Planning Considerations: Small Boat OTH Raids

Over-the-horizon raid operations have taken on new importance in recent years. This article discusses what they involve and what is required if they are to succeed.

by Maj H. Heath Fox II

In 1989 the Commandant of the Marine Corps (CMC) published a document entitled the *Marine Air-Ground Task Force (MAGTF) Master Plan*. This document set forth the operational foundation for the organization, manning, equipping, training, and development of doctrine and operational techniques for MAGTFs through the year 2000. Section 6 of the *MAGTF Master Plan*, entitled "MAGTF Capabilities To Be Emphasized," prioritizes 49 MAGTF capabilities that will be emphasized over the next 10 years. The number one priority on the list is the:

> capability to conduct amphibious raids on short notice at night in adverse weather conditions under EMCON [emission control] from over-the-horizon via air or surface means against distant inland targets.

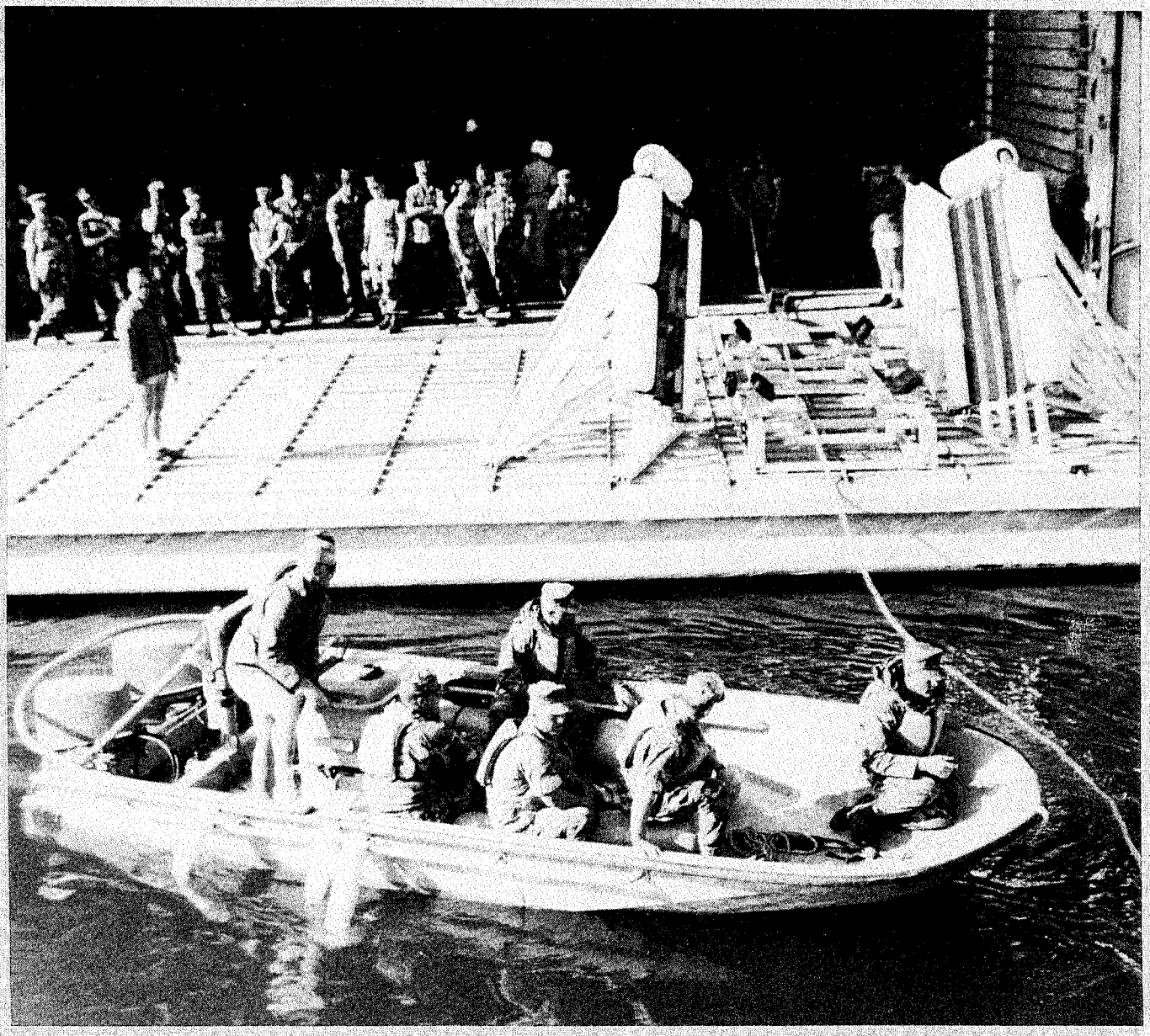
To help fulfill this capability, rigid raiding craft (RRC), 18-foot fiberglass hull Boston Whalers with dual 70-horsepower outboard engines, and combat rubber raiding craft (CRRC), Zodiac F470 inflatable rubber boats with a single 55-horsepower outboard engine, have been fielded to special operations capable (SOC) units. Specialized skill training is required for members of Marine infantry units designated to employ these craft in long-range amphibious raids. Such training includes raiding craft coxswain skills, maritime navigation skills, and scout swimmer skills for select personnel, as well as water survival and boat teams skills for all members of the raiding force. (See Figures 1 and 2.) This article discusses operational planning considerations, issues, and items of concern for MAGTF commanders and their staffs who employ RRCs and CRRCs amphibious raiding forces.*

