MCWP 3-35.4
***NWP 13 (Rev. A)**

Doctrine for Navy/ Marine Corps Joint Riverine Operations

U.S. Marine Corps

April 1987

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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

April 1987

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NWP 13: DOCTRINE FOR NAVY/MARINE CORPS JOINT RIVERINE OPERATIONS

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	Only: COMPHIBRON FIVE; COMPHIBRON ONE; COMPHIBRON SEVEN; COMPHIBRON THREE	1M
29A1	Guided Missile Cruiser LANT (CG)(CGN)	
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29A2	Guided Missile Cruiser PAC (CG)(CGN)	1M
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29BB2	Guided Missile Destroyer (DDG) 993 CLASS PAC	1M
31A2	Amphibious Command Ship PAC (LCC)	1M
31B2	Amphibious Cargo Ship PAC (LKA)	1M
31G1	Amphibious Transport Dock LANT (LPD)	
	Only: USS AUSTIN (LPD 4); USS NASHVILLE (LPD 13); USS RALEIGH (LPD 1); USS SHREVEPORT (LPD 12); USS TRENTON (LPD 14)	1
	Only: USS PONCE (LPD 15)	1M
31G2	Amphibious Transport Dock PAC (LPD)	1
31H1	Amphibious Assault Ship LANT (LHA), (LPH)	
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	Only: USS INCHON (LPH 12)	1
31H2	Amphibious Assault Ship PAC (LHA), (LPH)	
	Only: USS BELLEAU WOOD (LHA 3); USS PELELIU (LHA 5); USS TARAWA (LHA 1)	1M
	Only: USS NEW ORLEANS (LPH 11); USS OKINAWA (LPH 3); USS TRIPOLI (LPH 10)	1
31J2	Dock Landing Ship PAC (LSD)	1M
31M2	Tank Landing Ship PAC (LST)	
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32A1	Destroyer Tender LANT (AD)	1M
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39C2	Construction Regiment PAC	1
39I	Construction Battalion Maintenance Unit	1
40C	Reporting Officers	
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41A	Commander, MSC	1
41B	Area Commanders, MSC	

NWP 13: DOCTRINE FOR NAVY/MARINE CORPS JOINT RIVERINE OPERATIONS

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42S2	Air Test and Evaluation Squadron (VX) and Antarctic Development Squadron (VXE) PAC	
	Only: AIRTEVRON FIVE	1
42T1	Tactical Air Control Group and Squadron LANT (VTC)	1
42U1	Helicopter Combat Support Squadron LANT (HC)	
	Only: HELSUPPRON SIXTEEN	1
42W	Helicopter Mine Countermeasures Squadron (HM)	2
42DD2	Carrier Airborne Early Warning Squadron PAC (RVAW) (VAW)	
	Only: CARAEWRON ONE ONE ZERO	1
42HH1	Helicopter Attack Squadron, Light LANT (HAL)	1
42HH2	Helicopter Attack Squadron, Light PAC (HAL)	1
45A2	Marine Amphibious Force	
	Only: CG I MAF	1M
	Only: CG III MAF	2M
45B	Marine Division	
	Only: CG FOURTH MARDIV; CG THIRD MARDIV	1M
	Only: CG FIRST MARDIV	2M
	Only: CG SECOND MARDIV	2
45C1	Assault Amphibian Battalions	
	Only: SECOND ASLTPHIBBN; THIRD ASLTPHIBBN	1M
45C2	Tracked Vehicle Battalion	1M
45C4	Force Reconnaissance Company	1M
45D	Artillery Regiment and Group	
	Only: TWELFTHMAR	1M
	Only: ELEVENTHMAR	2M
	Only: TENTHMAR	3M
45E	Infantry Regiment	
	Only: FIFTHMAR; FIRSTMAR; SEVENTHMAR	1M
	Only: EIGHTHMAR; FOURTHMAR; NINTHMAR; SECONDMAR; SIXTHMAR; THIRDMAR; TWENTYSEVENTHMAR	2M
45G	Artillery and Gun Battalion and Battery	
	Only: FIRSTBNTWELFTHMAR	1M
	Only: FIFTHBNTENTHMAR; FIRSTBNELEVENTHMAR; FIRSTBNTENTHMAR; FOURTHBNTENTHMAR; SECONDBNELEVENTHMAR; SECONDBNTENTHMAR; SECONDBNTWELFTHMAR; THIRDBNELEVENTHMAR; THIRDBNTWELFTHMAR	2M
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45H	Engineer Battalion and Company	
	Only: CBTENGRBN FIRST MARDIV; CBTENGRBN SECOND MARDIV; CBTENGRBN THIRD MARDIV; EIGHTH ENGRSPTBN SECOND FSSG	1M
45J	Headquarters Battalion	
	Only: HQBNFIRSTMARDIV; HQBNTHIRDMARDIV	1M
45L1	Infantry and Reconnaissance Battalion	1M
45M	Medical Battalion and Logistic Company	
	Only: SECOND MEDBN SECOND FSSG	1M
45Q	Division and Service Support Group and Battalion	
	Only: HQSVCBN SECOND FSSG	1M
	Only: BSSG FIRST MAR BDE	3M
	Only: FIRST FSSG	5M
45R	Communication Battalion	
	Only: SEVENTHCOMMBN	1M
	Only: EIGHTHCOMMBN; NINTHCOMMBN	3M
45T	Air Naval Gunfire Liaison Company, FMF	
	Only: SECONDANGLICO	2M
45V	Brigade and Amphibious Unit	
	Only: CG FIFTH MAB; CG FIRST MAB	1
	Only: CG FOURTH MAB; TWO SIX MAU	1/1M
	Only: TWO TWO MAU	2M
	Only: CG NINTH MAB; CG SIXTH MAB	3M
45Y	Tank Battalion	1M
45FF	Radio Battalion	1M
46B	Aircraft Wing	
	Only: CG FIRST MAW	1
	Only: CG THIRD MAW	1M
	Only: CG SECOND MAW	3M
46C1	Aircraft Group	1M
46J	Air Control Squadron	
	Only: MACS TWO FOUR	1M
46K	Air Support Squadron	1M
46P1	Helicopter Squadron (HMX)	1M
46Q	Wing Support Group	
	Only: MWSG SEVENTEEN; MWSG THREE SEVEN	1M
50A	Unified Commands	
	Only: USCINCPAC; USCINCRED; USCINCSO	1
	Only: USCINCCENT	3
50B	Specified Commands	
	Only: CINCSAC	1
50C	Subordinate Unified Commands	
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51B	European NATO Commands	

