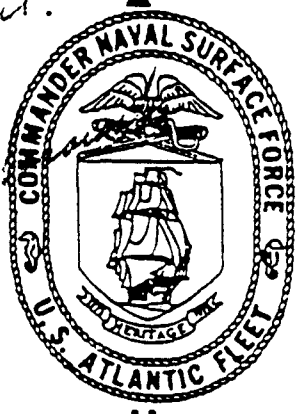

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14. ABSTRACT

This tactical memorandum (TACMEMO) provides current procedural guidance for conducting over-the-horizon surface amphibious operations with a new generation of ships, craft, and command, control, communications, and intelligence systems. New possibilities exist for conducting amphibious operations with the acquisition of new amphibious ships such as the LHD 1 Class, which has greatly expanded command, control, communications, and intelligence capabilities, and the high speed amphibious air cushion Landing craft (LCAC). This TACMEMO discusses some of the latest tactics, techniques, and procedures for employing and integrating recent advances in ships, landing craft and technology. The material in this TACMEMO, once validated, is intended for inclusion in NWP 22-3, Ship-to-Shore Movement.

15. SUBJECT TERMS

Over-the-Horizon, OTH, Amphibious Operations, Ship-to-Shore Movement

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NAVAL AMPHIBIOUS BASE, LITTLE CREEK
NORFOLK, VIRGINIA 23521-5160

COMSURFWARDEVGRU TACMEMO
PZ1010-1-91
OH 1-6

Title: Over-the-Horizon Surface Amphibious Operations

Originator: COMSURFWARDEVGRU/MAGTF Warfighting Center

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NWP: NWP 22-3, Ship-to-Shore Movement, pp. 4-1 through 4-15

Reference: COMNAVSURFPAC/COMNAVSURFLANTINST 3000.15/FMFPAC P3000.15
N30/WPC 043-91, Standard Operating Procedures for Raiding Craft

Purpose: This tactical memorandum (TACMEMO) provides information on current tactics for conducting over-the-horizon (OTH) surface amphibious operations.

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DOCTRINAL STATEMENT

The contents of this publication provide experimental baseline tactics that establish the preferred beginning point for the tactical commander. Options to the experimental baseline tactics are also presented. Tactical commanders will use experimental baseline tactics upon which to build the tactical innovation necessary for success in naval warfighting.

OVER-THE-HORIZON SURFACE AMPHIBIOUS OPERATIONS

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Executive Summary

EX.1 PURPOSE

This TACMEMO provides procedural guidance for conducting over-the-horizon (OTH) surface amphibious operations employing newly acquired ships, craft, and command, control, communications, and intelligence (C^3I) systems.

EX.2 SCOPE

This TACMEMO is limited to systems and equipment that have an initial operational capability (IOC) date no later than fiscal year 1992. Additionally, this TACMEMO only addresses those areas that are affected by OTH employment. NWP 22-3, Ship-to-Shore Movement, is being revised at the time of this TACMEMO's publication. In particular, significant changes in terminology and command and control (C^2) structure are being considered. COMSURFWARDEVGRU and MCCDC MAGTF Warfighting Center are working closely together on both publications. This TACMEMO will be revised, if required, to clarify any significant differences between the two documents.

EX.3 OVERVIEW

New possibilities exist for conducting amphibious operations with the acquisition of new amphibious ships such as the LHD 1 Class, which has greatly expanded C^3I capabilities, and the high speed amphibious air cushion landing craft (LCAC).

EX.4 TACTICAL QUICKLOOK

This TACMEMO describes two ship-to-shore (STS) movements. The first STS movement is a surface assault using conventional displacement craft and LCAC. The second STS movement is a surface raid using the combat rubber raiding craft (CRRC) and the rigid raiding craft (RRC).

Procedural guidance is provided in the following areas:

1. Assembly and departure
2. Transit to beach
3. Arrival and offload
4. Departure and return transit.

CHAPTER 1

Introduction

1.1 OVERVIEW

This chapter provides general information on the reason for this TACMEMO, its scope, and its intended users.

1.2 BACKGROUND

New possibilities exist for conducting amphibious operations with the acquisition of new amphibious ships such as the LHD 1 Class, which has greatly expanded command, control, communications, and intelligence (C^3I) capabilities, and the high speed amphibious air cushion landing craft (LCAC). Tactics for optimally exploiting the full potential of these new capabilities and craft have not been previously developed.

1.3 PURPOSE

This TACMEMO provides tactics for conducting OTH surface amphibious operations employing newly acquired amphibious ships, craft, and C^3I systems.

1.4 SCOPE

The scope of this OTH surface amphibious operations TACMEMO is limited to systems and equipment that have an initial operational capability (IOC) date no later than fiscal year 1992. Additionally, only those areas that are affected by OTH employment will be addressed. NWP 22-3, Ship-to-Shore Movement, is being revised at the time of this TACMEMO's publication. In particular, significant changes in terminology and command and control (C^2) structure are being considered. COMSURFWARDEVGRU and MCCDC MAGTF Warfighting Center are working closely together on both publications. This TACMEMO will be revised, if required, to clarify any significant differences between the two documents.

1.5 INTENDED USERS

The intended users of this TACMEMO include United States Navy and United States Marine Corps (USMC) staff personnel involved in planning and executing amphibious operations, shipboard and landing force personnel, surface craft operators, aircrews, Naval Surface Fire Support (NSFS) personnel, and other units supporting amphibious operations.

CHAPTER 2

General Tactics

2.1 OVERVIEW

This chapter discusses general tactics such as tactics for advanced force operations, Naval Surface Fire Support (NSFS), and time/distance considerations. Planning and executing amphibious operations shall be in accordance with Joint Pub 3-02, Joint Doctrine for Amphibious Operations. Tactics for vertical lift are covered in Naval Warfare Publication (NWP) 22-3, Ship-to-Shore Movement, and are not discussed in this TACMEMO.

2.2 PLANNING

A flexible landing plan will enable commander, amphibious task force (CATF) and the commander, landing force (CLF) to gain and retain the tactical initiative, enhance operational flexibility, take advantage of enemy force dispositions and/or weaknesses, and employ the element of surprise to the maximum extent. This capability is based on the range and speed capabilities inherent in the air cushion landing craft (LCAC) and vertical takeoff and landing (VTOL) platforms which allow a coordinated assault over a wide range of potential landing zones. If troops and equipment are to be transported to the beach by conventional displacement craft and LCAC, hydrographic features which do not affect LCAC operations may limit the number of potential landing sites available the CATF and CLF.