The Mission Profile

The operational capability of the raiding craft (RRC/CRRC) clandestine amphibious raid is defined by the following mission parameters:

- Launched from over-the-horizon (OTH).
- Conducted under EMCON conditions preceding enemy contact, excepting emergencies and the necessity of communicating mission critical information.
- Conducted at night.
- Conducted in varying sea states, up to and including Sea State 3 and Beaufort Force 4.

*The information set forth in this article is based on a class taught by the author as part of the amphibious ready group (ARG)-special operations capable Marine expeditionary unit (MEU(SOC)) workshop, conducted by Landing Force Training Command Pacific (LFTCPac) for the ARG and MEU element commanders and staffs of each of the deploying west coast ARG-MEU(SOC)s. This information is also included in a draft raiding craft standing operating procedure, a forthcoming joint publication of Commander, Amphibious Group-3 and Commanding General (CG), 5th MEB.



- Incorporating a clandestine landing and withdrawal.
- Incorporating accurate navigation to a specific beach landing site (BLS) by nonelectronic means.
- Executed within six hours of mission receipt; meaning that the time from receipt of the execute order to the beginning of the boat launching phase is no longer than six hours duration.

Summary of Acronyms

ARG	amphibious ready group
BLS	beach landing site
CATF	commander, amphibious task force
CIFS	close-in fire support
CLF	commander, landing force
CMC	Commandant of the Marine Corps
ComPhibGru	commander, amphibious group
CRRC	combat rubber raiding craft
EMCON	emission control
EMT	emergency medical technician
IP	insertion point
LCU	landing craft, utility
LFTCPac	Landing Force Training Command, Pacific
LPD	landing platform dock
LOPs	lines of position
MAGTF	Marine air-ground task force
MEB	Marine expeditionary brigade
MEU	Marine expeditionary unit
OTH	over-the-horizon
NGFS	naval gunfire support
RFC	raid force commander
RRC	rigid raiding craft
SEAL	sea, air, land
SOC	special operations capable
SUROB	surf observation report

Operational Employment

Raiding craft are employed to land small, lightly armed and lightly equipped forces at undefended or lightly defended locations for the purpose of executing an amphibious raid. This operation is against a limited objective for a limited duration and includes a planned withdrawal. The raid may be an independent operation or a supporting operation. A raid may be executed to support an amphibious assault or a land, air, or naval campaign. The specific purpose of the raid may be any of the following: psychological, destruction, harassment, reconnaissance, diversion, evacuation, or unconventional warfare.