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C84B	Naval Sea Systems Command Detachments	
	Only: NAVSEADET MORGANTOWN WV	1
E3A	Laboratory ONR	
	Only: NRL	1/1M
E3C	Ocean Research and Development Activity	1M
FA2	Fleet Intelligence Center EUR and LANT	1
FA5	Air Facility LANT	
	Only: NAF LAJES	1
FA6	Air Station LANT	
	Only: NAS BRUNSWICK	1M
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FA7	Station LANT	

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FA18	Amphibious Base LANT	2M
FA24	Base LANT	
	Only: COMNAVBASE NORFOLK	1
FA30	Weapons Training Facility	1
FB1	Fleet Intelligence Center Pacific	1M
FB6	Air Facility PAC	
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FB7	Air Station PAC	
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FB21	Amphibious Base PAC	2
FB34	Fleet Activities	
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FC7	Station NAVEUR	1
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FKQ6B	Coastal Systems Engineering	1M
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FR3	Air Station COMNAVRESFOR	

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FR11	Reserve Facility	
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FR15	Support Activity COMNAVRESFOR	1
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FS3	Intelligence Support Center	1M
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FT97	Navy and Marine Corps Intelligence Training Center	3
MISC	Miscellaneous Addresses	
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V16	Marine Corps Base	
	Only: CG MCB CAMP LEJEUNE	2M
	Only: CG MCB CAMP PENDLETON	6M
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	Only: MACG FOUR EIGHT; MAG FOUR ONE; MAG FOUR SIX; MAG FOUR TWO DET B	1M
V23	Marine Corps Logistics Base	
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V25	Marine Corps Air-Ground Combat Center	
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Note: The "M" in the copies column indicates microfiche copies.

April 1987

Errata, Oct 87

PUBLICATION NOTICE

ROUTING

1. ~~Change 3 to~~ 9 NWP 13 (Rev. A)/FMFM 7-5, DOCTRINE FOR NAVY/MARINE CORPS JOINT RIVERINE OPERATIONS, is available in the Naval Warfare Publications Library.

2. This revision reflects changes in terminology and clarification of phrasing throughout the entire publication. It intends to keep current the information on the status of various ships, aircraft, and tactics employed in special warfare operations.

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Note to Naval Warfare Publications Custodian

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October 1987

ERRATUM TO NWP 13 (Rev. A)/FMFM 7-5

This Erratum is issued to correct an error in NWP 13 (Rev. A)/FMFM 7-5, DOCTRINE FOR NAVY/MARINE CORPS JOINT RIVERINE OPERATIONS.

Page	Correction
15	Line 1, delete "Change 3 to".

Record entry of this Erratum on Page 27. In the first column, identify this Erratum as "Err, Oct 1987".

After entry of this Erratum, destroy this page without report.

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PREFACE

PURPOSE

The purpose of this publication is to set forth the doctrine covering the planning for and conduct of all Navy and Marine Corps joint riverine operations.

This publication contains basic doctrine covering the concepts, command and organization for riverine operations, and other matters required for planning and executing riverine operations. In its entirety, this publication provides the agreed doctrine and procedures for use by the Navy and Marine Corps.

Although it applies in varying degrees to operations conducted in limited and general war in a riverine environment, this publication is principally directed toward the conduct of operations short of limited war (such as counterguerilla operations).

Throughout this publication, references to other publications imply the effective edition.

BASIS

This publication has been developed by the Navy and Marine Corps in accordance with statutory responsibilities for development of doctrine and procedures as established by the Unified Action Armed Forces (UNAAF) and assigned to individual services by the Function Paper.

SCOPE

The doctrine set forth herein applies only to riverine operations from the inception of planning to the termination of operations, in terms designed to be suitable for the guidance of the Navy and Marine Corps in riverine operations. Since the tasks to be performed in any riverine operation are functionally the same, this doctrine is applicable to all riverine operations. However, it is recognized that in unusual circumstances the unified/joint commander may determine that variations are required.

COMMAND AND ORGANIZATION

Forces assigned to conduct riverine operations are organized as a mobile riverine force (MRF). When criteria for a joint task force are met (Chapter 3, Section 2, Subsection 5, UNAAF), the mobile riverine force will be so designated. Although Navy and Marine Corps amphibious operations do not require formation of a joint task force, riverine operations are unique, separate, and distinct from amphibious operations. Accordingly, Navy and Marine Corps riverine operations are considered to be joint operations and the MRF to be a joint task force within the definition contained in paragraph 30251 of UNAAF. The provisions of Chapter 3, Section 2, Subsection 2, UNAAF apply.

Throughout this publication, where the term "mobile riverine force (MRF)" or "mobile riverine force commander" is used, it applies equally to Navy and Marine Corps riverine operations. Other forces may be attached or directed to provide support to the MRF (Chapter 3, Section 2, Subsection 6 and 7, UNAAF).

In accordance with UNAAF, the composition of the staff of the mobile riverine force commander will reflect the organizational form of his assigned forces. In addition, appropriate consideration will be given to other forces which may be attached or directed to provide support.

RELATIONSHIP WITH OTHER COMMANDS

The MRF is organized as a subordinate command within the unified command structure. Establishment of intervening commands between the MRF and the unified command may be required when the riverine operation is one of several related operations, and the unified command structure is not suitable for direct control of all forces participating therein. However, the mobile riverine force commander will retain responsibility for, and operational control of, forces assigned to the MRF.

Relationships of the mobile riverine task force commander with other commands will be the subject of specific instructions for each operation in accordance with general principles set forth in UNAAF. In the case of a combined command, similar instructions will be required.

