements are complex, and detailed coordination with supporting arms is essential.

c. **Ship-to-Shore Movement Responsibilities.** The responsibilities for the CATF, CLF, and commanders of other assigned forces to the AF during ship-to-shore movement are discussed below.

(1) The CATF, in close coordination with the CLF, is responsible for the preparation of the overall ship-to-shore movement and landing plan. During execution of the amphibious operation, CATF has overall responsibility for ship-to-shore movement but will coordinate with the CLF to adjust for changing situations as revealed by intelligence sources or LFs ashore. The CATF is also responsible for debarkation until termination of the amphibious operation, at which time the responsibilities for off-load of the AFOE and follow-up shipping and LOTS operations may be passed to another organization designated by higher authority. In the case of an amphibious assault, the operation will normally be terminated only after the entire AFOE is ashore.

(2) **The CLF presents LF ship-to-shore movement requirements 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.

(3) **Commanders of Other Forces.** The 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) present their requirements to the CATF.

d. **Support Organizations and Agencies.** Organizations and agencies may be established to support the ship-to-shore movement plan. These organizations and agencies (i.e., terminal service battalion, amphibious construction battalion, or cargo handling and port group units) may be required to support the off-load of maritime pre-positioning ships (MPSs) or merchant ships. As developed seaports and airports become available, they are used to supplement traditional beach operations.

e. **Unloading Operations**

(1) The initial landing and unloading period is a tactical evolution and should provide rapid buildup of combat forces ashore and quick response to LF requirements.

(2) Selective and general unloading period. Selective unloading is tactical in nature and used to satisfy immediate support requirements when a full general unloading period is unnecessary or not feasible. General unloading is primarily logistic-oriented and emphasizes speed, volume, and rapid completion of the unloading of required personnel and materiel. It encompasses the unloading of units and cargo from the ships as rapidly as cargo handling facilities on the beach or ashore permit. It proceeds without regard to class, type, or priority of cargo.

f. **Transporting Personnel, Vehicles, and Cargo Ashore.** The transportation modes used to move personnel, supplies, and equipment ashore include landing craft, amphibious vehicles, causeway ferries, helicopters, and tiltrotor aircraft.

(1) **Landing Craft.** A landing craft is designed for carrying troops and their equipment and for beaching, unloading, and retracting. They are also used for resupply operations. Vehicles and the majority of equipment and supplies from amphibious warfare ships are usually transported ashore by landing craft.

(a) The LCU-1600 is a displacement landing craft used to land heavy vehicles, equipment, personnel, and cargo in an amphibious operation and is normally carried in the well deck of an amphibious warfare ship. In addition, the LCU's crew habitability features allow for independent transits and a persistence that equip it for a wide range of applications such as SZ salvage, FHA, NEOs, diving and surveillance, and a platform for small-boat operations.

(b) The LCAC is a high-speed (35+ knots), nondisplacement landing craft capable of conducting OTH, ship-to-shore movement. Carried in the well deck of an amphibious warfare ship, the LCAC—with its speed and ability to carry troops, vehicles, and cargo over-the-beach—complements the LCU and provides the flexibility to enhance access for the AF in the critical surface ship-to-shore movement stage.

(c) **Army Landing Craft Utility 2000.** These craft are not organic to an AF or maritime pre-positioning force (MPF). However, when task organized, Army craft can be utilized in support of amphibious operations. The LCU-2000 is a self-deployable displacement craft used for the transport of combat vehicles and sustainment cargo. It provides intratheater movement of cargo and equipment. It is also ideally suited for the discharge or back load of sealift, including RO/RO vessels. All tracked and wheeled vehicles, including main battle tanks, dozers, and container-handling equipment; they can be used for unit deployment and relocation.

(d) **Army Logistics Support Vessel (LSV).** The LSV is self-deployable and self-sustainable for 45 days. The vessel is capable of intratheater line haul of cargo to support unit deployment/relocation, tactical and sustained resupply to remote, undeveloped areas along coastlines and on inland waterways as well as ship-to-shore movement and return of personnel, outsized/oversized cargo and equipment. The LSV is equipped with both a bow and stern ramp.

(e) Landing craft, mechanized and MPF utility boats are not organic to amphibious warfare ships and are used primarily for MPF support to amphibious operations.

(2) **Amphibious vehicles** are wheeled or tracked vehicles capable of operating on both land and water. In addition to the capability to transport troops ashore and then proceed on to inland missions, they can also be used to move a limited amount of cargo ashore when transfer of cargo at the beach is not desired or when surf conditions, reefs, or other hydrographic conditions prohibit beaching of landing crafts.

(a) The AAV is a fully tracked, amphibious vehicle tasked to land the surface assault elements of the LF and their equipment from amphibious warfare ships to inland objectives. Once ashore, AAVs conduct mechanized operations and related combat support.

(b) The lighter, amphibious resupply cargo are capable of transporting a small amount of cargo in over-the-beach operations from ships to inland transfer points. However, they are mainly employed to provide SZ salvage support for LCUs.

For information on transporting troops and cargo on landing craft, see JP 3-02.1, Amphibious Embarkation and Debarcation. For additional information on employment considerations, see NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement; NWP 3-02.12/Marine Corps Reference Publication 3-31A, Employment of the LCAC; MCWP 3-12, Employment of Amphibious Assault Vehicles (AAVs); and Navy Tactical Reference Publication (NTRP) 3-02.1.2, Naval Beach Group Support Element Operations.

(3) **Modular Systems (improved Navy lighterage system [INLS], Army-modular causeway system)** are powered and nonpowered causeway and ramp module sections locked together like building blocks to create a variety of floating structures and can be used to support LF off-loads, particularly AFOE, either as a causeway pier, RO/RO discharge facilities, or causeway ferries. INLS is normally used to support MPF in-stream on-load and off-loads and is transported as part of the MPF equipment set. The Army modular causeway systems are similar in function to the INLS; however, they are

multimodal by configuring into International Organization for Standardization compliant modules. These unit sets are based for pre-positioned forward and also in the continental US. Causeway ferry operations may be augmented with the elevated causeway system to support the AFOE. The elevated causeway system is usually carried to the operational area aboard MSC-owned or-chartered vessels.

(4) **Helicopters and Tiltrotor Aircraft.** Helicopters and tiltrotor aircraft provide a range of options to enhance littoral maneuver. Long-range vertical assault aircraft can project deep into the landward portions of the operational area, providing the direct transport means to conduct ship-to-objective maneuver. When employed in off-loading, these assets supplement the landing craft in the off-load of high-priority and emergency resupply items, and can do so at greater speeds and distances from the shore.

(5) **Small Boats and Riverine Craft.** Small boats and riverine craft, with organic fires, reduced signature, high speeds, and C2 capabilities are readily available to provide a unique capability and capacity to project and sustain LFs in the littoral environment.

g. **Conduct of Ship-to-Shore Movement. All ship-to-shore movement is controlled by CATF.** Ship-to-shore movement is conducted by surface and air assets. For large operations, the CCO, assisted by a PCO for each colored beach, directs all surface ship-to-shore movement. A parallel organization exists for air ship-to-shore movement into an LZ and is controlled by the TAO and the HCS. The commencement of landing craft and aircraft loading operations, and the timing of other ship-to-shore movement preparations are dependent on the designated H-hour and L-hour. Whether using landing craft, amphibious vehicles, or helicopters and tiltrotor aircraft, the CATF—in conjunction with the CLF—develops and adheres to a strict time schedule based on H-hour. All elements should be prepared to modify plans to conform to changes in H-hour or L-hour. Prior to H-hour 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 to meet the time schedule for initial landings. The loading of personnel, equipment, and supplies of the scheduled waves is tedious work and time-consuming. Preparations are made for debarkation of on-call and nonscheduled units and for dispatching these units when required.

(1) **Scheduled Waves (Waterborne).** Once H-hour is confirmed by CATF, scheduled waterborne waves are landed according to plan. The first scheduled wave is dispatched by the CCO, with other waves being launched by the various PCOs in coordination with the CCO.

(2) **On-call Waves (Waterborne).** The landing of on-call waves is initiated when called for by the LF and continues until these units are ashore. Commanders ashore provide the desired place and time for the landing of an on-call unit, through the TACLOG group collocated with the Navy movement control organization. The Navy control officer then directs the landing of the unit.

(3) **Nonscheduled Units and Remaining LF Supplies.** Nonscheduled units and remaining LF supplies are landed in accordance with the requirements of the LF. On rare

occasions, these categories may be landed before completion of on-call waves and pre-positioned emergency supplies. This category usually includes certain combat support units and most of the CSS units with higher echelon (division and above) reserve units of the LF. Their landing is directed when the need ashore can be predicted with a reasonable degree of accuracy. 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 ATF and LF control organizations is essential to allow for responsiveness and efficient use of amphibious warfare 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 group. Any changes in the landing sequence, no matter how slight they may seem, will invariably disrupt the flow of the off-load and may result in unintended delays. The CLF requests the landing of the nonscheduled units and notifies the CATF of any requested modifications to the landing sequence as early as possible. 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.

(4) **Scheduled Waves (Helicopter-Borne and Tiltrotor Aircraft).** Air ship-to-shore movement is normally completed during the initial unloading period. Helicopters and tiltrotor aircraft usually make several trips to land and supply the LF units going ashore. Scheduled waves are launched on a prescribed schedule to facilitate the timely arrival in the LZs in accordance with the LF OPLAN. The prescribed launch times will be based on many factors such as distance to the LZ, speed of the aircraft, and prevailing weather (wind) conditions.

(5) **On-call Waves (Helicopter-Borne and Tiltrotor Aircraft).** Landing **on-call waves (helicopter-borne/tiltrotor aircraft)** may preempt the landing of elements or items in other landing categories. The number of on-call units or items should be kept to a minimum if their high-priority status is to be preserved.

(6) **Nonscheduled Waves (Helicopter-Borne and Tiltrotor Aircraft).** The landing of nonscheduled waves commences on 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 to support other tactical missions, may interrupt the landing of nonscheduled waves. Once the airborne ship-to-shore movement is completed, transport helicopters and tiltrotor aircraft are employed to meet tactical and logistical requirements of LF operations ashore as directed by the CLF. Helicopter and tiltrotor aircraft movement in these operations will be controlled by appropriate tactical air control agencies.

(7) **Pre-Positioned Emergency Supplies.** Pre-positioned emergency supplies are designated by the CLF to meet expected critical needs for CSS replenishment early in the ship-to-shore movement. These serialized supplies, available for immediate delivery ashore, are organized into prestaged airlifted supplies and, if employed in larger operations, may be in floating dumps. Pre-positioned emergency supplies are located in proximity to the

appropriate control officer who directs their landing as requested by the troop commander concerned.

h. Considerations for ship-to-shore movement planning include the following:

(1) Tactical integrity of the LF enables unity of command and execution of proven TTP during amphibious operations. The organization for landing should closely mirror the tactical formations of the LF and allow for adequate C2 for the respective commanders. As much as feasible, the LF should embark on assigned shipping, landing craft, and helicopters along normal organizational lines. However, for the fastest off-load, consideration should be given to spreading the unit to more than one ship.

(2) Available amphibious warfare ships and landing craft. The type and quantity of amphibious warfare ships, landing craft, small boats, and amphibious vehicles used for the ship-to-shore movement will influence every aspect of the planning and execution of the operation. The inherent capabilities and characteristics of available ATF assets play a role in the development of the LF CONOPS.

(3) Ship and landing craft cycle time. The ship's flight deck and well deck are limited in the length of hours they can operate. Further, for large-scale operations, the ships may be cycled into the inner transport areas for the most expeditious off-loading. Generally, not all ships can be in the inner transport areas at the same time.

(4) Required degree of dispersion of ships, to include contemplated employment of a sea echelon plan.

(5) Protection of the AF is a matter of mutual concern to the CAF, CATF, and CLF. Coordination of the use of LF assets (e.g., aircraft, antiaircraft missiles, crew-served weapons, ground-based air defense assets) to support the defense of the ATF may be required. Protection comprising both active and passive measures should be provided during all phases of the amphibious operation but particularly during the vulnerable period of ship-to-shore movement. The increasing threat from precision-guided munitions must also be considered. Active protection includes defensive counterair operations, ASW and anti-small-boat screens, covering forces, electronic countermeasures, offensive counterfires, obscuration, defeat of WMD delivery systems, and NSFS. Passive protection places major emphasis on dispersion and mobility.

See Chapter V, "Support to Amphibious Operations," Section E "Protection," for more information.

(6) Flexibility. The ship-to-shore movement plan should have sufficient flexibility to exploit adversary vulnerabilities that may become apparent after the commencement of the landing.

(7) Availability and planned utilization of supporting arms.

(8) Need for speed and positive centralized control.

(9) MCM and obstacle reduction requirements including assault breaching operations in the SZ and on the beach.

(10) Go/no-go criteria.

(11) Hydrographic conditions.

(12) Recovery and salvage of amphibious vehicles and landing craft.

i. **Ship-to-Shore Movement Planning Sequence.** Detailed planning for the ship-to-shore movement can begin only after the LF scheme of maneuver ashore is determined and the LF CONOPS is approved. The ship-to-shore movement planning sequence (see Figure III-5) is a coordinated effort between the ATF and LF. The planning of the ship-to-shore movement is an iterative process. The LF scheme of maneuver may affect the assignment to shipping. This iterative planning process between CATF and CLF will ensure the best load out and the best ship-to-shore plan that considers the air and surface plan, the A2/AD threat, the number of landing craft that need to be embarked, etc. Included in the planning is the selection of necessary approach and retirement lanes, checkpoints, rendezvous areas, and

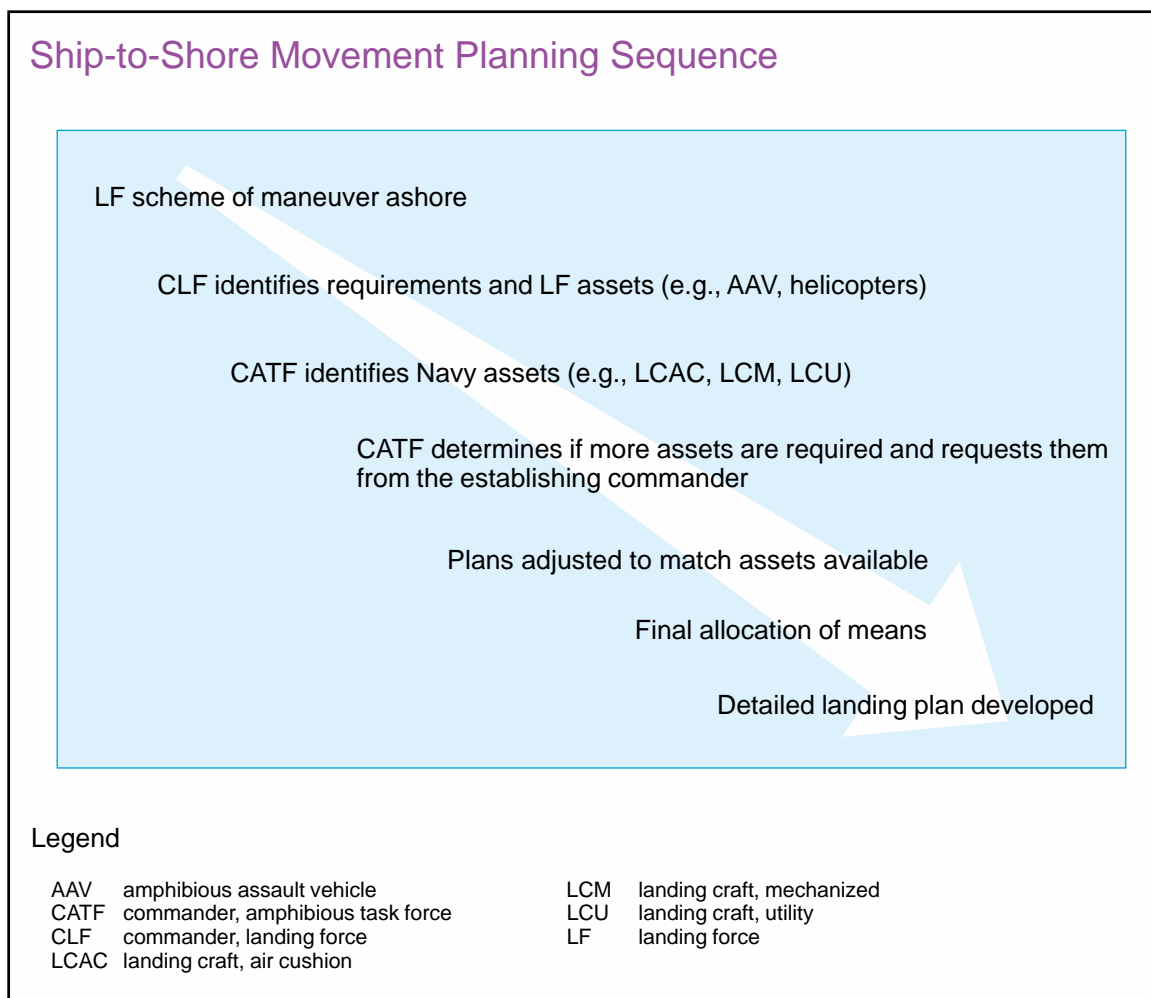


Figure III-5. Ship-to-Shore Movement Planning Sequence

aids to navigation to facilitate movement of troops. In an amphibious operation, a rendezvous area is the area in which the landing craft and amphibious vehicles rendezvous to form waves after being loaded and prior to movement to the LOD.

j. **Relationship to Other Planning.** Fire support plans should be carefully integrated with the landing plan. The landing plan should support logistic requirements of all forces. Likewise, the completed landing plan will drive embarkation planning. Maximum attention should be given to preserving OPSEC during planning.

See JP 3-02.1, Amphibious Embarkation and Debarkation, and NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement, for further detailed discussion on ship-to-shore movement considerations and planning.

18. Landing Plan

a. **Ship-to-shore movement planning for the AF is given final form and expression in the landing plan.** The landing plan is designed to support the LF's CONOPS, keeping in mind the inherent capabilities and operational characteristics of available amphibious warfare ships and landing craft. It is prepared after the final allocation of means has been made. It represents the integrated sum of detailed plans for waterborne and airborne ship-to-shore movement prepared by corresponding ATF and LF commands at all levels. The plan should maximize range and speed capabilities of surface landing and amphibious assault craft and aircraft (helicopter and tiltrotor aircraft) that allow coordinated operations over a wide range. A flexible landing plan enables the AF to gain and retain tactical initiative, enhances operational flexibility, takes advantage of enemy 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 land 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. These documents should be incorporated in annexes to operation and administrative plans and orders. **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. For those types of amphibious operations other than amphibious assaults, the CATF and CLF may not need to develop or utilize all of the documents for the landing plan shown in Figure III-6.

b. The landing plan establishes relative landing priorities among the various elements of the LF and with overall coordination of ship-to-shore movement planning. Specifically, it provides:

- (1) Priority for landing of elements of the LF.
- (2) Allocation of resources.
- (3) Allocation of serial numbers.
- (4) Sequence for landing of nonscheduled units.

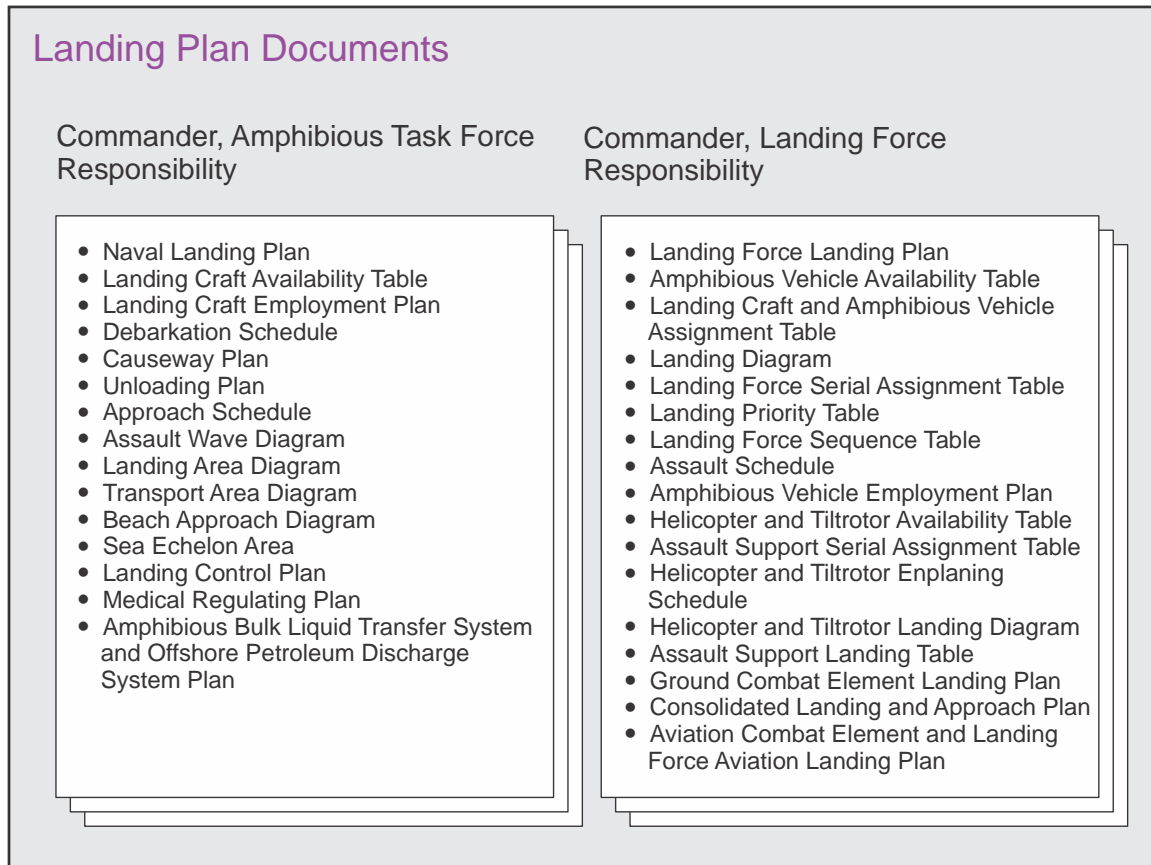


Figure III-6. Landing Plan Documents

(5) Coordination of the landing plans of separate landing groups, if required.

c. Landing plan documentation is a responsibility of both CATF and CLF. Although some documents require joint preparation by ships' commanding officers (COs) and COs of troops, all landing plan documents are the responsibility of either the CATF or CLF.

d. After the means for ship-to-shore movement have been assigned, LF plans are prepared in the following sequence:

(1) 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.

(2) CLF allocates blocks of serial numbers to elements of the force.

(3) CLF determines the relative landing priorities for the various elements of the force.

(4) 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.

THE INVASION OF NORMANDY

The invasion of Normandy was without question the most important battle fought in western Europe in the Second World War. The Allies' success in landing their troops and securing a beachhead on June 6, 1944, doomed Hitler. The landings at Anzio only a few months earlier had shown that success was by no means certain. Amphibious landings were inevitably extremely risky operations.

Allied strategists meeting in Washington in May 1943, set the date for the cross-channel invasion of France as May 1, 1944. Due to a shortage of landing craft, however, the invasion date would be postponed from May to June 1944. Planning for the invasion had been going on since 1942. The raid at Dieppe had provided an early and disastrous dress rehearsal.

The Allies had decided in July 1943, that the Cotentin peninsula of Normandy offered the best location for the invasion. The Germans, who had 3,000 miles of coastline to defend, did not know where the invasion would come. They put up their heaviest defenses in the Calais region of the French coast. Nazi leaders disagreed on the most likely site for the invasion and on the strategy for employment of their forces.

In England, the troops who would land on D-day went through endless rehearsals for the invasion. In late May 1944, the rehearsals came to an end. Soldiers were confined to their quarters then shipped to concentration areas near ports and airfields from which they would depart. For security reasons, they were not told their ultimate destination. When they were safely at sea, they would finally be told they were headed to Normandy.

By the end of the day of June 5, 1944, over 2,500 ships carrying the Allied invasion force were heading toward the Normandy coast. More than 1,000 planes and gliders were being readied to carry the airborne troops into battle.

SOURCE: *World War II—America at War*, Maurice Isserman, 1991

(5) CLF consolidates these recommendations and publishes them in the LF landing plan.

(6) Planning for the movement of supplies ashore and for the levels of supply needed ashore is conducted concurrently with other ship-to-shore movement planning. If the CLF uses the option of employing floating dumps, planning should include the composition of the floating dumps.

e. **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 the landing plan.

(1) The **landing craft availability table** is the basis for assignment of landing craft for the ship-to-shore movement. It lists the type and number of landing craft that will



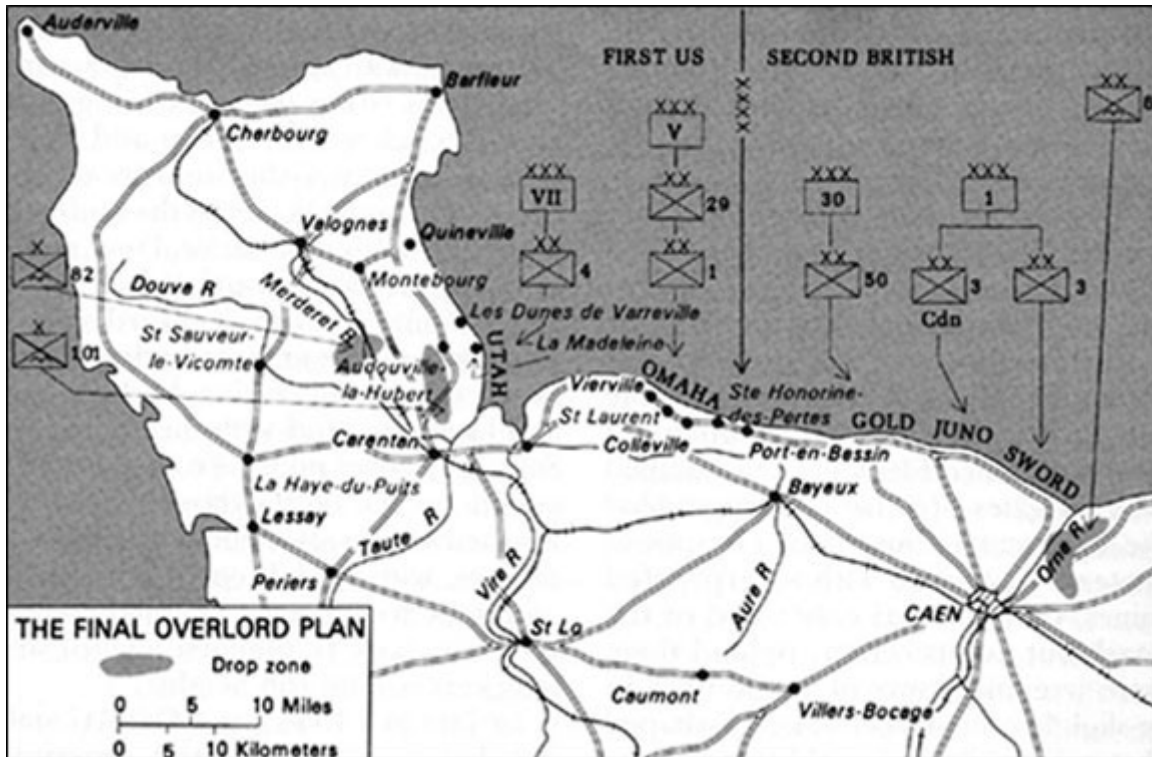
United States Soldiers of the 8th Infantry Regiment, 4th Infantry Division, move out over the seawall on Utah Beach (June 6, 1944).

be available from each ship in the transport group, specifies the total required for ATF use, and indicates those available for troop use. It is prepared by the CCO.

(2) The **landing craft employment plan** provides for the assigned movement of landing craft from the various ships to satisfy ATF 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 CCO.

(3) 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. The debarkation schedule may be accompanied by a ship's diagram depicting where LF units stage or muster for debarkation such as the hangar bay, upper or lower vehicle storage, side port areas, boat deck, or any other location onboard ship. Debarkation schedules are not normally prepared for units landing in AAV or aircraft. The debarkation schedule contains the following information:

- (a) The sequence in which landing craft, by type, depart the well deck.
- (b) The individual boats and boat teams or supply loads from each troop debarkation station and the boats into which they are loaded.



The landing plan for Operation OVERLORD assigns beaches to US and Allied forces.

(4) The **unloading plan** establishes the sequence and designates the means for off-loading the LF. It consists of the landing craft availability table and the landing craft employment plan.

(5) The **approach schedule** indicates the time of departure from the rendezvous area, LOD, and other control points; and time of arrival at the beach for each scheduled wave.

(6) The **assault wave diagram** displays the assault waves as they will appear at a specified time prior to H-hour. The diagram is prepared by the CCO.

(7) The **landing area diagram** is prepared by the CCO, and shows graphically the most important details of the landing area: beaches, boat lanes with their LODs, LCAC routes, CLZ transport areas, and FSAs in the immediate vicinity of the boat lanes.

(8) The **transport area diagram** overlays the objective area with an appropriate scale chart that shows the area from the beach to 1,000 yards seaward of the outermost transport area anchorage or underway sector. Key graphical features depicted include: transport area(s) and assignment of ships to anchorage or underway sectors; boat and approach lanes; LCAC routes and areas, LCAC departure point, LCAC control point, LCAC penetration point, and LCAC LZ; LODs; AAV launching areas; causeway launching areas; and beaches.

(9) A **beach approach diagram** is prepared by CCO as an overlay for a large-scale chart of the landing beaches. The overlay depicts an area extending from each beach seaward 500 yards beyond the LOD.

(10) 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 area, transport lanes, and beaches.

f. **The CLF is responsible for the LF landing plan.** It is the compilation of detailed plans prepared by the LF. The following documents designate the forces going ashore, and promulgate the means, organization, sequence, and landing priorities:

(1) The **amphibious vehicle availability table** lists the number and type of vehicles available for the landing, the LF units embarked in them, and the ships carrying them.

(2) The **landing craft and amphibious vehicle assignment table** indicates the organization of LF units into boat spaces, 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 AAV assignment table is prepared and promulgated at the same time as the landing diagram.

(3) The **landing diagram** graphically shows the tactical deployment of boat teams in scheduled waves. It provides the wave composition, showing AAVs and landing craft and touchdown times for a colored or numbered beach. The landing diagram is prepared by a representative from the GCE based on recommendations from subordinate commanders and promulgated concurrently with 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.

(4) The **LF serial assignment table** reflects the organization of the LF for ship-to-shore movement. It 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. 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 LZ at the same time. A serial number is assigned to each serial (group). Serial numbers are administratively 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 expedient.

(a) Early in the planning stage, the CLF 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 as each unit allocates a consecutive portion of its block to subordinate units. Allocation continues until each element within the LF has a block of consecutive numbers for assignment to its subordinate and attached elements.

(b) 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. 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 **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 LZs. It is used principally when the LF is complex or when a phasing of LF units is required.

(6) The **LF landing sequence table** is a complete list of the estimated landing sequence of the nonscheduled units of the LF. It is the principal document prepared by the CLF 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.

(7) The **assault schedule** prescribes the formation, composition, and timing of waves landing over each beach. The GCE prepares the assault schedule based on the recommendations of subordinate unit commanders.

(8) 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. The GCE develops this plan.

(9) The **helicopter and tiltrotor aircraft availability table** lists the helicopter and tiltrotor aircraft units, number available for first and subsequent lifts, their tentative load capacity, and the ships on which they are transported for a proposed landing. It is prepared by the helicopter and tiltrotor unit commanders.

(10) The **assault support serial assignment table** is prepared by the unit commander requiring air movement in coordination with the ship's CO and ACE representatives. It 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 and on-call waves.

(11) The **helicopter and tiltrotor aircraft enplaning schedule** shows the enplaning stations on the flight deck, sequence in which aircraft are spotted at the enplaning stations, and the serialized heliteam with equipment and supplies assigned to each aircraft in

each designated flight. It plans for the orderly enplaning of troops, supplies, and equipment for the air ship-to-shore movement.

(12) The **helicopter and tiltrotor aircraft landing diagram** illustrates the routes to and from LZs. It includes the transport areas, rendezvous points, approach and retirement routes, departure and initial points, other control points, LZs and other details as are necessary for clarity. The diagrams are prepared by the senior helicopter or tiltrotor unit commander in coordination with the cognizant helicopter or tiltrotor transport unit commanders and are submitted via the chain of command to the CATF for approval and coordination.

(13) The **assault support landing table (ASLT)** is a detailed plan for the airborne ship-to-shore movement of troops, equipment, and supplies. It provides the landing timetable for helicopter and tiltrotor aircraft 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 aircraft unit's flight schedules and the control of helicopter and tiltrotor aircraft movement by the appropriate air control agency. The ASLT is prepared in close coordination between the commanders of the units needing air movement and the helicopter and tiltrotor aircraft units and with the AATCC, Navy TACC, and SACC.

(14) The **GCE landing plan** is developed by the senior GCE representative, who does the major portion of the detailed planning and immediate supervision of the surface and air 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.