Tactical Employment

When planning the tactical use of RRCs and CRRCs, the significant inherent characteristics of each type of craft must be considered. The RRC has several characteristics superior to the CRRC; it can maintain greater speed (plan for a Sea State 1 speed of 25 knots for RRC, 15 knots for CRRC); it is more survivable because of its more durable hull and dual engines; and it is capable of being employed as a machinegun platform. Conversely, the CRRC has characteristics superior to the RRC. Its biggest advantage is that it is more practical for conducting insertion and extraction operations across surf zones. The CRRC can be driven into shallow water, picked up by its boat team, and carried onto the beach or into a hinterland cache site. Once the operation ashore is complete, it can be easily launched from the beach by its boat team. There are methods for landing Marines ashore through a surf zone with RRCs, but these methods are inherently dangerous, difficult, not tactically sound, and have a tendency to generate a great deal of internal friction. RRCs may be employed directly on a coastline, but should only be done when relatively benign surf conditions are encountered. The CRRC has an additional advantage in that it can be launched and/or recovered by a landing craft, utility (LCU), thus allowing for the employment of an LCU as an intermediate vessel. Based on these considerations, RRCs are best employed against targets accessible by inland waterways, such as harbors, bays, or rivers. It is here, where the raid force becomes vulnerable to enemy fire from the land surrounding or adjacent to the inland waterway, that the RRC's advantages of speed, survivability, and machinegun capability can be exploited. Considering the large percentage of targets of military value located in protected waterways (vice adjacent to a beach), the capability offered by the employment of RRCs is significant. CRRCs are best employed when surf zone negotiation is required and/or the situation warrants the use of an LCU as an intermediate vessel. RRC and CRRC combinations should be considered; CRRCs for landing the raid force ashore and RRCs for escorting purposes (command and control,

LFTCPAC MEU(SOC) AMPHIBIOUS RAID PROGRAM

	Student Population*	Duration	Prerequisites/ Remarks
Coxswain Skills Course	30	6 weeks	1st class swimmers
Scout Swimmer Instruction	9–15	2 weeks	1st class swimmers
Long-Range Maritime Navigation Instruction	8–10	2 weeks	Officers/SNCOs/ NCOs; including company commander
Amphibious Raid Planning Instruction	8–10	1 week	Officers/SNCOs/ NCOs; same as long-range maritime naval instructors
MEU(SOC) Amphibious Raid Course	Rifle Company	2 weeks	3rd class swimmers; course includes two mission profile exercises

*This training program is progressive in nature; all personnel attending the courses are from the same rifle company (or its attachments). The first four courses are prerequisite for the company's participation in the MEU(SOC) Amphibious Raid Course, which integrates the coxswains, scout swimmers, and navigators/leaders with the remainder of their company.

Figure 1

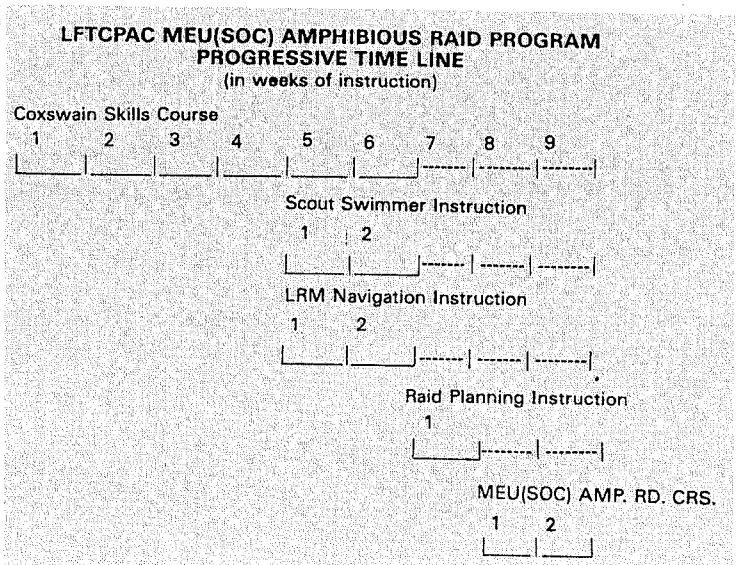


Figure 2

safety support, and machinegun boats).