WARNING

Conventional displacement craft and LCAC are configured with various combinations of communications and navigation equipment. Not only are different combinations of equipment installed on each craft, but operational availability of the installed equipment will vary. Planners must ensure that the correctly equipped and operational craft lead the waves and that the USMC commanders and equipment are loaded/embarked accordingly.

The order of landing the various assault waves (VTOL, conventional displacement landing craft, LCAC, and amphibious assault vehicles (AAVs)) should be driven by the expected tactical situation and the need for rapid buildup of combat power ashore.

Note

The OTH amphibious operation will normally be required to transition to under the horizon (UTH) amphibious operations to adequately support the rapid buildup of combat power ashore.

Within the inherent capabilities of the available amphibious ships and their unique operational characteristics, the landing plan should be designed around the scheme of maneuver ashore and should provide maximum flexibility to respond to changes in the expected tactical situation, coupled with real-time intelligence inputs and enemy force dispositions. The following addresses contingencies and emergencies during ship-to-shore (STS) movement and conduct of operations ashore:

1. Go/no go criteria (factors used to determine whether to continue or abort the mission)

2. Bump plan(s) (planned alternative courses of action that allow reaction to equipment losses and/or changes in the tactical situation)

3. Emergency reinforcement

4. Emergency extraction

5. Emergency medical evacuation (MEDEVAC) procedures.

2.3 ADVANCE FORCE OPERATIONS

Because of the increased options for selecting potential landing sites for an OTH amphibious operation, advance force operations may include the following:

1. Deceiving the enemy

2. Forcing premature commitment of enemy defensive forces

3. Gathering updated intelligence on enemy dispositions and capabilities

4. Interdicting, isolating, and destroying enemy beachhead defenses.

The reduced impact of landing beach gradients and submerged obstacles to LCAC does not obviate the need for a preassault hydrographic reconnaissance and surf observation report (SUROB).

Sea-air-land (SEAL) teams will still be required to conduct hydrographic reconnaissance and SUROB because displacement craft and amphibious shipping may operate close to the beach to conduct STS movement. In addition, reconnaissance of inland areas will be required to identify multiple LCAC landing sites and ingress and egress routes.

SEAL teams or landing force reconnaissance personnel conducting advance force operations may be required to provide terminal guidance to the landing craft into the craft landing zone (CLZ). Commanders must consider the possibility of compromise and must plan for expeditious recovery of personnel, should such a compromise occur.

Note

For further information on SEAL employment in amphibious operations, refer to NWP 22-4, Underwater Demolition Teams in Amphibious Operations; SEAL Delivery Beach Feasibility Study; TACMEMO XL0080-7-89, NSW Special Reconnaissance Operations and Reporting; and TACMEMO XL0080-5-90, NSW Very Shallow Water Mine Countermeasures. SEAL teams, Marine force reconnaissance, raid force scout swimmer(s), and beach master personnel are trained and qualified to collect

SUROBs. Detailed information on the SUROB may be found in COMNAVSURFPAC/COMNAVSURFLANTINST 3840.1B, Joint Surf Manual.

Complexities of maintaining local air, surface, and subsurface superiority and supremacy will likely be increased due to the increased size of the landing area that may need to be isolated as well as the impacts of emission control (EMCON) on the detection and identification of potential threat targets. As the size of the landing area increases, prosecuting targets becomes more difficult due to the potential for an increase in number of neutral targets and limitations of line of sight sensors.

A crucial effort is gathering real-time intelligence showing the enemy's strengths and weaknesses. This vital information will determine the final selection of landing beaches and landing zones, time of the operation, and the landing force objectives. During OTH amphibious operations, the difficulty of relaying intelligence information in a timely and accurate manner increases.

2.4 COMMUNICATIONS

The communications system supporting the OTH amphibious operation must be fast, reliable, mobile, secure, and able to span a large area of operations. Navy forces will provide all external and intership communications during the movement to the amphibious objective area (AOA). Communication plans of Navy and landing forces must provide for sufficient channels of communications during the STS movement to permit exercise of measures of control and coordination. Electronic emissions, particularly radio, should be severely restricted in the early phases of the operation to prevent disclosure to the enemy of the location, movements, and intentions of the amphibious task force (ATF).

Note

During the OTH portion of an amphibious operation, communications should be limited to the minimum number of nets required to exchange critical information for effective command and control (C^2). Message orders and burst transmission capable communications equipment should be used.

During the assault, primary reliance must be placed on single and multichannel radio communications. This requirement must be considered in planning the numbers and types of circuits required and in assigning the available frequencies.

2.5 ELECTRONIC WARFARE (EW) AND EMCON

The advantages to the ATF of employing silent EMCON include expanded opportunity to deceive the enemy as a result of an OTH launch capability. Disadvantages of exercising silent EMCON should be considered before it is employed; silent EMCON operations require rigorous training of personnel to maintain adequate command, control, communications, and intelligence (C^3I) and ensure success. Additionally, silent EMCON may allow the threat to maneuver without early detection by amphibious forces.

Note

In a hostile EW environment, digital communications terminals (DCTs) should be considered for use to allow for limited C^3I.

2.6 INTELLIGENCE

The requirement for current, accurate, and continuously updated intelligence on enemy forces throughout the AOA is of even greater importance in OTH amphibious operations than traditional UTH amphibious operations. It is important that the element of tactical surprise be achieved. Of equal importance is detailed information concerning topographical features either as they pose dangers to land operations or as they may be exploited by the landing force.

Mobility of defensive forces and long transit times associated with OTH amphibious operations, particularly if displacement craft are used, may result in a significant change to the tactical situation at the planned landing beaches and zones after the start of the STS movement. Real-time intelligence at the planned landing beaches and zones is required to allow CATF/CLF to maximize the tactical flexibility of the OTH launch.

2.7 SUSTAINING THE LANDING FORCE IN MANEUVER WARFARE

Sea basing will occur for a portion of nearly all OTH amphibious operations. This will reduce the logistics buildup ashore and help protect vital supplies from enemy attack during the initial portion of the amphibious operation.