(15) The **ACE and LF aviation landing plan** 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 aviation elements that are embarked in amphibious warfare ships and landed with assault units or as nonscheduled units.

(a) The aviation landing plan contains the following:

1. Plans for the echelonment and landing sequence of all aviation units to be established ashore within the landing area.
2. Detailed landing documents for aviation elements that move ashore before general unloading.
3. Applicable ship-to-shore control provisions.
4. Information on causeways, fuel handling systems, and the landing of engineers and equipment necessary for aviation support ashore.

(b) 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.

1. 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.

2. 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 provides for a grouping of the aviation 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 to the OPLAN or OPORD.

(c) 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.

1. Detachments of the aviation units and the LCE elements that form part of the helicopter support teams 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 ASLT and helicopter and tiltrotor aircraft 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.

2. The LF aviation landing plan lists separately those aviation 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:

- a. Extracts from appropriate assault schedules.
- b. Extracts from helicopter and tiltrotor aircraft employment in the ASLTs.
- c. Extracts from helicopter and tiltrotor aircraft waves in the assault support serial assignment tables.
- d. Serial assignment table.
- e. Landing sequence table.

(16) Serial numbers for nonscheduled aviation elements are allocated by the LF. The assigned serials and an itemized list of personnel and equipment of aviation 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 nonscheduled aviation elements. These elements are incorporated into the force landing sequence tables.

g. **Ship-to-Shore Control.** To monitor the landing of aviation elements early in the ship-to-shore movement, the LF aviation commander provides representatives to the senior TACLOG group. As changes or delays in the landing of aviation elements occur, the commander may then be apprised of the situation. Schedules and tables required by aviation representatives in the Navy TACC, in addition to those in the LF aviation landing plan, may be in the air annex to the OPLAN or OPORD.

h. **Airfields, 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:

- (1) Airfields achieving operational status.
- (2) Installation of causeways for landing heavy aviation assets.
- (3) Completion of fuel-handling systems from the beach to the airfields or helicopter operating sites.
- (4) Landing of engineers and commencement of work on airfields.

See NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement, for further detailed discussion on the landing plan.

19. Over the Horizon

a. An OTH operation is initiated from beyond visual and radar range of the enemy shore. The goal of OTH operations, especially during ship-to-objective maneuver, may be to achieve operational surprise through creation of multiple threats and ultimately to shatter an enemy's cohesion through a series of rapid, violent, and unexpected actions that create a turbulent and rapidly deteriorating situation with which an adversary cannot cope. It is also a tactical option to hide intentions and capabilities and to exploit the element of tactical surprise to achieve AF objectives.

b. The decision to conduct OTH operations may be a **force protection decision to mitigate threats to amphibious warfare ships from antiship missiles or shallow water mines**. This is especially true in A2/AD environments. OTH operations provide greater protection to the AF from near-shore threats and provides escort ships a greater opportunity to detect, classify, track, and engage incoming hostile aircraft and coastal defense missiles while expanding the shoreline the enemy must be prepared to defend. Conversely, the

expanded OTH operational environment increases ship-to-shore transit distance and time, complicates C2, and may strain logistic sustainment of the LF. As the situation ashore develops, the CATF and CLF adjust the ship-to-shore maneuver to reinforce successes and may change LZs and CLZs to keep enemy forces off balance. To increase combat power, ease the logistic strain for forces ashore, and support follow-on forces, the designated commander may shift all or part of the AF to near-shore operations. This decision is based on the threat to forces afloat, CLF requirements, and the situation ashore. See Figure III-7 for advantages and disadvantages inherent to an OTH operation.

c. **Planning Considerations.** While OTH techniques are applicable to any type of amphibious operation, special considerations are required. **An OTH operation requires that the landing plan be fluid, containing alternate beaches and LZs that may even be selected while landing craft are in transit.** Operational requirements for planning an OTH amphibious operation should:

(1) Develop and maintain an accurate and timely tactical picture of the operational area. The need for timely intelligence data is increased for OTH operations because the number of possible landing sites is increased. The afloat tactical picture, as it pertains to the presence or absence of enemy naval forces between the ATF and shore, plays a significant role in the selection of possible landing sites and, therefore, affects the scheme of maneuver. Using OTH tactics requires consolidation of the tactical picture of land and water to provide the CATF and CLF with a consolidated base from which to plan and make tactical decisions. Interoperable C2 systems for maintaining situational awareness and a common tactical picture for the CATF and CLF are absolutely essential in OTH operations.

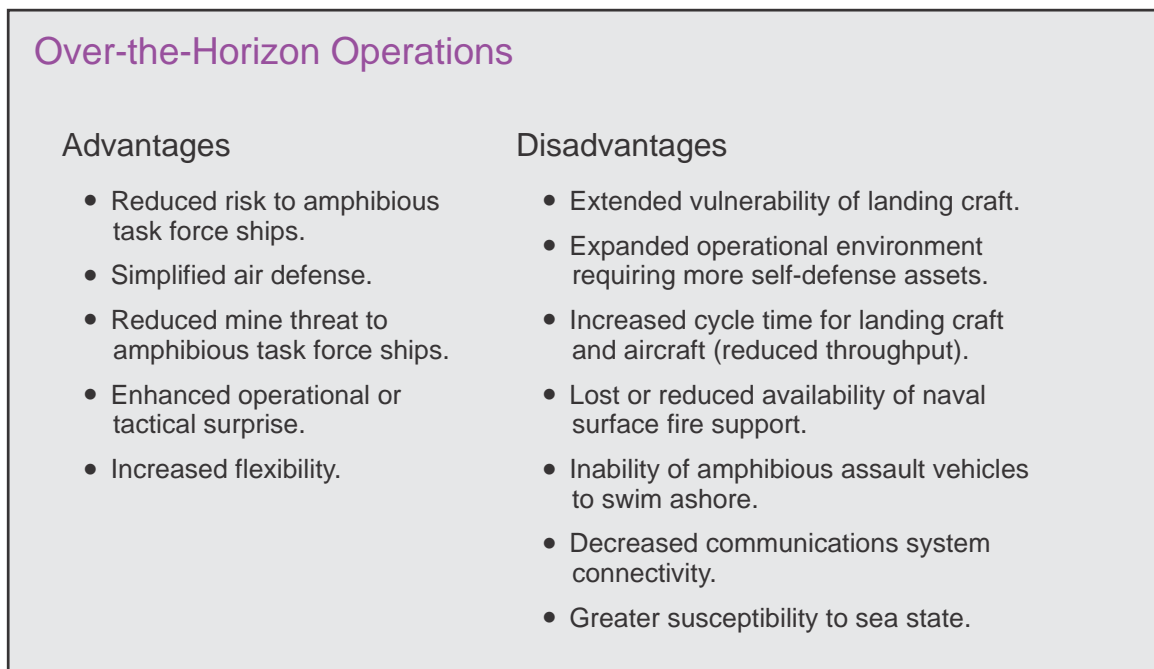


Figure III-7. Over-the-Horizon Operations

(2) Conduct surveillance and reconnaissance of the operational area with emphasis on possible landing sites. Positioning the AF OTH allows the landing site location to remain flexible. Landing sites may be chosen just before launching the first wave.

(3) Reliable communications and accurate navigation. OTH operations planning is more complex than traditional amphibious planning due to the increased distances between launch platforms, landing beaches, supporting fires, and control platforms. This in turn requires greater coordination and communications capability. Flexibility must be maintained throughout the operation since LZs and CLZs may be widely separated. The vertical assault may land forces inland where they will be able to threaten key enemy positions, facilities, and lines of communications (LOCs).

(4) NSFS may be a requirement for successful prosecution of an amphibious assault. However, since one underlying reason for an OTH assault is the strength of coastal defenses, the primary mission of NSFS may shift from destroying enemy forces at a defended landing beach to isolating the landing area(s). Prelanding fire support in the vicinity of landing sites may also be restricted, especially prior to D-day and H-hour, to preserve tactical surprise. NSFS ships may initially be OTH with the ATF, closing the beach with the initial waves of landing craft. Although these ships can use land attack missiles for OTH fire support, their quantities are limited.

(5) OTH distances may be so great that the LCUs may not be able to be used except for the scheduled waves. For example, if the ATF is 30–50 nautical miles off the coast, the transit time could be 4–6 hours one way for the LCU. This means that the LCUs will be able to make only one landing per day. Further, the LCACs will be able to land generally only three–four times per day under optimal conditions.

(6) If the amphibious operation is planned to be OTH, then more landing craft should be embarked.

(7) If the amphibious operation is planned to be OTH, then the AAVs may not be able to swim to the shore and thus, the LF will not be initially mechanized.

20. Seabasing Considerations

a. Seabasing is the deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea without reliance on land bases within the JOA. Operations from a sea base allow for rapid movement to the area of crisis and the buildup of combat power while in international waters without political restrictions. The decision to conduct seabasing operations depends on the tactical situation and the scope and intensity of the assigned mission. In the decision-making process, a JFC can select and task organize from a wide range of naval, joint, or multinational forces. In so doing, employing the seabasing construct provides a JFC with options for closing, assembling, employing, sustaining, and reconstituting forces for amphibious operations. Units that could constitute a sea base should possess a wide range of capabilities that complement each other.

b. **Planning Considerations.** Seabasing enables operational maneuver for ship-to-shore movement and improved operational access to the joint force during the action phase

of amphibious operations while significantly reducing the footprint ashore and minimizing the permissions and force protection support required from or levied on host nations. Seabasing is an enabler for ship-to-objective maneuver.

(1) The situation on the ground may require the CATF and CLF to minimize the forces ashore. Seabasing allows certain LF and ATF support functions to remain aboard ship.

(2) With a sustainable logistics tail at sea, a sea base leverages the ATF's ability to operate from international waters, while providing support for the LF ashore.

(3) Seabasing increases the maneuver options for LF ashore by reducing the need to protect elements such as C2 and logistic supplies.

(4) Continuous sustainment of the sea base and the supported forces ashore requires logistic operations and plans personnel to consider implications across the range of logistics. Limited logistic support will be available to support other forces ashore that arrived in the operational area via means other than the sea base.

For more information on seabasing, see NWP 3-62M/MCWP 3-31.7, Seabasing.



Landing craft, air cushion vehicles provide the over-the-horizon heavy lift capability for the landing force.

21. Operations in Chemical, Biological, Radiological, and Nuclear Environments

a. **General.** The threat of use or employment of CBRN weapons poses unique challenges for AFs when planning and conducting amphibious operations. Most of the associated challenges stem from the unpredictable nature of coastal and shore environments, the nature of amphibious warfare ships' infrastructures, the availability of assets to counter these hazards or threats, and the difficulties of operating in a CBRN-contaminated environment. AF commanders and staffs should carefully assess the potential risk of an adversary employing CBRN weapons against an amphibious operation. Planners should maintain a clear understanding of potential CBRN threats and hazards within their operational area and include measures to minimize associated AF vulnerabilities.

b. **Responsibilities.** **The AF needs to be capable of efficiently and effectively continuing its operations in a CBRN threat environment.** Within the AF, the CATF is ultimately responsible for CBRN defense of the forces afloat, including the LF while embarked. The CLF is responsible for CBRN defense of the LF once ashore.

c. **Planning Considerations.** AF commanders address potential CBRN threats or hazards during the planning phase.

(1) Countering WMD plans may include provisions for the following:

(a) Requests for supporting operations to eliminate or reduce an adversary's CBRN capabilities within the operational area prior to the arrival of the AF.

(b) Plans for amphibious advance force operations to further degrade an adversary's CBRN capabilities and to detect contaminated areas that may interfere with the CONOPS.

(c) Offensive and defensive preparations taken by the AF to minimize the vulnerability to and mitigate the effects of CBRN attacks.

(2) The AF's joint intelligence preparation of the operational environment (JIPOE) process should address the capabilities and limitations of an adversary's offensive CBRN capabilities, including associated delivery systems, their C2 and release procedures, and indicators of intent to employ these weapons. The AF commanders should provide target planning and execution guidance for conventional weapons use and consult with US Strategic Command and US Cyber Command for use of other capabilities, such as those used for offensive cyberspace operations, to the full extent of available actions to create the desired effects needed against an adversary employing any CBRN weapons. TIM within the operational area should be located and characterized as it can produce similar effects.

(3) The principles of CBRN defense should be factored into planning to specifically address avoidance of CBRN hazards, particularly contamination, protection of individuals and units from unavoidable CBRN hazards, and required decontamination procedures to restore operational capability. Application of these principles helps to minimize vulnerabilities, protect the AF, and maintain the operating tempo in order to achieve the AF objectives.

(4) CBRN contamination avoidance prevents the disruption of the amphibious operation by eliminating unnecessary time in elevated protective postures and minimizing decontamination requirements. Avoiding contamination requires the ability to recognize the presence or absence of CBRN hazards in the air, on water, land, personnel, equipment, and facilities, at both long and short range. Supporting and amphibious advance force operations should provide for long-range surveillance and detection capabilities focused on areas such as the landing beaches, LZs, LF objectives, and the AF objectives. Pre-assault operations and actions taken throughout the remainder of the amphibious operation should provide for short-range surveillance and detection capabilities in support of the LF units operating ashore and ATF ships within the sea echelon area.

(5) CBRN Protection. Specific actions required of the ATF and LF before, during, and after WMD attacks should be clearly communicated and rehearsed. CBRN protection conserves the force by providing individual and collective protection capabilities essential to mitigating the effects of CBRN hazards. Protecting the force from CBRN hazards may include preventing or reducing individual and collective exposures and applying medical prophylaxes. Individual protection also includes measures to protect equipment, vehicles, and supplies.

(a) Commanders should adopt a mission-oriented protective posture (MOPP) for the AF that establishes flexible force readiness levels for individual CBRN protection, provides the force with pre-treatments and immunizations as required, and has adequate antidotes and other medical treatments available to enable their forces to survive the effects of the CBRN hazard. MOPP analysis (the process of determining a recommended MOPP) integrates CBRN protection requirements—derived from CBRN threat assessments—with mission requirements. MOPP allows commanders to adjust their force’s protective posture based on the threat of imminent attack or the CBRN hazards present and then prosecute the mission with confidence. The required protective posture may range from as low as having individual protective equipment (IPE) readily available to as high as wearing the full personal protective ensemble. Providing individual protection in an environment susceptible to wave action and associated seawater infiltration is even more challenging. Mission performance of personnel will suffer from wearing IPE over time. Associated heat stress will be increased further if other waterproof gear is worn over IPE. Also, IPE effectiveness degrades over time. The LF and ATF personnel manning flight decks, well decks, and landing craft, as well as those operating ashore (e.g., beachmaster units), require IPE and must be capable of operating in MOPP levels commensurate with the threat. Likewise, individual equipment, vehicles, and supplies gain considerable protection from deployed protective covers. These covers may be as simple as thick plastic sheathing and provide immediate protection against large-scale use of liquid chemical agents.

For additional information on individual protection see JP 3-11, Operations in Chemical, Biological, Radiological, and Nuclear Environments, NTTP 3-20.31, Surface Ship Survivability, Naval Ships Technical Manual Chapter 070, Nuclear Defense at Sea and Radiological Recovery of Ships After Nuclear Weapons Explosion, and the library of multi-Service TTP that the Services have collectively developed on various aspects of CBRN defense.

(b) Sustaining operations in CBRN environments may require collective protection equipment, which provides a toxic-free area for conducting operations and performing life support functions such as rest, relief, and medical treatment. When collective protection is not available ashore, plans must be developed, exercised, and evaluated to move personnel away from contaminated areas ashore.

(6) When contamination avoidance is not possible, decontamination supports the post-attack restoration of the AF and the resumption of operations to a near-normal capability. Decontamination is conducted to reduce or eliminate the hazard risk to personnel and to make equipment serviceable. Because decontamination may be labor and logistic intensive and assets are limited, the AF commanders must prioritize requirements and decontaminate only what is necessary. Decontamination is organized into four categories that reflect operational urgency: immediate, operational, thorough, and clearance. In order to maintain the operational tempo, the AF uses immediate and operational decontamination to the maximum extent possible until the AF objectives are secured. Thorough decontamination is normally conducted in the rear area, beyond the range of enemy direct-fire systems. It is conducted during an operational pause, following the completion of an operation, and preferably prior to recovery to a ship. Clearance decontamination provides decontamination to a level that allows unrestricted transportation, maintenance, employment, and disposal. It prepares organizations or individual units for return to their home garrisons. It involves those actions required to bring contaminated items into full compliance with national work and occupational hazard standards. Clearance decontamination is conducted after hostile actions have terminated, when the commander determines it is in the unit's best interest, or when directed by higher authority. It involves factors such as suspending normal activities, withdrawing personnel, and having materials and facilities not normally present to the AF.

22. Electromagnetic Spectrum Management Operations

a. The proper execution of joint electromagnetic spectrum (EMS) management operations enables the commander to command and control forces, gather intelligence, execute both lethal and nonlethal fires missions, conduct movement and maneuver, and protect and sustain the force. All of these functions are accomplished in a dynamic environment and require continual planning, coordination, and management of the EMS to ensure that the full complement of capabilities is at the commanders' disposal.

b. Once the allotted EMS has been allocated to support specific forces or systems in the AOA, it is no longer available for use. EMS can, however, be reallocated or reused, depending on distance and power between emitters. The CATF and CLF should conduct an operational assessment of the impact of sacrificing one potentially critical capability in order to use another.

c. The AF should resolve electromagnetic interference daily.

d. EW planners should coordinate their planned activities with other activities that may use the EMS. EW activity may create effects within and throughout the entire EMS and cannot be limited to the AOA. AF EW planners should closely coordinate their efforts with

those members of the joint force who are concerned with managing military EMS use in the area of responsibility.

e. For the LF, the electronic warfare coordination cell can be used to support planning and operations.

See JP 6-01, Joint Electromagnetic Spectrum Management Operations, for more information regarding joint EMS management operations.

For more information on the EW coordination cell, see JP 3-13.1, Electronic Warfare.

23. Cyberspace Operations

Many aspects of modern amphibious operations depend upon secure access to cyberspace. The AF's JIPOE should address the capabilities and limitations of an adversary's offensive and defensive cyberspace operations capabilities. The AF commanders should consult with US Cyber Command to plan for the full extent of available actions to create the desired effects needed against an adversary employing cyberspace capabilities.

See JP 3-12, Cyberspace Operations, for additional information on offensive and defensive cyberspace operations.

SECTION B. EMBARKATION

24. Overview of the Embarkation Phase

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

MSC support to amphibious operations and associated special considerations is provided in NWP 3-02.21, MSC Support of Amphibious Operations.

b. **Considerations.** Plans for assembly of amphibious warfare ships 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 should 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. Critical to planning is an understanding of the embarkation requirements and amphibious warfare ships' capacities, which are normally expressed in terms of troop berthing (personnel), square feet (vehicles, equipment), and measurement tons (volumetric) or weight (short tons) of supplies. 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. On completion of the embarkation phase, these task organizations dissolve. Amphibious warfare ships and other ships assigned to transport the LF to the AOA are formed into tactical groupings by the

CATF. The number and types of ships assigned to each of these groups 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 embarkation echelons are formed within the ATF. For forward-deployed ARG/MEUs, embarkation occurred when the ARG completed onload prior to deployment; however, reorganization and redistribution of that load-out may be necessary to support specific operations.

c. **Responsibilities.** CATF and CLF planning responsibilities are as follows:

(1) The CATF:

- (a) Allocates amphibious warfare ships and AFOE ships.
- (b) Provides ship's loading characteristics pamphlets to the CLF.
- (c) Organizes Navy forces for embarkation.
- (d) Prepares movement orders for ships.
- (e) Approves the load plan.

(f) Advises CLF on Navy support forces' embarkation requirements, for example, explosive ordnance disposal teams, sea air-land team, assault craft unit, and beachmaster unit requirements.

(2) The CLF:

- (a) Determines LF requirements for amphibious warfare ships and AFOE ships.
- (b) Develops LF organization for embarkation.
- (c) Determines embarkation support requirements.
- (d) Prepares detailed embarkation and loading plans.

(3) Other commanders should:

- (a) Provide lift requirements.
- (b) Organize units for embarkation.
- (c) Participate in embarkation planning meetings.

See JP 3-02.1, Amphibious Embarkation and Debarkation, for embarkation and loading plan considerations.

25. Embarkation Preparations

a. **Sequence of Events and Deployment of an AF.** The potential of tactical employment requires planning, execution, and integration of the deployment regardless of mode of transportation to achieve a rapid buildup of combat power ashore. Preferably, forces will be organized, trained, marshalled, and deployed from the same geographical location. The AF can be created in the objective area, using forward-deployed contingency forces and/or various strategic mobility enhancements, including maritime pre-positioning. This compositing method is mandated by the need for rapid deployment coupled with the reduced ability to mass amphibious ships and other forces because of normal peacetime dispositions. However, MPS assets are not designed for joint forcible entry operations.

b. **Options for Deployment.** Two deployment types must be considered before committing an AF.

(1) Deliberate deployment from one geographical location.

(2) Composite deployment wherein:

(a) Forces from two or more geographical locations are deliberately deployed.

(b) Forward-deployed forces are integrated into the force.

(c) Strategic mobility enhancements (principally, maritime pre-positioning) are used to develop the force in-theater (vice in garrison) before deployment. This option is obviously more complex but is still governed by the same doctrinal precepts.

c. **Intermediate Staging Bases (ISBs).** In some cases, it may be necessary or desirable to deploy forces through ISBs where the desired task organization for landing is developed from forces deployed administratively in strategic assets. This permits optimum tactical configuration of the forces to support the landing plan. ISBs play a critical role when facilities in the operational area do not support the basing and/or terminal requirements of the strategic lift required to move the LF into the operational area. An ISB may serve as the site of the landing rehearsal. Forces deployed to an ISB normally remain under the OPCON of the CATF.

d. **Deployment Using Strategic Mobility Enhancements.** The deployment enhancements listed below improve the responsiveness of limited transportation resources and the impact of amphibious and strategic lift shortfalls.

(1) **Forward-Deployed Forces.** Forces deployed to forward areas can be used singly or in combination with other forces to comprise an assault force that can move rapidly to an objective area. In peacetime, forward-deployed forces possess limited forcible entry capability and sustainability when employed alone. The requirement for some strategic lift, both air and sea, will be reduced for the entire LF because the forward-deployed forces possess organic aircraft and lighterage for ship-to-shore movement. An ISB may be required to enable the forward-deployed unit to be reconfigured to execute the landing plan.

(2) **Pre-Positioning**

(a) **Geographic Pre-Positioning.** The positioning of equipment in strategically important areas of the world provides the ability to deploy forces more rapidly by eliminating the need to strategically transport large amounts of materiel over great distances to the objective area. Theater mobility resources are needed to move the pre-positioned equipment.

(b) **Maritime Pre-Positioning.** The pre-positioning of equipment and supplies on ships provides more flexibility than does geographic pre-positioning. The mobility of ships permits early movement toward a trouble area. The need for airlift and its underlying requirement for airfields, staging areas, and security make deployment of an MPF dependent on supporting strategic mobility resources. MPF operations also require the preparation of the ships and embarked watercraft and equipment before arrival in the operational area, and assessment of the port or beach and arrival airfield. To accomplish these requirements, planners must take into consideration the timing for deployment of the off-load preparation party and the survey-liaison-reconnaissance party. Ideally, the off-load preparation party should embark on the maritime pre-positioning ships squadron (MPSRON) at least 96 hours prior to the MPSRON's arrival in the operational area. Positioning of the MPSRON will dictate the timing of these deployments as will the necessity, if required, for augmentation from the Selected Reserves of the Navy support element, amphibious construction battalion, and cargo-handling battalion. The use of ISBs will be mandatory for reconstituting the pre-positioned units and their fly-in elements, as well as configuring them to fit into the landing plan. Reconfiguration will be accomplished through restructuring units into the task organization necessary to carry out the landing plan.

(c) **Army Pre-positioned Stocks (APS).** The Army maintains the APS program. APS has both land and sea components. It possesses port operations support packages and joint logistics over-the-shore (JLOTS) capabilities for use when seaports do not exist, are unavailable, or are insufficient.

SECTION C. REHEARSALS

“...the landing for Utah, geographically separated from the other four beaches, was considered by planners to be almost a separate event and so was given its own formal rehearsal. This was Exercise Tiger. Additionally, there simply were not enough assault training beaches to give it and Force O a simultaneous rehearsal. Finally, as the last Assault Force to be formed up and given the least amount of time to train, Force U might have been seen as the Assault Force requiring the greatest amount of special attention—hence, a separate and additional rehearsal.”

Christopher D. Yung, *Gators of Neptune: Naval Amphibious Planning for the Normandy Invasion* (Annapolis, MD: Naval Institute Press, 2006), pp. 158-159

26. Overview of the Rehearsal Phase

a. Rehearsal is the period during which the prospective operation is practiced to:

(1) Test the adequacy of the C2; all plans, such as ship-to-shore movement, communication, NSFS; and the timing and sequence of detailed operations.

(2) Test the integration and combat readiness of participating forces.

(3) Familiarize all echelons with the plan.

(4) Test communications and information systems.

b. Each rehearsal should be followed by an after action review and, where necessary, appropriate adjustments to the plan. The CATF and CLF should allow sufficient time to make adjustments, and if necessary and circumstances permit, allow for another rehearsal to assess if the adjustments are effective. Certain more complex phases of the operation may require several rehearsals to identify friction points. It may be necessary to rearrange the loads on the ships to accommodate lessons learned from the rehearsal.

c. **Types of Rehearsals.** The types of rehearsals are based on the individual needs of the ATF and LF. Rehearsals are not unit-level training; rather they are conducted to exercise the ATF and LF elements' ability to execute the OPLAN for the specific mission assigned.

(1) **Staff Rehearsals.** Staff rehearsals are conducted by all staffs scheduled to participate in the amphibious operation and may include CP and tabletop exercises. They are conducted prior to integrated AF rehearsals. Wherever possible, rehearsals should take place in the same spaces and using the same circuits that will be used during mission execution.

(2) **Integrated Rehearsals.** Integrated rehearsals are those conducted between the ATF and LF staffs, units, and elements. They can range from participation by a large number of personnel and ATF and LF assets to just a token number of personnel and certain landing craft and air assets. Regardless of the size and scope, the full spectrum of C2 capabilities should be exercised. Rehearsals under EMCON conditions may be desired or required.

(3) **Separate Force Rehearsals.** Separate rehearsals are conducted by elements of the AF such as the amphibious advance force. These forces are those in which their operations demand close integration and coordination with the action phase (e.g., MCM forces).

27. Rehearsal Requirements

The rehearsal phase may be conducted concurrently with other phases of the amphibious operation but most often is associated with the movement phase. During this period the AF, or elements thereof, conduct one or more rehearsal exercise(s), ideally under conditions approximating those encountered in the AOA and expected landing area. The objective during this phase will be to exercise as much of the force and the CONOPS as the situation permits, with OPSEC and time being limiting factors.

28. Rehearsal Plans

a. **Responsibility for preparation of rehearsal plans is the same as for preparation of the OPLAN.** Rehearsal plans require execution of the various tasks and functions paralleling those required during the operation. They are issued separately from the OPLAN.

b. The number, nature, and scope of rehearsals will be influenced by the following considerations:

- (1) The complexity of the tasks.
- (2) Time available for rehearsals.
- (3) State of training, for example: general amphibious proficiency in debarking, proficiency at night in all light levels, proficiency in hot or cold temperature environments.
- (4) Suitability of available areas.
- (5) Special or unusual problems to be faced in the actual operation.
- (6) Adequacy of communications system.
- (7) Logistic and CSS availability to replenish, replace, or repair assets used.
- (8) OPSEC to prevent disclosure of timing, location, or intent to conduct an amphibious operation.
- (9) Organic modeling and simulation capability.
- (10) The rehearsals may be able to be used as part of a deception plan to deceive the enemy of the intended location of the amphibious operation or even the time of the operations. Rehearsals may be able to lure the enemy into complacency.

c. Factors influencing the dates on which rehearsals are conducted and the time allocated for them include:

- (1) Complete and careful execution of the entire rehearsal.
- (2) Re-embarkation of all troops, equipment, and supplies.
- (3) Replenishment, repair, or replacement of equipment and supplies used during rehearsals, including landing craft, ships, or aircraft.
- (4) After action reviews at all levels of command for evaluation and correction of problems.
- (5) Time to revise areas of the plan in which the rehearsal identified problems.

- d. Selection of the rehearsal area is influenced by the following:
 - (1) Similarity of the rehearsal area to the actual landing area.
 - (2) Feasibility of employing live ammunition.
 - (3) OPSEC.
 - (4) Susceptibility to enemy interference.
 - (5) Location of the rehearsal area in relation to the operational area and to points of embarkation.
 - (6) Health conditions at the rehearsal area.
 - (7) Activity of civilian personnel, vehicles, shipping, and small craft that may interfere with the rehearsal.
 - (8) Environmental and management restrictions.

- e. Testing the communications and information systems plans will be influenced by the following:
 - (1) Level of training of communications and information systems personnel and training time available.
 - (2) Level of training of intelligence, maneuver, fires, logistics, and other functional area personnel regarding their use of communications and information systems resources.
 - (3) Status of communications and information systems equipment.
 - (4) OPSEC and information security restrictions.

SECTION D. MOVEMENT

29. Overview of the Movement Phase

The movement phase commences on departure of ships from loading points in the embarkation areas and concludes when ships arrive at assigned stations in the operational area. **During this phase, the AF is organized into movement groups, which execute movement in accordance with the movement plan on prescribed routes (with alternate routes designated for emergency use).** In amphibious operations, the movement plan is the naval plan providing for the movement of the ATF 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. The movement phase presents an opportunity for CATF to exploit the sea as maneuver space. In the event of hostilities, CATF has the difficult task of hiding a large force at sea, providing for its defense, and then converging at a time and place not wholly unexpected by the adversary. To achieve this aim, OPSEC and deception planning must permeate the

movement plan. Knowledge of the adversary's surveillance capability will be a key consideration in achieving surprise. Movement of the force to the operational area may be interrupted by rehearsals, stops at staging areas for logistic reasons, or pauses at rendezvous points.

30. Echelons of the Landing Force

a. The echelons of the LF may include the AE, the AFOE, and the follow-up shipping and aircraft. The MPF ships of the afloat pre-positioning force (APF) may also be employed.

(1) The **AE** is that element of a force that comprises tailored units and aircraft assigned to conduct the initial assault on the operational area. **The AE is embarked in amphibious warfare ships.** The AE ships are combat loaded with troops, equipment, and supplies that typically provide up to 15 days of sustainment. Other elements included in the AE are LF elements of the amphibious advance force that deploy with sufficient supplies to accomplish their mission and sustain themselves until subsequent forces arrive.

(2) 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 5 days after commencement of the assault landing.** The AFOE is divided into air-lifted and sea-lifted forces and supplies. Required arrival time in theater, suitability of material for air and sea lift, and lift availability, in that order, will determine transportation mode.

(3) **Follow-up shipping and aircraft** provide the landing of reinforcements and stores after the AEs and AFOEs have landed. Follow-up material is carried by transport ships and aircraft not originally part of the AF.

b. MPF and other APF operations that augment and reinforce the LF are scheduled to best support the AF in conjunction with the anticipated arrival of the AFOE. The pre-positioned force can provide equipment and supplies to a MEB or USA maneuver unit at a secure location in the operational area. These additional troops, supplies, and equipment can then be picked up and transported by ATF assets as they become available or other means to reinforce or augment forces ashore.

c. The passage of designated movement groups may be interrupted by stopping at points where they wait until called forward to the landing area by CATF. A regulating point is an anchorage, port, or ocean area to which AE, AFOE, and follow-up shipping proceed on a schedule and at which they are retained by CATF until needed in the transport area for unloading. Regulating points also serve as a rendezvous point to which shipping proceeds when empty to await makeup of a convoy or movement group for movement toward bases outside the AOA. In this manner, congestion of ships in transport areas off assault beaches can be reduced. This can contribute to passive defense against WMD and A2/AD weapons.

For additional information on MPF operations, see MCWP 3-32/NTTP 3-02.3, Maritime Prepositioning Force Operations.

31. Organization for Movement

a. AF assets are organized into movement groups for embarkation and deployment to support the amphibious operation based on the landing plan. The ATF may be task organized into movement groups based on ports of embarkation and individual ship speed, mission, and required arrival time in the operational area. All LFs, self-deploying LF aircraft, and self-deploying Air Force units should be task organized into separate movement groups. A movement group will include all required screen and logistic support. If more than one landing area is established in the operational area, additional movement groups may be formed.

b. **Pre-D-Day Movement Groups.** The amphibious advance force, when used, usually proceeds to the landing area as a single movement group. However, if there is a wide disparity of speed between various ships, or if part of the LF is required to support other missions before the arrival of the main body of the AF, it may be necessary to organize the amphibious advance force into two or more movement groups, each with its own screening group.

c. The main body of the AF during transit should consist of one or more of the following: amphibious movement groups, one or more transport movement groups, one or more combat logistic force ships, and may include one or more surface action groups for screening. In order to provide support and protection from attack while en route, it may be desirable to attach all or part of the combat logistic force ships or surface action group to the amphibious and transport movement groups. The amphibious and transport movement groups may be combined during movement to the AOA or operational area to reduce the number of assets necessary to protect and sustain the force during transit. Protection from attack while en route may also be provided by nonorganic forces. Elements of the AF may be phased into the operational area by echelons or be brought in simultaneously.