AIRSPACE CONTROL

Airspace control must provide for each Service component within a joint force to operate vehicles or weapons systems within the airspace over the combat zone in the performance of its assigned missions. Therefore, airspace control as set forth in this publication denotes a service provided in order to permit flexibility of actions, and does not include measures to approve, disapprove, deny, or delay air operations. It is further defined as the coordination, integration, and regulation of the use of an airspace of defined proportions which will include the riverine objective area. In this context, coordination is considered as that degree of authority necessary to achieve effective, efficient, and flexible use of airspace without at the same time providing command authority. Integration considers the necessity to consolidate requirements for the use of this airspace in the interest of achieving a common objective at the lowest possible level of effort. Regulation indicates the requirement to supervise activities in this airspace to provide for flight safety, and connotes the authority required to ensure such safety.

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PART I

Concept, Command, and Organization

CHAPTER 1

Concept

1.1 CONCEPT OF RIVERINE OPERATIONS

Riverine operations in full concept integrate and employ various types of ships, craft, aircraft, weapons, and Marine Corps and naval special warfare forces in a concerted effort to achieve and/or maintain control of a riverine, coastal, or delta areas. Riverine operations will be conducted under the command of a single mobile riverine force commander as joint or uni-service operations designed to accomplish the objectives of a riverine campaign.

The riverine area is an inland, coastal, or delta area comprising both land and water, characterized by limited land lines of communication (LOCs), with extensive water surface and/or inland waterways that provide natural routes for surface transportation and communications. Where navigable waterways exist and roads do not, or where forces are required to use waterways, an effective program to control the waterways and/or interdict hostile movement becomes a decisive factor. The riverine area requires unique capabilities and tactics to achieve success against hostile forces.

The primary advantage of a mobile riverine force (MRF) is its ability to concentrate a mix of forces effective for operations in the riverine area, including the ability to attack selected targets throughout the riverine area. Riverine operations exploit the advantages of the waterways for movement, capitalizing on mobility to find, fix, and destroy hostile forces. Surface mobility is achieved primarily by specialized riverine craft maintaining control of water lines of communication and providing transportation and combat support to Marine Corps and naval special warfare forces.

Because of the inherent waterborne mobility of a riverine force, and the continuing need for its capabilities throughout the conduct of riverine operations, it is appropriate to use these forces in their primary riverine role, rather than diverting them to a role of maintaining territorial control beyond the limits of a riverine area. However, riverine forces can contribute to wide area territorial control by performing the riverine operations set forth in paragraph 1.1.4 in support of other forces.

Environmental factors which can affect the composition and employment of the MRF may include:

1. Shallow water
2. Large tidal range
3. Currents
4. Narrow waterways
5. Natural or man-made obstacles
6. Bridges
7. Lack of suitable areas for Marine Corps force maneuver, staging, and/or resupply.
8. Concentrations of population (friendly, hostile, or neutral) along the waterways.

Riverine operations are operations conducted by forces organized to cope with and exploit the unique characteristics of a riverine area, to locate and destroy hostile forces, and/or to achieve or maintain control of the riverine area. Joint riverine operations combine land, naval, and air operations, as appropriate, and are suited to the nature of the specific riverine area in which operations are to be conducted.

1.1.1 Definition and Characteristics. Riverine operations are conducted in a riverine area to achieve and/or maintain control of a waterway system and its adjoining land areas,

or to deny their use to the enemy. They include operations conducted on, across, along, or emanating from a waterway system They combine the characteristics of ground, naval, and air operations which require the employment of tactics, techniques, organization, and equipment particularly adapted to the nature of the riverine area.

Riverine operations may be conducted in an area where political or security considerations prohibit or make undesirable a lodgement of U.S. forces ashore and establishment of base support areas. Control of waterway systems must then be achieved from afloat bases with logistic and operational support being provided from Navy sources.

Under these conditions, the MRF would normally be introduced into the riverine area by amphibious shipping.

Riverine operations are separate and distinct from amphibious operations even though common techniques may be employed. However, the riverine operations may be initiated by or adjunctive to amphibious operations.

1.1.2 Purpose. There are many varieties of riverine operations. The principle ones will be described in subsequent chapters. In general, riverine operations are conducted to:

1. Establish and maintain control of riverine lines of communications

2. Deny, by interdiction, barrier, or surveillance operations, use of riverine LOCs by hostile forces

3. Locate and destroy hostile forces, bases, and supplies contained within a riverine area.

1.1.3 Scope. The entire riverine campaign may include:

1. Intelligence collection

2. Planning

3. Embarkation of troops and equipment

4. Patrol/barrier and interdiction and surveillance operations

5. Riverine assault operations

6. Naval riverine close fire support

7. Close air support

8. Naval gunfire or firebase support

9. Repositioning of forces

10. Resupply of the riverine force until termination of the campaign

11. PSYOP/civic action programs

12. Re-embarkation/withdrawal.

A riverine campaign may include helicopterborne operations conducted by elements of the MRF, or helicopterborne, airborne, and ground operations conducted by other forces in conjunction with mobile riverine force operations.

1.1.4 Types of Riverine Operations. The mobile riverine force conducts operations in areas where local response may range from hostile action to friendly welcome. The two general types of operations which may be conducted are:

1.1.4.1 Assault. These operations employ Navy and Marine Corps forces to achieve one or more of the following objectives:

1. Establish control of water lines of a geographical area which includes water lines of communication

2. Establish control of land areas and/or population and resources

3. Locate and destroy hostile forces, installations, and supplies

4. Establish and secure an area for a combat support base, as required.

1.1.4.2 Surveillance, Interdiction, and Security. These operations employ Marine Corps and Navy forces to achieve one or more of the following objectives:

1. Protect friendly lines of communication

2. Deny hostile forces the use of waterways

3. Collect intelligence information

4. Perform security missions

5. Enforce population and resources control.

1.1.5 Supporting Operations. Operations in support of the MRF may be required. Although these supporting operations normally will be at the request of the riverine force commander, they will be directed by higher authority, and may be conducted in or outside the MRF area of operations. The commander of forces conducting supporting operations will coordinate with the riverine force commander. Examples of supporting operations are:

1. Feints or demonstrations intended for purposes of deception

2. Isolation of the area of operation by interdiction of enemy forces

3. Operations to assist the gaining or maintenance of air, ground, or naval supremacy

4. Air, surface, or special operations to secure information

5. Psychological and unconventional warfare operations.

Operations conducted by elements of the mobile riverine force in the riverine area (or en route to an objective area) prior to the arrival of riverine assault forces are considered pre-assault operations rather than supporting operations. Examples of such operations are waterway patrol and interdiction, mine countermeasures, obstruction clearance, and swimmer detection and defense.