With regard to tactical loads, both the RRC and the CRRC are classified by their manufacturers as capable of transporting 10 personnel; however, it is recommended that no more than 8 Marines be embarked. The CRRC has an optimum weight ceiling of 2,000 pounds; any weight above this ceiling significantly reduces the craft's performance. Experience has shown that eight Marines with mission-essential equipment, on the average, comes closest to this weight ceiling. When using the RRC, the recommended number of men is also eight. Experience has shown that long open-ocean transits in RRCs are physically demanding, especially for those men sitting in the forward positions, due to the turbulence created by the effect of swell and wave action. The commander must also take into account the possibility of prisoners, casualties, and the evacuation of friendly forces. It is always prudent to have sufficient additional boat space to contend with any unforeseen contingencies.

All personnel assigned to the raid force must have sufficient training to qualify them to participate in raiding craft tactical operations. These personnel must not be considered simply as passengers; they participate in various important aspects of the operation, notably ship launch and recovery and surf zone negotiation, and must be familiar with raiding craft emergency and safety procedures.

Command Relationships and Amphibious Doctrine

The doctrine for amphibious operations, specifically for amphibious raids, set forth in *NWP 22B/LFM 01* and *FMFM 8-1, Special Operations* is applicable to the RRC/CRRC OTH amphibious raid. Overall command authority rests with the commander, amphibious task force (CATF). The CATF, in consultation with the commander, landing force (CLF), must define the organizational relationships to be established between himself and the raid force company commander. Doctrine allows for flexibility in doing so to facilitate the exploitation of situational uniqueness. Chapter 19, "Amphibious Raids," of *LFM 01* states:

> The principles of organization and command relationships, stated in Chapter 2 (Organization and Command for Amphibious Operations), are applicable for amphibious raids. However, the wide variation in the purpose of raiding operations and the consequent variation in the composition of the raiding force and associated naval forces, require a full description of the precise command arrangements which apply in each case.

Consider, for example, an ARG-MEU(SOC) tasked with the mission of conducting an independent raid operation. The CATF defines command relationships as follows: CATF will exercise command and control of the launch and recovery phases of the operation through his landing platform dock (LPD) captain (on whose ship the raid company is embarked), and all other phases of the operation through the CLF chain of command, with the LPD captain standing by to receive on-order missions in support of the ship-to-shore and/or shore-to-ship phases. The LPD captain is responsible to the CATF for launch, recovery, and on-order taskings. The CLF is responsible to the CATF for all other phases of the operation and exercises command and control of the raid force directly or through the battalion commander.

As a contrasting example, the ARG-MEU(SOC) is tasked to conduct an amphibious assault and is given authority to conduct a supporting raid operation against a diversionary target, which is a considerable distance away from the amphibious assault objective area. The CATF defines command relationships as follows: CATF will exercise command and control through his LPD captain to the raid force commander for all phases of the operation. In this case, staff planning cells, incorporating both Navy and Marine expertise, would be organized to assist in the planning sequence for the raid operation. This would be necessary to ensure thorough staff planning was accomplished for the raid, but not divert the attention of the entire staff away from planning the amphibious assault. In defining command relationships, the CATF and the CLF are not limited to these two examples; quite the contrary, these examples are meant to convey the idea that the CATF, in consultation with the CLF, has the flexibility to tailor command relationships for an amphibious raid to what makes the best tactical sense and can best exploit the unique circumstances of a given situation.

Planning Responsibilities

When planning an RRC or CRRC OTH amphibious raid, the raid force commander (RFC) must be the focal point from the outset. The planning sequence must be characterized by continuous parallel, concurrent, and detailed planning as set forth in amphibious doctrine. The RFC will need support, especially in terms of planning information, from the staff expertise available in both the Navy and Marine command organizations. Additionally, planning must be characterized by close cooperation between Navy and Marine staffs. As the plan develops, all aspects should be briefed, reviewed, and understood by the planners and decisionmakers at every echelon of command, with final approval from the CATF. Thorough planning cannot be overemphasized; it takes on added importance in an operation characterized by long range, low visibility, stealth, and limited time, and where positive control of the raid force is vested in the RFC for execution.