(1) **Amphibious Movement Groups.** These groups contain the amphibious warfare ships and required landing craft that directly deploy and support the landing of the LF. The AE is normally embarked in the amphibious movement groups.

(2) **Transport Movement Groups.** All other military, civilian, and commercial ships carrying supplies, cargos, and forces assigned to an amphibious operation, such as those in the AFOE, are included in this group. This group could include:

(a) APF vessels from the MPF that support the Marine Corps; APF that support the Army as afloat pre-positioned stocks (three ships); and a collection of vessels that support the Navy, and the United States Air Force (USAF).

(b) MSC's sealift fleet consisting of large, medium-speed RO/RO ships capable of moving large amounts of heavy unit equipment such as tanks, large wheeled vehicles, and helicopters.

(c) Other MSC-chartered ships, consisting of commercial ships (both US and foreign flag) acquired for specific lift requirements. US flagged commercial vessels are

volunteered and activated under the Voluntary Intermodal Sealift Agreement/Maritime Security Program.

(d) Up to two MSC-operated hospital ships.

(e) The Maritime Administration Ready Reserve Force consisting of former commercial or military vessels of high military utility, including aviation logistic support ships, an offshore petroleum discharge system (OPDS) ship, RO/RO and fast sealift ships, and crane ships. These vessels are maintained in a five or ten-day readiness status by the Maritime Administration and are under OPCON of MSC when activated.

(f) Ships provided by allied, partner nation, and friendly governments.

(g) Additional detachments provided by the Army can add capabilities such as the logistic support vessel or LCU-2000 to augment transport group task organizations when conditions will permit Army land component command seaborne and beach landing capability integration.

(h) Joint high speed vessels to support intratheater movement of personnel, vehicles, and cargo to ISBs or movement to ports.

(3) **Airlift Movement Groups.** Airlifted supplies and equipment that may be brought in as part of the AFOE are included in this group. A fly-in echelon to link up with equipment delivered by the MSC is also included. Aircraft assigned can be organic military or commercial, to include:

(a) Aircraft activated/volunteered under Civil Reserve Air Fleet.

(b) Aircraft requisitioned by the United States Government (USG).

(c) Aircraft provided by allied, partner nation, and friendly governments.

(4) **Support Movement Groups.** These movement groups may include CSGs, MIW ships, screening ships, fire support ships, and other combatants and ships to support the amphibious operation. As mentioned, it may be desirable to attach all or part of the support groups to the amphibious and transport movement groups to provide protection while en route to the operational area or AOA.

d. **Post-D-Day Movement Groups.** Movement groups of the AF scheduled to arrive in the operational area after D-day will usually be assigned a screen for force protection.

e. **Follow-Up Movement Groups.** These movement groups consist of ships not originally a part of the ATF but which deliver troops and supplies to the objective area after the action phase has begun. The first follow-up elements may arrive in the operational area before unloading of the AE or AFOE ships is complete. In such cases, OPCON or TACON of these elements may be passed to the CATF. The CATF retains OPCON or TACON of these elements until such time as the amphibious operation is terminated, the elements are detached from the AF, or another off-load authority has been designated.

SECTION E. ACTION

32. Organization and Command Relationships During the Action Phase

a. In an amphibious operation, the action phase is the period of time between the arrival of the AF in the operational area and the accomplishment of their mission. Organization of forces, responsibilities for accomplishment of tasks, and command relationships during the action phase of all types of amphibious operations are essentially the same. Variations in responsibility and authority as required by the individual situation will be specified in the initiating directive.

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 organization of ATF forces for the action phase is as follows:

(1) ATF forces afloat provide the transport groups for the vertical and surface ship-to-shore movement and also provide the necessary landing craft and AAV control organization.



Amphibious ready group steams in formation.

(2) For the surface movement, the LF may be landed from ships by landing craft, AAVs, or small boats (e.g., combat rubber raiding craft).

(3) The amphibious warfare ships, landing craft, AAVs, and organic aviation are organized to correspond to the tactical organization of troops to facilitate control and maneuverability. This organization includes boat waves, boat groups, and boat flotillas.

(4) A boat wave consists of the landing craft or AAVs within a boat group that carries the troops, equipment, or cargo requiring simultaneous landing.

(5) The boat group is the basic organization of landing craft. One boat group is organized for each surface LF element within scheduled waves at a designated beach.

(6) The boat flotilla is an organization of two or more boat groups.

(7) Although LCACs are landing craft, their employment differs from displacement landing craft because their speed is greater and they can traverse over obstacles. However, they are often maintenance-intensive and can easily be damaged by enemy fires. Limited operations using one or more LCAC groups may be conducted from as far as 100 miles offshore. However, this distance approaches the maximum capability of the craft and requires careful planning.

d. 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**. For example, a regimental commander will need time to establish C2 over the separate battalions, which may have landed across different beaches and LZs. Depending on the type of amphibious operation, 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 and employment of tactical and administrative support systems ashore.

(6) Closest possible resemblance to the organization for combat.

e. As discussed earlier, the Marine Corps will organize as a MAGTF to conduct LF assault operations but will further organize into landing teams to facilitate the ship-to-shore movement and initial operations ashore. As with the MAGTF, the Army LF also will organize into landing teams that are based around ground maneuver units within the LF.

(1) The BLT is a specific tactical organization for landing and should be differentiated from the infantry battalion or similar organization. It consists of an infantry battalion or similar unit reinforced by such supporting and Service units as may be attached for the movement. For ship-to-shore movement, the BLT is further organized for surface and air 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 the LF personnel assigned to an individual landing craft.

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

(2) Task grouping 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.

(3) 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.

f. The CATF, as previously discussed, is responsible for overall control of both surface and air ship-to-shore movement. Initially, ship-to-shore movement, both on the surface and through the air, is centrally controlled to permit coordination of support for LF elements. Later, as circumstances permit, control of surface movement is decentralized for efficient and rapid execution. However, aircraft movement remains under centralized control. Organizations involved in the control of amphibious warfare ships, landing craft, amphibious vehicles, helicopters, and tiltrotor aircraft from the transport and sea echelon areas to landing beaches and LZs are discussed below.

(1) **Navy control group**, which includes the CCO and PCOs, keep the CATF, CLF, and other designated commanders informed of the progress of the surface movement from ship-to-shore, including the actual landing of the waves and the visible progress of operations ashore.

(2) **Navy TACC** coordinates and controls air ship-to-shore movement through the TAO.

g. The **LFSP** is a temporary, special category task organization of the AF that contains a shore party support element, a helicopter support team, and a Navy beach group support 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.**

h. The **TACLOG group** is a temporary agency, composed of LF personnel, that advises the Navy control organization of LF requirements during ship-to-shore movement. TACLOG groups assist the Navy control organization in expediting the landing of personnel,

equipment, and supplies in accordance with the LF landing plan. TACLOG groups also serve as the primary source of information to the CLF regarding the status of LF units during ship-to-shore movement. The TACLOG group provides the link between the LFSP and advises the LF operations center and the Navy control organizations on the status of the off-load.

33. Shaping the Operational Environment

a. Prior to the execution of the action phase of an amphibious operation, the CAF seeks to shape the operational environment. **Although these operations are usually referred to in the context of an amphibious assault or amphibious raid, they may be used to support other types of amphibious operations such as shaping the operational environment for a NEO or FHA.**

b. The JFC and JFMCC will use CSGs and other maritime and joint forces to prepare the AOA or operational area prior to the commencement of the amphibious operation. The support relationship between a CSG commander, other commanders shaping the operational environment, and the CAF, CATF, and CLF should be outlined in an establishing directive. The manner in which these operations are conducted will depend on the type of amphibious operation. The forces required and **the time period in which these operations are conducted typically define the operation.** Shaping operations include supporting and prelanding operations.

c. Supporting operations are conducted to establish the requisite conditions for an amphibious operation (e.g., establishment of air and maritime superiority). Supporting operations are directed by the JFC or a designated commander and are to a large degree based on requests for certain actions from the CATF and CLF. The JFC or JFMCC may employ a support force, which is a temporary organization comprised of initial response forces and SOF in the operational area to assist in preparing the operational area for amphibious operations. The JFC or JFMCC will normally determine how to best organize the support forces to shape the operational environment. These operations are normally conducted by naval forces, air forces, and SOF and may occur at any time before or after H-hour.

(1) Supporting operations may include:

(a) Initiation of MCM operations. MCM operations emphasize the clearance of mines in the transport areas, FSAs, and sea approaches to the landing beaches. MCM forces do not have the capability to conduct their mission in a clandestine manner, do not operate at a high rate of speed, and have limited capability for self-defense. Therefore, the decision on whether and where to conduct MCM during supporting operations (or to postpone their use until prelanding operations) should be made considering not only the mine threat to the AF but also the operational requirement to conduct MCM. However, MCM forces' limitations also can be used to support operational deception.

(b) Hydrographic reconnaissance of the landing beaches and seaward approaches. The Navy's Fleet Survey Team may conduct quick response hydrographic

surveys and produce chart products in the field to support maritime requirements. They provide high resolution hydrographic surveys for use in nautical or tactical charting, support amphibious landings, MIW, or naval special warfare with bathymetry and other collected hydrographic information. Deployable detachments from this team can conduct navigation quality surveys or clearance surveys to provide access to ports and waterways in support of amphibious operations. In forward-deployed ARG/MEU operations in which access to the above teams may be more difficult, the CATF and CLF should use organic or supporting reconnaissance and surveillance assets to provide hydrographic information.

(c) Meteorological and oceanographic (METOC) support may be obtained directly from the Naval Oceanographic Office or via a joint or Service METOC forecast activity in support of naval forces.

See JP 3-59, Meteorological and Oceanographic Operations, for more information.

(d) Geospatial intelligence products to include tailored imagery, imagery intelligence, maps, charts, and oceanographic data can be obtained from the National Geospatial-Intelligence Agency.

See JP 2-03, Geospatial Intelligence in Joint Operations, for more information on geospatial products.

(e) Sea-based and land-based supporting air operations may establish air superiority, conduct reconnaissance, and attack of land targets that may affect the amphibious operation.

(f) Assault breaching efforts may also include aerial-delivered weapons intended to destroy obstacles such as mines and barriers within the SZ.

(g) Supporting SOF operations include but are not limited to: military information support operations, civil military operations, FHA, special reconnaissance, and direct action. SOF will usually remain under the OPCON of the theater special operations command commander (acting as the commander, joint force special operations component command) and be assigned to support depending on the location and nature of the mission. SOF may also be operating in or near the AOA on distinctly separate low-visibility or clandestine missions in support of the CCDR. Coordination must occur between AF planners and SOF planners to maximize effectiveness. It is important to maintain the SOF chain of command in order to preserve the C2 relationship(s) of SOF forces for the gaining commander.

(h) Reconnaissance and surveillance of AF objectives, LF objectives, landing beaches, LZs, DZs, and high-speed avenues of approach into the landing area.

(i) Neutralization or destruction of adversary high-value assets.

(j) Deception operations may be used to confuse the enemy as to the location of the landing area, or to the future intentions of the AF.

(k) Operations that may induce the enemy to expose their A2/AD systems and plans.

(l) Air interdiction.

(m) Underwater demolition.

(2) A JFC or JFMCC provided support force, such as forward deployed ARG/MEUs, MCM assets, and other forces, can be task organized by the CATF and CLF as a temporary organization within the AF to form an amphibious advance force prior to the arrival of the AF into the operational area. The amphibious advance force facilitates better coordination with the overall landing plan and LF CONOPS ashore. The LF CONOPS, however, should not assume that the amphibious advance force will be available for tasking as part of the support force. The CATF and CLF may assemble an amphibious advance force from forces assigned to the AF. The CATF provides available forces and command and information systems to help conduct the operation. CLF evaluates the missions assigned to the amphibious advance force and may form a landing group or subordinate task organization, designate a commander, and provide a staff and forces to accomplish assigned tasks. A landing group commander is the officer designated by the CLF as the single tactical commander of a subordinate task organization capable of conducting landing operations against a position or group of positions. A reconnaissance group commander is used when LF units conduct only reconnaissance and surveillance missions. The CLF determines LF requirements for NSFS, priority intelligence requirements, air support, space support, reconnaissance, and other areas and submits them to the CATF. The CLF also determines any communications system requirements for the LF personnel who will accompany the amphibious advance force. The CATF and CLF may need to modify embarkation and landing plans (cross-deck equipment and personnel as required) to support amphibious advance force operations. SOF support requirements and relationships with the amphibious advance force commander should be determined prior to the arrival of the AF in the operational area. Upon arrival of the AF, the amphibious advance force is usually disestablished, and forces revert to control of designated commanders to either continue conducting supporting operations or to conduct other JFC operations as directed. Certain tasks may dictate that MCM, reconnaissance teams, and SOF, for example, remain with the AF as part of the prelanding operations to minimize disruptions prior to the landing.

(3) Decision to Employ a Support Force. The JFC or other higher authority may restrict or preclude the use of a support force based on the diplomatic or military situation. The decision to employ force is made after weighing the advantages of operational and tactical surprise and the requirements for preparation of the landing area. Knowledge of the operational area, the indigenous population, extent of adversary fixed defenses, air defenses, mines, and obstacles should be evaluated.

(a) Complete surprise is difficult to attain against an alert adversary and the prospects of achieving it decrease with efforts to isolate the AOA/AO. Every effort should be made to conceal the landing areas and AF objectives from the enemy until the commencement of the ship-to-shore movement.

(b) When the landing area is well defended or the offshore areas are heavily mined, the destruction or neutralization of the fixed defenses far outweighs the disadvantage of disclosing the selected landing area. Conversely, support operations may not be prudent when the landing area selected is lightly defended and the main defending force is held in reserve—waiting to employ against the AE.

(c) **The use of support forces is an integral part of planning the overall amphibious operation.** The command relationships between commanders within the support forces must be specified in the initiating or establishing directive.

(d) **Prelanding Operations.** Prelanding operations take place between the commencement of the action phase (arrival of the AF into the operational area) and the ship-to-shore movement. Although they encompass a continuation of similar actions conducted by the support force, they are specifically focused on the landing beaches, sites, and LZs and readiness of the AF to execute. There is no apparent transition between supporting and prelanding operations. Final preparations of the landing area are usually under the control of the CATF and CLF. These preparations are usually of a more overt nature. Assets used to conduct these operations may reduce the resources available for tasking at H-hour and L-hour. The CLF ensures that inherent risks associated with prelanding operations do not critically impair the LF CONOPS ashore. Some of the planning considerations for prelanding operations include:

1. Demolition of visible obstacles, clearance of required mines, breaching of any remaining seaward minefields and barriers to and on the beach, overt marking of usable channels, direct action missions, target acquisition (TA) and spotting for NSFS, and initial terminal guidance for designated assault landings.

2. Air operations in accordance with air support plans, including EW, and preplanned air strikes against adversary installations en route to and in the vicinity of beaches, DZs, LZs, targets of opportunity, and mines and obstacles in the SZ and on the beach.

3. NSFS in accordance with the NSFS plan, including destruction or neutralization of adversary installations that might interfere with the approach and final deployment of the AF or otherwise interfere with the operation.

4. Artillery support on landing areas in accordance with artillery fire support plans if artillery has been put in place during prelanding operations.

5. Ammunition (e.g., naval, aviation ordnance, artillery) expenditure and fuel consumption prior to the landing.

6. Loss of equipment prior to D-day.

7. Loss of personnel due to casualties, injuries, sickness, or required recovery periods for long-range reconnaissance teams and aircrews.

8. Resupply and rearming schedule for the AF or lack thereof.

9. LF requirement to support other forces prior to and after D-day.

(e) The reduced timeframe associated with prelanding operations is not conducive for MCM with respect to the speed at which MCM forces conduct their mission. As such, there are many factors that must be considered and risks weighed to inform a decision for the use of MCM forces either in the support force operations or in prelanding operations (or some combination of both).

(f) With the completion of prelanding operations, the AF will conduct operations into the landing area to accomplish the decisive action.

34. Final Preparations for Landing

In some case, units may need to cross-deck prior to the ship-to-shore movement. Upon completion of any pre-execution operations the ATF starts the final approach to assigned positions for the landings. Ships prepare for the debarkation of the embarked troops, equipment, and supplies in accordance with previously prepared plans. The commencement of debarkation and the timing of the ship-to-shore movement depend on the designated H-hour. All elements must be prepared to modify plans on short notice to conform to changes in H-hour.

35. Landing Force Operations Ashore

a. LF operations ashore begin with the landing of the first scheduled wave by surface means, vertical insertion, or airborne landing. Elements of the LF quickly transition from an organization for landing to an organization for combat in order to accomplish the LF missions ashore. 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.

b. The CLF is responsible for the overall planning and execution of LF operations ashore. **To guide LF operations ashore during the action phase, the CLF and staff develop the LF plan for operations.** 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 supporting fires plan, employment of LF aviation, CSS concept, and the engineer breaching plan are produced based on the CLF's guidance and intent.

(1) The **LF CONOPS ashore** amplifies CLF's decisions and indicates how the operation should progress. 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. Included in the LF CONOPS ashore, 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 because of the character of the operation.

(2) The fire support plan has a major effect on the development of the LF plan for operations. 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. Nonlethal fires are also included in the plan.

For additional information on supporting arms, see Chapter V, "Support to Amphibious Operations," Section B, "Fire Support."

(3) **The plan for the employment of LF aviation to support operations ashore is integrated with the overall air plans of the CATF and CLF.** 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 the organic aviation assets for use in support of the LF CONOPS and the overall mission. During the course of the operation, excess MAGTF sorties can be allocated by the JFC to other component commanders as appropriate. 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 1, *Doctrine for the Armed Forces of the United States*.

(4) 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.**

(5) The plan for breaching will include a determination of the line of demarcation on the beach that indicates the distinction between CATF's and CLF's shift in responsibility for MCM. Seaward of the beach, in the SZ and on the beach up to the line of demarcation, CATF will have responsibility for MCM and assault breaching. Landward of the line of demarcation, CLF will have responsibility for mine, barrier, and obstacle removal, supported by combat engineers and explosive ordnance disposal.

For additional information on breaching and planning for breaching, see JP 3-15, Barriers, Obstacles, and Mine Warfare for Joint Operations, and Army Tactics, Techniques, and Procedures (ATTP) 3-90.4/MCWP 3-17.8, Combined Arms Mobility Operations.

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

(1) 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 the combat power ashore. On-call waves are the normal means with which the ground commander can influence the action ashore. While afloat, certain units may be treated as a reserve for commitment as required by the situation.

(2) 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 space.

36. Subsidiary Landings

a. In an amphibious operation, a subsidiary landing is a landing, normally conducted by elements of the AF to support the main landing, usually made outside the designated landing area. An amphibious operation may require one or more subsidiary landings conducted before, during, or after the main landing. If made before, the effect on the main landing must be considered in terms of possible loss of surprise.

b. Subsidiary landings must be planned and executed by commanders with the same precision as the main landing. Division of forces to conduct subsidiary landings is justified only when such employment will be of greater value than commitment to the main landing. Forces employed in subsidiary landings that precede the main landing may be re-embarked and employed as a tactical reserve supporting the main landing. Subsidiary landings may be executed to accomplish one or more of the following specific purposes:

(1) Seize specific areas to be used in support of the main landing, i.e., seizing islands or mainland areas adjacent to the main landing area for use as:

(a) Artillery, missile, and rocket firing positions.

(b) Airfields or vertical and short takeoff and landing aircraft-capable locations.

(c) Protected anchorage, temporary advanced naval bases, or logistics and CSS sites from which the main landing can be supported.

(d) Air warning and control system sites.

(2) Seize an area to deny its use to the enemy in opposing the main landing.

(3) Divert enemy attention and forces from the main landing or fix enemy defensive forces in place as part of a deception operation.

37. Re-Embarkation and Force Reaggregation

a. If embarkation is preparatory to immediate reemployment of the force, planning for the backload of forces is conducted in accordance with the planning procedures set forth in JP 3-02.1, *Amphibious Embarkation and Debarkation*, to the extent the tactical situation ashore permits. Combat loading will be employed in preparation for a subsequent amphibious operation and reaggregation of the AF. Each individual item is stowed so that it can be unloaded at the required time.

b. Re-embarkation for movement to base areas will normally employ administrative loading. Planning must consider the customs and agriculture regulations of the destination

country and the requisite wash-down and preinspection actions necessary to alleviate delays and the possibility of quarantined cargoes.

c. Initial size of the re-embarkation area depends on several factors such as:

(1) Terrain essential for defense in the event that the embarkation is conducted under enemy pressure.

(2) Number of personnel (potentially including friendly indigenous population) and amount of equipment and supplies to be embarked.

(3) Artillery, NSFS, and air support available for defense, if required.

(4) Nature and extent of usable beaches and ports.

(5) Time available for the embarkation.

d. Planners should consider and develop, when required, options for establishing an ISB to support rearrangement of forces and equipment that cannot be reasonably reconfigured for timely at-sea transfer. An ISB comes with a price, for example, possible loss of deception and surprise, increased personnel requirements, seaport of debarkation, and hardening requirements, and a need for air defense assets and other force protection requirements.

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CHAPTER IV TYPES OF AMPHIBIOUS OPERATIONS

“The amphibious landing is the most powerful tool we have.”

General Douglas MacArthur
Planning conference for Inchon landing, 23 August 1950

1. Overview

The five types of amphibious operations are: amphibious raid, amphibious demonstration, amphibious assault, amphibious withdrawal, and AF support to crisis response and other operations. The types of amphibious operations apply to a variety of missions across the range of military operations. While Chapter III, “Conduct of Amphibious Operations,” provided basic considerations for amphibious operations with respect to PERMA, this chapter provides additional planning considerations and specific execution information for each of the five types of amphibious operations.

SECTION A. AMPHIBIOUS RAID

2. General

a. An amphibious raid is an operation involving a swift incursion into or the temporary occupation of an objective to accomplish an assigned mission followed by a planned withdrawal. An amphibious raid may be conducted to temporarily seize an area in order to secure information, confuse an adversary, capture personnel or equipment, or to destroy a capability. Amphibious raids are conducted as independent operations or in support of other operations. Depending on the purpose of the raid, it may be conducted using clandestine insertion means, relying on stealth to approach the objective, or overtly with full fire support in a manner that may resemble the early stages of an amphibious assault. Naval special warfare forces and Marine Corps SOF provide specialized amphibious raid capabilities. Examples include the amphibious raids in the Pacific to support amphibious assaults in World War II or the amphibious raid on Umm Al Maradim during Operation DESERT STORM.

b. Generally, amphibious raids are conducted for the following reasons:

(1) **Destruction.** Amphibious raids may be required to destroy targets of such importance that indisputable confirmation of destruction is essential. Targets not easily destroyed by other means may be subject to destruction by a raid force. Political concerns regarding civilian or cultural collateral damage may necessitate a raid. Targets for destruction may include military or industrial installations, communication and energy facilities, and transportation nodes, such as rail and port facilities, bridges, and tunnels. Raids may have strategic, operational, or tactical significance.

(2) **Capture or Killing of Key Personnel.** These operations are normally directed against specific opposition leaders, those personnel possessing intelligence value, and other

high-value targets. The capture or killing of these personnel requires detailed planning. Timely and accurate intelligence is essential. The need to avoid advance warning of execution may require the initial force to be small in size yet the target's location (e.g., in a complex urban area or an isolated mountain cave) and enemy disposition may require a uniquely organized reaction (covering) force. Friendly forces executing these types of operations normally try to avoid deliberate engagement with local forces, concentrating specifically on those forces protecting the target and with direct impact on mission execution. Execution authority for these operations may reside with the JFC or higher authorities.

(3) **Combat Information.** Amphibious raids may be conducted to collect information regarding enemy forces including dispositions, strengths and weaknesses, movement, reaction to attack, and weapons. They may be used to obtain information on hydrography, beaches, terrain, and LZs. All AFs, regardless of assigned mission, perform a secondary function of collecting and reporting information.

(4) **Evacuation and Recovery.** An amphibious raid may include tactical recovery of aircraft and personnel and in-extremis hostage recovery.

(5) **Diversion.** An amphibious raid may be conducted as a supporting effort to create a diversion or ambiguity in the enemy commander's perception of the situation. It may support or be the deception operation. Assignment of alternate targets is undesirable unless the objective is to create a diversion. In this case, authority to engage targets of opportunity may be granted.

(6) **Psychological.** A successful amphibious raid against a lawful military objective may impact the morale of enemy personnel. This may be desirable at the outset of hostilities, after extended periods of inactivity, or after tactical or operational setbacks. Raids conducted under such circumstances help maintain an offensive mindset within the force.

(7) An amphibious raid may support forces engaged with the enemy by attacking the enemy rear or flank.

(8) An amphibious raid may be conducted as part of or in support of unconventional warfare activities.

c. **Characteristics.** Amphibious raids have recognizable characteristics whether conducted as separate operations or as part of larger campaigns. The commander will articulate the specific objective to be achieved by the raid force. Amphibious raids are inherently dangerous; therefore, commanders assess and determine that raid objectives are worth the risk. The amphibious raid force may exit or enter the objective area via a variety of air, surface, and subsurface assets. Amphibious raids may be conducted by any force with the skills and equipment suited for the mission. Amphibious raid forces depend on surprise, detailed intelligence, timeliness of mission execution, and violence of action at the objective. Thorough, integrated rehearsals are essential to precision and speed in executing an amphibious raid. All participating forces should be drilled in every detail of debarkation,

movement ashore, operations ashore, withdrawal, and reembarkation. An amphibious raid is planned and executed in the same general manner as an amphibious assault, except that an amphibious raid will include a provision for withdrawal of the raiding force. Specific characteristics of amphibious raids include:

- (1) Amphibious raids typically use ship-to-objective maneuver.
- (2) The size of the amphibious raid force is normally limited to the essential number of personnel required to accomplish the mission. This increases the chance of maintaining OPSEC, achieving surprise at the objective, and facilitating rapid withdrawal on completion of the mission. The amphibious raid force is normally formed by task organizing from existing LF elements and is trained to conduct a specific mission.
- (3) Synchronization of the attack with supporting and supported operations requires a coordinated timetable. Likewise, scheduled fires, on-station capability of attack and assault support aircraft, and METOC information may dictate the timing of the attack. When supporting arms are employed, they normally commence with the assault of the objective and continue through the final withdrawal.
- (4) It may be unnecessary for selected beaches or LZs to meet all the requirements of an amphibious assault. Beaches or LZs may be chosen to provide tactical surprise or facilitate withdrawal. The amphibious raid force can land on or near the objective and seize it before the enemy can react. This avoids forced marches over land carrying heavy combat loads. If there is no suitable landing area near the objective or the enemy has a strong reaction force nearby, the amphibious raid force can land far from the objective to reduce the chance of detection and enemy response. It then assembles, reorganizes, and moves into an objective rally point near the objective. The objective is seized after security and support elements are in place. This option may ease coordination by allowing a more complete orientation of the force before engaging the enemy.
- (5) An amphibious raid will be of limited duration.
- (6) The objective, nature, and duration of the operation may simplify logistic requirements.
- (7) Compromise of the amphibious raid force or the AF before reaching the objective area may require execution of an alternate plan or require the CATF and CLF to abort the mission.

3. Planning and Execution of an Amphibious Raid

a. Surprise is essential for the success of an amphibious raid and helps to offset the lack of fire support in preparing the objective area. It is an inherent force multiplier achieved by many means. Commanders should consider maximizing surprise through deception, stealth, speed, disguise, and ambiguity.

b. Movement to the objective area is conducted to avoid enemy detection and response. It is planned to allow the force to reach objectives in the manner best supporting actions in

the objective area. Intelligence updates and final preparations are performed before debarkation.

c. The following factors will influence the choice of landing areas for the raid force:

- (1) Enemy disposition.
- (2) Sea approaches.
- (3) Hydrographic and beach characteristics.
- (4) Availability of LZs.
- (5) Avenues of approach to the objective and beach exits.

d. The estimated time that the amphibious raid force is to be ashore may influence the choice of H-hour and, consequently, the conditions of visibility under which it may be landed and withdrawn. These factors likewise affect the scope of logistic support.

e. The purpose of the raid, including its relation to other concurrent or imminent operations that it may support, will influence the selection of its D-day. In addition, these same factors may affect the availability of shipping, aircraft, and logistic and fire support means for the raid.

f. Planning for the embarkation of forces assigned to participate in an amphibious raid is similar to preparation for the amphibious assault, including consideration of OPSEC measures. The most important consideration for embarkation and loading of ships, landing craft, helicopters, and tiltrotor aircraft is the support of the tactical employment of the raid force. Other considerations include capabilities of specific platforms, en route training and rehearsal requirements, defense of the amphibious raid force, and flexibility for contingency response.

g. Fire support planning is similar to that for an amphibious assault. However, because the success of an amphibious raid usually requires surprise, amphibious raid forces will generally not employ any fires to prepare the objective for assault or other fires in support of their movement that might alert the enemy. EMCON should be maintained until surprise is lost. Pre-H-hour fires may be an effective part of deception operations to draw enemy attention away from the raid force or its objective. On-call fire support must also be planned to support the amphibious raid force if it is detected en route and requires assistance to break contact, conduct an emergency withdrawal, or continue to the objective.

h. Detailed planning for an amphibious raid requires intelligence that allows the CLF to more precisely tailor the force size, conduct rehearsals, identify critical targets, and plan support. The availability or lack of intelligence affects all aspects of the amphibious raid.

i. Planning for ship-to-objective maneuver is generally similar to that for an amphibious assault except movement may be made entirely by air, subsurface, or surface craft. The amphibious raid force emphasizes silent landing techniques to reduce visual,

audible, and electromagnetic footprints in order to preserve surprise. Small boats or landing craft are either cached ashore or returned to the ship. The method selected for the ship-to-objective maneuver should be one that will land the amphibious raid force with the least probability of detection, as close to its objective as possible, and as simply and rapidly as possible. Landings should take advantage of night and conditions of reduced visibility and detection. Care should be exercised in the introduction of advance reconnaissance elements designed to facilitate landing of the amphibious raid force or conduct target surveillance. Capabilities and benefits provided by employment of these elements should be weighed against the increased risk of compromise.

j. The withdrawal should be planned in detail, including provisions as to time and place for re-embarkation. It should be swift and orderly, and is influenced by the time it takes to secure the objective, enemy reaction, time needed to care for and evacuate casualties, and the means of attack and withdrawal. Every effort is made to leave nothing of intelligence value behind. When equipment cannot be re-embarked, it is destroyed. Withdrawal should be tested during rehearsals. The means for withdrawal should be available for immediate loading when the amphibious raid force arrives at the beach or LZs. This is critical as the enemy may be actively pursuing the raid force. Covering fire may be required to prevent enemy interference. Evacuation of casualties is expedited. Contingency recovery plans are designated in the raid plan. If the landing point and withdrawal point are not the same, positive means of location and identification of the latter must be established. Special situations may permit planning for withdrawal of the raiding force directly into friendly territory without re-embarkation. Withdrawal by air may be possible when the area of the amphibious raid includes a usable airfield or terrain suitable for landing helicopters and tiltrotor aircraft. Detailed planning should include provisions for an alternate extraction method in the event of inclement weather or enemy action. One consideration may be to have the raid force remain concealed ashore until extraction can be executed. Immediately on embarkation, the raid force is normally debriefed by designated commanders and staff.

k. A personnel recovery plan is essential should elements or individuals become isolated. Based on the personnel recovery command authorities established, a commander's awareness of the situation, and level of confidence in communication, authentication, location, intentions, condition, and given situation, recovery forces can be launched and/or given an execute order at any time after a personnel recovery report is received. Raid personnel are briefed on survival, evasion, resistance, and escape procedures beforehand and may have to depend on these skills to return to friendly areas.

For additional information on amphibious raids, see MCWP 3-43.1, Raid Operations. For additional information on personnel recovery, see JP 3-50, Personnel Recovery.

SECTION B. AMPHIBIOUS DEMONSTRATION

4. General

a. An amphibious demonstration is a show of force intended to influence or deter an enemy's decision. An amphibious demonstration's intent is to deceive the enemy, causing the enemy to select an unfavorable COA. An **amphibious demonstration may be executed**

to confuse the enemy as to time, place, or strength of the main effort. A demonstration could involve a show of force in support of United Nations' sanctions, as during Operation RESTORE DEMOCRACY (1998) or could be integral to the scheme of maneuver for a large-scale offensive action, as during Operation DESERT STORM (1991). Amphibious demonstrations may be conducted in order to delude or confuse the enemy. In the operational area, an amphibious demonstration may be conducted in or near the landing area in conjunction with an amphibious assault. In still other cases, a demonstration may be conducted outside the operational area by forces not attached to the supported AF to divert or immobilize enemy strategic reserve forces that could threaten the amphibious assault. Likewise, the demonstration could be used to divert enemy attention from other operations.

b. **Characteristics.** Effectiveness of a demonstration increases in direct proportion to the degree of realism involved in its execution. The enemy must be convinced that the amphibious demonstration force is preparing for an amphibious raid or assault. All visual, audible, and electromagnetic aspects of the demonstration must appear to be authentic. A demonstration normally includes the approach of forces to the demonstration area, at least a part of the ship-to-shore movement, and employment of supporting fires. A brief but intense preliminary bombardment will usually be more effective than deliberate harassing fire over longer periods of time. Communications plans should support the deception. Tactical deception units may be employed.