1.1.6 Composition of Force. The composition of the force will be determined by the assigned mission, the unique characteristics of the particular riverine area of operations, and enemy capabilities.

1.1.6.1 The Marine Corps Force. This is a task organization designed to exploit the combat power inherent in closely integrated air and ground operations. It provides a balance of combat, support, combat service support, and command and control elements. A reinforced infantry battalion with air support is the smallest Marine Corps force that can be effectively employed in most riverine operations. Normally, a Marine air ground task force is formed. See paragraph 2.3.2.

1.1.6.2 The Navy Force. The Navy force provides an afloat base of operations, combat and combat service support, and surface mobility. A mobile riverine base element, one riverine operations squadron (including lift for a reinforced infantry battalion), naval special warfare forces, and Navy aviation units or support as appropriate are normally the minimum forces. In addition to these forces, Navy forces will normally be required for support and logistic functions.

1.1.7 Employment. The MRF deploys to an area in which a riverine campaign/operation is to be conducted; a base of operations is established, either afloat or ashore, and base security is provided; waterway interdiction, barrier, and surveillance operations (surface and air) are initiated to gain control of the waterway lines of communications; riverine assault operations are conducted to destroy enemy troops, bases, and supplies.

The riverine assault operation follows a pattern. It includes a sequence of events or activities which consists of continuous intelligence collection, planning, tactical loading, movement to the area of operation, landing of troops and equipment, attack, and withdrawal.

The waterway interdiction, barrier, and surveillance operation includes a sequence of events or activities which consists of planning, movement to the area of operations, patrol and/or surveillance operations, and return to the base of operation.

Providing base security and conducting riverine waterway interdiction and surveillance are continuous operations. Riverine assault operations are conducted successively and are normally of short duration against specific objectives.

1.1.8 Termination of Riverine Operations. Riverine operations are terminated by the establishing authority upon accomplishment of the assigned mission.

CHAPTER 2

Command and Organization

2.1 COMMAND CONSIDERATIONS

Mobile riverine force operations may be conducted to defeat or destroy an enemy force, secure control of a waterway system or deny its use by the enemy, secure control of the land area and population in a riverine area, or any combination of these missions. Such operations may originate from amphibious assault forces, afloat bases, land bases, or a combination of bases. If operations are conducted as unilateral naval operations, command will be in accordance with naval regulations and applicable doctrine.

When an amphibious operation is conducted for the purpose of establishing a riverine force in an objective area, or when riverine operations are conducted as an adjunct to an amphibious operation, provisions may be made in the initiating directive for creation of a mobile riverine force as a subordinate element of the amphibious task force at the time that riverine operations are initiated. The command relationships of NWP 22/LFM 01 will apply within the amphibious task force until termination of the amphibious operation, except that the command relationships of NWP 13/FMFM 8-4 will apply within the mobile riverine force.

The missions with which a mobile riverine force is tasked may involve denial of the use of a waterway system to the enemy, the establishment and maintenance of control over lines of communication within the riverine areas or land areas adjacent to the riverine area, or the location and destruction of enemy forces, supplies, and equipment. These various possible missions, forces involved, operational bases, and support requirements unique to the riverine area make such operations complex.

The unified/specified commander or his appropriate subordinate commander having overall responsibility for the operation must consider all of the foregoing and designate the most qualified naval officer as mobile riverine force commander. Special consideration must be given not only to the mission but to all aspects pertaining to the composition of the force and its relationship to other pertinent forces. The unified/specified commander must consequently establish the necessary chain of command among all forces involved.

If the mission is to deny the use of a waterway system to the enemy or to establish and maintain control of lines of communication within the riverine area, with the preponderance of forces and support provided by the Navy component, the mobile riverine force commander normally will be a Navy officer.

If the mission is to establish and maintain control of lines of communication and land areas within the riverine area and to locate and destroy enemy forces, supplies, and equipment, with the preponderance of combat forces and combat support provided by the Marine Corps forces, the mobile riverine force commander normally will be a Marine Corps officer.

If the mission is to establish and maintain control of lines of communication and the land areas within the riverine area and to locate and destroy enemy forces, equipment, and supplies, with the Marine Corps force providing the preponderance of forces, but with primary support, other than logistic, provided by the afloat Navy component, the mobile riverine force commander may be either a Navy officer or a Marine Corps officer.

2.2 THE INITIATING DIRECTIVE FOR A RIVERINE CAMPAIGN/OPERATION

The initiating directive is an order, issued by the commander having overall responsibility for the operation, which directs the mobile riverine force commander to conduct riverine operations. The initiating directive may be a

campaign plan, an operation plan or order, a letter of instruction, or an order to execute an already existing plan or order.

The initiating directive:

1. Establishes the MRF, and assigns its mission and forces.

2. Designates the mobile riverine force commander, the riverine Marine Corps force commander, the riverine Navy force commander, and other commanders as appropriate. Should Air Force units be assigned, their commander, an Air Force officer, will be designated.

3. Provides any necessary special instructions on command relationships including those with other friendly forces.

4. Defines the area of operations in terms of waterways, land, and airspace. The size of the area must be sufficient to ensure accomplishment of the MRF mission.

5. Provides a nickname/code word and sets target dates for execution of the operation/campaign.

6. Contains any special instructions about the employment, allocation, and control of nuclear and chemical weapons.

7. Provides instructions governing termination of the operation/campaign and, if feasible, command arrangements and disposition of forces to be effected at that time.

8. Provides information concerning operations to be conducted after termination of the riverine operation/campaign.

9. Provides information or assigns responsiblity for the conduct and coordination of combat, logistic, intelligence, or special operations related to or in support of the riverine operation/campaign.

10. Contains special instructions as required, pertaining to communications-electronics instructions.

11. Provides special instructions for rules of engagement.

12. Provides instructions in the conduct of combined operations with indigenous military and/or paramilitary forces.

13. Provides instructions on civil-military operations.

2.3 RIVERINE FORCE ORGANIZATION

The considerations that govern task organization of force for any combat operation apply to riverine operations. However, the organization for riverine operations reflects the interrelationship at every level between the tasks of the Navy and Marine Corps. This relationship dictates that special emphasis be given to task grouping, economy of forces, and parallelism of command.