Contingency Planning

As with the planning of any tactical operation, provisions must be made to deal with uncertainty. Plans should be developed to address contingencies that may arise throughout the operation. These should include plans for cancellation of the operation; emergency reinforcement; emergency extraction; fire support to include the employment of close-in fire support (CIFS) from attack helicopters, close air support (CAS), and naval gunfire support (NGFS); electronic warfare measures; and emergency medevac procedures.

Sea States

The reference for understanding and judging sea conditions is the *American Practical Navigator* (Bowditch), Volume 1, Appendices V and W. This publication is available from the Defense Mapping Agency. The mission profile calls for raiding craft operations to be conducted in sea states up to and including Sea State 3 and Beaufort Force 4.* The seakeeping characteris-

*The Beaufort Force represents the estimated wind conditions, Sea State 3 and Beaufort Force 4 represent the same conditions on the Bowditch scale—namely, a moderate breeze 11-16 knots or 13-18 mph and a slight swell, with waves 0.5-1.25 meters (approximately 1.5-4.0 feet).

tics of both types of raiding craft permit operations in Sea State 3, to include both launch and recovery operations and open-ocean transits. It is important to understand that higher sea states create greater risks during ship launch and recovery, and that more caution must be exercised. Further, the high winds associated with higher sea states adversely affect the maneuverability of both types of raiding craft, resulting in slower speeds and longer transit times. The advantage offered by operating in higher sea states is a reduced vulnerability to detection by enemy electronic sensors; higher sea states will degrade the ranges at which electronic sensors are effective, thus facilitating the clandestine nature of the operation and contributing to tactical surprise. It is also important to understand that sea conditions can fluctuate rapidly; during the planning phase, consideration must be given to forecasted meteorological factors that could adversely affect the sea state for the duration of the operation. Further, sea state conditions are not necessarily related to surf zone conditions, and the two must be considered independent of one another.

Distance

The insertion point (IP) at which the raiding craft are launched from amphibious shipping in OTH operations is generally considered to be approximately 20 nautical miles from shore. In determining the actual distance from shore for the IP, the sea state, weather, transit times, and enemy situation (especially his detection capabilities) should be considered. The point is: keep the ship protected and far enough away to prevent operational compromise, while at the same time, minimize the distance for the raid force in order to reduce the physical demands caused by long open-ocean transits.