(1) **Demonstrations Within the Operational Area.** An amphibious demonstration may be conducted by a portion of the force within the operational area when it is intended to influence enemy action within that area. The intended purpose may be to cause the enemy to employ its reserves improperly, to disclose weapon positions, to distract attention, to place an early burden on communications systems, to precipitate a general air or naval engagement, or to harass. The decision to conduct such a demonstration is made during the planning phase, in consultation with supporting commanders as appropriate.

(2) **Demonstrations Outside the Main Operational Area.** An amphibious demonstration may be conducted outside of the main operational area to divert or immobilize enemy strategic reserves or other forces capable of affecting the main effort, to distract hostile attention from such an operation, or to precipitate a general air or naval engagement. Such a demonstration may be executed as a supporting operation by a separate AF. The time and place of the demonstration is decided by the JFC or higher authority based on the recommendations of the CATF and CLF.

(3) **Demonstrations in Support of Other Operations.** An amphibious demonstration may be conducted with the intent of supporting other operations in the theater or designated operational area. A demonstration conducted before, during, or after commencement of another operation may distract the attention of enemy commanders and induce the enemy to divert major resources.

5. Planning and Execution of an Amphibious Demonstration

a. **Location.** The demonstration area should be near enough to the main effort to permit subsequent employment of the demonstration force if that force is required for

subsequent operations. On the other hand, it will be sufficiently separated from the main effort to avoid interference and intelligence collection that may inadvertently detect the demonstration force and to delay the enemy in repositioning forces. The demonstration area must be suitable for an actual landing, for only in such an area can the threat of landing be plausible. The demonstration area should appear to be a viable threat to the enemy; otherwise, the enemy may not react. An alternate landing area will often prove suitable for demonstration purposes. If the purpose of the demonstration is to cause the enemy to prematurely disclose its positions or for harassment, it may be conducted prior to execution of the actual amphibious assault or other joint operation.

b. **Timing.** The timing of a demonstration conducted in support of another operation should be scheduled to achieve the maximum desired level of reaction from the enemy force.

AMPHIBIOUS OPERATIONS DURING THE GULF WAR

During the GULF WAR, an additional dimension of deception activity, besides masking the stealthy relocation of the coalition line, was the demonstration of amphibious assault capabilities. As part of this ruse, an impressive amphibious assault task force was stationed conspicuously off the coast of Kuwait. This fleet was comprised of 40 amphibious landing craft, the largest such force to be assembled since Inchon. The force contained the most up-to-date, equipment-laden amphibious warfare ships, as well as aircraft and helicopter airlift. Battleships provided offshore artillery support. For movement to the beach, these forces were equipped with LVTP-7s (landing, vehicle, track, personnel), LCAC (landing craft, air cushion) hovercraft, and CH-53E Super Stallion helicopters. In short, this was a powerful and credible force stationed threateningly close to the Iraqi defenses along the coast.

To solidify what must have been the Iraqi military's predicted axis of attack, USCENTCOM [US Central Command] regularly made references to the press concerning the training capabilities and presence of the amphibious force in the Persian Gulf and, later, off the coast of Kuwait. Large-scale amphibious rehearsals were conducted, including, notably, the one held during the last 10 days of January in which 8,000 US Marines landed on the coast of Oman. Carrier air and naval surface fire support missions were executed throughout the period to support suspicions of a major coalition amphibious assault.

So that Iraqi commanders would continue to anticipate an amphibious attack, US amphibious fire support vessels remained along the coast positioned as if threatening to attack, and the battleships Missouri and Wisconsin and carrier-based aircraft continued bombardments. The objective was to fix the six Iraqi infantry divisions deployed along the shoreline, and this was achieved.

SOURCE: *Deception: Deceiving the Enemy in Operation DESERT STORM*, Thomas M. Huber, 1992

(1) A demonstration before the main operation is conducted to:

(a) Draw enemy forces to the demonstration area and away from the area of the main operation.

(b) Cause the enemy to disclose its positions.

(c) Provide protracted and systematic harassment.

(d) Divert the attention of the enemy from the main operation.

(e) Cause premature commitment of enemy forces.

(2) A demonstration may commence at the same time as the main operation if it is desired to prevent redeployment of enemy forces and deceive the enemy as to the location of the main operation.

(3) A demonstration may be conducted subsequent to the main operation to divert enemy forces or fire from the point of the main effort. Successive demonstrations may be executed at a number of points after the main operation commences.

c. **Forces.** The demonstration force must appear to be of such composition and size as to cause the desired reaction. When the demonstration force is constituted from within the AF, the LF reserve and the shipping in which it is embarked may be employed if the presence of the reserve is not required in the immediate area of the main landing.

d. **Supporting Arms.** The demonstration force should execute supporting fires of a nature and scope that provides credibility for the force and operation. Factors that may serve to limit the amount of supporting fires are the availability of NSFS ships, aircraft, and ammunition supply.

e. **Rehearsals.** Sufficient rehearsals should be held to aid the perception that the demonstration is an actual amphibious raid or assault.

f. **Action.** The demonstration should occur over a long enough period to allow the enemy to react. The movement of waves toward the beach or LZs should be conducted as a normal ship-to-shore movement, except that boat waves normally do not actually beach and helicopter and tiltrotor aircraft waves do not land. Empty landing craft must maintain sufficient distance from the beach to preclude close enemy observation. At a prearranged time or distance from the beach and LZ, or on signal, the boat waves and helicopter and tiltrotor aircraft waves withdraw. On completion of the demonstration, the demonstration force is dissolved and its elements are reassigned in accordance with the OPOD or OPLAN.

SECTION C. AMPHIBIOUS ASSAULT

6. General

a. An amphibious assault involves the establishment of an LF on a hostile or potentially hostile shore. An amphibious assault requires the swift buildup of combat power ashore, from an initial zero capability to full coordinated striking power as the attack progresses toward AF objectives. The assault begins on order after sufficient elements of the AE arrive in the operational area and specified operational criteria for landing are met. For an assault, the action phase ends when conditions specified in the initiating directive are met, as recommended by the CATF and CLF and approved by the JFC or designated commander. Amphibious assaults may be used to initiate a campaign or major operation, such as the 1942 landing on Guadalcanal, which began the campaign to neutralize the enemy base at Rabaul in the Southwest Pacific, or the 1944 Normandy landings that established a beachhead for the Allied campaign across Western Europe.

b. The assault is the most difficult type of amphibious operation and one of the most difficult of all military operations. Many of the principles and procedures of the amphibious assault apply to other types of amphibious operations. The normal sequence during the action phase of the operation is depicted in Figure IV-1.

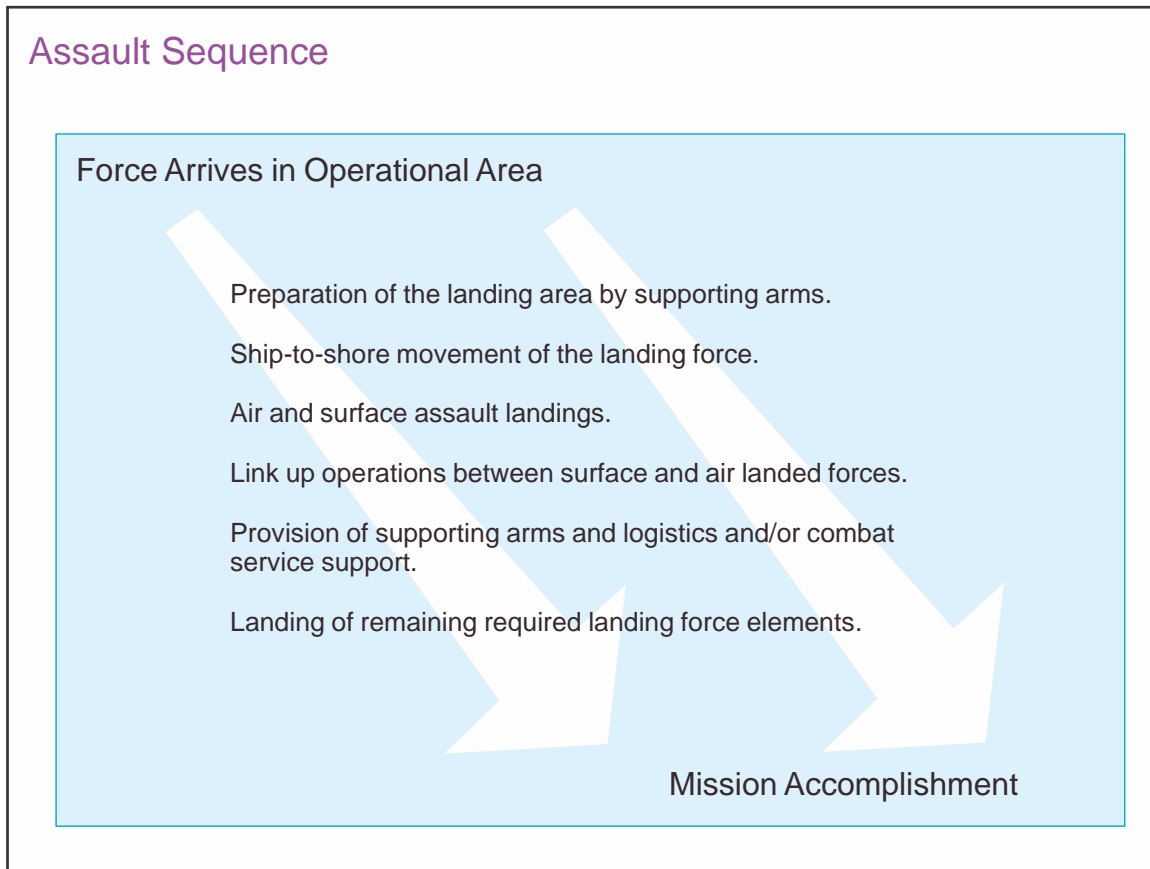


Figure IV-1. Assault Sequence

7. Planning and Execution of an Amphibious Assault

a. The LF mission is developed **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. These objectives 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 CONOPS is the principal means by which the commander's intent is promulgated, allowing subordinate and supporting commanders to understand the commander's vision, and accomplish detailed planning and execution of the operation.

b. In the amphibious assault, combat power is progressively phased ashore. The CLF should consider which, if any, of the forces, could remain sea-based, such as C2 and logistics. **Initially, the LF is able to employ 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. As rapidly as feasible, the preponderance of the LF is phased ashore and functioning as a cohesive organization. The echelonment reflected in the organization for landing provides for the orderly progression and development of combat power.

For more information on LF echelons, see Chapter III, "Conduct of Amphibious Operations," Section D, "Movement."

c. The time required to phase the LF's combat power ashore depends on many factors to include, but not limited to:

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

d. 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 forces ashore during execution. Intermediate objectives and phase lines may be used to track and control the phasing of forces ashore. Phasing can revolve around many mediums: time (in relation to H-hour, L-hour, or D-day); distance (intermediate objectives or phase lines); terrain (crossing

of obstacles); or event (link up with surface or airborne forces or seizure of an off-shore fire support position). Regardless of the method used, the plan should be based on sound decisions and the capabilities of the AF as a whole. **The action phase is characterized by decentralized execution, especially during the landing of scheduled waves.** The concept for phasing combat power ashore should plan for the reestablishment of centralized control of the LF. This **reestablishment of centralized control normally progresses successively from lower to higher echelons.**

e. The formulation of the LF 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.

(1) **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 rapid development of full combat power ashore.

(2) **The scheme of maneuver may support the rapid buildup of combat power ashore vice the immediate seizure of AF objectives.** The scheme of maneuver may allow the engagement of the enemy on ground chosen by the CLF and at a time that gives the LF a marked advantage.

(3) **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 determining 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.

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

(a) 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.

(b) Armored elements provide substantial combat power and mobility for the LF if landed early in the operation.

(c) Artillery in the AE may be either self-propelled or towed. All Marine Corps artillery is towed or mounted on wheeled chassis vehicles. The LF may contain Army self-propelled artillery, which is well suited for certain conditions and is landed in the same manner as armor.

(d) Combat engineers will normally be attached to infantry and mechanized units to provide immediate, responsive, and decentralized support such as assault breaching and mine clearance. Later, engineer forces may be reorganized to provide direct or general support.

(e) 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 control is phased ashore.

(5) The LF scheme of maneuver should meet certain key requirements:

(a) Its primary purpose should be the seizure of objectives requisite to the buildup and establishment of the LF ashore.

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

(c) Supportable by NSFS, missiles, and tactical air, especially prior to the landing of artillery.

(d) The AE should be capable of initial success without dependence on other assault units.

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

(f) Provide for early establishment of combat service support areas (CSSAs) as required.

f. Use of reserve force.

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

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

(3) 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.

(4) 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.

g. The AFOE is divided into air-lifted and sea-lifted forces and supplies. Required arrival time in theater, suitability of material for air- and sea-lift, and lift availability, in that order, will determine transportation mode.

(1) The AFOE is organized for landing and embarkation, respectively, based on anticipated requirements of operations ashore. Units, personnel, and material configured in shipload and planeload lots as dictated by landing and embarkation plans are then organized into movement groups. Embarkation plans are prepared by the LF 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 LF.

(2) Units and their equipment are marshaled at their home stations and staged at ports of embarkation in accordance with their time-phased deployment schedules. Materiel arriving from logistic sources is assembled at ports of embarkation under LF supervision.

(3) AFOE material should be containerized.

(4) It may be necessary for commanders of amphibious transport groups to augment port and embarked security forces to protect against sabotage of equipment because of the large number of foreign nationals employed by foreign flag shippers and port facilities.

(5) Ship unloading is directed by the normal ATF-LF ship-to-shore control and support activities (e.g., PCO, AATCC, TACLOG group, LFSP). The size and organization of these agencies will change as the operation matures. Additional cargo handling battalion and amphibious construction battalion forces may be required to support the off-load of merchant ships. As they become accessible, seaports and aerial ports are used to supplement traditional beach operations, expanding the ship-to-shore organization accordingly. The CATF and CLF are responsible for debarkation and off-load until termination of the amphibious operation. In the case of an amphibious assault, the amphibious operation would not normally be terminated until the entire AFOE is ashore. At that time, the responsibilities for off-load of follow-up materiel may be passed to another off-load organization designated by higher authority.

h. Follow-up shipping and aircraft carry reinforcements and stores for use after landing of the AE and AFOE. The CATF will assume control of follow-up ships and aircraft on arrival in the operational area.

SECTION D. AMPHIBIOUS WITHDRAWALS

8. General

a. Amphibious withdrawals are operations conducted to extract forces in ships or craft from a hostile or potentially hostile shore. They may be conducted under enemy pressure or under operational urgency in permissive, uncertain, or hostile environments to obtain forces needed elsewhere or to remove forces whose mission is completed. Withdrawal begins with establishment of defensive measures in the embarkation area and AOA or operational area and ends when all elements of the force have been extracted and embarked on designated shipping. For instance, a withdrawal could involve the extraction of friendly forces within the context of a major war, as at Hungnam, Korea (1950).

b. **Characteristics of Amphibious Withdrawals.** While sharing many traits of the amphibious assault, the amphibious withdrawal embraces the following distinguishing characteristics:

(1) Except in the case of withdrawals associated with amphibious raids, planning processes will usually be abbreviated.

(2) Time available to execute will be limited when enemy action against the withdrawing force is substantial or when the requirement to re-employ the force elsewhere is urgent.

(3) Facilities and equipment for embarkation, available fire support means, and means for C2 of the withdrawal may be limited.

(4) The operation may be conducted under adverse weather conditions or unfavorable terrain or hydrographic features.

(5) The force to be withdrawn may not have been inserted by an amphibious operation and units may be unfamiliar with amphibious procedures, thus significantly complicating the operation.

(6) Additionally, there may be the requirement to evacuate significant numbers of foreign nationals for diplomatic or humanitarian needs as US forces are withdrawing.

9. Planning and Execution of an Amphibious Withdrawal

a. The amphibious withdrawal is normally executed in the following general sequence of steps:

(1) Establish defense of the withdrawal and embarkation areas by air, naval, and ground-covering forces while organizing and embarking LF personnel, supplies, and equipment not required for support of operations ashore. As such, maintaining local air and maritime superiority is essential to provide for the safety of the withdrawal.

(2) Progressively reduce troop strength and quantity of materiel and equipment ashore. Depending on limitations in afloat cargo capacity and loading time, all usable military materiel is either evacuated or destroyed.

(3) Consideration must be given to the difficulty of embarking heavy elements such as artillery and armor. Ground elements being withdrawn that were not employed ashore as part of an LF may be required to expeditiously reconfigure or modify their equipment for the shore-to-ship movement and embarkation aboard amphibious warfare ships.

b. As in the amphibious assault, defense of an embarkation area on a hostile or potentially hostile shore requires closely coordinated employment of all available supporting arms. Planning for and execution of a withdrawal is more complicated due to security concerns and possible lack of port facilities. A larger US Navy covering force may be

required. Procedures used in the coordination are essentially the same in both cases. The primary difference is that in the assault, supporting arms and control facilities are progressively built up ashore, whereas in a withdrawal, supporting arms and control facilities are progressively decreased ashore until all functions are performed afloat.

c. Planning for the withdrawal of ground elements (or other elements) of the joint or multinational force is more complicated than for those that may have been employed ashore as part of a previously embarked LF. These elements should assign unit and team embarkation officers to begin planning with the ATF upon notification that a withdrawal by sea might be required.

d. While a re-embarked LF may be able to be immediately re-employed elsewhere with another force(s) an ISB may be required to address equipment concerns, organize, reconfigure loads, and adjust off-load priorities prior to accepting a new mission.

SECTION E. AMPHIBIOUS FORCES SUPPORT TO CRISIS RESPONSE AND OTHER OPERATIONS

10. General

a. AFs support to crisis response and other operations focuses on providing a rapid response to crises, deterring war, resolving conflict, promoting peace, and supporting civil authorities in response to domestic crises. AFs routinely conduct support to other operations such as security cooperation, FHA, NEOs, peace support operations, recovery operations, or protecting US facilities and personnel abroad. In the last 20 years, amphibious support to crisis response and other operations has been the most common type of amphibious operation. Examples of these operations include the 1999 peace operations in Macedonia, the 2006 NEO in Beirut, the 2007 African Partnership Station, the 2010 FHA operations in Haiti and Pakistan, enforcement of the no-fly zone over Libya in 2011, and the 2013 operations to capture high-value individuals in Libya.

b. Many of these operations are conducted by forward-deployed ARG/MEUs. The ability to operate either OTH or within sight of land provides an ability to demonstrate a varying degree of US force presence. Task organized elements, precisely tailored for specific missions, can be inserted, employed, and withdrawn to meet specific military or diplomatic objectives. The ability to operate from a sea base reduces the overall footprint ashore, thus reducing the potential diplomatic impact as well as reducing the potential threat to the force. The maneuverability of sea-based forces allows them to conduct operations over a large area. The ship-to-shore movement capability and the ability to shelter, feed, and provide medical care provides maritime forces with unique capabilities when conducting NEO and FHA. The AF may be only one of many participating US and foreign government or nongovernmental organizations. As a result, these operations normally have more restrictive ROE. The goal is to achieve national objectives as quickly as possible and conclude operations on terms favorable to the US and its allies.

11. Planning and Execution of Amphibious Force Support to Crisis Response and Other Operations

a. **NEOs.** A NEO is similar to an amphibious raid in that there is a rapid insertion of forces followed by a planned withdrawal. Forward-deployed ARG/MEUs are trained and certified to conduct NEOs. Specific amphibious planning considerations for NEOs are:

(1) On arrival in the area, the CATF establishes and maintains positive communications and effects liaison with local diplomatic representatives. The CLF should be prepared to augment or duplicate communications.

(2) The evacuation site party conducts ground reconnaissance of proposed assembly areas, evacuation sites, beaches, LZs, DZs, airports, and ports.

(3) The CLF may be tasked to augment existing security forces or to provide forces to secure the evacuation area. Specific and detailed ROE should be promulgated.

(4) Screening and identification is a primary responsibility of the diplomatic agency. When operational considerations dictate, screening and identification may be executed ashore by other security forces, by the LF, or by elements of the ATF aboard ship. Shipboard screening may be centralized or conducted aboard each ship. The AF may be required to augment emergency medical and dental treatment ashore.

(5) Evacuation may be made by motor march, ATF shipping, commercial shipping, aircraft, or a combination of these modes. If by motor vehicle, the CLF may be tasked to provide convoy control, communications, and security. Shore-to-ship movement may be made with organic surface and aircraft of the AF. Evacuation by air may be via commercial aircraft from airfields or by use of LF aviation assets. The CLF may need to provide security for the airfields and LZs.

(6) Delivery to safe haven may be accomplished by ships of the ATF. Passengers are normally transported as soon as practical to the closest safe haven port or transported for further evacuation from an available airfield or airport. The CLF may be tasked to provide guides, baggage handlers, and shipboard security.

(7) Operations to protect civilians, noncombatants, and installations are characterized by the necessity of as much detailed planning and liaison as time permits, extensive coordination and communications between military and civilian agencies, high-level interest requiring additional reporting, positive C2, and restrictive ROE. The operational environment may range from civil disorders to major operations requiring the LF ashore to be supported by NSFS. The installations being protected are normally the throughput nodes for the NEO. The CLF could be expected to provide GCEs for security to reinforce existing defense forces, ACE assets for transport or aerial fire support, and logistical support to the forces ashore or to the installation involved.

For more information on NEOs, see JP 3-68, Noncombatant Evacuation Operations.

b. **FHA.** Forward-deployed ARG/MEUs may provide an immediate response capability to respond to FHA operations. They may also form the core of the CE for a JTF headquarters as the US response matures. AFs can significantly tailor their footprint ashore. This simplifies host nation acceptance of US support and reduces the maritime force's impact on damaged or inadequate infrastructure. This includes airlift support with helicopters and tiltrotor aircraft; waterborne movement of vehicles and supplies; personnel recovery; engineering services, such as limited debris removal; medical and dental support; and providing a secure platform for staging or rest and recuperation until a larger force arrives. The LF also has response teams, platoon-sized elements capable of detecting a wide range of CBRN hazards. The ATF ships can provide a safe and accessible location for the JTF or combined JTF headquarters and select interagency members and multinational force personnel. They also provide seabasing support to the joint force, have a limited ability to produce and distribute electrical power and clean water, and may carry a limited amount of gasoline to support the operation ashore. In addition to the large and varied quantity of supplies and equipment embarked on and available from amphibious warfare ships, APF ships have the capability to purify water and transfer it ashore. Bulk petroleum, oils, and lubricants transfer capability is also available. MPF brings INLS (includes causeway ferries and RO/RO discharge facilities) that can be used to support the ship-to-shore movement. Specific amphibious planning considerations are as follows:

(1) The CATF should prepare an estimate of the ATF disaster relief supplies and equipment requirements, personnel availability and their skills, and the extent of contingency funding. Similarly, the CLF should prepare an estimate of LF disaster relief capabilities; this estimate would include an analysis of personnel skills, equipment, supplies, and special capabilities of units as they individually relate to likely disaster relief. Skill sets could include planners with regional/country or disaster response expertise, commercial bus or truck licensed drivers, foreign languages, and familiarity with local area.

(2) To understand the disaster's impacts, the CATF and CLF should have a comprehensive understanding of the current state of disaster response efforts. Civil affairs forces, if available, can assist with this research and liaison.

(3) Additional augmentation and redistribution of personnel in the AF may be required. It may be necessary, for example, to augment appropriate amphibious warfare ships with tactical air control center and flight deck personnel in order to conduct 24-hour flight deck operations. Additional medical staff may also be assigned. In some cases, it may be possible to redistribute available manning to perform certain functions (e.g., increase the number of food service attendants if the ship will be feeding large numbers of additional people).

(4) The CATF and CLF must manage expectations and clearly articulate their role and capabilities. In order to manage the information environment, it is critical that the public affairs officer have situational awareness of the actions and locations of operational forces as well as the actions and reporting of commercial media.

(5) The AF planners should consider the following:



A Royal Thai Navy medium tactical vehicle drives onto the beach from Landing Craft Utility 785, assigned to the Royal Thai amphibious and combat support service squadron, while participating in a humanitarian assistance and disaster response training exercise during Cooperation Afloat Readiness and Training Thailand 2012.

- (a) Security for the landing beaches and LZs.
- (b) Large numbers of civilian helicopters and fixed-wing aircraft may be operating in the areas to support the relief effort.
- (c) Method to track AF personnel who are ashore (who and where).

For more information on FHA, see JP 3-29, Foreign Humanitarian Assistance, and NWP 3-29, Disaster Response Operations.

c. Other Operations. Other operations may include military engagement, security cooperation and deterrence activities, personnel recovery, civil-military operations, counterproliferation, defense support of civil authorities, and peace operations. The AF forward presence enables flexibility and rapid response to these missions. In supporting these operations, the AF employs and inserts task organized elements that can be tailored for the specific mission. The ability to operate from a sea base reduces the overall footprint ashore, thus reducing the potential to a real or perceived negative diplomatic impact while at the same time reducing the potential threat to the force. It enables operations in locations where a footprint ashore is not available or diplomatic engagement with a host nation is not timely or is prohibited. JFCs use AFs to engage with partner nations to enhance security and

governance. This is normally accomplished through mutual security training to expand the number of maritime professionals, assist nations in developing maritime awareness, infrastructure, law enforcement expertise, and the ability to respond to maritime threats and challenges. Building partner capacity and capability is achieved through information exchange, training and exercise opportunities, multinational operations, and interoperability enhancements.

For more information on other operations supported by an AF, see JP 3-07, Stability Operations. For more information on peace operations, see JP 3-07.3, Peace Operations, JP 3-28, Defense Support of Civil Authorities, JP 3-50, Personnel Recovery, and JP 3-57, Civil-Military Operations, and JP 3-40, Countering Weapons of Mass Destruction.

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CHAPTER V SUPPORT TO AMPHIBIOUS OPERATIONS

“The secret of all victory lies in the organization of the non-obvious.”

Marcus Aurelius (Roman Emperor, AD 161-180)

1. General

This chapter discusses the supporting functions that should be considered by planning staffs when developing the overall plan for the amphibious operation. They are the enablers that support execution. Support for amphibious operations can be broken down into intelligence, fire support, communications, logistics, protection, and seabasing.

SECTION A. INTELLIGENCE

2. Introduction

a. **Amphibious Operations Intelligence.** Because amphibious operations are characterized as the most complex and difficult of military operations, **intelligence activities must consider all aspects of the operational environment that drives timely and informed decision making.** The JFC should consider the size and duration of the operation and the organic intelligence capabilities of the AF when establishing either a joint intelligence support element or an operational-level joint intelligence operations center to support the AF. The joint intelligence support element or joint intelligence operations center will be the central node in securing theater- and national-level intelligence support for the AF and provide direct intelligence support to AF components. Amphibious operations differ from other military operations because of the significant challenges posed by relatively fewer AF intelligence assets in the operational area during the planning phase, a heavy initial reliance on national and theater collection assets, and the transition of C2 ashore.

For more information, see JP 2-01, Joint and National Intelligence Support to Military Operations.

b. The following intelligence capabilities are required to support amphibious operations:

(1) Interoperable information systems that provide timely dissemination of information for amphibious planning, rehearsals, and execution.

(2) Information management systems to include C2 applications and collaborative information sharing to coordinate collection and dissemination efforts. These systems support information management plans, which should be integrated into and fully support mission requirements.

(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.

3. Intelligence Support to Planning and Execution

a. Intelligence Process

(1) **Planning and Direction.** There are a number of unique considerations that address ATF and LF intelligence requirements throughout all phases of amphibious operations. During the embarked planning and direction phase, the ATF and LF intelligence officers direct their personnel from the intelligence center established aboard amphibious warfare ships to support the intelligence needs of the entire AF. The intelligence center brings together all AF intelligence-related activities. While personnel and material remain organic to their respective commands, they may task organize to perform intelligence work necessary for completion of the mission.

(2) **Collection.** AF intelligence requirements are serviced by all available intelligence, surveillance, and reconnaissance capabilities (national, theater, and organic). **Supporting force or prelanding collection operations are often required to confirm and further develop the operational picture.** An aggressive prelanding intelligence effort will provide support for target selection. However, the collection effort must not expose the commander's intent. AFs should **request national and theater collection assets to conduct reconnaissance and surveillance of coastal areas early in the planning process** to determine the best landing areas to conduct the entry. Detailed astronomical, climatological, meteorological, hydrographic, and topographic information to identify suitable penetration points (e.g., beaches, LZs, DZs) is required as well.

(3) **Processing and Exploitation.** During processing and exploitation, raw collected data is converted into forms that can be readily used by commanders, decision makers at all levels, intelligence analysts, and other consumers.

(4) **Analysis and Production.** During the analysis and production phase, all available processed information is integrated, analyzed, evaluated, and interpreted to create products that will satisfy the AF commanders' requirements. Individual intelligence sections within the AF will normally concentrate on particular areas of expertise, satisfying their units' requirements while contributing a broad-scope product to the general intelligence production effort. For example, LF intelligence could analyze the land operational environment, to include the enemy's C2, ground forces, logistics, and reserves, while ATF intelligence could analyze enemy maritime forces and coastal defense threats. Air threats could be analyzed from a combined AF perspective.

(5) **Dissemination and Integration.** Intelligence dissemination and integration during amphibious operations presents significant challenges. AF and supporting forces can be widely dispersed and may not assemble until late in the planning phase, if at all. Advances in technology have improved intelligence dissemination between forces, but

limitations still exist in the quantity and quality of intelligence exchanged. The immense volume of data available may overtax communications and intelligence systems. Intelligence officers at all levels, working in coordination with unit operations and communications and information systems officers, develop plans that provide dissemination of actionable intelligence in a timely manner to all elements of the AF. Units located on ships not equipped with the latest C2, communications, or intelligence systems will need to be included in the dissemination plan, and should be a high priority for these products. Rather than an end of a process, the integration of intelligence is a continuous dialogue between the user and the producer.

(6) **Evaluation and Feedback.** During the evaluation and feedback phase, intelligence personnel at all levels assess how each phase of the intelligence process is being performed. Commanders and staffs throughout the AF provide feedback if they are not receiving anticipatory, objective, timely, accurate, usable, complete, and relevant information to support the operation. Within the intelligence center, the AF intelligence officers are also evaluating the intelligence process to improve performance.

b. **Key Intelligence Activities**

(1) **Mission Analysis**

(a) The AF will develop preliminary intelligence studies and estimates on receipt of the initiating directive or when alerted of the potential operation. Preliminary planning will encompass an analysis of the operational area and the possible impact of terrain, hydrography, weather, local populace, and cultural features on the proposed operation, as well as adversary capabilities and other relevant actors such as order of battle, known locations, and capabilities that could be used to deny access. 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.

(b) **Many of the primary decisions made during the planning process are based on the initial intelligence estimate.** The initial intelligence estimate serves to orient the AF commanders and their staffs to the operational environment, including the nature of the threat, aids in the development of the commander's intent by outlining what is operationally possible and most advantageous, and formulating the commander's guidance to help shape intelligence operations. At a minimum, the initial estimate should provide the commander with information on the general weather conditions expected in the objective area; key terrain and man-made features and avenues of approach; the location, nature, and extent of available beaches, including their respective operational constraints; and the general composition, strength, and disposition of adversary forces in the area, including all CBRN capabilities, coastal defense cruise missiles, and air defense systems. It should also include the location and characterization of TIM located within or transiting the AOA.

(2) **COA Development.** Intelligence operations support COA development in several ways.

(a) Products from the JIPOE process may be included as an annex or distributed as separate studies and reports, and should include, at a minimum:

1. Weather studies (mapping, charting, and geodesy).
2. Astronomical data in the operational area.
3. Climatological and meteorological studies.
4. Tidal and ocean current data in the operational area.
5. Hydrographic data in the operational area
6. Topographic data to include terrain impact on communications system and trafficability analysis.
7. Beach and LZ studies.
8. Air facilities.
9. Ports and harbors.
10. Special studies on adversary and other relevant actors.
11. Sociocultural analysis on the civilian populace and culture.

For more information, see JP 2-01.3, Joint Intelligence Preparation of the Operational Environment.

(b) Continuously update the view of the operational environment and estimates of adversary capabilities, intentions, and activities.

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

(d) Assist in the prioritization of targets of interest.

(3) **COA Analysis.** Intelligence operations assist COA analysis to:

(a) Identify and refine most likely and dangerous adversary COAs and their potential impact on the LF and actions and reactions to friendly COAs under consideration.