The organization of riverine forces depends upon the mission, size and composition of forces, and the logisitical support required. The objective in organizing for riverine operations is the formation of a fully integrated ground, sea, air, and river force specifically tailored to provide the necessary mobility, unity of command, air superiority, and fire superiority.

The task organization formed to conduct riverine operations includes a Navy component and a Marine Corps component, each of which may have organic or supporting aviation, and may include an Air Force component.

2.3.1 Naval Forces. In general naval riverine forces are divided into three categories: those with afloat base or shore base support functions; those for naval special warfare operations; and those involved in transport, escort, reconnaissance, strike, and air and fire support. It should be kept in mind that assets of one category may have roles in other categories. Forces may include, but are not limited to, the following:

1. Ships, smaller afloat craft, and platforms to berth and/or lift troops and cargo

2. Small craft repair shifts (none in inventory)

3. Mine countermeasures ships, craft, and helicopters

4. Fire support ships and craft

5. Command and control elements

6. Rover, strike, patrol, and interdiction craft

7. Assault aircraft, both rotary and fixed wing

8. River salvage craft (none in inventory)

9. Tugs and barges

10. Refueler craft (none in inventory)

11. Medical support craft (none in inventory)

12. High-speed reconnaissance craft

13. Naval special warfare units such as SEAL teams, SDV platoons, and special boat units.

A typical river assault/patrol group would normally consist of:

1. Command, control, and communications element

2. Craft capable of lifting troops and supplies

3. Mine countermeasures craft

4. Fire support craft

5. Escort craft.

2.3.2 Marine Corps Forces. The Marine Corps forces required for riverine operations are task organized to conduct combat operations and perform combat support and combat service support tasks. Normally, a Marine Air-Ground Task Forces will be formed to include:

1. A command element

2. A ground combat element

3. An aviation combat element

4. A combat service support element.

2.3.3 Parallel Chains of Command. The relationship between Navy and Marine Corps force tasks during planning requires establishment of parallel chains of command at all levels of the mobile riverine force organization.

The Navy and Marine Corps force commands are on a corresponding level of command with regard to their respective components. Matters of command which affect only the Navy forces or only the Marine Corps forces are dealt with by the respective chain of command.

Commanders at all levels must maintain close and continuous coordination. Whenever possible, parallel Navy and Marine Corps headquarters should be collocated to facilitate integration of planning efforts and rapid interchange of information.

2.3.4 Command During Operations. The mobile riverine force commander is responsible for the operation and exercises operational control of the entire force until the termination of the operation. If only a segment of his force is required to accomplish an assigned mission, he may form subordinate task organizations. If the MRF commander will not be on the scene to control the operations, he will designate a subordinate task force commander. This task force commander will exercise operational control of participating Navy and Marine Corps forces as long as that task force is in effect.

To ensure that tactical decisions can be made rapidly, the command of forces at the tactical level will be clearly established in force SOPs or individual operation orders. This identification of command authority will include designation of the individual/billet responsible for making basic tactical decisions concerning reaction to unexpected hostile fire, that is, whether or not to land combat forces,

employment of support forces, and use of supporting arms. The decision to land forces will be made by the individual responsible for the accomplishment of the assigned mission. At the tactical level, this commander may or may not reflect the assignment policy set forth in paragraph 2.1. Once the decision is made to land forces, however, the command and control of operations in support of that landing must be vested in the commander of the force that is landed.

PART II

Planning

CHAPTER 3

Approach to Planning

3.1 THE SCOPE OF PLANNING

The scope of a particular riverine campaign or operation will determine the magnitude and complexity of planning. Part II contains planning information of a general nature, applying equally to the riverine campaign or a single riverine operation.

Detailed information specifically applicable to operational phases of riverine operations which affect planning is found in Part III.

3.1.1 Basic Considerations. Planning for riverine operations is a continuous process from receipt of the initiating directive to termination of the operation. It necessitates concurrent, parallel, and detailed planning by all participating forces. Plans must be detailed enough to give all participants complete information, while at the same time being simple and flexible enough so they can be modified as the tactical situation changes.

Although, in actual combat, safety may not be paramount, it still is a vital consideration. Safety is essentially the preservation of resources. "Accidents" occurring in the course of combat operations reduce the effectiveness of the overall effort. Therefore, as much as possible, safety shall be a prime consideration in the planning and execution of riverine operations. During exercise/rehearsals, safety shall be paramount, and appropriate consideration shall be given to the accomplishment of the mission without incurring unnecessary losses of men and/or equipment.

Plans for a riverine operation will be based on the mission, forces available, and intelligence concerning the hostile force, terrain, and weather.

The assigned mission must be analyzed to identify specific tasks and develop a coordinated plan for the accomplishment of each task. The concept of operations must be such that the operation can be supported by the forces available and, therefore, must be examined by all commanders concerned to determine its feasibility in this respect. The concept must be promulgated by the mobile riverine force commander early in the planning phase to facilitate detailed planning.

Enemy capabilities and limitations and his modes of operation must be estimated. Information on the enemy order of battle must be updated and refined during the planning phase of the operation.

Weather, terrain, and hydrography take on more importance in riverine operations than in conventional land and sea operations. Under some circumstances they may be controlling factors in any concept of operations. Consequently, thorough knowledge and consideration of the environment assume great importance in planning riverine operations. Because of the problems associated with position location and orientation in various environments, consideration should be given to the use of a gridded aerial mosaic to supplement topographic maps.

Mine countermeasures and obstruction removal are critical considerations when planning for riverine operations.

Plans for countering an ambush will depend upon whether the MRF is to force passage through the ambush, or to land and destroy the ambushing force. If the mission of the mobile riverine force specifies the destruction of ambushing forces encountered en route, plans for landing Marine Corps force elements will be required.

Logistics plans should include equipment, levels of supplies to be embarked, resupply, and evacuation instructions. In general, embarked Marines should be equipped for highly mobile

operations. The remaining supplies and equipment should remain with the MRF consistent with their resupply capability. Detailed logistics planning is covered in Chapter 8.