Navigation

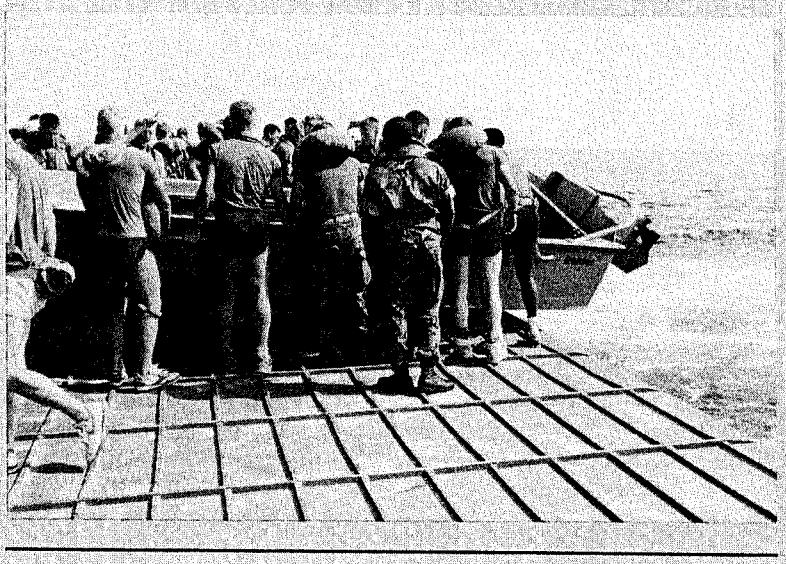
In keeping with stealth requirements, the navigation used by the raid force is a manual, or nonelectronic, method. Dead reckoning and coastal piloting are the primary methods used. The raid force launches from its amphibious ship at a known latitude/longitude and follows a preplanned course (magnetic bearing), maintaining a steady speed and monitoring the time traveled, which enables it to calculate the distance traveled along the known course. As the raid force reaches coastal piloting waters and is able to identify lights, manmade objects, and terrain features ashore, the navigators will shoot lines of position (LOPs) that allow them to accurately fix their location along their track. This process is similar to a resection in land navigation. The nautical chart on which navigational information is kept is on a plotting board, which serves as a parallel ruler; keeping location on this plotting board is similar to keeping location on a plotting board in a fire direction center. Throughout the process of planning and executing the navigation, the set (direction) and drift (speed) of ocean, tidal, and wind currents must be accounted for. This explanation of raid force navigation is very basic and oversimplistic; good nautical navigation requires trained navigators, specialized equipment, and a great deal of attention to detail in planning and execution. The raid force should employ two, preferably three, navigation (or piloting) teams; each consisting of a navigator, assistant navigator, and coxswain. This adds depth to the raid force's navigation capabilities. Hand-held, nonemitting satellite navigation (global positioning systems) is proving to be an accurate and very useful complement to the manual method.

Stealth

Strict control of electronic emissions is maintained by the raid force preceding enemy contact. Radio communications are used only by exception, but even with exceptions, it must be minimized to the greatest extent possible. The exceptions are emergencies and/or the necessity of communicating mission-critical information (information that has a direct impact upon the successful outcome of the mission). This parameter does not negate the necessity for positive radio communications; there must be a radio net linking the RFC to the CATF's controlling agency. The CATF must have the ability to pass new information or orders to the RFC; the RFC must have the ability to contact the CATF's controlling agency upon enemy contact, to execute a contingency plan in the event of an emergency, or to pass some other piece of mission-critical information. Signaling internal to the raid force is accomplished with the aid of night vision devices, infrared lights, and directional lights, with an intracompany radio net serving as an alternate communication means (enemy contact, emergencies, and mission-critical information).

A thorough analysis and detailed planning of raid target areas with respect to the type and manner of employment of enemy electronic surveillance and detection capabilities is essential. Studies have shown that raid forces can be detected by a variety of sensors at tactically significant ranges that provide the enemy both the time and opportunity to respond prior to the arrival of the raid force at its objective. A careful analysis of enemy electronic sensors, relative to the ambient environment, is critical. The tactics employed by the raid force must be adopted to reduce vulnerability to enemy detection capabilities and/or counter enemy reactions to early detection. The determination of raid force transit and beach approach formations should be made with the knowledge that tightly bunched raiding craft increases vulnerability to detection. Employment of dispersed formations during vulnerability periods will decrease detection probability. Additionally, opera-

Marines roll an RRC onto the stern gate (note the inflatable rollers under the boat) and into water off of Pian di Spille, Italy in a recent Mediterranean exercise.



tions in adverse weather and higher sea states will degrade the ranges at which electronic sensors are effective. This analysis should address radar, acoustic, infrared, ambient light, and thermal imagery sensors.