When offloading of landing force supplies does occur, it will be more selective than in historical amphibious operations. It may involve multiple offloading sites if this enhances responsiveness to the CLF's needs. The goal is to keep the supply buildup ashore to the minimum safe level required to sustain the landing force without creating an unnecessary liability for the landing force.

2.8 MINE COUNTERMEASURES (MCM)

The Navy is responsible for mine reduction efforts from the sea to the high water mark. For the ATF's landing area to remain undetected by the threat, overt MCM will need to be done rapidly, immediately preceding and during the assault. If mines are encountered, landing craft will likely have to pass through multiple barriers of mines prior to reaching the beach.

WARNING

At the present time, clearance to the beach may not be feasible, so the best protection is mine avoidance. To avoid mines, mine reconnaissance becomes increasingly important.The best protection when operating in an environment known to be mined is mine avoidance.

Most potential enemies can employ mines throughout the entire landing area. Anticraft minefields may be established in very shallow water (VSW) areas where the craft are most vulnerable. Land mines and anti-invasion mines may be planted in VSW, the surf zone, and above the high water mark. Naval influence mines and specially designed anti-invasion mines can be expected to threaten present displacement craft out to greater depths. Antiship minefields can be expected further offshore.

The mine clearance process should begin by clearing the sea echelon area OTH and its approaches. These operations may be performed days before the scheduled assault if they do not reveal the location of the landing zone.

2.9 FIRE SUPPORT

Preassault concentrated preparation fire support may be restricted to preserve tactical surprise. The primary mission of NSFS may shift from destroying enemy forces in the vicinity of the landing beaches to isolating the landing area, especially prior to D-day and H-hour. The historic naval gunfire support (NGFS) preassault shore bombardment of beaches has given way to the possibility of bombardment to isolate the beaches for the OTH amphibious operation. Despite this shift in emphasis, air and NSFS will remain a necessity for successful prosecution of an amphibious operation even if the force lands over lightly defended or undefended landing beaches.

Advance force and preassault operations will focus on preparing the battlefield for the assault. The targets must be carefully chosen; those enemy capabilities which friendly forces cannot avoid, such as air defense systems, must be attacked. Enemy capabilities with long recovery times are prime targets during this period; those which can recover quickly should be identified and reserved for attack just prior to the landing.

Mission planners must consider the types of fire required by the expected tactical situation, the available means of delivery, and the means of control. The ability to launch the amphibious operation from OTH requires considering the weapons range, C^2 system range, timeliness and accuracy of target acquisition information, and interaction with other joint or allied forces.

Carrier, land-based, or organic amphibious aviation, augmented with naval gunfire and infantry weapons systems, provides the bulk of fire support until artillery assets are in place ashore. Initially, aviation must assume the counterfire role, placing enemy indirect fire systems at risk and providing freedom of maneuver to assault elements. Navy and Marine aviation will continue to provide significant fire support for the landing force throughout the operation and must be tactically responsive to the landing force.

2.10 AMPHIBIOUS ASSAULT VEHICLE (AAV) EMPLOYMENT

Due to poor seaworthiness and slow speed, when AAVs are employed in an OTH amphibious operation, they must be transported by one of the following methods:

1. LCU transports the AAV to the beach
2. LCU transports the AAV to the vicinity of the beach, and the AAV swims ashore
3. LCAC transports the AAV to the beach
4. LCAC transports the AAV to the vicinity of the beach and comes off cushion, and the AAV swims ashore.

WARNING

The LCAC in-stream offload of the AAV may cause damage to and/or operational loss of the LCAC.

Hydrographic reconnaissance information and expected threat situation at the time of landing must be considered when determining which AAV employment option(s) should be used in an amphibious operation.

CHAPTER 3

Surface Assault Ship-to-Shore Movement

3.1 OVERVIEW

The surface assault force attacks across multiple, widely dispersed landing beaches. These landing beaches are locations on the littoral where the hydrography, terrain, and enemy situation allow Marines to land and thrust inland as rapidly and deeply as necessary. These separate forces may be as small as a reinforced infantry company. Whatever the size, each is task organized as a self-contained, highly mobile, combined arms force.

Surface platforms that will be discussed include conventional displacement craft and air cushion landing craft (LCAC).

Note

The current number of LCAC available for operational use may limit the scope of near-term OTH operations.

3.2 ASSEMBLY AND DEPARTURE

Assault craft shall launch from designated launch areas and proceed to the landing beach along prescribed approach and retirement routes. Locations of the initial launch areas shall be determined by commander, amphibious task force (CATF) and may range from a few thousand yards to 100 nautical miles offshore. Movement must be coordinated between displacement craft, LCAC, vertical takeoff and landing aircraft (VTOLs), and assault amphibious vehicles (AAVs) to support the landing plan and ensure timely combat power buildup ashore at H-hour.

To ensure timely combat power buildup ashore, the departure time shall be determined by "backward planning" from H-hour. The time is calculated by subtracting from H-hour the required time to transit from the departure point to the penetration point at the nominal speed designated for the mission.

Note

In planning transit times for the LCAC, information is available in LCAC Safe Engineering and Operations (SEAOPS) S9LCA-AA-SSM-010. For an example, the LCAC can exceed 50 knots in sea state zero or 1, but maximum speed decreases as sea state increases.

When calculating craft departure times, the planner must consider the following:

1. Whether the craft are to arrive at the beach simultaneously
2. Should the craft become visible at the horizon simultaneously
3. Should the craft depart at the same time and reach the beach at different times.

3.3 TRANSIT TO BEACH

This section discusses the environmental impacts, timing, and command, control, and communications (C^3) on the assault craft's transition to the landing beach.

3.3.1 Landing Craft Movement. Since displacement craft will still be in the inventory and the number of LCAC available will be limited, tactics presented herein include operations using conventional displacement craft and LCAC (see figure 3-1) and operations with LCAC only. (See figure 3-2.)