(b) Emulate the threat as a red cell during wargaming.

(c) Develop an independent evaluation of each friendly COA based on an understanding of the operational situation and the potential adversary response as well as on the ability to provide intelligence support to that COA.

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

(4) **Plans and Orders Development.** Once the AF COA has been mutually selected, intelligence operations are focused to collect against specific priority intelligence requirements and update relevant intelligence. **This detailed intelligence becomes the intelligence annex to the LF and ATF OPLAN/OPORDs.** The intelligence annex 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/OPORD for use as planning studies. The volume and complexity of the material in the intelligence annex dictates the use of appendixes.

c. Intelligence support provides a continuous flow of tailored intelligence to the AF to maintain a common operational picture of the operational environment while rapidly identifying new intelligence requirements of commanders and the operating forces. The AF, or elements thereof, may receive significant intelligence information while en route to the operational area. This is particularly true in situations where advance forces or forces external to the AF conduct pre-D-day operations in the operational area or where remote sensor data is provided. The AF's intelligence center is responsible for timely dissemination of pertinent intelligence information to the CATF and CLF.

d. Intelligence support provided to the LF during **operations ashore** focuses on furnishing information that provides an exploitable advantage over the adversary. Accordingly, the focus on intelligence operations is to provide information necessary to build situational awareness, identify the latest adversary activities and friendly opportunities, aid friendly maneuver and targeting, and support force protection, all while continuing to support future operations planning. Two key factors for ensuring effective intelligence support during these operations are:

(1) 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 development and selection of branches and sequels. **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.

e. **By satisfying the CLF's critical information requirements and supporting the LF's main effort**, intelligence operations help generate operational tempo. They facilitate operational tempo by supporting the decision-making process through accurate situational awareness and by recognizing emerging patterns that enable the CLF and subordinate commanders to rapidly make decisions.

SECTION B. FIRE SUPPORT

4. General

a. Properly planned and executed lethal and nonlethal supporting fires are critical to the success of an amphibious operation. Since the availability and employment of one supporting weapon system influences the requirements for the others, the fire support requirements of all components of the AF should be considered together in planning the employment of fire support means. Fire support planning and coordination in amphibious operations are continuous processes seeking timely and appropriate application of force to achieve the objectives within the operational area. Fire support planning integrates and synchronizes the AF organic fires with nonorganic supporting fires to achieve the commander's intent. Detailed integration of the ATF and LF fire support agencies is necessary. Flexible, parallel C2 architecture that allows for decentralized fire support control is used when applicable.

b. Both the ATF and the LF may require fire support during the amphibious operation.

(1) AFs in the AOA or AO normally require fire support for operations such as beach reconnaissance, hydrographic survey, removal of beach and underwater obstacles, and MCM. 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 against shore targets before, during, and after the initial landings. Once sufficient area is seized ashore, artillery can be landed to provide additional fire support. Until ground fire support means (e.g., mortars, rockets, and cannon artillery) of the LF are landed and ready to provide support, fire support is provided by CAS, NSFS, and, in limited cases, direct and indirect fires from adjacent friendly forces.

(3) The LF may require fire support during amphibious withdrawal as the LF exits the beach or landing zone.

(4) To the greatest extent possible, nonlethal fires should be planned in support of all phases of an amphibious operation.

5. Responsibilities

Commanders at each level of the LF should:

- a. Establish a fire support coordination agency at each appropriate level of the LF to conduct fire support coordination during planning and execution of the operation.
- b. Conduct target development and selection.
- c. Determine requirements for air, NSFS, nonlethal, and artillery fire support.
- d. Present the coordinated prioritized requests for NSFS and air support to the CATF.
- e. Develop the LF concept of fires to support the scheme of maneuver.
- f. Establish FSCMs, as required.

6. Processes

a. Fires in support of amphibious operations are the cooperative product of three processes: TA, 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. Vertical and horizontal coordination is essential, requiring a hierarchy of mutually supporting fire support coordinators (FSCs) and agencies. Attack systems include fires delivered from air, land, and maritime attack systems. Navy, Marine Corps, Army, and Air Force aircraft may perform air-to-surface attack, including electronic attack (EA), within the operational area. Land-based attack systems typically include Marine Corps and Army artillery, mortars, rockets, missiles, and EA systems.

b. TA

(1) The typical AF has numerous organic TA assets, such as reconnaissance units, unmanned aircraft system, maritime and artillery counterbattery radars, naval aviation, and ground sensors, as well as other observers, spotters, and controllers.

(2) The typical AF has the capability to exploit the information provided from nonorganic airborne surveillance and reconnaissance systems (manned and unmanned), subsurface, surface (ground and maritime), military space systems, and national systems. Fire support information could be provided by SOF, interagency and multinational partners, and other nonorganic sources.

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

c. C2 Agencies

(1) The initiating directive should identify responsibilities for fire support planning and coordination between the commanders of the AF. For the purposes of this chapter, the term “designated commander” will refer to the commander who has been delegated the command authority to plan and coordinate fires for either the entire amphibious operation or a particular phase of it. The effectiveness of fire support in amphibious operations is

predicated on the designated commander providing clear and coordinated guidance to the forces involved since unity of effort is essential.

(2) The SACC is established on initiation of planning. **The SACC plans, coordinates, and controls all organic and nonorganic fires within the operational area in support of the AF.** It is located aboard a ship configured with the requisite C2 facilities to coordinate all forms of supporting fires (land, air, and sea-based). The designated commander may choose either the ATF's supporting arms coordinator (SAC), the LF's force fires coordinator (FFC) (if USMC), or FSC (if USA) to supervise the SACC. Whether the SAC, FFC, or FSC supervises the SACC, fire support personnel from both the ATF and LF operate the SACC. The organization of the SACC is typically the same for any size amphibious operation; however, variations in the type of amphibious operation may require specific needs. The organization described below is to be used only as a guide. SACC is a single location on board an LHA or LHD in which all communication facilities incident to the coordination of fire support from artillery, air, and NSFS are centralized. This is the naval counterpart to the FSCC and DASC used by the LF.

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

(b) The ASCS 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 TAO. The TAO is the equivalent of the CCO and is in charge of ship-to-shore movement by air. 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 staff provides liaison to the section.

(c) The target information center (TIC) collects, displays, evaluates, and disseminates information pertaining to potential targets. It should be manned by an ATF target intelligence officer, ATF air intelligence officer, LF target intelligence officer, and other personnel, as required. TIC members will normally operate in the SACC. The ATF target intelligence officer representative to the FFCC 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.

(3) The FFCC is the LF senior fire support coordination agency that plans, executes, and coordinates all fires within the operational area. Prior to control being passed ashore, the FFCC 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, who is responsible to the LF operations officer for MAGTF fires. The organization operates at both the tactical and operational level addressing current and future fire support issues. The FFCC coordinates those matters that cannot be coordinated by the GCE (FSCC), ACE Marine TACC, or CSS operations center for integration of fire support plans.

For further information, refer to JP 3-09, Joint Fire Support.

(4) The FSCC is the fire support coordination agency within the LF GCE. FSCCs are established at the battalion, regiment, and division level. The FSCC plans, executes, and coordinates all forms of fire support within the GCE's AO. 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.

d. Attack Resources

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

(2) The SACC and the FFCC are able to coordinate and control nonorganic attack resources in support of the amphibious operation. Aircraft (manned and unmanned), ship-launched missiles, SOF, and nonlethal systems attacking targets within the operational area must be coordinated through the senior fire support coordination agency.

7. Planning and Coordination

a. The purpose of fire support planning is to optimize the employment of fire support to achieve the designated commander's intent by shaping the operational area and providing support to maneuver forces. Fire support planning is the continuous and concurrent process to analyze, prioritize, allocate, and schedule fire support to maximize combat power of the force.

(1) Commanders determine how to shape the operational area with fires to assist both maritime and land maneuver forces and how to use maritime and land maneuver forces to exploit fires. When developing the fire support plan, the designated commander will publish the 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 desired effects against the enemy'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 enemy's COGs, decisive points, and critical vulnerabilities is central to fire support planning.

(2) In order to develop the fire support plan, attack resources may be considered for apportionment and allocation to the AF. In the general sense, apportionment is the percentage of the force given to a specific mission set, while the allocation represents the total number of assets/sorties given to a specific objective. For example, air apportionment is a determination and assignment of the total expected air effort by percentage or priority that should be devoted to the various air operations or geographic areas for a given period of time. In comparison, air allocation is the translation of the air apportionment decision into total numbers of sorties by aircraft type available for each operation or task. The

apportionment and allocation process requires input from the subordinate commands within the AF to ensure that their requirements are addressed.

(a) Direct support air requirements and any excess sorties are identified to the establishing authority for further tasking.

(b) Normally, the JFC will apportion assigned air assets (by priority or percentage) to support the AF. The JFC may also task supporting commands for air support as required.

(3) During the planning phase of joint fires, commanders develop a CONOPS that includes ATF supporting arms. Effective joint fire support depends on planning for the successive performance of the four basic fire support tasks; support forces in contact, support the CONOPS, synchronize joint fire support, and sustain joint fire support operations.

b. Targeting

(1) The AF normally conducts an integrated targeting board to provide broad fire support and targeting oversight functions. Depending on the command relationships that the establishing authority promulgates in the initiating directive, the designated commander coordinates the targeting process for the AF through preparation and submission of target nominations and FSCMs. The designated commander during the period within which the targets are attacked has final approval authority over the fire support plan and target list. Those targets to be serviced by organic assets are passed to the appropriate agencies for servicing. Targets identified for servicing by nonorganic attack systems are forwarded to the next higher-level targeting board for consideration. The AF will provide, at a minimum, liaison officers to this targeting board (i.e., component level) and may provide liaison officers to the senior joint targeting board (i.e., the JFC's joint targeting coordination board), if established. AF targeting timelines are normally out to 72–96 hours in order to match the targeting timelines and planning cycle of the JFC.

(2) The AF may seek to shape their 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.

For additional information, see JP 3-0, Joint Operations, JP 3-09, Joint Fire Support, and JP 3-60, Joint Targeting.

c. **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. Once control agencies (e.g., forward observers and NSFS spotters) are ashore, the LF will normally begin calling for fires to support operations. 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.

For more details, see JP 3-09, Joint Fire Support.



Arleigh Burke-class guided missile destroyers are equipped with a 5-inch (127-millimeter) gun.

8. Naval Surface Fire Support

a. The CATF prepares the overall NSFS plan, based on the CLF and Navy requirements. The plan allocates gunfire support ships and facilities. The CATF establishes the general policy on NSFS targeting priorities. The CLF determines LF requirements for NSFS, including selection of targets to be attacked in pre-assault 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. When designated the supported commander, the CLF coordinates the timing, priorities, and desired effects of fires within the operational area.

b. As a general rule, one NSFS ship provides direct support for a battalion with one NSFS ship providing general support for the regiment.

c. Control of NSFS is exercised by, and passes to, different commands and agencies as the operation progresses.

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

(2) On arrival in the objective area, the CATF exercises control of the NSFS through the SACC.

(3) When subordinate amphibious task groups are formed and separate landing areas are designated, the CATF may delegate to each attack group commander control of NSFS in the landing area.

(4) Control may be passed to the CLF once the necessary control facilities are established ashore. The CLF then has the authority to assign NSFS missions directly to the fire support ships. The CATF or designated subordinate retains responsibility for allocation of available fire support ships. CATF also retains responsibility for logistic support and OPCON functions other than control of fires.

d. NSFS Organization

(1) The ATF echelons involved in surface fire support are as follows:

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

(b) The fire support group is usually subdivided into fire support elements for efficient and effective delivery of gunfire support. When necessary for span of control considerations, 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; however, fire support unit commanders normally do not deal directly with LF agencies. Each fire support group (or unit when established) is divided into smaller task elements of fire support ships, regardless of type operating in the same general locality.

(c) 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) 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) 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) 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) 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) The battalion shore fire control party includes an 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.

For more information, see NTTP 3-02.2/MCWP 3-31.6, Supporting Arms Coordination in Amphibious Operations.

e. **NSFS Plans**

(1) The **pre-D-Day NSFS plans**, which have the primary objective to prepare the landing area for the assault, usually include the following elements:

- (a) Assignment of ships to FSAs and zones of fire.
- (b) Communications instructions.
- (c) Designation of targets, provision for damage assessments, and acquisition of target intelligence.
- (d) Provision for availability of spotting aircraft (manned or unmanned) and reference to appropriate air support plans, to include potential CAS operations.
- (e) Provision to coordinate with MCM, underwater demolition, and air operations.
- (f) Provision to record target information and report latest intelligence data to the CATF.

(2) The essential elements of the plan for **D-day NSFS plans** include:

- (a) Assignment of ships to FSAs, zones of fire, and in direct and general support of specific LF units.
- (b) Location 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.
- (c) Communication instructions and procedures for transfer of control.
- (d) Designation of targets, target areas, deep support areas, and probable routes of approach of adversary reinforcements.
- (e) Provisions for spotting aircraft.
- (f) Instructions for massing fires of several ships.
- (g) Provisions to coordinate ship-to-shore movement, MCM, underwater demolition, artillery, and air operations.

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

(i) Degrade adversary C2 ability.

(j) 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) The **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.

f. **NSFS Support During the Landing**

(1) **Final Preparation of the Landing Area.** This fire support is designed to destroy or neutralize adversary defense installations 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 MCM operations. 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.

(2) **Fires in Close Support of the Initial Assault.** During the initial assault, NSFS is continued on those adversary installations 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 landing craft, amphibious vehicles, or helicopters and tiltrotor aircraft 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 prearranged fires delivered on a closely fixed schedule in the assault landing team's zone of action. 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 shore fire control party with the assault landing teams are in a position to conduct the fires of the assigned direct support ships. At this time, the shore fire control party begins controlling 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 LOCs, attack targets of opportunity, execute counterbattery fire, reinforce fires of direct support ships as directed, and conduct missions assigned by the supported unit.

g. Other Planning and Coordination Considerations

(1) Although normally only one SACC is active at any one time, amphibious advance force operations may require the establishment of a fire support agency to coordinate fires in support of the neutralization or destruction of enemy high value assets or the emergency extraction of SOF or reconnaissance units. The amphibious advance force SACC should maintain situational awareness on the insertions and extractions of teams, locations of teams ashore, and MIW operations within the area, to include sea and air assets. The AF SACC assumes responsibility as the primary fire support agency from the amphibious advance force SACC, upon its arrival in the operational area.

(2) Assault breaching, a part of amphibious breaching, is a preplanned fire support mission using precision guided munitions to neutralize mines and obstacles in the SZ and on the beach. Assault breaching must be coordinated and synchronized with the maneuver of troops going ashore, other D-day fires, and ongoing MCM operations, in particular, underwater MCM operations being conducted in the very shallow water (10-40 foot depth contours) region. The Joint Direct Attack Munition Assault Breaching System (GBU-61) is the only capability currently available for breaching mines and obstacles from the 10-foot depth contour to the beach exit. The MCMC, in coordination with the CATF and CLF, is responsible for planning the breach and determination of individual weapon aim points, fuse settings, and priority of effort for the CATF to forward an air support request. Tactical air support is planned and tasked in accordance with the established air tasking process. The breach is conducted by the CATF through the SACC and the Navy TACC.

Additional information on assault breaching is provided in paragraph 30, “Mine Countermeasures and Obstacle Avoidance or Breaching.”

9. Nonlethal Fires

a. Nonlethal fires are any fires that do not directly seek the physical destruction of the intended target and are designed to degrade the performance of enemy forces, functions, or facilities, or to alter the decision making or behavior of an adversary. Nonlethal fires may be employed so as to incapacitate personnel or materiel, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. Employment of nonlethal fires and information-related capabilities must be integrated into all amphibious operations to produce synergistic results. Examples include masking smoke or obscurants, nighttime area illumination, AD, and employment of some information-related capabilities, such as EA, MILDEC, and offensive cyberspace operations, that deceive the enemy, disable the enemy’s C2 systems, or disrupt operations.

See JP 3-13, Information Operations, for further discussion on considerations, planning, and integration of information-related capabilities.

b. The SACC coordinates EA against radar and communications emitters until EW control is passed ashore to the LF. The LF headquarters EW coordination cell, or equivalent, or the LF EW officer, if there is no EW coordination cell, coordinates joint aspects of LF EW requirements.

c. The ATF and LF OPORDs should contain specific instructions on the procedures to request EW and other forms of nonlethal fire support from resources within or external to the ATF and on EW coordination cell actions required to coordinate or process these requests.

10. Offensive Air Support

a. Offensive air support requires an integrated, flexible, and responsive C2 structure to process CAS and other air support requirements and a dependable, interoperable, and secure communications architecture to exercise control.

b. Air Support Planning Responsibilities

(1) CATF determines overall air support requirements of the ATF, determines air support capabilities, coordinates all air support requests, and prepares an air plan.

(2) CLF determines LF air support requirements, determines LF air support capabilities, submits plans for deployment of aviation elements ashore, and prepares an air plan.

(3) JFACC provides JFACC representation, determines JFACC air support capabilities, submits deployment plans, and prepares supporting air plans.

c. Air Support Planning Considerations

(1) All aircraft operating within the objective area must be under centralized control of a tactical air control system. A combination of positive and procedural control measures may be required.

(2) Plans should usually provide for rapid seizure of existing airfields, airfield capable sites, and sites for early warning and air control. This enables the early deployment ashore of aviation elements and extends the radius of warning and control.

d. 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 from the other elements of the AF and joint force. Any adversary facilities to be captured intact must be specified and placed on the no-strike list or restricted target list.

(1) Recommendations and requests from subordinate echelons of the LF are evaluated and consolidated with overall LF requirements into a comprehensive request for air support. When determining overall requirements, pre-D-day should be separated from D-day and post-D-day requirements.

(2) LF requests for pre-D-day air operations are to satisfy 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.

(3) LF requests for air support of operations ashore commencing on D-day include identification of targets to be attacked, their priority, timing of attacks, and desired effects. 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, tiltrotor aircraft, 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.

(4) 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.

e. Air Support During the Assault

(1) Until the TACPs arrive with assault units ashore, CAS missions are executed under the direction of the tactical air coordinators (airborne) 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, and in accordance with the commander's guidance for priority of fires. As the landing progresses, air control elements to be established ashore land and prepare to operate shore-based facilities for control of air operations.

(2) As air support control agencies are established ashore, they function initially under the Navy TACC. 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 FSAC or fires cell.

(3) The terminal phase of a CAS strike is executed under the control of a joint terminal attack controller or forward air controller (ground and airborne). CAS missions are executed only on the approval authority granted by the commander of the supported LF.

See JP 3-09.3, Close Air Support, for more information.

11. Ground-Based Fire Support

a. Ground-based fire support comes under the cognizance of the MAGTF. The two principal ground-based assets available to the CLF commander are field artillery and mortars. Artillery furnishes close and continuous fire support to neutralize, destroy, or suppress targets that threaten the mission of the supported command. Mortars provide immediately available, responsive, indirect fires in support of the LF scheme of maneuver. Mortars also reinforce direct fire during close combat.

b. The artillery fire plan is normally formulated in the fire direction center (FDC). These centers are the elements of a CP, consisting of gunnery and communications personnel and equipment, which the commander uses to exercise fire direction and/or fire control. The

FDC receives target intelligence and requests for fire and translates them into timely and effective tactical and technical fire control in support of ongoing operations.

c. Some planning tasks such as counterfire procedures and scheduling of fires, may occur in the supported unit's FSCC (division or regiment) when multiple supporting arms are being integrated into the fire support plan. Remaining artillery fire planning tasks such as fire direction, resupply, and positioning to meet the fire support requirements are then performed at the appropriate FDC.

d. If it is not possible to coordinate artillery support at lower echelons, the requisite coordination with air and NSFS assets is accomplished in the SACC.

See JP 3-09, Joint Fire Support, and NTTP 3-02.2/MCWP 3-31.6, Supporting Arms Coordination in Amphibious Operations, for more information.

12. Multinational Considerations

a. Fire support coordination in multinational operations demands special arrangements with multinational forces and local authorities. To maximize the fires of the multinational force and to minimize the possibility of friendly fire, the CATF and staff should become familiar with each nation's capabilities and limitations in munitions, digital capability, and training, to ensure that they develop good fire support coordination throughout the multinational force.

b. Fire support coordination may be required with multinational partners that are providing fire support from outside the designated AOA.

See JP 3-16, Multinational Operations, and Allied Joint Publication-3, Allied Joint Doctrine for the Conduct of Operations, for additional information on multinational operations.

SECTION C. COMMUNICATIONS

13. Overview

Amphibious operations require a flexible communications system capable of supporting rapid decision making and execution to maintain a high tempo of operations. These systems must be reliable, sufficient for the mission, flexible, sustainable, survivable, and as expeditionary as the AF. Communications system architecture should provide strategic and tactical connectivity to a variety of tailored AFs, multinational partners, USG departments and agencies, as well as other commanders and participants in the amphibious operation. In austere tactical environments, such as may be seen in amphibious raids, the communications network is not robust and may be severely degraded when disturbed. The AF must have the ability to plan for, provide C2 for, and support all functional areas (e.g., fires, aviation, intelligence, CSS) afloat and ashore.

For additional information, see JP 6-0, Joint Communications System, and CJCSM 6231.01, Manual for Employing Joint Tactical Communications.

14. Communications Responsibilities

a. CATF and CLF are responsible for communications system support planning, with the designated commander consolidating the requirements. The communications system support plan must reflect the coordinated communications system requirements of the AF. The requirements may include radio and weapon guidance and control frequencies, call signs, compatible cryptographic and authentication systems, and special communications equipment, computer equipment and systems, or support. These responsibilities are closely tied to both commanders.

(1) The communication systems support plan describes the communication systems requirements of the AF in terms of circuits, channels and systems required, and policies and procedures governing the operation and coordination of the overall system. The plan includes the items listed in Figure V-1.

(2) The plan is prepared in detail to facilitate use by commanders at all echelons.

(3) The plan should include en route, intertheater, and intratheater communications and systems requirements.

b. Specific CATF responsibilities include the following:

(1) Prepare and promulgate coordinated plan for employment of AF communications during the operation.

Communications System Support Plan

- General coverage of the communications situation, including assumptions, guiding principles, and the concept of operational communications employment.
- Announcement of the communications mission.
- Delegation of communications tasks and responsibilities to major elements of the force.
- Detailed instructions for organizations, installation, operation, coordination and maintenance of the communications system.
- Assignment and employment of call signs, frequencies, cryptographic aids, and authentication systems.
- Instructions on countermeasures, operations security, and communications security.
- Interoperability of computer systems, to include hardware and software.
- Logistic support for communications and electronics.

Figure V-1. Communications System Support Plan

(2) Acquire and assign necessary communications assets to subordinate elements of the force.

(3) Prepare appropriate cybersecurity guidance.

(4) Provisions for necessary shipboard communications system and services in support of the embarked LF.

(5) Develop a coordinated communications plan for the ATF for inclusion in the overall communications system support plan.

(6) Develop and promulgate a plan for communications connectivity with other maritime forces.

c. Specific communications system support planning responsibilities of CLF are to:

(1) Develop a coordinated communications plan for the LF component of the AF for inclusion in the overall force communications system support plan.

(2) Develop and promulgate a plan for communications connectivity with the JFC, other components, and other ground forces ashore.

(3) Request LF computer and network resources and support while embarked.

(4) Identify connectivity requirements prior to movement ashore for follow-on operations, if required.

d. Due to the limited availability of AF communication assets, commanders of other embarked forces should submit their communication requirements for inclusion into the communications system support plans as early as possible.

15. Communications Planning Considerations

a. An effective communications system support plan:

(1) Provides an EMCON plan and information security posture that balances OPSEC versus operational requirements.

(2) Supports defensive cyberspace operations and cybersecurity in order to defend the network against unauthorized activity and to protect information from exploitation.

(3) Avoids mutual interference throughout the EMS. Communications system support plans of the AF must be integrated into the JFC's joint communications electronics operating instructions.

(4) Deconflicts friendly EA with other friendly frequency use.

(5) Provides friendly forces' position reporting to the Global Command and Control System–Maritime common operational picture.

(6) Identifies alternative means of communications to assist in reducing mutual interference and decreasing frequency requirements and to help ensure availability of communication networks.

(7) Provides access to METOC forecasts and information impacting amphibious planning and execution.

(8) Incorporates multinational forces requirements into communications plans.

(9) The topography when operating in enclosed bays or estuaries and the vicinity of mountains may affect communications paths. Communications support requirements in amphibious operations are summarized in Figure V-2.

b. Each major command of the force 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.**

c. Subordinate commands of the AF may operate in widely separated areas during some phases of the amphibious operation. **The communications plan must permit rapid integration of the force without undue interference between elements.**

d. Local frequencies and communications standards in use in the landing area should be considered to ensure compatibility and to prevent interference.

Communications Support Requirements

A reliable, secure, rapid, flexible, and interoperable command and control, communications, and information system is required in both planning and execution.

- Support planning.
- Control ship-to-shore movement.
- Coordinate protection of the amphibious force.
- Control assault vehicles and craft.
- Monitor command and control of amphibious advance force operations.
- Coordinate supporting arms.
- Coordinate logistic support and combat service support.
- Coordinate support provided by other forces.
- Medical regulation.
- Coordinate use of communications and electronic warfare.
- Support the landing force scheme of maneuver.

Figure V-2. Communications Support Requirements

e. Communications system connectivity should be established among all major participating commands at commencement of the planning phase.

f. When AF are supporting other operations, such as FHA or NEO, the communications plan should consider the capabilities and requirements of other USG departments and agencies, intergovernmental organization, and nongovernmental organization communications, as well as the local government or populace being assisted.

g. 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 LF G-6 [assistant chief of staff for communications]. Throughout the preparation of the plan, the G-6 must coordinate with each staff section of the LF as well as equivalent staff officers at parallel and subordinate commands. The G-6 counterpart on the ATF staff is the communications officer, or the N-6 [Navy component communications staff officer]. The G-6 and N-6 conduct concurrent and parallel planning to:

(1) Allocate shipboard radio equipment, spaces, and personnel to support LF operations.

(2) Assign call signs, coordinated with the CATF to facilitate handling of LF traffic over naval circuits during all phases of the amphibious operation.

(3) Identify cryptographic and authentication systems that must be used by ATF and LF units.

(4) Develop communications security (COMSEC) procedures.

(5) Evaluate assigned radio frequencies for optimal performance, to prevent mutual interference, and ensure adequacy of support for LF operations.

(6) Determine 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.

(7) Develop computer networks that support the LF communications while embarked, including procedures for the receipt and distribution of message traffic.

h. The LF will embark in functionally operational spaces normally built on a Navy C2 infrastructure. These spaces will be complete with permanent access to voice, data, and video systems necessary for the LF's situational awareness. They will form the LF operational spaces, which are collectively known as the LF operations center. The infrastructure is based on joint standards and architectures and allows units to draw upon a baseline of communications system capabilities, regardless of their Service.

i. **The LF communications system support by phase is as follows:**

(1) Communications system connectivity between the 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.

(2) In the embarkation phase, commanders must provide for adequate communications system support between the AF and any external agencies involved in transportation. The CLF is normally responsible for planning and providing LF communications systems at the piers and 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 establish:

- (a) Ship-to-shore circuits for the control of loading (closely coordinated with the CATF).
- (b) Convoy circuits for serials moving from point of origin to seaport of embarkation.
- (c) Communications between the port of embarkation and the embarkation area, including the contracted use of commercial assets if feasible.
- (d) Communications between control points within the embarkation area.
- (e) Communications center and switching center operations within the embarkation area.

(3) 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 communications systems involved without violating OPSEC or COMSEC procedures. By having a full-scale rehearsal, the CLF can further refine communications requirements and identify critical vulnerabilities, thus allowing for appropriate adjustments to the OPLAN or OPORD before execution. Specific considerations during the rehearsal phase include:

- (a) Maximum use of secure voice equipment and use of minimum power on electronic emitters for COMSEC reasons.
- (b) Use of call signs and frequencies for rehearsal use only.
- (c) Plans to repair or replace communications equipment damaged during the rehearsal.
- (d) Plans to allocate and embark expendable items (e.g., wire and batteries) for use during the rehearsal.

(e) Plans to allocate enough time to conduct an after action review of the communications plan after the rehearsal and to modify portions of the plan as necessary.

(4) During the movement phase, the CATF normally establishes EMCON and information security policies to restrict 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 EMCON. Some potential alternate means are helicopter messenger, visual signals, or line-of-sight radio if permitted by the EMCON condition. Other LF communications considerations include:

(a) Communications guard assignments for all elements of the LF.

(b) 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.

(c) ATF communications officers have an accurate listing of message release authority within the LF.

(d) 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.

(e) Establishment of LF communications centers, or equivalents, on all ships when major LF units are embarked.

(5) During the action phase, both the ATF and LF rely on radio communications and tactical chat as the means for exercising C2. Accordingly, EMCON is modified 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 warfare ships 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 warfare ships (e.g., SACC, Navy TACC, AATCC, and TACLOG group). The LF communications plan must address the many operational aspects of the action phase.

(a) 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.

(b) Communication nets for the control and coordination of the assault support helicopters are established and maintained through the Navy TACC and AATCC. LF personnel will augment the AATCC 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.

(c) 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/fires cell of the LF, fire support observers, TACPs, forward air controller (airborne) and tactical air coordinators (airborne), and artillery FDCs.

(d) High-frequency communications may be restricted due to hazards of electromagnetic radiation to ordnance.

(e) 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 medical evacuation, 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 group, supported LF units, helicopter support teams and transport aircraft (if applicable), SACC, DASC (once established ashore), and other key agencies within the ATF and LF.

(f) In addition to high-frequency communications, satellite communications may be used to support OTH operations, depending on the scheme of maneuver.

j. In the transition of LF CPs ashore, the CLF should consider:

(1) The CP movement from ship-to-shore should 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 communications system and is crucial to the seamless transition of effective C2 from the agencies afloat to those established ashore.

(2) A CP movement from ship-to-shore is normally made in two or more echelons, depending on the type and size of the headquarters. Each echelon requires a near equal communications capability which must be planned out in detail by the CLF and 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.

(3) When an advance 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.

(4) When in transit from ship-to-shore, the CLF and appropriate staff members 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.

For additional information, see JP 6-0, Joint Communications System.

SECTION D. LOGISTICS

16. General

“The logistical effort required to sustain the seizure of Iwo Jima was enormous, complex, largely improvised on lessons learned in earlier . . . operations in the Pacific. . . . Clearly, no other element of the emerging art of amphibious warfare had improved so greatly by the winter of 1945. Marines may have had the heart and firepower to tackle a fortress-like Iwo Jima earlier in the war, but they would have been crippled in the doing of it by limitations in amphibious logistical support capabilities. These concepts, procedures, organizations, and special materials took years to develop. . . .”

From *Closing In: Marines in the Seizure of Iwo Jima*, 1994, Joseph Alexander

a. **The CATF and the CLF have co-responsibility for determining overall logistic requirements for the AF.** Those requirements that cannot be supported from resources available within the ATF are directed to the applicable Service component through the chain of command as established in the initiating directive.

b. The requirement for afloat forces to provide support to the LF during the period in which the LF logistic system is primarily sea-based has a significant influence on logistic planning for an amphibious operation. Like all logistic systems, **the AF logistic systems must be responsive, simple, flexible, economical, attainable, sustainable, and survivable.** Development of effective logistic systems must take into account the planning considerations and factors listed below:

(1) Planning Considerations

(a) Orderly assembly and embarkation of personnel and materiel based on anticipated requirements of the LF scheme of maneuver ashore.

(b) Establish and maintain a logistic system in the operational area that will provide adequate support to all elements of the AF and subsequent support of base development and garrison forces as directed.

(c) Impetus of logistic support from the **sea, or the rear, and directed forward to the point of application at the using unit.**

(d) Preservation of OPSEC during logistic planning. Nonsecure logistic planning can compromise tactical surprise and landing location.

(2) **Planning Factors.** Logistic planning factors are as follows:

(a) Type, size, and duration of the operation, including the anticipated date that support should commence and will no longer be needed.

(b) Objective area characteristics, such as geography, climate, distance from support bases, host nation support, transportation systems and networks, LOCs, local contracts for goods and services, and throughput capacity.

(c) Enemy capabilities.

(d) Strength and composition of LF.

(e) Support base resupply methods.

(f) Compatibility and capability of logistics support systems.

(g) Communications means.

(h) Adversary CBRN capabilities.

(i) Availability of AE and AFOE shipping.

(j) Indigenous health risks and diseases prevalent.

(k) Requirements for rehabilitation or construction of airfields.

(l) Support required for detainees.

Additional guidance for joint logistic operations in support of amphibious operations is contained in JP 4-0, Joint Logistics, and JP 4-01.6, Joint Logistics Over-the-Shore.

17. Responsibilities

a. **The CATF:**

(1) Establishes priorities, allocates resources, and coordinates logistic requirements for all elements of the ATF.

(2) Determines requirements that can be met by internal resources. Those which cannot are directed to the supported commander or the appropriate Service through the chain of command.