The Surf Zone

A key planning consideration for coastline raiding craft operations is the conditions of the surf zone at the beach landing site (BLS). Detailed information on surf zone characteristics can be found in the *ComNavSurfPac/Lant Joint Surf Manual.* Surf zone conditions are reported by an eight-line surf observation report (SUROB). The critical considerations for raiding craft surf zone operations are significant wave height (height of the highest one-third of the breakers observed), the period (time interval between waves measured to the nearest half-second), and the breaker type (spilling, plunging, or surging). The higher the significant wave height, the shorter the period, the greater the percentage of plunging or surging waves, the greater the danger to raiding craft surf zone operations. These critical factors must be considered both individually and in combination and their effect on raiding craft operations carefully and prudently evaluated. For example, a surf zone characterized by predominantly spilling breakers, with a significant wave height of six feet, and a period of 17 seconds is negotiable for trained coxswains. A contrasting example is a surf zone characterized by predominantly plunging breakers, with a significant wave height of three feet, and a period of seven seconds; this surf zone is very hazardous to raiding craft operations due to the large percentage of plunging waves combined with a short period, even though the significant wave height is only three feet. Surf zone evaluation should be conducted by personnel trained and experienced in raiding craft operations, in light of boat/engine maintenance conditions and coxswain/boat team experience level.

SUROB collection should begin 72-96 hours in advance of the anticipated receipt of the raid execute order. One should be collected every 12 hours, corresponding to the tidal conditions at the planned time of landing. Navy SEAL (sea, air, land) teams and Marine reconnaissance teams are trained and qualified to collect SUROBS. Surf conditions should be a critical consideration for the CATF, or his designated subordinate commander, in making the final determination to launch or not launch the raid force from the amphibious ship. Once the raid force is launched and arrives outside the surf zone near the BLS, the RFC must make the final beaching decision. If prelaunch SUROBs, visual sightings, and/or mission necessity warrant further evaluation, the RFC may employ his own scout swimmers for that purpose. He must consider the surf conditions as they exist at the time, his mission and command guidance, boat/engine maintenance conditions, and coxswain/boat team training and experience level. As the commanding officer of the raid company and the on-scene commander trained in this capability, he is the one best qualified to make the final beaching decision. Surf conditions, like sea states, can change rapidly; during the planning phase, the forecasted meteorological factors that could adversely affect surf conditions should be evaluated.

Employment of SEALs, Reconnaissance Teams, and Raid Company Scout Swimmers

Navy SEALs and Marine reconnaissance teams are most efficiently employed in advance operations supporting the amphibious raid. They can collect advance SUROBs, conduct initial BLS reconnaissance, conduct route reconnaissance between the BLS and the target, and act as eyes-on-target, collecting intelligence data in the objective area. Depending on the situation, the RFC may choose to employ the raid company's own scout swimmers to facilitate the clandestine movement of the raid force ashore; they validate the correct location of the BLS, conduct BLS reconnaissance and establish initial security, conduct final SUROB if required, and mark the BLS with directional lighting to signal the raiding craft ashore. The raid company's scout swimmers are the ones best employed to perform these functions; they have trained extensively with their company, have a clear appreciation of their company's experience level and capabilities, and are well versed in the company's standing operating procedures. The inherent capability of the raid company to transition ashore and establish itself on the BLS frees

the SEALs and reconnaissance teams for their traditional roles and increases the probability of success because of procedural familiarity.

Enemy Situation

As with any tactical operation, the strength and deployment of enemy forces in the raid target area must be evaluated in detail. This analysis should include enemy weapons systems, security arrangements, activities, and standing operating procedures. As previously discussed, a detailed analysis of the enemy's employment of electronic sensors for coastal surveillance and early warning is essential; both the type of sensors employed, and the manner of employment should be evaluated. Further, the enemy's probable response, and his capability to react with reinforcements, either ashore or at sea or both, must be considered and contingency plans developed accordingly.

Landing and Withdrawal Techniques

The specific technique used for landing the raid force ashore and withdrawing it after completion of the mission will be situation dependent. It should be tailored to achieve a balance of speed and stealth appropriate to the mission, enemy, terrain, and meteorological factors.