Supporting arms plans will be developed in consonance with the scheme of maneuver. Detailed supporting arms planning is covered in Chapter 5.

Civil affairs/civic action plans must be developed in coordination with the local government.

Rules of engagement should include comprehensive regulations on search, seizure, or destruction of indigenous property, and the conditions under which fires may be directed against hostile forces or inhabited areas. Procedures for the handling of detainees/suspects and POWs should be delineated.

If forces assigned have not had previous experience or training in riverine operations, plans should provide for training of commanders and staffs in the peculiarities of riverine operations. Such training should include joint training, if feasible, and should include training in control and coordination of assault craft gunfire.

Communications plans will be developed in consonance with the concept of operations.

3.2 CONCURRENT PLANNING

Concurrent planning at each echelon of command is mandatory during the development of a riverine operations plan. To expedite the preparation of plans within the mobile riverine force, all major commanders, particularly the Navy and Marine Corps force commanders, should be designated as soon as the decision has been reached to conduct a riverine campaign or operation. Early and efficient assembly of assault craft, support craft, ships, aircraft, and other resources necessary to the operation is dependent on expeditious and thorough concurrent planning. Initial planning must be originated by subordinate commanders on the basis of preliminary information provided in concepts of operations, outline plans, warning orders, planning memoranda, and decisions emanating from higher authority. Final plans and decisions of senior commanders are often influenced by the recommendations and estimates of subordinate commanders produced during preliminary planning.

3.3 PLANNING BY PARALLEL CHAINS OF COMMAND

The concurrent participation by Navy and Marine Corps forces requires coordinated planning between corresponding echelons of command. Basic decisions, even those primarily within the sphere of responsibility of an individual commander, must be reached on the basis of command understanding of mission, objectives, tactics, capabilities, and limitations. A close and continuing relationship in planning is essential at all levels of command. At the higher command levels, parallel planning commences with the inception of the campaign or operation. At the lower levels, it usually begins on receipt of an initiating directive and continues for successive operations until termination of the campaign. Commanders other than those assigned to the MRF may be ordered to report to the mobile riverine force commander for planning and coordination of supporting operations.

3.3.1 Detailed Planning. The nature of a riverine campaign and riverine operations necessitates detailed planning by all command levels. Complete plans must be made for movement, base support and logistics, and operations to be conducted, including air support. Specific attention should be directed to the water movement and assault, to include close integration and optimum employment of assault craft with the Marine Corps unit scheme of maneuver and correlation with helicopter assault planning when appropriate.

3.3.2 Collection and Dissemination of Intelligence. Current adequate intelligence is a prerequisite to sound planning; therefore, prompt collection of essential information is necessary for timely development of plans. Collection of the extensive, detailed information needed for planning is complicated by the following factors:

1. The objective area may be relatively inaccessible because of location and/or enemy defense

2. The force may not be in contact with the enemy.

3. Many available collection agencies are not part of the mobile riverine force.

4. The necessity to avoid revealing future operations may require dispersion of effort by collecting agencies.

5. Sufficient time may lapse between the start of planning and execution of the operation to allow the enemy situation and characteristics of the area to change significantly.

Specific provisions must be made to ensure that timely, accurate intelligence is disseminated by the most rapid means available.

3.3.3 Security. Security of planning is the responsibility of all echelons of command. The assembly of staffs and concentration of forces tend to disclose the nature of projected operations, making concealment difficult. Special attention must be given to operations security.

3.4 PLANNING PROCEDURES

In planning, decisions by a commander at one level may affect the plans of other commanders on the same or other levels. To keep all commanders and staffs informed during the planning phase, there must be early and continuous dissemination of planning data by each commander to his senior, subordinate, and corresponding echelon commanders. Early exchange of liaison officers is most desirable.

The basic documents employed in planning for a riverine operation are set forth in the following paragraphs.

1. Planning directive — Following receipt of the initiating directive, the force commander issues a planning directive to ensure that interdependent plans will be coordinated, completed in the time allowed, and important aspects not overlooked. The planning directive specifies the principal plans to be prepared. It also establishes time limits for the completion of each major step in the planning process for the force headquarters and major forces assigned. The planning directive contains the commander's analysis of the overall mission, previous decisions about related operations, relevant assumptions, and the necessity for alternate plans.

2. Planning schedule — Using the planning directive as a guide, each commander prepares a schedule of planning events for his force.

3. Planning memoranda — As additional information, guidance, and instructions are received, and in advance of the preparation of formal plans, commanders may issue planning memoranda to ensure subordinate commanders are informed of all available details which will affect their planning.

3.4.1 Planning for Continuing Operations. Planning for continuing operations in support of a riverine campaign will follow the basic steps outlined herein; however, once standard operating procedures have been established, planning is normally abbreviated and less formal in context, and may use the technique of fragmentary orders.

3.4.2 Distribution of Drafts. Drafts of operation plans and orders, or portions thereof (such as annexes and appendixes) should be distributed to other commanders, as appropriate, to keep them abreast of current planning for the operation.

3.5 BASIC DECISIONS

Basic decisions must be made at the highest level within a mobile riverine force before detailed planning for a riverine campaign or operation can proceed. Since the factors upon which these decisions must be based are interrelated, and since the decisions will have some effect on every element of the MRF, each factor must be considered from the viewpoint of all participants. This section deals with these basic decisions, delineates the participation of various

commanders in making them, and sets forth considerations affecting them.

3.5.1 Determination of Mission Objective and Area of Operations. The initiating directive will normally specify the area of operations and the mission. Analysis of these, together with available intelligence of the area and hostile forces, will permit determination of the objectives. Based on this analysis, the mobile riverine force commander must select a general course of action to accomplish his mission. Once a general course of action has been developed, missions of component commands are defined and detailed concurrent planning can begin. The missions and objectives developed in the riverine campaign plan form the basis for determination of the mission and objectives of individual riverine operations.

If the mission assigned the MRF by the initiating directive does not include a clear designation of the area or areas to be controlled, the mobile riverine force commander will select these areas to best accomplish the assigned mission.

For each operation of a riverine campaign, the mobile riverine force commander may further subdivide the area of operations. These areas should be large enough to include land areas and waterways necessary for maneuver and support of the force, and the reconnaissance and surveillance needed for target acquisition and security. Primary consideration is given to terrain and hydrography and the enemy combat power and mode of operations.