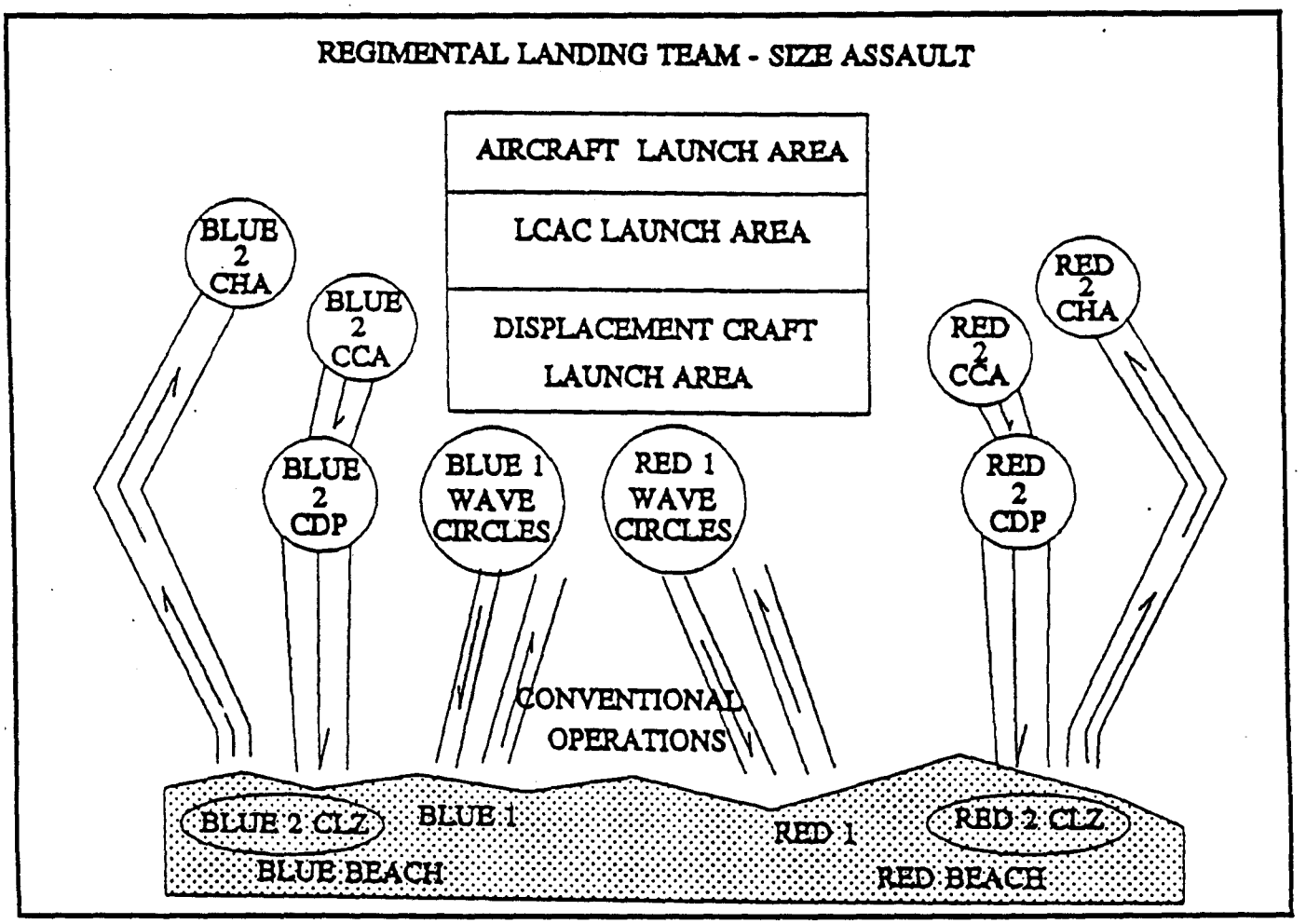

Figure 3-1. Ship-to-Shore Movement of Conventional Craft and LCAC

Note

When operating together, displacement craft should operate in the center and LCAC on the flanks, if feasible. Separate beaches should be used for each type of craft. Each type of craft should have separate ingress and egress lanes assigned for each beach.

Displacement craft (boats and AAVs) shall operate in accordance with the basic procedures shown in NWP 3, Ship-to-Shore Movement, which are modified to reflect that the primary control ship (PCS) and second. control ship (SCS) may remain OTH for the initial assault.

Note

Displacement craft, LCAC, and AAVs shall operate in various formations IAW NWP 22-3. Although LCAC are not specifically mentioned in NWP 22-3, they should be considered for inclusion wherever landing craft are mentioned, when applicable.

As shown in figure 3-2, LCAC shall depart the well and proceed to the craft collection area (CCA) to assemble into waves. The LCAC shall then proceed to the craft departure point (CDP) to commence the transit to the beach. The craft shall use global positioning system (GPS) to navigate to the proper beach. If EMCON conditions permit, the onboard radar may also be used in conjunction with GPS. If EMCON conditions do not permit the use of on-board radar and/or GPS, craft shall be controlled by external methods, as discussed later in this chapter.