(3) Notifies appropriate responsible agencies of any unusual requirements or special supplies or equipment required as early as possible.

(4) Provides the means required to establish and operate a logistic system in the designated AOA.

(5) Develops plans for movement and sustainment of detainees and civilian evacuees.

(6) Develops overall plan for evacuation of casualties.

(7) Prepares logistics annex to the OPLAN.

b. **The CLF:**

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

(2) Allocates the means to meet LF logistical requirements. Requests support from the AF for those requirements that exceed the LF organic capabilities.

(3) Determines logistic requirements that cannot be met by the LF. Those which cannot are directed to the CATF, supported commander, or the appropriate Service through the chain of command.

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

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

(6) Plans for the coordination, conveyance, and distribution of logistics required by the LF.

(7) Prepares the logistics annex to the LF OPLAN.

c. Other designated commanders of the AF will submit logistics requirements to the CATF or appropriate commander for those requirements that cannot be met internally.

18. Combat Service Support

a. The necessity to provide logistics to the LF when the logistic system is primarily sea-based requires coordination between the AF commanders to develop a control and delivery system that will provide the LF with the necessary support from embarkation through rehearsal, movement, execution, and continued operations ashore. **Wherever possible, sustainment planning should include direct ship-to-user delivery.**

b. Logistics planning should include considerations for initial supply and sustained operations.

(1) **Initial supply** comprises the logistic levels for both the AE and AFOE to provide required initial support for the assault landing and initial operations ashore. Plans for initial supply include the following:

(a) ATF should:

1. Load ships with supplies to prescribed levels.
2. Provide rations for LF while embarked.
3. Provide 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.
4. Provide water for the LF ashore until supply from sources ashore is available.
5. Provide medical support until equivalent capability can be established ashore.

(b) LF should:

1. Assemble supplies to be landed with the LF in such a manner as to facilitate availability for issue before and during debarkation.
2. Establish pre-staged air-lifted supplies.
3. Selective discharge of required supplies in accordance with the landing plan.
4. Plan logistic supply or staging points ashore (if required) and the onward distribution of those supplies to forward units.
5. Develop captured material disposition instructions.
6. Develop salvage instructions.
7. Develop retrograde instructions.

(c) The CATF and CLF may plan for the use of floating dumps of pre-positioned emergency supplies primarily preloaded in landing craft and amphibious vehicles. Floating dumps are positioned in the vicinity of the appropriate control officer, who directs their landing as requested by the troop commander concerned.

(2) **Sustained operations** require logistics support transported to the landing area in follow-on shipping and aircraft to support tactical operations ashore.

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

1. On call shipping and aircraft to be ordered into the landing area by the CATF, as requested by the CLF.

2. Fixed schedules for bringing shipping or aircraft into the landing area, as planned by the CLF.

(b) Factors affecting selection of a sustainment method include:

1. Distance between the landing area and loading points.

2. Availability of forward sheltered ports or anchorages.

3. Requirement for convoy escort.

4. Availability of aircraft dedicated for sustainment lift.

5. Hostile activity on LOCs.

6. Plans for general engineering support, including facilities required to accommodate supplies and the phase-in of LF units to handle supplies.

7. Availability of manning, materials handling equipment, and lighterage to off-load shipping.

8. Availability of LOTS resources.

c. Logistics and CSS plans are prepared by the CATF, CLF, and other designated commanders of the AF. These plans will include at a minimum:

(1) Supply and resupply responsibilities, schedules, and sources.

(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) Engineering and construction requirements.

(6) Air delivery responsibility, procedures.

(7) Captured material disposition instructions.

(8) Salvage instructions.

(9) Retrograde.

(10) Casualties (support and evacuation procedures).

(11) Initial laydown of material resources.

(12) Mortuary affairs support and evacuation of human remains.

19. Key Constructs

a. From the CSS standpoint, the ship-to-shore movement is divided into two time periods:

(1) **Selective Unloading.** The selective unloading period is 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 from within the BSA and from sources afloat. Normally, selective unloading parallels the landing of nonscheduled units during the initial unloading period of the ship-to-shore movement.

(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 able to handle the incoming volume of supplies. When adequate assault supplies are ashore and BSA is organized, secure, and operating satisfactorily, the CLF recommends that general unloading begin.

b. In the initial stages of the amphibious operation CSS is principally concerned with the provision of combat essential supplies such as rations, water, ammunition, and fuel 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.

c. **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 disestablished, 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 and are primarily influenced by the scope and duration of the operation.

d. **BSA and CSSA Defense.** The LF OPORD will specify the security commander and the task organization designated to perform BSA or CSSA defense.

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

f. **Seabasing.** In some cases, it may be undesirable or unnecessary to transfer substantial LF supplies and CSS organizations ashore. Seabasing allows for CSS assets to remain at sea and be sent ashore only when needed. CSS capabilities should be balanced aboard those amphibious warfare ships best suited to provide support.

g. **Sea Echelon Level.** The sea echelon level plan normally reduces the concentration of amphibious warfare 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.

h. **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.

i. **LF Aviation.** Fixed-wing aviation elements located outside the landing area may require a task organized CSS detachment for support. When LF aviation is phased ashore into the AOA, the CSS requirements (especially engineering and transportation) may be extensive.

20. Health Services Plan

a. The health services plan is usually issued as annex Q (Medical Services) to the OPLAN and provides for medical support to all elements of the AF. The LF health services plan will be issued as annex Q (Medical Services) to the LF OPLAN. The CATF and CLF surgeons should develop the medical logistic support plan. See Figure V-3 for LF health services planning considerations.

b. Planning Responsibilities

(1) The CATF in coordination with the CLF is responsible to:

(a) Establish a patient movement policy consistent with JFC and AF guidance that assigns authority and annotates intratheater and intertheater patient movement requirements and procedures.

(b) Establish medical support requirements and standards for the civilian population in the operational area, when not prescribed by higher authority.

For more information, see JP 4-02, Health Services.

(2) The CATF surgeon should:

(a) Provide medical support for all embarked personnel between points of embarkation and the AOA.

(b) Provide medical personnel, supplies, and equipment for all units based ashore and not attached to the LF.

Health Services Planning Considerations

Goal:

Providing for the health of the command and evacuation and hospitalization of sick and wounded.

Planning must consider:

- Overall mission of the force and the supporting medical mission.
- Policies of higher commanders.
- Landing area characteristics.
- Physical, biological, and psychological threats to personnel.
- Lines of communications and evacuation.
- Evacuation policies and procedures.
- Medical supplies required.
- Blood and colloid requirements.
- Casualty estimates.
- Medical personnel available and status of their training.
- Supporting medical facilities and forces outside the objective area.
- Medical needs for civilian population and enemy prisoners of war, if authorized.
- Need for service medical unit augmentation.
- Requirements for casualty receiving and treatment ships.
- Aircraft and landing craft to provide ambulance facilities.
- Medical augmentation requirements for common-user shipping.
- Other medical facilities available within the objective area.

Figure V-3. Health Services Planning Considerations

(c) Develop, in conjunction with the CLF surgeon, patient movement procedures within the landing area.

(d) Provide initial casualty reporting for the ATF, LF, and other forces assigned.

(e) Establish medical support requirements for the US contractor or civilian population in the AOA when not prescribed by higher authority.

(3) The CLF surgeon identifies and coordinates LF health services requirements with the CATF surgeon. Once command is passed ashore, close coordination with the CATF surgeon is still required. The CLF is responsible for preparation of health services plans and should:

(a) Provide for medical support to LF personnel before embarkation.

(b) Provide for medical personnel to assist in the care for LF personnel while embarked.

(c) Execute the patient movement policy established by the geographic combatant commander for the AOA.

(d) Execute the patient movement plan from the shore to ship in the AOA as directed.

(e) Determine the additional medical requirements of the LF that cannot be met by organic medical LF capabilities.

See JP 4-02, Health Services, for additional information.

c. Patient Movement

(1) Patient movement policy is a command decision establishing the maximum number of days that patients may be held for treatment. Patients who, in the opinion of responsible medical officers, cannot be returned to a duty status within the prescribed period are evacuated by the first available means, provided the travel involved will not aggravate their condition. The policy will be established for the theater by the CCDR and executed by the CATF in conjunction with the CLF for the AOA. The use of any specific patient movement policy for the AOA serves only as a guide for medical planning and must remain flexible to meet the changes in demand placed on the limited medical treatment capability initially available.

(2) Plans for patient movement should be sufficiently detailed and widely disseminated. These plans should include:

(a) Identification of primary casualty receiving and treatment ships (CRTSs) and medical treatment capabilities.

(b) Locations and level of medical treatment facilities ashore.

(c) Communications procedures for patient movement coordination.

(d) Provisions for mass patient movement for situations that may require rapid evacuation of multiple casualties to more distant secondary CRTSs.

(e) Specific provisions that may be required to ensure rapid evacuation of casualties to more distant primary CRTS facilities.

(f) Provisions for contaminated casualties who may require quarantine.

(3) The preferred mode of patient movement is via aircraft. The speed, range, and flexibility of aircraft serve to enhance the medical support capability of the LF. However, patient movement plans should include provisions for maximum use of ground and surface means.

(4) In planning patient movement, the guiding principles include:

(a) Each successive role of care in the health services system has greater treatment capability than the preceding role of care.

(b) During LF operations patients are moved only as far rearward as the tactical situation dictates and as clinical needs warrant.

(c) ATFs have no dedicated medical lift capability. Movement of patients is based on a lift of opportunity from the sea base to the appropriate role of definitive care.

(d) Coordination of patient movement between roles of care is usually preplanned and coordinated by the medical regulating control officer afloat and the patient evacuation officer ashore.

d. Medical regulating is the actions and coordination necessary to arrange for the movement of patients through the roles of care and to match patients with a medical treatment facility that has the necessary capabilities and available bed space.

(1) The medical regulating plan contains procedures for evacuation of patients to the appropriate role of care as well as procedures for evacuation of patients outside the AOA.

(2) The medical regulating team provides operational support for patient movement and coordinates seaward casualty evacuation in the AOA and patient evacuation within the afloat units during underway periods. The medical regulating team:

(a) Maintains a spot status board on medical treatment facility status and capabilities within the AOA.

(b) Monitors patient movement activities and provides daily reports/situation reports on matters such as overall and daily patient movement, information on specific patients (as requested), and availability of assets (lifts and beds).

(c) Monitors medical materiel, blood and blood products, and medical personnel replacement requirements.

(d) Advises CATF surgeon on capabilities and limitations of supporting patient movement operations within the AOA.

(e) Enters patient movement requests using the United States Transportation Command (USTRANSCOM) Regulating and Command and Control Evacuation System.

e. Hospitalization

(1) Initial hospital support of LF operations is provided initially in CRTSs of the ATF and later by applicable appropriate medical units of the LF when they are established ashore. In most cases, however, the staff and lack of equipment in LF medical units limit

their capabilities of holding patients. Overloading should be avoided to allow for current and future operations.

(2) 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, expeditionary medical facilities combat support hospitals, or expeditionary medical support units, respectively. These units may or may not be part of the AF.

21. Landing Force Support Party

a. The LFSP is a temporary LF organization, composed of ATF and LF elements brought into existence by a formal activation order issued by the CLF. For planning purposes, the basic LFSP structure consists of the LFSP commander, the shore party, the beach party, special attachments, and ships' platoons. The LFSP facilitates the ship-to-shore movement and provides initial combat support and CSS to the LF. The CLF is responsible for organizing a system to accomplish LFSP missions 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. Shipboard detention is only a temporary measure permitted until the detained individual can be transferred to a shore-based facility. It is limited to the minimum period necessary to transfer detainees from a zone of hostilities or as a result of operational necessity.

(3) Beach, retract, and salvage landing ships and craft.

(4) Facilitate the establishment of the LCE, 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 provides 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 (e.g., Green Beach, Red Beach 1). When the shore party and beach party are established ashore and the shore party commander has consolidated command of the shore party groups, TACON of the shore party and beach party groups transitions to the shore party and beach party commanders, respectively. Concurrent with this transition, the LFSP is established ashore and the LFSP commander assumes TACON of the shore party, beach party, special attachments, and all other LFSP units ashore. If the LFSP is not established ashore concurrently with the beach party and shore party, TACON 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 for the shore party consists of elements from the LF's logistics element, augmented with personnel and equipment from the GCE, ACE, and other LCE units.

(c) **Beach Party.** The beach party is the Navy component of the LFSP. Personnel and equipment for the beach party come from the naval beach group and elements from a Navy cargo handling battalion, as required by the initiating directive.

(d) **Special Attachments.** Special attachments are made to the LFSP for defense of the BSA, to provide liaison personnel, and for specialized tasks.

(e) **Ships' Platoons.** A ship's platoon consists of assigned LF personnel responsible for loading, stowing, and off-loading 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 CO of troops.

Detailed information about the LFSP is contained in NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement, and NTRP 3-02.1.2, Naval Beach Group Support Element Operations.

b. LFSP Plan

(1) The CLF and appropriate subordinate commanders prepare LFSP plans containing instructions for the functioning of the LFSP, including the beach party and aircraft support team and air mobile support party requirements.

(2) The LFSP plan includes the following:

- (a) Organization and mission of the LFSP.
- (b) LFSP communications instructions.
- (c) Beach, DZ, and LZ defense instructions.

(d) Plan for material staging areas, vehicle lots, fuel supply points, and a trafficking plan.

c. LFSP Planning Considerations. In developing the LFSP plans, consideration should be accorded the factors shown in Figure V-4.

- (1) Early detailed analysis of the landing area.
- (2) Detailed planning for organization of BSAs and LZ support areas.
- (3) Adequate communications between tactical units, control elements, and landing support elements.
- (4) Composition of the AE and AFOE.
- (5) Plans after seizure of the force beachhead line.

Landing Force Support Party Planning Considerations

- Landing force scheme of maneuver and related landing plan.
- Enemy disposition in the landing area.
- Mine and obstacle clearance in the landing area.
- Landing area weather, terrain, and hydrographic conditions.
- Requirements for multiple, separate logistic installations to provide for passive defense against weapons of mass destruction.
- Requirements for beach development and clearance of landing zones.
- Amounts and types of supplies and equipment to be landed.
- Types of ships (amphibious and commercial), landing craft (displacement or air-cushion), and aircraft to be unloaded.
- Availability of personnel and equipment for landing force support party operations.
- Policy concerning method of handling and disposition of enemy prisoners of war.
- Casualty evacuation and health service regulating policies.
- Coordination required with other agencies.
- Provision for inter-Service support.

Figure V-4. Landing Force Support Party Planning Considerations

- (6) Concept of CSS.
- (7) Environmental management requirements.

d. LFSP Planning Responsibilities

(1) **The CLF is responsible for the timely activation of the LFSP and the conduct of LFSP operations.** However, AF elements participate in and contribute to the development of plans for 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 as early as possible in the planning phase.**

(2) **The CATF prepares 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.

e. Employment



Buildup of beach support area at Inchon, Korea, September 15, 1950.

(1) 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.

(2) The buildup of the LFSP ashore parallels the tactical buildup ashore.

(3) 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 to meet the situation until the operation is terminated or the LFSP is relieved of its responsibilities. In the initial stages of ship-to-shore movement, the LFSP headquarters is afloat and is typically phased ashore as the operation progresses. A shore party team and beach party team are among the first waves of troops ashore to each colored beach.

For additional information on the organizational structure and changes in C2 for the LFSP and its associated shore party and beach party, see NTTP 3-02.1M/MCWP 3-31.5, Ship-to-Shore Movement.

22. Causeway and Lighterage Plans

a. The CLF presents causeway and lighterage support requirements to the CATF. The CATF prepares the causeway and lighterage plan in consultation with the CLF considering the following:

(1) LF requirements.

- (2) Hydrographic conditions.
- (3) Availability of required types of sealift.

b. The plan should include details on loading, transportation, launching, initial operational assignment, and provisions for maintenance and salvage of the causeway and lighterage equipment. It should also contain specific instructions for transition of control. The plan should include provisions for retaining lighterage in the area after the AFOE shipping departs, for use in unloading follow-up shipping, and for other support of tactical operations. The plan is published as an annex to the CATF's logistic plan.

23. Engineer Operations

Engineer operations support movement and maneuver at strategic and operational levels and provide infrastructure for force protection. In addition to normal engineer operations (i.e., combat, general, and geospatial), special considerations should be made for MCM and amphibious breaching; joint reception, staging, onward movement, and integration; OPDSs; and amphibious bulk liquid transfer system connectivity. Involvement of the engineer staff is essential in the planning and execution of all phases of amphibious operations.

a. **Engineer Planning.** The nature of **engineer support** for the LF in amphibious operations ranges from limited combat engineer support for the assault units to general engineer and CSS functions for the LF.

(1) Combat engineers will normally be attached to the assault infantry units to perform a variety of tasks such as engineer reconnaissance, obstacle emplacement and breaching, development of BSAs, LZ site preparation, construction of beach exits, combat trails and roads, and tactical bridging.

(2) General engineers will normally perform 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 LOCs, geospatial support, environmental management support, advanced airfield preparation, and bridge construction/maintenance. It is desirable for general engineers to relieve combat engineer elements of responsibilities in rear areas as early as possible.

b. **Naval Construction Force.** The naval construction force is 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) When multiple naval mobile construction battalions (NMCBs) are deployed, an accompanying naval construction regiment should be deployed to serve as the C2 coordinator for the CATF/CLF and assigned naval construction force units.

(2) The NMCB provides construction support to Navy, Marine Corps, and other forces in military operations and conducts protection 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 distribution systems). When NMCBs are assigned to the LF, these units will normally be attached to the LCE or CSS element.

(3) The amphibious construction battalion 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 amphibious construction battalion's primary mission.

(4) 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 management of Class IV construction material. Planning considerations include the following:

- (a) Capabilities of assigned engineer units.
- (b) Requirements for new construction.
- (c) Requirements for repair, maintenance, and improvement of facilities such as ports, roads, and airfields.
- (d) Transportation and support requirements of engineer support equipment and Class IV construction materials.
- (e) Limited beach trafficability of engineer support equipment.
- (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.

Further guidance can be found in JP 3-34, Joint Engineer Operations.

24. Logistics Over-the-Shore and Maritime Pre-Positioning Operations

a. LOTS operations, which include Navy LOTS, Army LOTS, and JLOTS, support off-load of supplies, vehicles, and equipment in amphibious operations following the initial assault. OPDS and the amphibious bulk liquid transfer system may also be included in the operations. The CATF is responsible for debarkation and off-load until termination of the amphibious operation, when the responsibilities for debarkation or off-load are passed to another off-load organization designated by higher authority, such as to the JLOTS

commander. The amphibious operation is not normally terminated until the AFOE is ashore. Normally, during transition from ship-to-shore operations to JLOTS operations, there is a period in which the Navy and supported ground forces continue to conduct ship-to-shore movement for initial sustainment using the basic control organization and procedures used for the amphibious operation. In a representative situation, Navy LOTS forces would provide the initial ship unloading capability reinforcing the CATF's existing amphibious cargo discharge organization, thereby maintaining sufficient capability to facilitate the delivery of follow-on supplies and equipment to the AF. Then, as Army transportation units arrive in the area, they report to their Service component but functionally integrate into the CATF's and the commander MPF's cargo discharge organization. Finally, the JLOTS ship-to-shore C2 organization, when operationally ready and directed by the JTF, will assume responsibility, and the Navy LOTS operation will transition to a JLOTS operation. At this point, control of ship-to-shore assets is transferred from the Navy component commander to the JLOTS organization, and any Navy ship-to-shore assets not already withdrawn will remain under TACON of the JLOTS commander. Ultimately, the JLOTS operation may transition to Army LOTS, using an agreed upon phased-transition procedure.

b. The MPF offers an augmentation capability for amphibious operations, but it is not a substitute due to an inherent lack of forcible entry capability. An MPF operation provides a means to augment a forward-deployed MAGTF; an ongoing amphibious operation; or another joint, multinational, or combined force operation. When an MPF operation augments an amphibious operation, the MPF mission and appropriate command relationship guidance is included in the initiating and establishing directives.

For additional information, see JP 4-01.6, Joint Logistics Over-the-Shore, and MCWP 3-32/NTTP 3-02.3, Maritime Prepositioning Force Operations.

SECTION E. PROTECTION

25. General

Protection of the AF is essential for all amphibious operations, but especially during ship-to-shore movement. The JFMCC will synchronize and coordinate operations between the AF and other forces (SOF and other naval and joint forces) to counter and neutralize enemy aircraft, submarines, surface combatants, small boats, land-based antiship cruise missiles, coastal defenses, mines, and other potential threats to the AF en route to and within the AOA to gain local maritime and air superiority. Maritime superiority permits the conduct of amphibious operations without prohibitive interference by the opposing force. During the planning phase of an amphibious operation, the active protection of the ATF and LF is one of the most important considerations. The inherent nature of amphibious operations limits the ability of CATF to employ passive protection measures once in the AOA.

26. Rehearsal and Movement Security

In formulating plans for movement to the operational area, sea routes and rendezvous points must be carefully selected. Sea routes through mineable waters, or close to enemy

shore installations from which the enemy can carry out air, surface, or subsurface attacks, are to be avoided if possible. To minimize probability of detection, routes will be planned to avoid known or probable areas of enemy surveillance. Flexibility must be given in allocation of transit time to permit evasive courses to be steered by movement groups if it becomes necessary to avoid surface or subsurface threats.

a. Because of similarity between the rehearsal and the actual operation, strict OPSEC measures must be enforced during rehearsals. The reconnaissance for, selection of, and arrangements for the use of the areas in which rehearsal(s) are to be held must be accomplished carefully. Deception measures may be necessary to provide for security of the rehearsal.

b. Unauthorized observation of the AF or unauthorized communications with external agencies should be prevented. The primary means of limiting unauthorized observation are restricting movements of personnel and ships and establishing security perimeter patrols around the rehearsal area, both at sea and ashore. Special precautions must be taken to maintain COMSEC. COMSEC is essential and must be maintained throughout planning and execution. While COMSEC's primary purpose is to protect classified materials, it can assist with identifying vulnerabilities to loss of critical information through monitoring communications within legal constraints.

c. Reconnaissance satellites present a real threat to the AF rehearsals. Execution of the rehearsal may have to be timed to coincide with those time periods when forces are not vulnerable to satellite observation. Adjustment to the rehearsal (e.g., selection of misleading terrain, decentralized rehearsals, subordinate rehearsals separated by time and distance, and deliberately executed deception operations) may also be used to mask the purpose, location, and timing of the amphibious operation.

d. In order to avoid detection of rehearsal activities, maximum use of wargaming and simulation will be considered. There are many events that take place in an amphibious operation that lend themselves to simulations. Denying observations of intentions is critical.

27. Deception

a. The initiating directive will normally specify the scope of employment of deception operations. Additional AF requirements for employment of deception operations will be made known to and coordinated with higher authority during planning.

b. MILDEC objectives may:

(1) Cause the adversary commander to employ forces and assets in ways that are advantageous to the joint force.

(2) Cause the adversary to reveal strengths, dispositions, and intentions.

(3) Cause the adversary to withhold strategic reserves until friendly forces have achieved mission success.

(4) Condition the adversary to particular patterns of friendly behavior to induce adversary perceptions that are exploitable at a time chosen by the joint force.

(5) Cause the adversary to waste combat power with inappropriate or delayed actions.

c. The MILDEC plan, if created, should clearly delineate both the goal and the objective of the deception. This provides the commander with a solid understanding of how the deception supports the overall operation and establishes a firm foundation for planning and executing MILDEC operations.

For additional information on MILDEC, see JP 3-13.4, Military Deception.

28. Protective Measures

The LF must arrive in the landing area without critical reduction of its combat power. Measures necessary for protection of the LF elements in transit from the sea include all measures taken by any task force operating at sea. This includes operations to locate, classify, and track surface vessels, submarines, and aircraft, and if required, applying force against them. By establishing maritime superiority in both the open oceans and the AOA, naval forces directly support the ability to project defense and assure access for the LF.

29. Defensive Counterair Operations

a. Defensive counterair includes all measures designed to detect, identify, intercept, and destroy or negate enemy air and missile forces attempting to attack or penetrate through friendly airspace. These operations employ both active and passive measures to protect US or multinational forces, assets, and interests.

b. The dynamics of the defensive counterair mission often require flexibility during decentralized execution that normally takes place at the tactical level. This flexibility accomplished through battle management allows the direct, often real-time monitoring and execution of operations based on the intent and within the scope of the commander's objectives.

For additional information on defensive counterair operations, see JP 3-01, Countering Air and Missile Threats.

30. Mine Countermeasures and Obstacle Avoidance or Breaching

a. Sea mines and MCM have figured prominently in the Civil War, Spanish-American War, both World Wars, Korea, numerous Cold War crises, and in Operations DESERT STORM and IRAQI FREEDOM. Admiral David G. Farragut's command in 1864 at Mobile Bay during the Civil War to "...damn the torpedoes [mines], full speed ahead..." was made easy by two months of extensive MCM operations that included reconnaissance, mine hunting, and technical exploitation of captured weapons. Mines also contribute to A2/AD environments. Elements of MIW which can be used in support of amphibious operations include mining (offensive, defensive, and protective) and MCM (offensive, including

strategic strike against mine stocks or minelayers, and defensive, including passive avoidance of mined waters, operational deception, and active use of MCM platforms to hunt or sweep for active enemy mines). In the current operational environment, coastal defenses against amphibious operations have become a military necessity for a number of countries considered a threat to regional stability and national interests. **The preferred tactic for AFs operating against countries or organizations employing coastal defenses is to avoid, bypass, or exploit gaps in these defenses whenever possible.** However, operational limitations may preclude this tactic and a breach of these defenses may be required. The capability to counter mines and obstacles is, therefore, essential to the conduct of amphibious operations. Coastal mining may interfere with littoral maneuver at sea, in the SZ, and on the beach. Specifically, it may affect amphibious advance force operations, ship-to-shore movement, and possibly hinder or preclude unloading of the LF. Planning for operational timelines, allocation of intelligence collection assets, AF task organization, the rate at which forces are established ashore, and deception operations can be affected by a mine threat. **In a mined environment, available organic, national, and theater intelligence assets are obtained and used as soon as possible to gather information.**

b. **Antilanding Doctrine. Enemies often employ integrated antilanding capabilities that have incorporated the use of land, sea, air, and, in some cases, space assets.** These capabilities involve integration of reconnaissance, long-range interdiction by air and sea forces, and a combined/arms ground force at the beach. **Central to most antilanding defenses is the use of littoral MIW.** In most cases, adversaries will employ mines as an economy of force defensive measure. In addition, some countries may base their coastal defense on the threatened employment of WMD or may integrate WMD into their existing coastal defenses. Coastal defenses depend on the hydrography, terrain, resources, development time available, and ingenuity of the enemy. **Antilanding doctrine usually focuses on the development of four layered barriers within the littorals.** These barriers may be under observation and covered by shore-based fires. The four barriers from the littorals to land are perimeter, main, engineer, and beach.

(1) **Perimeter Barrier.** The first littoral barrier encountered is the perimeter minefield. **This minefield, located at the maximum range of shore-based covering fires, is intended to delay and break up the ATF prior to arrival in the AOA.** Covering fire is used to protect defensive barriers from assault force's attempts to breach those barriers. Delays at the perimeter minefield could allow coastal defenses time for final preparation and movement of forces to potential landing beaches. Antiship cruise missiles and coastal artillery may provide covering fires. Electric and diesel submarines and aircraft may attempt to attack the AF.

(2) **Main Barrier.** **The main barrier holds the primary minefield.** The minefield is intended to deny the maneuver of ATF ships and landing craft during ship-to-shore movement. Land-based artillery, air defense systems, and possibly small boats and aircraft cover the main barrier.

(3) **Engineer Barrier.** **The engineer barrier is located at or near the shoreline and contains both minefields and obstacles.** The engineer barrier is often laid in very shallow water and the SZ. Installed by ground force engineers, the barrier targets landing



Minefields and obstacles are placed along avenues of egress off the beach and in front of defended positions.

craft and amphibious vehicles and attempts to deny access to the beach. Land-based artillery, air defense systems, and crew-served weapons cover the engineer barrier.

(4) **Beach Barrier.** The beach barrier canalizes the LF for counterattacks. Minefields and obstacles are placed along avenues of egress from the beach and in front of defended positions. Land-based artillery, air defense systems, and crew-served weapons all provide support to a counterattack.

c. **Responsibilities.** The CATF has overall responsibility for MIW within the sea areas of the operational area. This includes the planning and execution of all facets of MIW supported by MIWC and MCMC and assigned forces or the MCM commander (if assigned) and providing the logistics support and force protection for MCM assets. The MIWC or MCMC will direct air and surface MCM assets to include conducting MCM operations including breaching outer mine barriers from deep water, to the very shallow water, and underwater MCM forces conducting underwater MIW in very shallow water. The CATF is also responsible for conducting assault breaching operations from the shallow water through the SZ and up to the agreed upon line of demarcation. This line of demarcation is determined during the amphibious planning process and mutually agreed upon by the CLF and the CATF, supported by planning input from MIWC or MCMC. The CLF is responsible for conducting mine and obstacle breaching and clearing operations from the line of demarcation on the beach landward, and for follow-on clearance operations on the beach. Above all, **MCM and amphibious breaching operations must be synchronized.** The

CATF and CLF share responsibility in integrating these operations into the overall strategy to support littoral maneuver and the subsequent ship-to-shore movement and landing plan.

d. **Planning Considerations.** The following planning considerations should be made when conducting MCM and amphibious breaching operations in support of amphibious operations:

(1) To facilitate MIW planning, the CATF and CLF should incorporate MCM planners throughout the amphibious planning process. Potential issues include the location and size of the AO in comparison to available MCM assets; slow surface MCM transit times to the AO; ability of surface MCM operations to meet established deadlines; the number and location of the beaches, boat lanes, approaches, and ship transit areas required to be cleared or examined for mines; and requirements for protecting assets involved in the surface MCM effort. Accomplishing this will enhance the ability of AF units to achieve surprise and rapidly project combat power through littoral maneuver; build up troops, equipment, and supplies ashore; or to conduct ship-to-objective maneuver to areas deeper inland. The incorporation of MCM expertise in amphibious planning in any instance where enemy mining is anticipated is critical to successful MCM support of the amphibious objectives.

(2) **Reconnaissance and Surveillance.** AFs should request national and theater collection assets to conduct reconnaissance and surveillance of the defended coastal area early in the planning process to determine the best landing area to conduct the breach. The AF may utilize organic reconnaissance assets to identify obstacles and conduct beach surveys. The collection plan and request should focus on location of mines, obstacles, and enemy locations in the area, to include air, naval, and ground forces. The compatibility of the beach and the suitability of the area for available landing craft and vehicles, including maneuver area, tidal levels, and beach slope and composition, should be considered.

(a) **Mine Threat.** The types, characteristics, numbers, storage locations, transportation assets, and at-sea delivery capability are vital information.

(b) **Operational Area Characteristics.** Efforts required to clear, remove, or sweep a minefield **depend significantly on the mined area's physical environment.** Water depth and beach characteristics are key factors. Significant ocean currents increase the difficulty of sweeping moored mines. Tidal ranges expose mines in very shallow water, making them easy to detect but placing a burden on clearing teams to finish their task within a prescribed time limit. High densities of mine-like objects on the bottom complicate operations. Once the landing area is chosen, the coastal defenses in the vicinity are degraded to the desired level through supporting and prelanding operations conducted by AF and other forces, to include the full spectrum of MCM forces.

(3) **Local Air and Maritime Superiority.** Local air and maritime superiority in the operational area is normally required in order for the MCM forces to commence operations. This may require naval and joint assets to provide the necessary protection.

(4) **Offensive MCM.** If ROE permit, MCM is best accomplished by destruction of mines prior to their deployment. **Offensive MCM includes lethal and nonlethal attacks**

on production and storage facilities, transportation assets, and forces used to plant mines. Supporting operations may also be conducted for offensive MCM and to wear down land forces. A key consideration in any potential littoral conflict is the establishment of ROE that allow for early, aggressive, and proactive MCM operations.

(5) **MCM Forces.** The time required for MCM operations will usually require MCM forces to commence operations prior to the arrival of the AF and, potentially, the amphibious advance force. Legacy MCM ships have slow transit speeds and may require a heavy lift ship to transport them to the AO if not already forward deployed. MCM helicopters, MCM forces, marine mammals, and unmanned undersea vehicle platoons may also require the use of amphibious warfare ships or other platforms in order to conduct operations. The CATF and CLF should, therefore, consider that an amphibious warfare ship or afloat forward staging base, for example, could be needed to support MCM operations, and plan for any subsequent impacts on amphibious warfare ships load outs and the overall landing plan. **The vulnerability and relatively slow rate of speed in which MCM forces operate should be taken into account when considering use of MCM during supporting or prelanding operations.** Due to the limited assets available for an MCM operation, the CATF will need to prioritize the MCM effort in the AO. MCM operations have the potential to compromise OPSEC of the impending amphibious operation with significant impact on the success of the LF. Opposed landings are arguably one of the most difficult and dangerous large-scale military operations and the element of surprise must be preserved by all available means. Therefore, overt MCM operations that threaten the element of surprise should be kept to a minimum and conducted as close as practicable to the arrival of the AF in the AOA. Deception operations may maintain the element of surprise if overt MCM operations are necessary. The principal techniques to accomplish active MCM are mine hunting and minesweeping.