3.5.2 Concept of Operations

3.5.2.1 Scope. The concept of operations embodies the scheme of maneuver and plan of supporting fires. It includes:

1. Allocation of forces
2. Formations to be employed
3. Routes to be followed
4. Landing areas
5. Subsequent maneuver
6. Objectives
7. Tactical control measures
8. Plan of supporting fires (surface and air)
9. Alternate or contingency plans.

3.5.2.2 Principal Considerations. Principal considerations in the formulation of the concept of operations are:

1. Mission
2. Terrain and hydrography
3. Enemy capabilities/limitations
4. Forces available
5. Fire support available
6. Nature and extent of landing areas, helicopter landing zones, and terrain suitable for fire support bases
7. Logistic supportability.

3.5.3 Task Organization. The mobile riverine force command must allocate sufficient forces to accomplish the mission, and component commanders must task organize these forces to support the concept of operations.

Task organization must provide parallel command echelons within both the Navy and Marine Corps components to facilitate parallel planning. It must also provide a suitable command structure for control and coordination of maneuver, fire support, and air support.

3.5.4 Selection of River Landing Areas and River Landing Sites. A river landing area includes a segment of river bank or similar features along a waterway over which troops, supplies, or equipment can be landed by watercraft. A river landing area contains one or more river landing sites, within which are contained one or more points at which individual craft land and disembark troop units.

Whenever possible, river landing areas are selected to avoid opposition and facilitate the rapid and orderly debarkation of ground combat units. Primary considerations in the selection of river landing areas are:

1. Scheme of maneuver

2. Enemy situation

3. Hydrography

4. Obstacles

5. Terrain/river bank.

3.5.5 Selection of Waterway Routes. The primary consideration in selection of waterway routes between the mobile riverine base and the selected landing areas are:

1. Hydrography

2. Enemy capabilities

3. Capabilities to support primary and alternate plans

4. Terrain/bank characteristics.

If not prescribed by the mobile riverine force commander, waterway routes are selected by the Navy component commander, in coordination with the Marine Corps component commander.

3.5.6 Selection of Helicopter Landing Zones. The primary considerations in selection of helicopter landing zones are:

1. The concept of operations.

2. Enemy capabilities and dispositions, and known counterhelicopter tactics.

3. Friendly capabilities to suppress enemy air defense and to provide air, artillery, and naval gunfire support for ground operations.

4. Ease of identification from the air.

5. Firm dry ground suitable for landing helicopters. This frequently may not be available. Accurate data on the depth of water in inundated landing zones and the location of minor waterways within the landing zones are essential to prevent unnecessary loss of life and inordinate delay in troop reorganization upon landing when it becomes necessary to land by jumping from hovering helicopters.

6. Adequate obstacle clearance for approach and departure routes.

7. Helicopter landing zones shall be approved by the commander on the scene through liaison with the supporting helicopter unit as appropriate.

8. Potential for deployment of combat service support area.

3.5.7 Selection of Base Sites

3.5.7.1 Criteria. Riverine base sites must contribute to accomplishment of the mission and meet the following criteria:

1. Be within an area which can be defended by available forces without jeopardizing offensive capabilities of the MRF.

2. Provide for mooring assigned ships and craft and, when necessary, sufficient area and facilities to accommodate forces ashore.

3. Be within operational and communication range of deployed elements of the MRF and facilitate their logistic support.

4. Potential for deployment of combat service support area.

3.5.7.2 Other Considerations

1. If the Navy mobile riverine base element does not include a helicopter landing capability, it may be desirable to locate the afloat base adjoining a land area suitable for staging and loading helicopters.

2. Defense plans should permit rapid establishment of defense on land and along the waterways.

3 Mine countermeasures and swimmer defense must be provided for.

4. The area should be thoroughly reconnoitered.

5. The location of the afloat base of operations should permit safe passage of other waterway traffic.

3.5.8 Selecting Tentative Operating Dates and H-Hours

3.5.8.1 The Mobile Riverine Force Commander. He selects the tentative operating dates and H-hours. During planning, tentative operating dates for operations are based on:

1. Availability of forces

2. Readiness of forces

3. Present and projected enemy situation

4. Seasonal conditions in the area of operation, if applicable

5. Local conditions of weather, tide, current, and phase of the moon

6. Directives of higher headquarters

7. Requirement to coordinate with other friendly forces.

3.5.8.2 Principal Factors. The principal factors in selection of tentative H-hours are:

1. Known enemy routine

2. Duration of daylight

3. Need for tactical surprise

4. Concept of operations

5. Favorable conditions of wind, current, tide, and phase of the moon

6. Requirement to conduct certain operations or movements during hours of darkness

7. Most effective employment of supporting arms.

3.6 REHEARSALS

Rehearsals are designed to test command structures, communications, fire support, and information flow, and also serve to familiarize commanders, staffs, and participating forces with these key elements of plans. The complex interdependence of Navy and Marine forces in riverine assault operations makes rehearsal essential if the forces involved have not previously operated together in riverine operations.

Rehearsals may take the form of maneuvers, command post exercises, or communications exercises.

Early in the planning phase, a decision must be made whether to conduct a rehearsal. If a full scale maneuver is not feasible, at least a rehearsal of Navy/Marine Corps communication plans, fire support procedures, and information flow should be conducted.

3.7 OPERATIONS SECURITY

Operations security (OPSEC) is the state of being protected in all phases of operations. This protected state is achieved through those measures taken to ensure that the enemy is denied advance knowledge or forewarning of military operations. Operations security measures cover a spectrum ranging from routine protection of classified material through protection of classified information and including the avoidance of those operational practices which could result in an alert and intelligent enemy acquiring information on future intentions through observation of past or current actions.

3.7.1 General OPSEC Responsibility. Responsibility for operational security must begin with the individual. Everyone in the military is charged with the responsibility of protecting information, whether classified or unclassified, which could be of value to an enemy. This responsibility is perpetual and unrelated to the existence or nonexistence of a state of war.

Allied forces, combating a common enemy, are also charged with the responsibility of protecting information which is classified by an ally or which, if compromised, could be damaging to an ally.