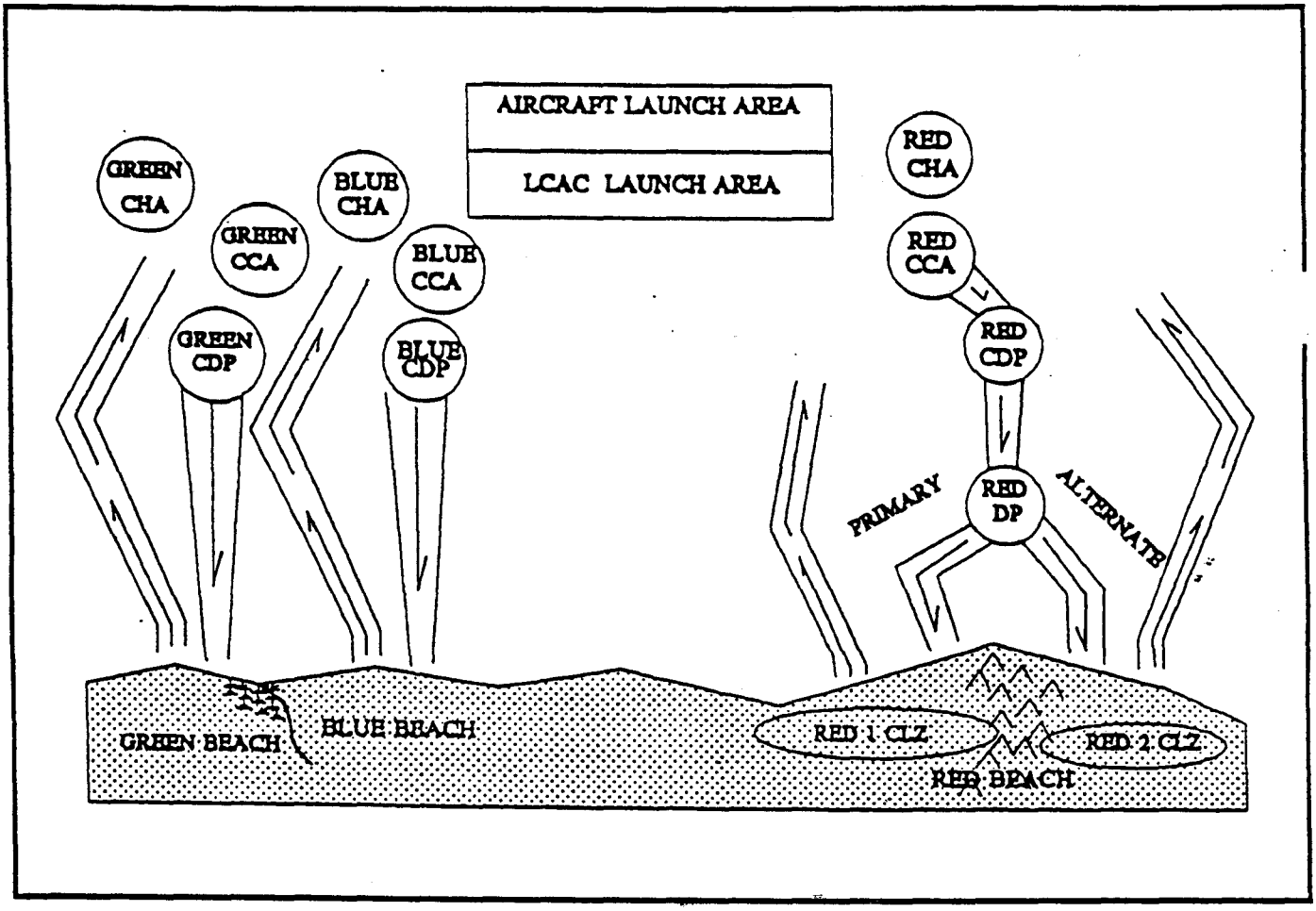

Figure 3-2. Ship-to-Shore Movement of LCAC Only

WARNING

If charts are known or are suspected to be inaccurate, craft should not rely solely on GPS for terminal guidance through the surf zone. Beach markers, placed by the advance force, may be used to assist transit of the surf zone.

The LCAC's speed and range afford the CATF great flexibility in planning and executing the assault. Figure 3-2 shows two examples of planning using multiple beaches and multiple lanes to a single beach. The right side of the figure illustrates the use of multiple lanes to a single beach using a decision point (DP) as the place where the appropriate lane is determined. This decision may be a result of which side of the terrain feature the threat is approaching, thus using the terrain to mask the craft landing zone (CLZ). The DP provides greater flexibility to the commander, but requires more coordination if used. The left side of the figure shows how multiple beaches may be used to take advantage of terrain that may hinder the threat's movement.

The DP is an arbitrary point that is selected by the CATF to allow the tactical option of changing the landing beach after the launch of the initial wave(s). Using a DP may allow tactical planners to maximize the capability to exploit the changing structure of the battlefield during the transit of the initial wave(s). The DP allows planned responses to be used which alter the landing plan as tactical intelligence is received to exploit the changing surfaces and gaps in the enemy's defensive posture. The DP should be placed far enough seaward so that craft do not have to travel parallel to the beach within range of enemy weapons systems or create confusion for the craftmasters as to their final destination. The slow speed of displacement craft and local hydrography which may limit the available landing beaches makes using a DP for displacement craft unlikely, but it is an option.

Following offload, the LCAC shall return via outbound lanes using the return to force (RTF) procedures promulgated in the OPTASK ASUW to the craft holding area (CHA), as directed by the LCAC control officer (LCO). The LCO is discussed in more detail in landing craft control.

3.3.2 Landing Craft Control. There are four types of controls for surface-borne operations: independent, waypoint, advisory, and positive. The type of control selected depends on the mission and tactical situation, landing craft navigation suite available, and communication capabilities. The operator performing the actual control function may be aboard a landing craft, an amphibious ship, or an airborne platform.

Figure 3-3 shows the landing craft command and control (C^2) structure. All assault craft destined for a particular colored beach are controlled by a primary control officer (PCO) on the PCS. LCAC are controlled by an LCO on the LCAC control ship (LCS). The LCO shall be subordinate to the PCO and shall in turn task the LCAC through the LCAC group commander. The LCO shall provide status reports to the PCO. The SCO shall control the conventional craft operations. The PCO shall monitor the overall picture. A secondary LCAC control ship (SLCS) shall be designated by PCO and shall relieve or assist the primary LCS, if necessary.

3.3.2.1 Independent Control. Craft shall exercise independent control when amphibious operations are conducted under silent EMCON conditions. Assault craft personnel are prebriefed on the plan and, once launched, exercise control of the craft independent of the amphibious task force (ATF). When the use of GPS is authorized, craft may be capable of fully independent ship-to-shore (STS) movement.

When the use of radar and GPS is authorized, craft are capable of fully independent STS movement. The radar is used in the final approach to the beach, as a check for distance offshore, and is particularly useful in areas where charts are known or are suspected to be inaccurate. If the radar cannot be used in conjunction with GPS, however, the penetration point should be identified by some type of beach marker.