(a) **Mine Hunting.** During mine hunting, the MCM platform uses its available assets to detect, classify, identify, and neutralize all mine-like contacts found. In favorable hydrographic conditions, mine hunting is the preferred method for conducting enabling MCM. Mine hunting does not require specific knowledge of the mine threat and provides a means to estimate the remaining risk to transiting vessels. However, it is limited by the acoustics, visibility, and topography of the underwater environments in the operating area.

(b) **Minesweeping.** Minesweeping is the technique of clearing mines using mechanical, explosive, and influence sweep equipment. Mechanical sweeping removes, disturbs, or otherwise neutralizes the mine; explosive sweeping causes sympathetic detonations in, damages, or displaces the mine; and influence sweeping produces either the acoustic and/or magnetic influence required to detonate the mine. It is performed at slightly faster speeds than hunting, but its success is largely a factor of environmental conditions and the intelligence data available. Minesweeping does not allow an accurate estimate of the remaining risk.

(6) **Assault Breaching.** The assault breaching mission is planned by MIWC/MCMC using Joint Assault Breaching System mission-planning tools, coordinated via the Navy TACC, and conducted by organic, supporting, or strategic strike air assets (US



Estimated to cost about \$1,500, an unsophisticated contact mine that was based on a 1908 Russian design caused some \$96 million in damage in 1987 to the frigate USS Samuel B. Roberts, shown above with damage to the hull as seen from dry dock, almost causing the ship to sink.

Navy strike fighters or USAF bombers), using the Joint Direct Attack Munition. Lane requirements of the LF and mine or obstacle construction will dictate size and composition of the amphibious breach sortie. During assault breaching efforts involving munitions, large lane widths exponentially increase the number of weapons required to neutralize beach obstacles and mines. The CLF should carefully consider the SZ lane widths, the requirement for surprise, and the tactical needs of the LF when relying upon delivered munitions. Suppression, obscuration, security, reduction, and deception are additional elements that should be applied to amphibious breaching operations to ensure success.

(a) **Suppression.** Effective suppression is the mission-critical task during any breaching operation. Suppression protects forces conducting obstacle reduction and maneuvering through the obstacle and fixes the enemy in position. Suppressive fires include the full range of lethal and nonlethal fires from NSFS and CAS to EA.

(b) **Obscuration.** Obscuration hampers enemy observation and TA, and conceals friendly activities and movement. EA prevents the enemy use of radar and radio signals to observe and report the operation.

(c) **Security.** Support forces prevent the enemy from interfering with obstacle reduction and the passage of the assault waves through the breach lanes. Security must be effective against coastal defenses and counterattack forces. Vertical assault forces may seize

and deny routes of ingress into the landing area to prevent the counterattack of the landing beaches.

(d) **Reduction.** Reduction forces, normally composed of aircraft dropping Joint Direct Attack Munition, create lanes through the mines and obstacles, allowing the assault waves to pass. The location of lanes depends largely on identified weaknesses in the mine and obstacle belt. If the AF cannot find gaps or weak coverage in the obstacles, they should apply concentrated force at a designated point to rupture the defense and create a gap. Units reducing the obstacle mark the lane and report the obstacle type, location, and lane locations to higher headquarters. Lanes are handed over to follow-on forces that further reduce or clear the obstacles, if required.

(e) **Deception.** Deception operations are a necessity during assault breaching efforts. Large lane sizes demand large numbers of weapons and multiple aircraft passes to clear the SZ prior to the assault. This may draw immediate attention to the LF unless alternate lanes are brought under fire as well.

For more information on MIW and breaching, see JP 3-15, Barriers, Obstacles, and Mine Warfare for Joint Operations; NWP 3-15, Naval Mine Warfare; NTTP 3-15.24, Mine Countermeasures in Support of Amphibious Operations; and ATTP 3-90.4/MCWP 3-17.8, Combined Arms Mobility Operations.

31. Surface Warfare

a. To assure access for the AF, SUW-capable forces will be required to operate in the open ocean, the approaches to the littorals, and the more difficult littoral environment. The objective in each operating area is the same: gain and maintain maritime superiority to protect the AF. Because of unconventional threats and asymmetric tactics that may be encountered during amphibious operations, the SUW challenge expands well beyond the traditional war-at-sea scenario which pits similarly constructed, clearly defined naval forces against each other in a known theater of action. SUW capabilities should continue to include response options for conventional threats, but naval and joint forces conducting SUW operations should also be prepared for potentially more dangerous unknown enemies employing nontraditional methods to challenge US objectives. Just as conventional enemy surface combatants present a threat to maritime superiority, terrorists using small, lightly armed boats loaded with explosives as attack platforms can similarly challenge maritime security.

(1) SUW operations in an open ocean environment consist primarily of sea control operations to gain and maintain maritime superiority in the surrounding area so that forces can accomplish required missions. SUW in the open ocean environment typically involves protecting vital sea lines of communication, convoy and merchant escort, and defense of naval strike groups or strike forces.

(2) The inner and outer boundaries of the littoral (near land) operating environment are not clearly defined. However, geography is a key factor. As the operational environment transitions from the blue water to the littoral, the conduct of SUW becomes

increasingly difficult. Maneuvering becomes more difficult. Threat vessels can use geographic features to hide or commercial activities (e.g., merchant shipping routes, fishing areas, oil platform support) to mask their intentions. Speed, organic weapons, and embarked aviation assets including unmanned vehicles are important for SUW success. SUW tasking in littoral regions will likely be conducted within the territorial waters of another nation. A thorough understanding of the law of the sea, as it pertains to the jurisdiction and sovereignty exercised by nations, and the international legal status and navigational rights of warships and aircraft is required before commencing operations. The mission will determine whether the resources available for SUW are sufficient. However, as the focus shifts from the open ocean to the littoral, additional collaboration with other warfare commanders will be necessary to leverage forces for effective employment. The SUW commander will normally flex resources to support other mission areas and to respond to threats emanating from the sea or from land. In some instances, the focus will be from seaward toward the beach such as support to amphibious operations or strike missions.

(3) The threats and limitations associated with littoral operations are compounded by a lack of freedom of maneuver due to enclosed areas, especially when the AOA is in a concave area of the shoreline. Maintaining situational awareness is vital in the littoral environment. Combat identification is complicated by the density of surface craft in the immediate vicinity of forces. Integration with the AMDC to provide integrated force defense, as well as self-defense capabilities, is a primary consideration. Asymmetric threats are more likely in this operating area, and close proximity to land places operational forces in multiple threat envelopes without a clearly defined threat axis.

b. Joint forces may significantly enhance SUW capabilities to defend the AF and suppress potential adversaries, especially when operating in littoral environments. Joint forces may contribute to SUW in the following areas:

(1) Fires—Fixed-wing and rotary-wing aircraft can engage surface maritime targets with guns and/or missiles (e.g., AC-130, AV-8, as well as AH-64, AH-1, UH-1, and MH-60 helicopters).

(2) Intelligence, surveillance, and reconnaissance assets contribute to situational awareness (e.g., USAF E-3 AWACS [Airborne Warning and Control System], unmanned aircraft system, US Navy E-2, USN, USA, and USMC helicopters).

(3) C2 support.

(4) Special operations.

(5) Raids ashore.

c. Threats to the Maritime Force

(1) The traditional surface threat to maritime superiority ranges from large combatant-like cruisers and frigates to much smaller combatants such as patrol boats, patrol gunboats, torpedo boats, and missile boats. Surface combatants equipped with surface-to-surface missile or surface-to-air missile systems that have a surface engagement capability,

pose a serious threat to maritime forces. Combatants armed with gun systems, torpedoes, or mines pose a secondary surface threat. The threat from torpedoes launched from surface ships will increase as more modern guided torpedoes become readily available to potential adversaries.

(2) Larger surface combatants belonging to countries with established navies deploy offshore to protect designated areas or to operate in contingency areas, while smaller surface combatants, antiship cruise missile equipped patrol boats, and fast attack craft/ fast-inshore attack craft can be expected to operate in coastal defense roles in difficult littoral environments. The most widespread threat to surface superiority in a traditional warfare environment comes from missile equipped patrol craft. Built to operate in shallow coastal waters, they normally patrol in waters contiguous to the homeland. The inherent characteristics of patrol craft are speed, agility, low-radar signature, and familiarity with the operating area. These characteristics, combined with effective detection and C2 networks and potent missile systems, make them a formidable foe, especially in a littoral environment. Even when not armed with antiship cruise missiles, most surface combatants have some SUW capability. Most combatants have surface-to-air missiles that have an SUW mode as a secondary capability, and many have antiship torpedo systems and a mine-deploying capability. Naval guns can also present a threat to surface forces and are found on nearly all surface combatants.

(3) Submarines are the best equipped of all force types to operate in a covert or clandestine manner in a hostile environment. Many submarines can threaten the AF well beyond the effective operational radius of land-based aircraft that may oppose AF operations. Diesel-electric attack submarines provide a readily deployable weapon system for a variety of peacetime and wartime missions for the enemy. Diesel-electric submarines may be armed with torpedoes, antiship missiles, guns, mines, or a mix of these weapons. Coordination with the ASW commander is a key planning element for all SUW operations.

(4) The main air threat to forces conducting SUW operations comes from sea or land-based multirole aircraft including bombers, fighters, maritime reconnaissance patrol aircraft, and helicopters armed with guided and unguided weapons. Although designed primarily to attack land targets, fighter-bombers are a threat because of widespread availability and combat radius. They may be armed with antiship missiles, bombs, rockets, or guns. Many littoral nations have maritime reconnaissance patrol aircraft, which can also be armed with SUW weapons such as antiship cruise missiles, rockets, bombs, torpedoes, and mines. Additionally, many types of military helicopters are readily available and could pose a threat to SUW operations. They are capable of carrying a variety of weapons, including antiship cruise missiles, rockets, and guns. Coordination with the air warfare commanders and JFACC must be a part of every ATF SUW plan.

(5) Many nations have coastal defense systems that integrate coastal area surveillance, engagement of enemy forces, and support of friendly forces operating in the area. A coastal defense system usually includes radar stations (stationary or mobile), to provide coverage in the area of interest and various weapons systems. Additional information resources may include acoustic sensors, human intelligence, communications intelligence, sightings by commercial surface vessels (e.g., fishing vessels), surface

combatants, auxiliaries, submarines, reconnaissance aircraft, unmanned reconnaissance aircraft, and satellites. Weapon systems, depending on the geographical features of the coastline, may include surface-to-surface missile systems (which may be fixed or mobile), torpedoes, and controlled minefields situated along the coastline at focal points or in restricted waters. When operating in littoral areas, the coastal defense system capabilities of the bordering nations and other relevant actors (e.g., terrorist groups) should be considered.

32. Antisubmarine Warfare

- a. Control of the undersea portion of the operational area and establishing a defensive perimeter of the AOA or operational area vital to the success of amphibious operations. To counter the enemy submarine threat the JFC may coordinate, and when required, integrate assets from the joint force to conduct ASW during all phases of an amphibious operation.
- b. Although often viewed as a Navy-only mission, the JFMCC may utilize a variety of joint forces and capabilities (air, land, maritime, space, and special operations) to facilitate or conduct ASW in support of amphibious operations.
- c. While the JFC is responsible for ASW planning inside the JOA, coordination of ASW plans and activities with commands outside the JOA is essential and may require close coordination with other USG departments and agencies, multinational partners, and host nations.
- d. The safe and effective employment of ASW assets conducting coordinated ASW in littoral waters poses a significant problem to the task force commander. Ships, helicopters, and submarines each bring unique capabilities to the ASW problem. The highly variable acoustic properties of the underwater environment, especially in the littorals, will impact the ability to detect identify, track, and engage enemy submarines. Factors that may affect these properties include surface shipping (including those components of the ATF and commercial shipping), inherent environmental noise and oceanographic properties, and seasonal weather patterns. Acoustic sensor placement is highly dependent on the acoustic properties of the water space. Because acoustics will not be the sole detection capability, an environmental assessment will be required to identify the requirements for non-acoustic detection systems (e.g., satellite imagery, electronic intercept, visual acquisition).
- e. A thorough understanding of the enemy's ability to conduct submarine warfare in the littorals is essential. Denying the enemy submarines the ability to close the sea areas may prevent an undersea attack of high-value targets in the sea echelon during ship-to-shore movement and in the close support and distant retirement areas.
- f. Protection of surface units or commercial shipping may require emphasis on ASW near operating areas, sea LOCs, chokepoints, friendly and neutral ports, or other critical areas. ASW operations may continue through the arrival of the AFOE, withdrawal of the AF, or until the submarine threat is neutralized.

g. Successful coordinated ASW depends upon effective use of each ASW asset and a well-promulgated acoustic and nonacoustic search plan. Sensor employment should be carefully considered in the CONOPS. Sensor platforms defending a congested AOA should be placed to optimize sensor performance while minimizing the threat to the sensor platform. The ability of the sensor to discern an enemy submarine may be hampered by acoustic properties of the littorals and the congested AOA.

APPENDIX A LANDING FORCE LOGISTICS PLANNING

1. Landing Force Logistics Planning

The types and quantities of supplies taken into the AOA 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 initial supplies and sustainment.

a. **Determination of Requirements.** Overall requirements for supply support of the LF indicate the total tonnage to be moved into the AOA or 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 amphibious warfare ships and AFOE shipping and aerial resupply, are reported to higher authority.

(1) **DOS.** The first step in estimating overall requirements for supply support is to determine the DOS. The DOS is based on standard Service planning factors and logistics planning factors for the operation. In calculating the DOS, 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 DOS 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 amphibious warfare ships and AFOE 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 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) **LF operational reserve material/mission load allowance** is a package of contingency supplies pre-positioned in amphibious warfare ships to reduce loading time in contingencies. The LF operational reserve material 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 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. TACLOG groups 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 and on-call supply packages for potential surge requests.

(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 such items as 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 LCE or CSS element, through the TACLOG group, from amphibious warfare ships. 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 the 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) 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 group 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.

2. Landing Force Maintenance Planning

a. 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 logistics staff officer and staff share responsibilities for maintenance planning.

b. **Planning Considerations.** The LF maintenance plan should be based on an assumption that initial capabilities in the AOA/AO, 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 and location of salvage points/yards and cannibalization lots.

(8) Maintenance for ground vehicles and weapons to include maintenance contact points and other planning factors.

c. **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 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; by type, quantity, and location.
- (4) Facilities support requirements during embarkation, movement, rehearsal, and action (including BSAs and CSSAs).
- (5) Procedures to request and report 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) Liaison with other subordinate CSS units.

3. Landing Force Transportation Planning

a. Transportation consists of movement of personnel, supplies, and equipment by water, air, or surface means. Transportation requirements are 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 (e.g., marking of routes, convoy control) within the AO.

b. Transportation Requirements

(1) Transportation 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. 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.

(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) The demarcation 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.

c. **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.

d. **Transportation in the AO**

(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 units of the LF.

(d) LF traffic control measures employed ashore.

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APPENDIX B ASSAULT FOLLOW-ON ECHELON

1. General

a. The AFOE is not to be confused with Marine Corps forces deployed by MPF. When an ATF is being formed by the supported CCDR, USTRANSCOM allocates shipping for the AFOE mission to the supported CCDR. These ships are then integrated into the Navy component commander's operations and incorporated with the forces of the CATF. AFOE sealift assets are positioned and loaded at port facilities, generally where ATF support cargo and personnel can be most expeditiously and efficiently loaded to meet AFOE mission requirements. Loadout of AFOE shipping is nearly simultaneous with the loadout of AE shipping. The AFOE deploys in accordance with the CATF's amphibious OPLAN. The ships assigned to the AFOE should be loaded, perhaps not necessarily combat loaded, but at a minimum with off-load priorities that will support the LF scheme of maneuver ashore anticipated at the planned off-load time in the AOA or operational area. The AFOE loads need to be discharged swiftly to support the LF.

b. When AFOE ships are loaded and ready for sea, they will become OPCON to the CATF or the designated subordinate if the ship is to sail as a unit of a Navy formation or movement group. Because of the tactical employment inherent in amphibious operations, CATF will have OPCON of the strategic sealift assigned. The AFOE is normally required in the AOA or operational area early enough to commence off-load no later than five days after the commencement of the assault. The AFOE will consist of additional merchant shipping and support personnel and equipment to handle the added ship-to-shore movement. This will require ships carrying off-load systems to be off-loaded as soon as possible (as early as D+1) depending on the scope of the amphibious operation and size of the MAGTF. For example, a single MEB's AFOE off-load should commence no later than D+5 to support the arrival of its fly-in personnel and unit equipment by D+9 with the goal of all supplies being ashore by D+15. Off-loading of the AFOE is accomplished by the normal Navy/USMC ship-to-shore movement control and support organizations (e.g., PCO, TACLOG, LFSP). These organizations will undergo changes in composition as the operation matures and the logistics element establishes capabilities ashore. Upon release of the ships from tasking in the AOA or AO, the CATF will transfer OPCON of the ship back to USTRANSCOM.

c. Should an MPF reinforce the amphibious operation and an in-stream off-load be required, the MPSRON off-load is integrated into the overall ATF ship-to-shore movement control structure, and the MPF lighterage may be used to support the AFOE off-load. If the MPF off-load is separated by space and time from the AE landing, and/or conducted in-port, stand-alone MPF arrival and assembly task organized structure (arrival and assembly operations group, POG, BOG, and the AACG) will be used for the independent off-load.

d. An AFOE off-load to support the establishment of a theater airfield outside of the AOA or operational area could take place as a separate operation requiring a separate off-load organization.

For more information, see JP 4-01.2, Sealift Support to Joint Operations, JP 3-02.1, Amphibious Embarkation and Debarkation, and NWP 3-02.21, MSC Support of Amphibious Operations.

2. Organization and Responsibilities

a. The CATF and CLF are responsible for the AFOE debarkation and off-load, and the amphibious operation does not normally terminate until the AFOE is ashore.

b. As the first elements of the AFOE approach the AOA or operational area, CATF should already have a well-defined ship-to-shore movement organization in place. The CATF continues to maintain overall control of ship-to-shore movement during AFOE operations.

(1) The role of the PCO will expand to include control of assigned AFOE shipping. Additional Navy support element personnel will be required to assist the PCO in performing these expanded duties. Additional Navy cargo-handling battalions and NMCB forces are required to support the off-load of strategic lift merchant ships.

(2) During extended joint operations, a transition from amphibious operations to Navy LOTS could proceed further transition to JLOTS operation, which may be directed by the JFC.

(3) As they become accessible, developed seaports and aerial ports are used to supplement traditional beach operations and the normal ship-to-shore organization will be expanded to include them.

c. The CATF administers afloat forces within the AOA or operational area through the use of sea areas to deconflict operations of the various components of the ATF and supporting units and platforms. In general, AFOE ships would be assigned to the sea echelon area for holding purposes prior to introduction into the transport areas. The CATF may designate sea echelon and transport area commanders, as required, to facilitate C2 of shipping assigned to those areas.

d. As off-load of the AE is normally already completed, the CLF will have in place a well-established BSA and a TACLOG, which will continue to assist and advise CATF's ship-to-shore movement and control agencies. CLF continues to support off-loading of AFOE strategic shipping and airlift and changes landing support organizations employed during the debarkation of the AE, as required, and as the tactical situation permits. CLF organizes the beachhead to facilitate the off-loading and the CSS buildup ashore and to accommodate the off-load and movement of any containerized cargo. Throughout the AFOE off-load, CLF maintains off-load control agencies, provides USMC personnel to perform stevedore functions to assist in the off-load of merchant ships, and provides vehicle and equipment operators for the off-load of embarked LF equipment and material. The CLF does this through the following organizations:

(1) The LFSP is a temporary task organization composed of LF and Navy elements that operate the BSA(s). The LFSP, the nucleus provided by a combat logistics regiment or direct support combat logistics battalion, supports the LF during the ship-to-shore movement and assists in the execution of the landing plan by providing a uniform flow of materiel to units ashore. During the off-load of the AFOE, the LFSP remains intact as a task organized element and performs those same functions provided the AE; however, as the situation changes, the LFSP will decrease in size and form the nucleus of the BOG which will continue to provide landing support functions until off-load operations are completed or terminated. As the situation changes, CLF will change the size of the LFSP required to handle throughput of the AFOE off-load.

(2) During off-load of the AFOE, the TACLOG will provide the necessary support to ensure that the AFOE off-load is responsive to LF requirements. When permitted by the tactical situation, the CLF may recommend to CATF that general unloading begin. General unloading is normally expected to begin at about D+9 for a MEB landing. When the order for general unloading is given, the TACLOG will cease active operation but remain substantially intact, prepared to resume selective unloading should the tactical situation ashore require.

(3) The BSA is the first CSS installation established ashore to support the amphibious operation and it will continue to function as the initial throughput point in support of AFOE off-load. To support initial off-load of containerized cargo, the LFSP/BOG supports the container off-load, either across the beach by causeway ferries and landing craft, or over elevated causeways.

(4) The BOG originates from elements of the LFSP that are augmented with terminal operations, beach and port, supply, engineer, motor transport, communications, and military police personnel. The BOG is CLF's principle coordinating agency providing C2 of throughput of AFOE equipment and supplies. The BOG will develop the beach to support AFOE off-load and movement inland or to overflow areas.

(5) Should a seaport be available for use, the LF will establish a POG responsible for preparation of the port prior to arrival of AFOE shipping and throughput of supplies and equipment of the AFOE.

(6) Concurrently, the LF will establish an AACG to coordinate the reception of fly-in AFOE personnel, supplies, and equipment.

3. Planning and Execution Considerations

a. When a ship has been directed to off-load, it will move to the inner transport area, and report to an inner transport commander, if assigned. The ship-to-shore movement organization, normally headed by the PCO, will monitor the conduct of the off-load of ships. In instances when the AOA has been disestablished prior to completion of the AFOE off-load, the functions of the PCO will be performed by a designated off-load coordinator. As each ship arrives at its position for off-load, a debarkation team will embark consisting of those personnel who will conduct the off-load of a particular ship. In addition to C2

personnel, this team will provide USMC personnel to perform stevedore functions as well as Navy personnel to support the operation of the ship off-load systems.

b. The conduct and sequencing of the off-load is constrained by the availability of off-load systems. At anchorage, self-sustaining ships will be constrained by anchorage locations and lighterage availability. Non-self-sustaining ships will be further constrained by the availability of auxiliary crane ships to support the off-load. At the beach, cargo movement from both self-sustaining and non-self-sustaining ships will be constrained by the number and availability of beach off-load points. Key principles include:

(1) First priority should always be given to off-loading the lighterage to support the AFOE off-load. If a MPF or MPSRON is supporting the operation, lighterage may be available for use from the MPSs. Other heavy lift ships may bring lighterage from the naval beach groups or from the Army.

(2) The lead time required for the installation of the elevated causeway necessitates priority off-load of these components and delivery to the beach to begin installation.

(3) The auxiliary crane ship will normally be given priority for assignment to off-load anchorage. It will then be in position to receive non-self-sustaining ships alongside.

(4) If no pier facilities are available, RO/RO ships will normally be off-loaded using an RO/RO discharge facility. Consideration should be given to aligning the RO/RO anchorage with compatible beach off-load sites for assigned lighters (causeways preferred, LCUs second) to maximize off-load.

(5) If the tactical situation ashore does not permit immediate off-load, the aviation logistic support ship may be employed as a sea-based maintenance facility with limited intermediate level maintenance capability.

(6) LF fuel requirements and lead time for preparation of installations ashore to accept bulk fuel delivery may necessitate early assignment of anchorage and support craft for an OPDS ship. The nature of fuel operations and the inland fuel distribution system will normally drive selection of the location for the OPDS anchorage.

(7) Calm sea conditions or protected waterways are preferred for discharge of lighter aboard ships and handling of small craft and barges. Extensive barge marshaling areas may be required within protected waters.

c. When a merchant ship has completed its off-load, the ship will change OPCODE back to USTRANSCOM and return to the common user pool. Containerships should not loiter in the AOA or operational area to retrograde containers.

d. Intertheater airlift could deploy AFOE forces and equipment directly to suitable airfields in, or near, the AOA or operational area. Intratheater airlift could also be used to transport AFOE forces from ISBs to airfields in closer proximity to the beachhead.

e. Generally, the AE off-load is responsive to changes in requirements for materiel and supplies ashore. In contrast, the objective of AFOE material is to maximize throughput. However, sufficient flexibility should be maintained to quickly divert from the planned off-load priorities to respond to emerging operational requirements ashore.

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APPENDIX C COMPOSITE WARFARE DOCTRINE

1. Introduction

a. **The Navy uses the CWC to defend the ATF at sea.** There may be multiple CWCs assigned to support the JFC's operation. Each CWC focuses on its own surveillance and classification, identification, and engagement areas.

b. The CWC allows the OTC to aggressively wage offensive combat operations against air, surface, and subsurface threats while carrying out the primary missions of the force, and to shape the operational environment for the amphibious operation. Although assignment of various warfare commanders will allow control of different capabilities in a single platform by multiple commanders, only one commander may exercise TACON for the ship's movements and maneuver. The use of a CWC can apply to any naval task force or task group operating at sea and is capable of flexible implementation and application.

c. The CWC uses the following five warfare commanders:

- (1) AMDC.
- (2) ASW commander.
- (3) Information operations warfare commander.
- (4) Strike warfare commander.
- (5) SUWC.

d. The CWC may be supported by numerous functional group commanders such as MIWC and coordinators such as ACA and cryptologic resource coordinator (see Figure C-1).

2. Relationship of the Officer in Tactical Command–Composite Warfare Commander to Commander, Amphibious Task Force

a. Except for limited self-defense capabilities, amphibious warfare ships are ill-suited to counter a sophisticated air, surface, and subsurface threat by their own means. For this reason, the ATF may require assigned screening assets both during the movement phase and while conducting operations in the AOA or operational area. In a similar manner, depending on the type and scope of the amphibious operation, a support relationship between an AF, a CSG, and other joint forces may be necessary for the conduct of shaping operations to set the conditions (maritime and air superiority) to commence the amphibious operation, particularly in an A2/AD environment.

b. The integration of CWC doctrine with amphibious doctrine is difficult due to the wide variety of tactical situations that may be encountered. Coordination among the organizations early in the planning is critical and should lead to a draft support relationship

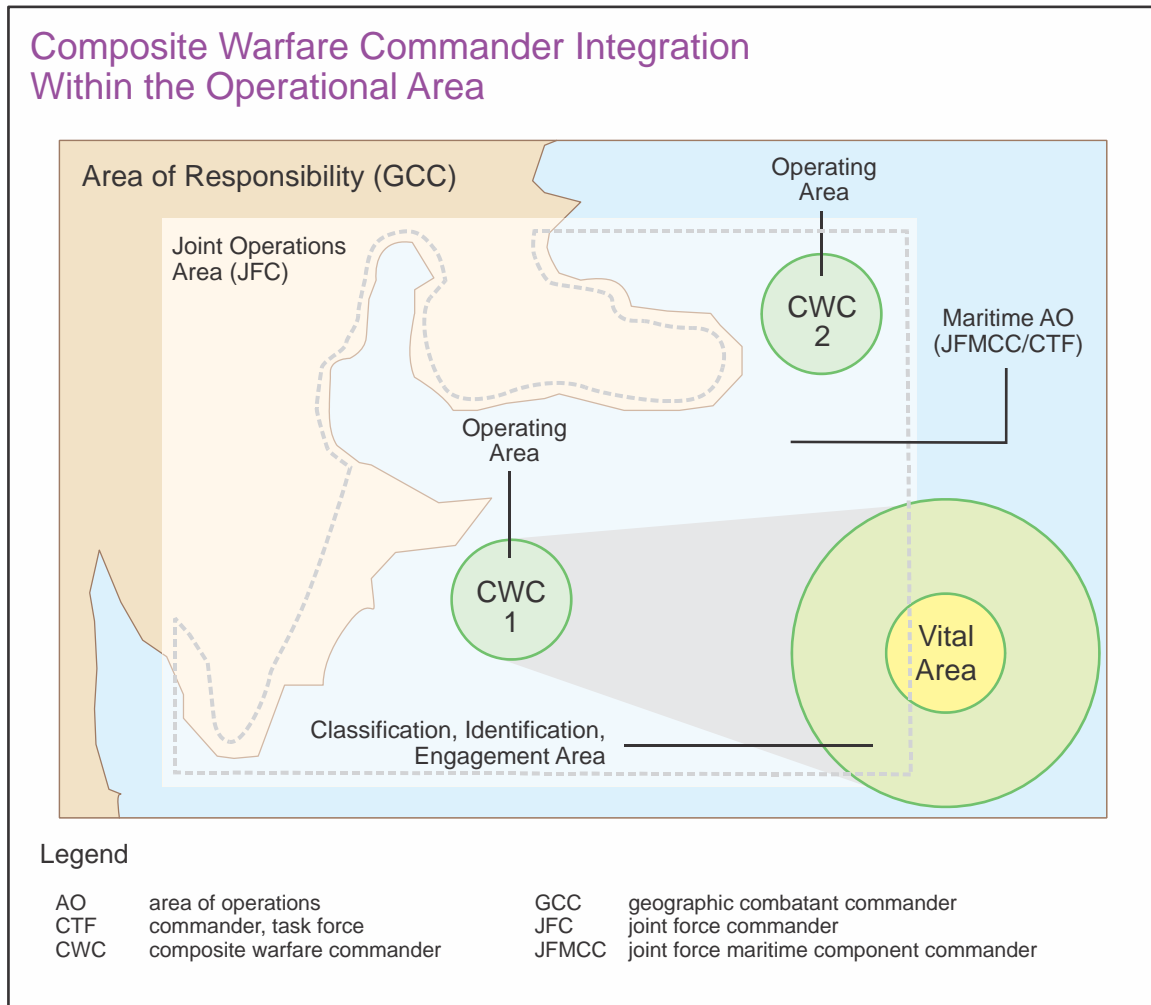


Figure C-1. Composite Warfare Commander Integration Within the Operational Area

that could be recommended for inclusion in an establishing directive promulgated by the establishing authority. Consideration should be given to the following factors:

(1) Under all circumstances, upon activation of the AOA or operational area, unity of effort within the AOA or operational area must be maintained to ensure that the CATF and CLF retain that degree of authority necessary to ensure success of the operation. This will normally dictate that **CATF is the CWC within the AOA or operational area, and receive or provide support from or to a designated CWC outside the AOA or operational area.**

(2) As the operation progresses, **transition from one CWC relationship to another is possible** and may, in fact, be required to optimize the protection and employment of forces in the most efficient manner as the tactical situation evolves.

(3) A CSG may be assigned the single mission of providing direct support to the AF, but more likely, the CSG will be assigned multiple missions in support of the larger joint operation which will significantly affect command and support relationships and

coordination requirements. A mechanism must, therefore, exist to **adjudicate conflicting requirements for the use of maritime assets between the JFMCC and the JFC.**

c. With the above factors in mind, the following is a description of three situations that may exist, requiring different constructs for the association between the amphibious and other forces. These can be tailored, as desired, to the specific requirements of the mission.

(1) **The support force is to join and integrate with the ATF.** The CATF becomes the OTC and CWC of the combined force unless otherwise directed by establishing authority. All forces are integrated under a single OTC-CWC and set of warfare commanders. This situation is most applicable to the movement phase.

(2) **The support force does not join but provides support as designated by establishing authority.** The CATF coordinates the tactical operations of all assigned and supporting forces. The supporting commander is authorized to answer directly to the supported force's requests for assistance and may establish a CWC to provide the support. This situation also applies during the movement phase and action phase. The individual CSG or task group should remain intact.

(3) **Each force has its own OTC-CWC and warfare commanders.** Force (ATF, CSG, others) integrity is maintained. The OTC-CWCs operate in mutual support to achieve the same broad mission objectives, but each has discretion as to how best to support the other. This relationship is most applicable when the forces have multiple joint force requirements beyond the amphibious operation.

For further details on CWC, see JP 3-32, Command and Control for Joint Maritime Operations, and NWP 3-56, Composite Warfare Doctrine.