Safety Support

Operations involving long open-ocean transits of personnel in raiding craft should include support from a dedicated safety boat manned and equipped to provide medical support, mechanical repair, and rescue swimmer support. The craft used could be a Seafox, LCPL, RRC, or CRRC. Of the four craft, the RRC is the best choice as a safety boat; it can comfortably carry the personnel, supplies, and equipment required, and, in the event of a surf zone rescue, is easier and safer to handle than a Seafox or LCPL. Because of the CRRC's limited space and towing capability, it should only be used as a safety boat when the raid force is employing CRRCs exclusively. Safety boat personnel should include a corpsman qualified as an emergency medical technician (EMT) (in addition to the corpsmen that are part of the raid force), a qualified boat engine mechanic, and a qualified combat safety swimmer. Supplies and equipment include specialized medical gear for water training (oxygen resuscitator, backboard, etc.), rescue equipment (ring/pull buoys, towing lines, etc.), and engine repair parts and tools. Additionally, in the training environment, a dedicated safety radio net should be established to provide a communications link between the safety boat and the exercise control ship.

The Hollywood ARG and Malibu MAGTF Team

The west coast operational commands responsible for Western Pacific ARG-MEU(SOC) deployments are Commander, Amphibious Group 3 (ComPhibGru-3) CG, 5th Marine Expeditionary Brigade (MEB). ComPhibGru-3 is the senior commander of all the amphibious squadrons that deploy from the west coast and, as such, is responsible for their predeployment workups and preparations. CG, 5th MEB is the senior commander of the 11th, 13th, and 15th MEUs, and is responsible for their training, testing, and SOC certification prior to deployment. CG, 5th MEB is also dual-hatted as the LFTCPac. These command relationships, unique to the west coast, are conducive to unity of command and therefore, unity of effort. The CG, 5th MEB/CG, LFTCPac has the deploying MAGTFs (the three MEUs) and a primary training command (LFTCPac) as his subordinates. His Navy counterpart, ComPhibGru-3, has all of the west coast amphibious squadrons and amphibious ships as his subordinates. Unity of command rests with these two flag officers; unity of effort rests with the fact that both have been assigned the necessary subordinate units with which to ensure it. The net result is an efficient, productive, and, above all, progressive organizational structure attentive to the unique operational requirements and training demands of the MAGTF(SOC) program.

Unresolved Issues

•*Amphibious Doctrine.* Although doctrine was addressed earlier in this article, the fact is that many Navy and Marine officers are uncomfortable with OTH operations in the context of traditional amphibious doctrine. This concern is not unjustified; launching a rifle company in raiding craft 20 miles out at sea in the middle of the night in Sea State 3 and not expecting to hear from them again until they are ashore and on the objective is a considerably different undertaking than amphibious operations of the past where the primary control officer stood on the wing of the bridge, had positive control of the landing via his guide boat, and watched, in broad daylight, the movement of landing craft ashore from 4,000 yards away. The *Doctrine for Amphibious Operations NWP 22B/LFM 01* was written for large-scale amphibious operations based on World War II and Korean War experience, long before OTH operations became a reality. There is no question that amphibious doctrine needs to be reviewed and updated in light of current operational needs and capabilities.

• *Logistics Support.* Because of the identified operational need and the urgency with which raiding craft were fielded, the in-system logistics base to support RRC/CRRC maintenance is not yet fully in place. Although there has been some progress in this area, maintenance of raiding craft depends mostly on the efforts of units using parts, tools, equipment, and mechanical training from commercial vendors.

• *Mindset.* Many observers, when learning about raiding craft operations for the first time, are quick to note the complexities, difficulties, and dangers and become skeptical of their feasibility. But the concerns of raiding craft commanders, as outlined in this article, are similar to the concerns faced by a helicopter commander in an amphibious operation. The fact is that all amphibious operations involve some degree of complexity, difficulty, and danger. Success is a matter of understanding the capabilities and limitations of the tools you are using and those factors that have an impact on your operations. The fact is that people get hurt doing things they are not trained to do; properly trained coxswains, navigators, scout swimmers, boat team members, and leaders can successfully conduct OTH night raiding craft operations and have done so routinely for the past two years. Raiding craft operations, like helicopter operations, require well-trained Marines and thorough operational planning. Together, their complementary capabilities—capabilities currently possessed by forward-deployed ARG-MEU(SOC)s—enable us to execute missions in accordance with the *MAGTF Master Plan's* first priority.

USMC