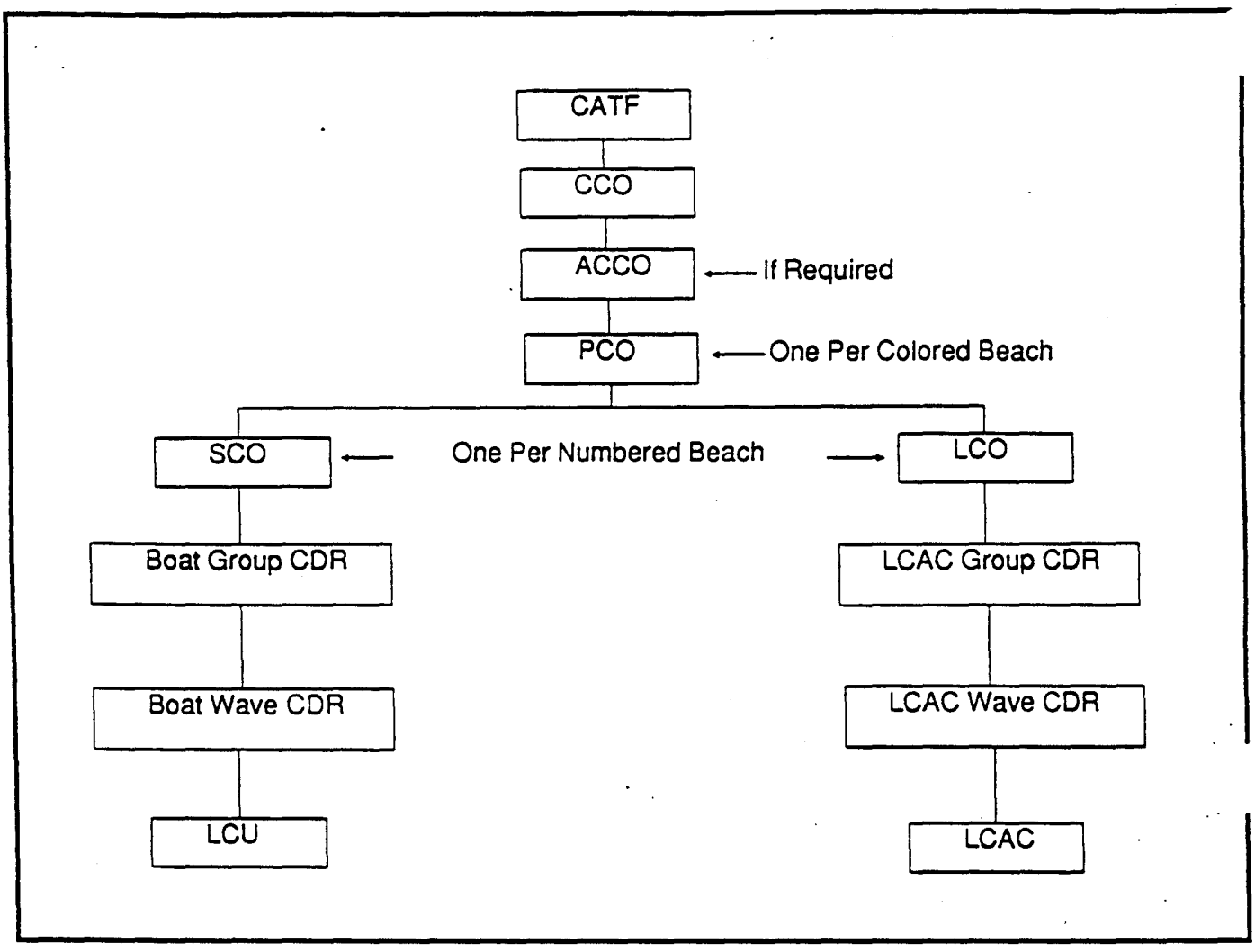

Figure 3-3. Landing Craft Command and Control

For OTH assaults using independent control, it is essential that the assault craft pass over the departure point as accurately as possible and at the time specified in the mission timeline.

3.3.2.2 Waypoint Control. In waypoint control, craft are prebriefed and conduct independent STS movement. The only difference from independent control is that craft emit a single transmission as they cross waypoints, thus informing the controlling units and embarked commanders of the movement's status.

3.3.2.3 Advisory Control. In advisory control, craft are given their launch position and a vector to their first control point. If the craft stray significantly from the planned route, the control officer gives the craft commander his position and a time early or late based on the preestablished timeline. The craft commander then modifies course and speed to regain the planned track at the next control point.

Note

Due to the LCAC's speed, advisory control is preferable to positive control because most commands will be time late. However, positive control is sometimes essential.

3.3.2.4 Positive Control. In positive control, craft position and navigation information are continuously updated via an external control source which may be electronic, voice communication, or data link. For OTH amphibious assaults under positive control, radar shall be the primary sensor for determining assault craft position relative to the CLZ with voice radio being used to provide position and vector information to the craft. The assault craft should be launched approximately 10 minutes prior to the desired departure time at a suitable position seaward of the CDP. Assault craft are initially vectored to the CDP in such a manner as to cross the CDP at or close to the designated time. They can be maneuvered as necessary to adjust their arrival time at the CDP. When radar contact cannot be directly maintained by the control ship, the following procedures may be employed.

3.3.2.4.1 Airborne Relay. In this method, an aircraft is stationed to provide assault craft position information to the PCO/LCO. This is done electronically using aircraft systems. The aircraft shall act as a radio relay between the controllers and the advancing assault craft.

Note

More detailed information on the procedures that are listed below may be found in TACMEMO PD0057-1-91, AEW/NAEW Aircraft and LAMPS Helicopter Control of Landing Craft and Helicopters in Amphibious Over-the-Horizon Operations.

The tactic using PCS/LCS control of amphibious landing craft via Link 11 data and AUTOCAT communications with an airborne early warning/NATO airborne early warning (AEW/NAEW) aircraft is designated as Motherhen. Controller calls concerning checkpoint passage, course, and speed changes may, if desired, be conducted by coded broadcast (preestablished by the tasking message) with no acknowledgement required. It should be noted that if AEW/PCS link/communications fail, the assault could continue by switching to the Dragonfly tactic. (See 3.3.2.4.3 below.)

The tactic using PCS/LCS control of amphibious landing craft via LAMPS Mk III data link, Link 11, and high frequency (HF) or LAMPS relay of voice communications is designated as Hawkcast. This tactic is similar to Motherhen.

3.3.2.4.2 Trail Ship Control. In this method, a designated ship/surface craft shall position itself so that it can maintain control of the assault craft as they transit to the landing beach. It may be necessary for the trail unit to proceed toward shore prior to the LCAC launch to stay in a position where it can maintain radar contact with the higher speed LCAC. In the event of an OTH launch from outside 50 nautical miles, it may be necessary to provide multiple trail control units to provide a navigation line from the ATF to the penetration point.

3.3.2.4.3 Airborne Control. When airborne control is employed, one aircraft shall control one assault craft transit lane.

Note

Typical aircraft which may be used for airborne control are P-3, E-2/E-3, S-3, and SH-60.