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APPENDIX D REFERENCES

1. Chairman of the Joint Chiefs of Staff Publications

- a. CJCSM 3500.04F, *Universal Joint Task Manual*.
- b. CJCSM 6231.01, *Manual for Employing Joint Tactical Communications*.
- c. JP 1, *Doctrine for the Armed Forces of the United States*.
- d. JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*.
- e. JP 2-0, *Joint Intelligence*.
- f. JP 2-01, *Joint and National Intelligence Support to Military Operations*.
- g. JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment*.
- h. JP 2-03, *Geospatial Intelligence in Joint Operations*.
- i. JP 3-0, *Joint Operations*.
- j. JP 3-01, *Countering Air and Missile Threats*.
- k. JP 3-02.1, *Amphibious Embarkation and Debarkation*.
- l. JP 3-04, *Joint Shipboard Helicopter and Tiltrotor Aircraft Operations*.
- m. JP 3-05, *Special Operations*.
- n. JP 3-07, *Stability Operations*.
- o. JP 3-07.3, *Peace Operations*.
- p. JP 3-09, *Joint Fire Support*.
- q. JP 3-09.3, *Close Air Support*.
- r. JP 3-11, *Operations in Chemical, Biological, Radiological, and Nuclear Environments*.
- s. JP 3-12, *Cyberspace Operations*.
- t. JP 3-13.4, *Military Deception*.
- u. JP 3-15, *Barriers, Obstacles, and Mine Warfare for Joint Operations*.
- v. JP 3-16, *Multinational Operations*.

- w. JP 3-18, *Joint Forcible Entry Operations*.
- x. JP 3-30, *Command and Control for Joint Air Operations*.
- y. JP 3-31, *Command and Control for Joint Land Operations*.
- z. JP 3-32, *Command and Control for Joint Maritime Operations*.
- aa. JP 3-33, *Joint Task Force Headquarters*.
- bb. JP 3-34, *Joint Engineer Operations*.
- cc. JP 3-50, *Personnel Recovery*.
- dd. JP 3-52, *Joint Airspace Control*.
- ee. JP 3-60, *Joint Targeting*.
- ff. JP 4-0, *Joint Logistics*.
- gg. JP 4-01.2, *Sealift Support to Joint Operations*.
- hh. JP 4-01.6, *Joint Logistics Over-the-Shore*.
- ii. JP 4-02, *Health Services*.
- jj. JP 5-0, *Joint Operation Planning*.
- kk. JP 6-0, *Joint Communications System*.
- ll. JP 6-01, *Joint Electromagnetic Spectrum Management Operations*.

2. Service Publications

- a. Army Doctrine Publication 3-0, *Unified Land Operations*.
- b. Marine Corps Doctrine Publication 1, *Warfighting*.
- c. Marine Corps Doctrine Publication 6, *Command and Control*.
- d. MCWP 3-13, *Employment of Amphibious Assault Vehicles (AAVs)*.
- e. MCWP 3-23, *Offensive Air Support*.
- f. MCWP 3-25.10, *Low Altitude Air Defense Handbook*.
- g. MCWP 3-43.1, *Raid Operations*.
- h. Naval Doctrine Publication 1, *Naval Warfare*.

- i. NTRP 3-02.1.2, *Naval Beach Group Support Element Operations*.
- j. NTTP 3-02.1.3, *Amphibious/Expeditionary Operations Air Control*.
- k. NTTP 3-02.14, *The Naval Beach Group*.
- l. NTTP 3-15.24, *Mine Countermeasures in Support of Amphibious Operations*.
- m. NTTP 3-20.31, *Surface Ship Survivability*.
- n. NTTP 3-21.1, *Antisubmarine Warfare Commander's Manual*.
- o. NWP 3-02.21, *MSC Support of Amphibious Operations*.
- p. NWP 3-09, *Navy Fire Support*.
- q. NWP 3-15, *Naval Mine Warfare*.
- r. NWP 3-20, *Navy Surface Warfare Manual*.
- s. NWP 3-29, *Disaster Response Operations*.
- t. NWP 3-56, *Composite Warfare Doctrine*.
- u. NWP 5-01, *Navy Planning*.

3. Multi-Service Publications

- a. ATTP 3-90.4/MCWP 3-17.8, *Combined Arms Mobility Operations*.
- b. Marine Corps Reference Publication 3-31A/NWP 3-02.12, *Employment of the LCAC*.
- c. MCWP 3-31.5/NTTP 3-02.1M, *Ship-to-Shore Movement*.
- d. MCWP 3-31.6/NTTP 3-02.2, *Supporting Arms Coordination in Amphibious Operations*.
- e. MCWP 3-31.7/NWP 3-62M, *Seabasing*.
- f. MCWP 3-32/NTTP 3-02.3, *Maritime Prepositioning Force Operations*.

4. Multinational Publication

Allied Procedural Publication-11, *NATO Message Catalogue*.

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APPENDIX E ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to: Joint Staff J-7, Deputy Director, Joint Education and Doctrine, ATTN: Joint Doctrine Analysis Division, 116 Lake View Parkway, Suffolk, VA 23435-2697. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent for this publication is the US Navy. The Joint Staff doctrine sponsor for this publication is the Director for Operations (J-3).

3. Supersession

This publication supersedes JP 3-02, *Amphibious Operations*, 10 August 2009.

4. Change Recommendations

- a. Recommendations for urgent changes to this publication should be submitted:

TO: JOINT STAFF WASHINGTON DC//J-7-JED//
JOINT STAFF WASHINGTON DC//J-3//

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GLOSSARY

PART I—ABBREVIATIONS AND ACRONYMS

A2	antiaccess
AACG	arrival airfield control group
AADC	area air defense commander
AATCC	amphibious air traffic control center
AAV	amphibious assault vehicle
ACA	airspace control authority
ACE	aviation combat element (USMC)
ACM	airspace coordinating measure
ACO	airspace control order
ACP	airspace control plan
AD	area denial
ADS	air defense section
ADZ	amphibious defense zone
AE	assault echelon
AF	amphibious force
AFOE	assault follow-on echelon
AMDC	air and missile defense commander
AO	area of operations
AOA	amphibious objective area
APF	afloat pre-positioning force
APS	Army pre-positioned stocks
ARG	amphibious ready group
ASCS	air support coordination section
ASLT	assault support landing table
ASW	antisubmarine warfare
ATCS	air traffic control section
ATF	amphibious task force
ATO	air tasking order
ATTP	Army tactics, techniques, and procedures
BLT	battalion landing team
BOG	beach operations group
BSA	beach support area
C2	command and control
CAF	commander, amphibious force
CAS	close air support
CATF	commander, amphibious task force
CBRN	chemical, biological, radiological, and nuclear
CCDR	combatant commander
CCO	central control officer
CE	command element (USMC)
CJCSM	Chairman of the Joint Chiefs of Staff manual

CLA	landing craft, air cushion launch area
CLF	commander, landing force
CLZ	landing craft, air cushion landing zone
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
CSG	carrier strike group
CSS	combat service support
CSSA	combat service support area
CWC	composite warfare commander
DASC	direct air support center
DOS	days of supply
DZ	drop zone
EA	electronic attack
EMCON	emission control
EMS	electromagnetic spectrum
EPW	enemy prisoner of war
ESG	expeditionary strike group
EW	electronic warfare
FARP	forward arming and refueling point
FDC	fire direction center
FFC	force fires coordinator
FFCC	force fires coordination center (USMC)
FHA	foreign humanitarian assistance
FSA	fire support area
FSC	fire support coordinator (USMC)
FSCC	fire support coordination center (USMC)
FSCM	fire support coordination measure
GCE	ground combat element (USMC)
HCS	helicopter coordination section
HIDACZ	high-density airspace control zone
INLS	improved Navy lighterage system
IPE	individual protective equipment
ISB	intermediate staging base

JFACC	joint force air component commander
JFC	joint force commander
JFMCC	joint force maritime component commander
JIPOE	joint intelligence preparation of the operational environment
JLOTS	joint logistics over-the-shore
JOA	joint operations area
JP	joint publication
JTF	joint task force
LCAC	landing craft, air cushion
LCE	logistics combat element (USMC)
LCU	landing craft, utility
LF	landing force
LFOC	landing force operations center
LFSP	landing force support party
LHA	amphibious assault ship (general purpose)
LHD	amphibious assault ship (multipurpose)
LOC	line of communications
LOD	line of departure
LOTS	logistics over-the-shore
LPD	amphibious transport dock
LSD	dock landing ship
LSV	logistics support vessel
LZ	landing zone
MAGTF	Marine air-ground task force
Marine TACC	Marine Corps tactical air command center
MCM	mine countermeasures
MCMC	mine countermeasures commander
MCWP	Marine Corps warfighting publication
MEB	Marine expeditionary brigade
MEF	Marine expeditionary force
METOC	meteorological and oceanographic
MEU	Marine expeditionary unit
MILDEC	military deception
MIW	mine warfare
MIWC	mine warfare commander
MOPP	mission-oriented protective posture
MPF	maritime pre-positioning force
MPS	maritime pre-positioning ship
MPSRON	maritime pre-positioning ships squadron
MSC	Military Sealift Command
Navy TACC	Navy tactical air control center
NEO	noncombatant evacuation operation

NMCB	naval mobile construction battalion
NSFS	naval surface fire support
NTRP	Navy tactical reference publication
NTTP	Navy tactics, techniques, and procedures
NWP	Navy warfare publication
OPCON	operational control
OPDS	offshore petroleum discharge system (USN)
OPGEN	operation general matter
OPLAN	operation plan
OPORD	operation order
OPSEC	operations security
OPTASK	operation task
OTC	officer in tactical command
OTH	over the horizon
PCO	primary control officer
PERMA	planning, embarkation, rehearsal, movement, and action
POG	port operations group
R2P2	rapid response planning process
RADC	regional air defense commander
ROE	rules of engagement
RO/RO	roll-on/roll-off
SAC	supporting arms coordinator
SACC	supporting arms coordination center (USMC)
SADC	sector air defense commander
SIPRNET	SECRET Internet Protocol Router Network
SOF	special operations forces
SPINS	special instructions
SPMAGTF	special purpose Marine air-ground task force
SUW	surface warfare
SUWC	surface warfare commander
SZ	surf zone
TA	target acquisition
TACLOG	tactical-logistical
TACON	tactical control
TACP	tactical air control party
TADC	tactical air direction center
TAO	tactical air officer
TAOC	tactical air operations center (USMC)
TIC	target information center
TIM	toxic industrial material
TTP	tactics, techniques, and procedures

USA	United States Army
USAF	United States Air Force
USG	United States Government
USMC	United States Marine Corps
USTRANSCOM	United States Transportation Command
WMD	weapons of mass destruction

PART II—TERMS AND DEFINITIONS

action phase. In amphibious operations, 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. SOURCE: JP 3-02)

advance force. None. (Approved for removal from JP 1-02.)

air support coordination section. In amphibious operations, the section of the Navy tactical air control center designated to coordinate, control, and integrate all direct support aircraft and assault support operations. Also called **ASCS**. (Approved for incorporation into JP 1-02.)

air traffic control section. In amphibious operations, the section of the Navy tactical air control center designed to provide initial safe passage, radar control, and surveillance for close air support aircraft in the operational area. Also called **ATCS**. (JP 1-02. SOURCE: JP 3-02)

amphibious advance force. A temporary support force assigned to the amphibious force that conducts shaping operations in the amphibious objective area or operational area prior to the arrival of the amphibious force. (Approved for inclusion in JP 1-02.)

amphibious air traffic control center. The centralized air traffic control agency on an amphibious warfare ship responsible for operational control of aircraft departing from and recovering on the ship and tactical control of airborne helicopters in support of amphibious assaults. Also called **AATCC**. (Approved for inclusion in JP 1-02.)

amphibious assault. A type of amphibious operation that involves establishing a force on a hostile or potentially hostile shore. (Approved for incorporation into JP 1-02.)

amphibious assault ship (multipurpose). None. (Approved for removal from JP 1-02.)

amphibious assault vehicle launching area. An area, in the vicinity of and to seaward of the line of departure, to which landing ships proceed and launch amphibious assault vehicles. (Approved for replacement of “amphibious vehicle launching area” and its definition in JP 1-02.)

amphibious breaching. The conduct of a deliberate breaching operation specifically designed to overcome antilanding defenses in order to conduct an amphibious assault. (JP 1-02. SOURCE: JP 3-02)

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 causeways, transfer barges, warping tugs, and assault bulk fuel systems, and to meet salvage requirements of the naval beach party. Also called **PHIBCB**. (Approved for incorporation into JP 1-02.)

amphibious defense zone. The area encompassing the amphibious objective area and the adjoining airspace required by accompanying naval forces for the purpose of air defense. Also called an **ADZ**. (JP 1-02. SOURCE: JP 3-02)

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 following an unfavorable course of action. (Approved for incorporation into 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. SOURCE: JP 3-02)

amphibious lift. None. (Approved for removal from JP 1-02.)

amphibious objective area. A geographical area of sufficient size for conducting necessary sea, air, and land operations, and within which is located the objective(s) to be secured by the amphibious force. Also called **AOA**. (Approved for incorporation into JP 1-02.)

amphibious operation. A military operation launched from the sea by an amphibious force to conduct landing force operations within the littorals. Also called **PHIBOP**. (Approved for incorporation into JP 1-02.)

amphibious planning. None. (Approved for removal from 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. SOURCE: JP 3-02)

amphibious shipping. None. (Approved for removal from JP 1-02.)

amphibious squadron. A tactical and administrative organization composed of amphibious warfare ships used to transport troops and their equipment for an amphibious operation. Also called **PHIBRON**. (Approved for incorporation into JP 1-02.)

amphibious task force. A Navy task organization formed to conduct amphibious operations. Also called **ATF**. (Approved for incorporation into JP 1-02.)

amphibious tractor. None. (Approved for removal from JP 1-02.)

amphibious transport dock. None. (Approved for removal from JP 1-02.)

amphibious transport group. None. (Approved for removal from JP 1-02.)

amphibious vehicle. A wheeled or tracked vehicle capable of operating on both land and water. (JP 1-02. SOURCE: JP 3-02)

amphibious vehicle availability table. A tabulation of the type and number of amphibious vehicles available primarily for assault landings and for support of other elements of the operation. (JP 1-02. SOURCE: JP 3-02)

amphibious vehicle employment plan. A plan showing in tabular form the planned employment of amphibious vehicles in landing operations, including their employment after the initial movement to the beach. (JP 1-02. SOURCE: JP 3-02)

amphibious warfare ship. A combatant ship having organic capability to embark, land, and support landing forces in amphibious operations and which has characteristics enabling long duration operations on the high seas. (Approved for inclusion in 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. SOURCE: JP 3-02)

approach schedule. In amphibious operations, this schedule indicates, for each scheduled wave, the time of departure from the rendezvous area, from the line of departure, and from other control points and the time of arrival at the beach. (JP 1-02. SOURCE: JP 3-02)

assault. 1. In an amphibious operation, the period of time between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. (JP 3-02) 2. To make a short, violent, but well-ordered attack against a local objective, such as a gun emplacement, a fort, or a machine gun nest. (JP 3-18) 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. (JP 1-02. SOURCE: JP 3-18)

assault breaching. A part of amphibious breaching in support of an amphibious assault involving a fire support mission using precision guided munitions to neutralize mines and obstacles in the surf zone and on the beach. (JP 1-02. SOURCE: JP 3-02)

assault craft. None. (Approved for removal from JP 1-02.)

assault craft unit. A permanently commissioned naval organization, subordinate to the commander, naval beach group, that contains landing craft and crews necessary to provide lighterage required in an amphibious operation. Also called **ACU**. (JP 1-02. SOURCE: JP 3-02)

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. SOURCE: JP 3-02)

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. Also called **AFOE**. (Approved for incorporation into JP 1-02.)

assault schedule. In amphibious operations, this schedule provides the formation, composition, and timing of waves landing over the beach. (JP 1-02. SOURCE: JP 3-02)

assault shipping. None. (Approved for removal from JP 1-02.)

assault wave. None. (Approved for removal from JP 1-02.)

attack group. A subordinate task organization of the Navy forces of an amphibious task force composed of amphibious warfare ships and supporting naval units designated to transport, protect, land, and initially support a landing group. (Approved for incorporation into JP 1-02.)

basic tactical organization. None. (Approved for removal from JP 1-02.)

battalion landing team. In an amphibious operation, an infantry battalion normally reinforced by necessary combat and service elements; the basic unit for planning an assault landing. Also called **BLT**. (JP 1-02. SOURCE: JP 3-02)

beach. 1. The area extending from the shoreline inland to a marked change in physiographic form or material, or to the line of permanent vegetation (coastline). 2. In amphibious operations, that portion of the shoreline designated for landing of a tactical organization. (JP 1-02. SOURCE: JP 3-02)

beach group. None. (Approved for removal from JP 1-02.)

beachhead. A designated area on a hostile or potentially hostile shore that, when seized and held, ensures the continuous landing of troops and materiel, and provides maneuver space requisite for subsequent projected operations ashore. (JP 1-02. SOURCE: JP 3-02)

beach party. The Navy component of the landing force support party under the tactical control of the landing force support party commander. (JP 1-02. SOURCE: JP 3-02)

beach party commander. None. (Approved for removal from JP 1-02.)

beach support area. In amphibious operations, the area to the rear of a landing force or elements thereof, that contains the facilities for the unloading of troops and materiel and the support of the forces ashore. Also called **BSA**. (Approved for incorporation into JP 1-02.)

boat group. The basic organization of landing craft. (Approved for incorporation into JP 1-02.)

boat lane. A lane for amphibious assault landing craft, which extends from the line of departure to the beach. (JP 1-02. SOURCE: JP 3-02)

boat wave. None. (Approved for removal from JP 1-02.)

casualty receiving and treatment ship. In amphibious operations, a ship designated to receive, provide treatment for, and transfer casualties. Also called **CRTS**. (Approved for incorporation into JP 1-02.)

causeway launching area. An area located near the line of departure but clear of the approach lanes to an area located in the inner transport area. (JP 1-02. SOURCE: JP 3-02)

central control officer. The officer, embarked in the central control ship, designated by the amphibious task force commander for the overall coordination of the waterborne ship-to-shore movement. Also called **CCO**. (Approved for incorporation into JP 1-02.)

close support area. Those parts of the ocean operating areas nearest to, but not necessarily in, the objective area. (Approved for incorporation into JP 1-02.)

colored beach. That portion of usable coastline sufficient for the assault landing of a regimental landing team or similar sized unit. (Approved for incorporation into 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. (Approved for incorporation into JP 1-02.)

combat service support area. An area ashore that is organized to contain the necessary supplies, equipment, installations, and elements to provide the landing force with combat service support throughout the operation. Also called **CSSA**. (JP 1-02. SOURCE: JP 3-02)

command element. None. (Approved for removal from JP 1-02.)

commander, amphibious task force. The Navy officer designated in the initiating directive as the commander of the amphibious task force. Also called **CATF**. (JP 1-02. SOURCE: JP 3-02)

commander, landing force. The officer designated in the initiating directive as the commander of the landing force for an amphibious operation. Also called **CLF**. (JP 1-02. SOURCE: JP 3-02)

commanding officer of troops. On a ship that has embarked units, a designated officer (usually the senior embarking unit commander) who is responsible for the administration, discipline, and training of all embarked units. Also called **COT**. (JP 1-02. SOURCE: JP 3-02)

control group. Personnel, ships, and craft designated to control the waterborne ship-to-shore movement. (JP 1-02. SOURCE: JP 3-02)

covering fire. 1. Fire used to protect troops when they are within range of enemy small arms. 2. In amphibious usage, fire delivered prior to the landing to cover preparatory operations such as underwater demolition or mine countermeasures. (JP 1-02. SOURCE: JP 3-02)

D-day. The unnamed day on which a particular operation commences or is to commence. (Approved for incorporation into JP 1-02.)

distant retirement area. In amphibious operations, the sea area located to seaward of the landing area to which assault ships may retire and operate in the event of adverse weather or to prevent concentration of ships in the landing area. (Approved for incorporation into JP 1-02.)

dock landing ship. None. (Approved for removal from 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. SOURCE: JP 3-02)

establishing directive. An order issued to specify the purpose of the support relationship. (JP 1-02. SOURCE: JP 3-02)

fire support station. An exact location at sea within a fire support area from which a fire support ship delivers fire. Also called **FSS**. (JP 1-02. SOURCE: JP 3-02)

floating dump. Emergency supplies preloaded in landing craft, amphibious vehicles, or in landing ships that are located in the vicinity of the appropriate control officer, who directs their landing as requested by the troop commander concerned. (Approved for incorporation into JP 1-02.)

follow-up. In amphibious operations, the reinforcements and stores carried on ships and aircraft (not originally part of the amphibious force) that are off-loaded after the assault and assault follow-on echelons have been landed. (Approved for incorporation into 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. (JP 1-02. SOURCE: JP 3-02)

general unloading period. In amphibious operations, that part of the ship-to-shore movement in which unloading is primarily logistic in character, and emphasizes speed and volume of unloading operations. (Approved for incorporation into JP 1-02.)

go/no-go. A critical point at which a decision to proceed or not must be made. (Approved for replacement of “go no-go” and its definition in JP 1-02.)

helicopter coordination section. The section within the Navy tactical air control center that coordinates rotary-wing air operations with the air traffic control center(s) in the amphibious force. Also called **HCS**. (Approved for incorporation into JP 1-02.)

helicopter direction center. None. (Approved for removal from JP 1-02.)

helicopter transport area. None. (Approved for removal from JP 1-02.)

helicopter wave. None. (Approved for removal from JP 1-02.)

H-hour. 1. The specific hour on D-day at which a particular operation commences. (5-0)
2. In amphibious operations, the time the first landing craft or amphibious vehicle of the waterborne wave lands or is scheduled to land on the beach, and in some cases, the commencement of countermine breaching operations. (JP 3-02) (Approved for incorporation into JP 1-02.)

hydrographic reconnaissance. Reconnaissance of an area of water to determine depths, beach gradients, the nature of the bottom, and the location of coral reefs, rocks, shoals, and man-made obstacles. (JP 1-02. SOURCE: JP 3-02)

initial unloading period. In amphibious operations, that part of the ship-to-shore movement in which unloading is primarily tactical in character and must be instantly responsive to landing force requirements. (Approved for incorporation into JP 1-02.)

inner transport area. In amphibious operations, an area as close to the landing beach as depth of water, navigational hazards, boat traffic, and enemy action permit, to which transports may move to expedite unloading. (JP 1-02. SOURCE: JP 3-02)

integrated planning. None. (Approved for removal from JP 1-02.)

landing area. 1. That part of the operational area within which are conducted the landing operations of an amphibious force. 2. In airborne operations, the general area used for landing troops and materiel either by airdrop or air landing. 3. Any specially prepared or selected surface of land, water, or deck designated or used for takeoff and landing of aircraft. (Approved for incorporation into JP 1-02.)

landing area diagram. A graphic means of showing, for amphibious operations, the beach designations, boat lanes, organization of the line of departure, scheduled waves, landing ship area, transport areas, and the fire support areas in the immediate vicinity of the boat lanes. (JP 1-02. SOURCE: JP 3-02)

landing beach. That portion of a shoreline required for the landing of an amphibious force. (Approved for incorporation into JP 1-02.)

landing craft. A craft employed in amphibious operations, specifically designed for carrying troops and their equipment and for beaching, unloading, retracting, and resupply operations. (Approved for incorporation into JP 1-02.)

landing craft and amphibious vehicle assignment table. A table showing the assignment of personnel and materiel to each landing craft and amphibious vehicle and the assignment of the landing craft and amphibious vehicles to waves for the ship-to-shore movement. (JP 1-02. SOURCE: JP 3-02)

landing craft availability table. A tabulation of the type and number of landing craft that will be available from each ship of the transport group. (Approved for incorporation into JP 1-02.)

landing diagram. A graphic means of illustrating the plan for the ship-to-shore movement. (JP 1-02. SOURCE: JP 3-02)

landing force. A Marine Corps or Army task organization, which is part of the amphibious force, formed to conduct amphibious operations. Also called **LF**. (Approved for incorporation into JP 1-02.)

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. Also called **LFSP**. (Approved for incorporation into 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. SOURCE: JP 3-02)

landing group commander. None. (Approved for removal from JP 1-02.)

landing plan. 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. SOURCE: JP 3-02)

landing sequence table. A document that incorporates the detailed plans for ship-to-shore movement of nonscheduled units. (JP 1-02. SOURCE: JP 3-02)

landing ship. None. (Approved for removal from JP 1-02.)

landing site. 1. A site within a landing zone containing one or more landing points. 2. In amphibious operations, a continuous segment of coastline over which troops, equipment and supplies can be landed by surface means. (JP 1-02. SOURCE: JP 3-02)

L-hour. 1. The specific hour on C-day at which a deployment operation commences or is to commence. (JP 5-0) 2. In amphibious operations, the time at which the first helicopter or tiltrotor aircraft of the airborne ship-to-shore movement wave touches down or is

scheduled to touch down in the landing zone. (JP 3-02) (Approved for incorporation into JP 1-02.)

line of departure. 1. In land warfare, a line designated to coordinate the departure of attack elements. Also called **LD**. (JP 3-31) 2. In amphibious operations, a suitably marked offshore coordinating line, which is located at the seaward end of a boat lane, to assist in the landing of landing craft and amphibious vehicles on designated beaches at the scheduled times. Also called **LOD**. (JP 3-02) (Approved for incorporation into JP 1-02.)

massed fire. 1. The fire of the batteries of two or more ships directed against a single target. 2. Fire from a number of weapons directed at a single target point or small area. (JP 1-02. SOURCE: JP 3-02)

movement group. Those ships and embarked units that load out and proceed to rendezvous in the objective area. (JP 1-02. SOURCE: JP 3-02)

movement phase. In amphibious operations, the period during which various elements of the amphibious force move from points of embarkation to the objective area. (Approved for incorporation into JP 1-02.)

movement plan. In amphibious operations, the naval plan providing for the movement of the amphibious task force to the objective area. (Approved for incorporation into JP 1-02.)

naval beach group. A permanently organized naval command within an amphibious force composed of a commander and staff, a beachmaster unit, an amphibious construction battalion, and assault craft units, designed to provide an administrative group from which required naval tactical components may be made available to the attack force commander and to the amphibious landing force commander. Also called **NBG**. (JP 1-02. SOURCE: JP 3-02)

nonscheduled units. Units of the landing force held in readiness for landing during the initial unloading period, but not included in either scheduled or on-call waves. (Approved for incorporation into JP 1-02.)

numbered beach. In amphibious operations, a subdivision of a colored beach, designated for the assault landing of a battalion landing team or similarly sized unit, when landed as part of a larger force. (JP 1-02. SOURCE: JP 3-02)

numbered wave. None. (Approved for removal from JP 1-02.)

on-call wave. None. (Approved for removal from JP 1-02.)

organization for combat. In amphibious operations, 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. (JP 1-02. SOURCE: JP 3-02)

organization for embarkation. In amphibious operations, an 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. (Approved for incorporation into JP 1-02.)

organization for landing. In amphibious operations, the specific tactical grouping of the landing force for the assault. (JP 1-02. SOURCE: JP 3-02)

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. SOURCE: JP 3-02)

over-the-horizon amphibious operation. An operational initiative launched from beyond visual and radar range of the shoreline. (Approved for replacement of “over-the-horizon amphibious operations” in JP 1-02.)

parallel chains of command. In amphibious operations, a parallel system of command, responding to the interrelationship of participating forces, wherein corresponding commanders are established at each subordinate level of all components to facilitate coordinated planning for, and execution of, the amphibious operation. (Approved for incorporation into JP 1-02.)

plan for landing. In amphibious operations, a collective term referring to all individually prepared naval and landing force documents which, taken together, present in detail all instructions for execution of the ship-to-shore movement. (JP 1-02. SOURCE: JP 3-02)

planning directive. None. (Approved for removal from JP 1-02.)

planning phase. In amphibious operations, the phase normally denoted by the period extending from the issuance of the initiating directive up to the embarkation phase. (Approved for incorporation into JP 1-02.)

preassault operations. None. (Approved for removal from JP 1-02.)

prelanding operations. Operations conducted by the amphibious force upon its arrival in the amphibious objective area or operational area and prior to H-hour and/or L-hour. (Approved for inclusion in JP 1-02.)

primary control officer. In amphibious operations, the officer embarked in a primary control ship assigned to control the movement of landing craft, amphibious vehicles, and landing ships to and from a colored beach. Also called **PCO**. (JP 1-02. SOURCE: JP 3-02)

primary control ship. In amphibious operations, a ship of the task force designated to provide support for the primary control officer and a combat information center control team for a colored beach. Also called **PCS**. (JP 1-02. SOURCE: JP 3-02)

regimental landing team. A task organization for landing composed of an infantry regiment reinforced by those elements that are required for initiation of its combat function ashore. (JP 1-02. SOURCE: JP 3-02)

regulating point. None. (Approved for removal from JP 1-02.)

regulating station. None. (Approved for removal from JP 1-02.)

rehearsal phase. In amphibious operations, the period during which the prospective operation is practiced. (Approved for incorporation into JP 1-02.)

rendezvous area. In an amphibious operation, the area in which the landing craft and amphibious vehicles rendezvous to form waves after being loaded, and prior to movement to the line of departure. (JP 1-02. SOURCE: JP 3-02)

scheduled wave. None. (Approved for removal from JP 1-02.)

sea areas. Areas in the amphibious objective area designated for the stationing of amphibious task force ships. (Approved for incorporation into JP 1-02.)

seabasing. The deployment, assembly, command, projection, reconstitution, sustainment, and re-employment of joint power from the sea without reliance on land bases within the operational area. (Approved for incorporation into JP 1-02.)

sea echelon. A portion of the amphibious warfare ships or other ships that 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. (Approved for incorporation into JP 1-02.)

sea echelon area. In amphibious operations, an area to seaward of a transport area from which ships are phased into the transport area, and to which ships withdraw from the transport area. (Approved for incorporation into 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. SOURCE: JP 3-02)

selective unloading. In an amphibious operation, the controlled unloading from amphibious warfare ships, and movement ashore, of specific items of cargo at the request of the landing force commander. (Approved for incorporation into JP 1-02.)

serial. 1. An element or a group of elements within a series that is given a numerical or alphabetical designation for convenience in planning, scheduling, and control. 2. A group of people, vehicles, equipment, or supplies and is used in airborne, air assault, amphibious operations, and convoys. (Approved for incorporation into JP 1-02.)

serial assignment table. A table that is used in amphibious operations and 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. (JP 1-02. SOURCE: JP 3-02)

service troops. None. (Approved for removal from JP 1-02.)

ship-to-shore movement. That portion of the action phase of an amphibious operation that includes the deployment of the landing force from ships to designated landing areas. (Approved for incorporation into JP 1-02.)

shore party. A task organization of the landing force, 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. Also called **beach group**. (Approved for incorporation into 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. SOURCE: JP 3-02)

supporting arms. Weapons and weapons systems of all types employed to support forces by indirect or direct fire. (JP 1-02. SOURCE: JP 3-02)

supporting operations. In amphibious operations, those operations conducted by forces other than those conducted by the amphibious force. (JP 1-02. SOURCE: JP 3-02)

tactical air officer. The officer under the amphibious task force commander who, until control is passed ashore, coordinates planning of all phases of air participation of the amphibious operation and air operations of supporting forces en route to and in the objective area. Also called **TAO**. (Approved for replacement of “tactical air officer (afloat)” and its definition in 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. SOURCE: JP 3-02)

tactical reserve. A part of a force held under the control of the commander as a maneuvering force to influence future action. (Approved for incorporation into JP 1-02 with JP 3-02 as the source JP.)

target information center. The agency or activity responsible for collecting, displaying, evaluating, and disseminating information pertaining to potential targets. Also called **TIC**. (JP 1-02. SOURCE: JP 3-02)

transport area. In amphibious operations, an area assigned to a transport organization for the purpose of debarking troops and equipment. (JP 1-02. SOURCE: JP 3-02)

transport group. An element that directly deploys and supports the landing of the landing force, and is functionally designated as a transport group in the amphibious task force organization. (Approved for incorporation into JP 1-02.)

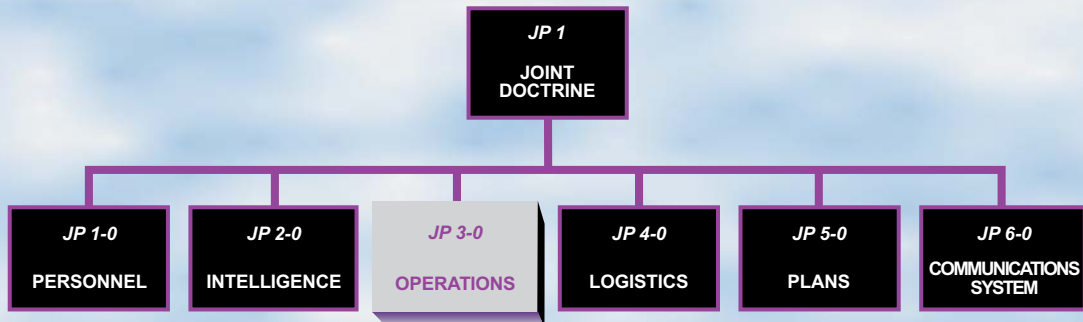
vertical and/or short takeoff and landing. None. (Approved for removal from JP 1-02.)

vertical landing zone. None. (Approved for removal from JP 1-02.)

vertical takeoff and landing aircraft. None. (Approved for removal from JP 1-02.)

wave. A formation of forces, including ships, landing craft, amphibious vehicles or aircraft, required to beach or land about the same time. (Approved for incorporation into JP 1-02.)

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint publications are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 3-02** is in the **Operations** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