The tactic that uses AEW/NAEW aircraft for controlling amphibious landing craft with the PCS monitoring via Link 11/Link 14/voice is designated as Dragonfly. The tactic that uses LAMPS Mk I/III aircraft for controlling as-

sault craft with the PCS monitoring voice communications or Link 11 relayed from an escort in data link w[illegible] LAMPS Mk III is designated as Lamplight.

3.4 ARRIVAL/OFFLOAD

To reduce detection and increase the survivability of arriving LCAC, the final approach to the CLZ should be perpendicular to the beach.

During OTH operations using LCAC, a CLZ control party may not be ashore prior to the landing of the initial waves. In this case, the beach master CLZ control personnel should be brought ashore to provide control as soon as possible in each CLZ. Once beach masters are present, LCAC should contact, EMCON permitting, the CLZ control party prior to entering the CLZ.

Note

Separate frequencies should be assigned for each CLZ.

As it has been previously discussed, tactical considerations may make it prudent to provide beach markers to aid all landing craft in terminal guidance to the beach/CLZ.

CAUTION

To ensure arrival at the correct beach, personnel marking and/or controlling the beach should use navigation equipment that has equal or greater precision than the navigation equipment being used onboard the assault craft.

3.5 DEPARTURE AND RETURN TRANSIT

As soon as a craft has dropped its load, it heads outbound to the holding area for further tasking from the appropriate LCO/secondary control officer (SCO). Assault craft shall check in with the beach control party for outbound control and tasking. The LCO/SCO has the option of vectoring the assault craft to a ship for loading, refueling, or holding the assault craft in the holding area to await further tasking.

WARNING

ASUW RTF procedures should be followed during return transit to prevent loss of craft and/or personnel to friendly fire. If installed and operational, the identification friend or foe (IFF) and position location reporting system (PLRS) should be considered for use. In addition to these pieces of equipment, corridors and communication code words should be planned for use during the operation.

To assist in close range identification of returning craft, all available electro-optic and infrared (EO/IR) sensors should be used. LCAC are uniquely identifiable when viewed in the AN/KAS-1. During night operations, IR flashing light RTF procedures may be used as a means of identification. When challenged by ships, LCAC should energize deck lighting to assist in identification.

CHAPTER 4

Surface Raid Ship-to-Shore Movement

4.1 OVERVIEW

Although all types of landing craft may be used in conducting a surface raid, this chapter will only discuss the unique characteristics of rigid raiding craft (RRC) and combat rubber raiding craft (CRRC). When conducting a raid using conventional displacement craft or air cushion landing craft (LCAC), the procedures outlined in chapter 3 should be employed.

RRC and CRRC are employed to land small, lightly armed and lightly equipped forces on undefended beaches to execute an amphibious raid. A raid is conducted against a limited objective, for a limited duration, and includes a planned withdrawal. The raid may be an independent operation or a supporting operation. For more information on raiding craft, see COMNAVSURFPAC/COMNAVSURFLANTINST 3000.15/FMFPAC P3000.15 N30/WPC 043-91, Standard Operating Procedures for Raiding Craft.

When planning tactical utilization of RRCs and CRRCs, the inherent characteristics of each type of craft must be considered. The RRC has several capabilities that are superior to those of the CRRC. The RRC can maintain greater speed, it is more survivable because of its more durable hull and dual engines, and it can be employed as a machinegun platform in riverine operations.

The CRRC, however, is superior to the RRC in other aspects. Its biggest advantage is that it is more practical for conducting insertion and extraction operations across surf zones.

WARNING

There are methods for landing Marines ashore through a surf zone with RRCs, but they are inherently more difficult. RRCs may be employed directly on a beach, but should only be beached when surf conditions are encountered with surf height of 1 foot or less (sea state zero).

The CRRC has the additional advantage of launch and/or recovery from an LCU or LCAC.

Based on the tactical employment considerations, RRCs are best employed against targets which are accessible by protected waterways such as harbors, bays, or rivers. CRRCs are best employed when surf zone negotiation is required and/or the situation warrants using other landing craft for a portion of the transit. Combinations of CRRC/RRC should also be considered to optimize the raid force.

4.2 ASSEMBLY AND DEPARTURE

In OTH operations, the raiding craft are generally launched from amphibious shipping approximately 20 nautical miles from shore. When determining the actual distance from the objective ashore from which to execute a launch, sea state, weather, transit times, and enemy electronic detection capabilities should be considered. The goal is to keep the amphibious ship protected and far enough away to prevent operational compromise while, at the same time, minimize the distance for the raid force (RF) to reduce the physical demands caused by long open-ocean transits.

The LCAC has proven to be an effective vehicle for the long range insertion and recovery of sea-air-land (SEAL) teams or Marine reconnaissance personnel in CRRCs. CRRCs may navigate by the global positioning system (GPS), position locating and reporting system (PLRS), or magnetic compass. When operating with magnetic compass only, it is important that the LCAC come off cushion at the precise dropoff/pickup point agreed upon for the operation during total EMCON. As an added safety measure, the LCAC should give the CRRC a magnetic vector to the landing point prior to its departure.

Surf conditions are a critical consideration in making the final determination whether or not to launch the raid force.

4.3 TRANSIT TO BEACH

Once the RF is launched, it will proceed to a point a minimum of 500 yards seaward of the landing point. The commander, amphibious task force (CATF) or advance force commander (AFC) is responsible for deciding to cross the surf zone, but may give the raid force commander (RFC) the authority to make this decision.

WARNING

Inside 500 yards, craft and personnel are subject to small arms fire.

4.3.1 Raiding Craft Control. Raiding craft may use the four methods of control discussed in paragraph 3.3.2. However, raiding craft will normally exercise independent control because of the necessity for the raid force to remain undetected or unidentified for a sufficient period of time to achieve tactical surprise. There must be a radio net linking the RFC to the CATF's or AFC's controlling agency. The CATF or AFC must be able to contact the CATF's or AFC's controlling agency upon enemy contact to execute a contingency plan in case of an emergency or to pass other mission critical information.

4.4 DEPARTURE AND RETURN TRANSIT

In some instances, the raiding craft may reposition to a helicopter landing zone (HLZ). When helicopters are used for return transit, the raiding craft may be:

1. Hidden and recovered later
2. Destroyed prior to departure
3. Abandoned.

WARNING

ASUW return to force (RTF) procedures should be followed during return transit to prevent a loss of raiding craft and/or personnel to friendly fire. If the PLRS is onboard and operational, it should be considered for use. Corridors and an execution checklist or communication code words should be planned for use during the operation.

CHAPTER 5

Transition to Doctrine

5.1 PLAN FOR TRANSITION TO DOCTRINE

The material in this TACMEMO, once validated, is intended for inclusion in NWP 22-3, Ship-to-Shore Movement. This TACMEMO may be used until modifications to the tactics are submitted.

5.1.1 Unsolicited Evaluation. Users are encouraged to submit unsolicited evaluations at any time via their chain of command to COMSURFWARDEVGRU, Naval Amphibious Base, Little Creek, Norfolk, VA 23521-5160.

5.1.2 Formal Evaluation. COMSURFWARDEVGRU will schedule formal evaluation of this TACMEMO to ensure its timely validation. Commands wishing to participate in this validation effort should advise COMSURFWARDEVGRU via their chain of command.

5.2 DATA COLLECTION REQUIREMENTS

5.2.1 Forces Required. Minimum forces to conduct exercise evaluation of this TACMEMO should be a ship to act as LCAC control ship (LCS), one or more amphibious ships with helicopters and landing craft (air cushion landing craft (LCAC) and LCU)), combat rubber raiding craft (CRRCs)/rigid raiding craft (RRCs), and one or more airborne early warning (AEW)/NATO airborne early warning (NAEW) aircraft or LAMPS helicopters.

5.2.2 Data Collection. Data to be collected for evaluation should include:

1. Weather data for the area and period of the exercise, including integrated refractive effects prediction system (IREPS), if available

2. Copies of preexercise messages, OPTASKs, and planning documents

3. Annotated copies of charts and overlays used in the exercise

4. Copies of logs

5. Narrative reports identifying the tactics used, forces involved, results, problems identified, and corrective measures used or recommended

6. Comments on the usefulness of these tactics and recommendations for improvement or cancellation.

APPENDIX A

References

1. Joint Pub 3-02, Joint Doctrine for Amphibious Operations, Final Draft, April 1991.

2. Joint Pub 3-02.1, Joint Doctrine for Landing Force Operations.

3. NWP 22-2 (Rev. A), Supporting Arms in Amphibious Operations, Office of the Chief of Naval Operations, July 1980.

4. NWP 22-3 (Rev. A), FMFM 1-8, Ship-to-Shore Movement, Office of the Chief of Naval Operations, June 1988.

5. NWP 22-4, Underwater Demolition Teams in Amphibious Operations, Office of the Chief of Naval Operations, December 1982.

6. FMFM 1, Warfighting, USMC, 6 March 1989.

7. U.S. Marine Corps Over-the-Horizon Amphibious Operations Concept, Marine Corps Combat Development Command.

8. TACMEMO PD0057-1-91 AEW/NAEW Aircraft and LAMPS Helicopter Control of Landing Craft and H. copters in Amphibious Over-the-Horizon Operations, Commander Surface Warfare Development Group, Marcn 1991.

9. TACMEMO XL0058-3-89, SEAL Delivery Beach Feasibility Study, Naval Special Warfare Center, 15 November 1989.

10. TACMEMO XL0080-7-89, NSW Special Reconnaissance Operations and Reporting, Naval Special Warfare Center, 1 December 1989.

11. TACMEMO XL0080-5-90, NSW Very Shallow Water Mine Countermeasures, Naval Special Warfare Center, 26 December 1990.

12. COMNAVSURFLANTINST 3340.3B/COMNAVSURFPACINST 3340.3B, Wet Well Operations, 5 April 1989.

13. COMNAVSURFPAC/COMNAVSURFLANTINST 3000.15/FMFPAC/LANTO P3000.15 N30/WPC 043-91, Standard Operating Procedures for Raiding Craft.

14. COMNAVSURFPAC/COMNAVSURFLANTINST 3840.1B, Joint Surf Manual, 2 January 1987.

15. Lessons learned and postexercise reports on employment of the LCAC.

16. Technical Memorandum 501-89, Mine Countermeasure Requirements in the Amphibious Objective Area, Naval Coastal Systems Center, March 1989.

APPENDIX B

Acronyms

AAV	Assault Amphibious Vehicle
AEW	Airborne Early Warning
AFC	Advance Force Commander
AMCM	Airborne Mine Countermeasures
AOA	Amphibious Objective Area
ASUW	Antisurface Warfare
ATF	Amphibious Task Force
C^3I	Command, Control, Communications, and Intelligence
CATF	Commander, Amphibious Task Force
CCA	Craft Collection Area
CDP	Craft Departure Point
CHA	Craft Holding Area
CLF	Commander, Landing Force
CLZ	Craft Landing Zone
CRRC	Combat Rubber Raiding Craft
DCT	Digital Communications Terminal
DP	Decision Point
EMCON	Emission Control
EO/IR	Electro-Optic/Infrared
EW	Electronic Warfare
GPS	Global Positioning System
HLZ	Helicopter Landing Zone
IAW	In Accordance With
IFF	Identification Friend or Foe
IOC	Initial Operational Capability
LCAC	Air Cushion Landing Craft
LCO	LCAC Control Officer
LCS	LCAC Control Ship
LCU	Landing Craft, Utility
MCM	Mine Countermeasures
MDLT	Mine Detection Laser Technology
MEDEVAC	Medical Evacuation
NAEW	NATO Airborne Early Warning
NGFS	Naval Gunfire Support
NSFS	Naval Surface Fire Support
NSW	Naval Special Warfare
NWP	Naval Warfare Publication
OPDEC	Operational Deception
OTH	Over-the-Horizon
PCO	Primary Contol Officer
PCS	Primary Control Ship
PLRS	Position Locating Reporting System
RF	Raid Force
RFC	Raid Force Commander
RRC	Rigid Raiding Craft
RTF	Return to Force
SAR	Search and Rescue
SEAL	Sea-Air-Land
SEAOPS	Safe Engineering and Operations
SLCS	Secondary LCAC Control Ship
STS	Ship-to-Shore
SUROB	Surf Observation Report
TACMEMO	Tactical Memorandum
UTH	Under-the-Horizon
VSW	Very Shallow Water
VTOL	Vertical Takeoff and Landing