It is particularly important that information, whether classified or unclassified, which could provide forewarning to an enemy, be protected.

3.7.2 OPSEC During Planning. An operation may require extensive planning if it is a large-scale, long-term operation, whereas smaller operations will require much less planning and preparation. In this latter case, the operation plan or order may be a short brief which provides all the required information for the participating forces. Obviously, the longer the time period from conception to execution of an operation, the greater the chances are that the enemy will learn of the plans. The key to effective OPSEC at this stage is "need to know."

3.7.3 Security During Operational Preparation. When it is necessary to move forces or materials prior to the start of an operation, the move must be accomplished in such a manner as to prevent the enemy from observing the move or from determining that unusual activities are taking place. Several options are available to the commander. He may make his logistic moves far in advance of the operation with some dead time prior to the actual operation, thus allowing time for decreased enemy interest in the activity. He may wish to make his move just prior to the operation in one large increment, rapidly delivered as the operation commences. Another option, which may be used alone or with the other options, is to develop a deception plan which will mislead the enemy in their determinations concerning impending operations. The deception plan should be developed as early as possible in planning by the highest echelon so that all subordinate commands and elements may lend support to it in their plans and with their actions.

3.7.4 Security During Operations. Once an operation has begun, the operational commander must direct his attention toward an operational view of OPSEC. Operational and unit commanders are continually faced with conflicts between operational security and operational necessity. Further, the operational commander must make a continual analysis of his operation to determine whether the security of his operation is being jeopardized by the tactics being employed.

In continuing operations, where it appears that the enemy is more knowledgeable than he should be and has been able to effectively elude friendly forces, the operational commander should have an operation security survey made of his area of operations (AO). An OPSEC survey is a study of the AO by a team of individuals from the operations, communication, and intelligence section of staffs, augmented by the commander's staff. They must have some familiarity with the AO, but detailed knowledge is not generally required.

The team monitors activities and communications in the AO and determines possible operational patterns that could be used by the enemy to counter friendly force operations.

Intelligence information provided by captured enemy documents and statements by prisoners of war or ralliers can also be useful to determine if the enemy is using friendly activities to his advantage. While careful scrutiny of friendly operations is vital, the evaluation of local life patterns, times, and directions of civil movement is of equal importance, as these are convenient masks for simultaneous enemy movements/acts.

3.7.5 OPSEC Weaknesses. The basic collection methods available to the enemy are through communications and by actual observation. If this intelligence is reinforced by predictable patterns in operations, the enemy will use waterways with relative security. Some of the more common OPSEC weaknesses are continually passing through the same point on a river, scheduling units to depart on and return from patrol at the same time each day, passing frequencies in the clear, and establishing fixed boundaries and patrol patterns for patrol boats. An amplified list of OPSEC weaknesses can be found in paragraph 7.5.2 of NWP 13-1.

3.7.6 Communications Security. Communications security (COMSEC) is included in the larger area of operations security. Communications security is defined as that protection resulting from all measures designed to deny unauthorized persons information of value which might be derived from possession and study of telecommunications, or to mislead unauthorized persons in the interpretation of the results of such a study.

Communications security will result if one or more of the following three basic communications security principles is totally accomplished.

1. Intercept of the transmitted signal cannot be performed.

2. Analysis of all uncovered transmissions reveals no information of value to the enemy.

3. The signal, when intercepted, is unintelligible.

Principles of effective communications include reliability, speed, and security. Under combat conditions some principles may have to be sacrificed, but reliability can never be dispensed with.

All signals are subject to intercept, provided the enemy has compatible equipment and is in the correct location. The enemy usually has assured communications compatibility by the simple expedient of using captured radio equipment.

3.7.7 Essential Elements of Friendly Information (EEFI). EEFI is defined as "That unclassified information which, if known to the enemy, would provide insight into the conduct of pending combat operations." The determination of which information should be classed as EEFI is a prerogative of command. Normally EEFI guidelines are established by senior commanders, with subordinate command echelons developing specific items which are applicable to their commands.

The following information is normally classed as EEFI.

1. The intended movement from one location to another

2. Actual or intended arrival or departure from patrol area or station

3. Indication of patrol routes or limits of patrol areas

4. Location of friendly units, unit headquarters, or area of operation

5. Underway replenishment or rendezvous location or time

6. Courses and speeds from fixed or known locations

7. Fuel or ammunition levels

8. Information concerning future operations (scheduled or tentative)

9. Combat successes or failures, either allied or enemy

10. Disclosure of the plain text meaning of code groups

11. Information that would compromise a code or cipher

12. Information that would indicate inability to perform a mission.

As a rule, EEFI should always be given crypto protection. However, there are specific circumstances when this would be too time consuming and would, as a result, severely restrict combat forces when in actual contact with the enemy. The on-the-scene commander is responsible for making this determination.

3.7.8 COMSEC Weaknesses. Communications which are not secure provide the enemy with a wealth of detailed information upon

which to base his actions. This information, in addition to being detailed, is provided on a real time basis and needs only limited evaluation to be useful to the enemy.

The most common COMSEC weakness found in communications is lack of circuit discipline, followed closely by the failure to use operations codes for transmission of classified or EEFI information.

CHAPTER 4

Special Operations Planning

4.1 SPECIAL OPERATIONS

4.1.1 Definition. Riverine special operations are supporting operations conducted by the mobile riverine forces as adjuncts to a riverine assault operation or a waterway interdiction and surveillance operation. Special operations are normally characterized by the employment of specialized procedures and techniques requiring unique training and equipment. The capability to conduct these operations is generally limited to those specific units which have been assigned primary mission responsibility within the service organization.

4.1.2 Considerations. Planning for riverine special operations begins upon receipt of the initiating directive, and is concurrent and coordinated with planning for riverine assault and waterway interdiction and surveillance and security operations. Because of the unique considerations involved in the conduct of most special operations, planning assistance must be requested from those organizations assigned primary mission responsibility for conduct of the particular operations involved. Planning of special warfare operations without employing special warfare planning assistance can create infeasible operations and seriously jeopardize the success and safety of the mission.

As a minimum, the MRF must be capable of conducting the following special operations. Detailed considerations which affect planning are contained in Chapter 14.

1. Reconnaissance and waterway clearance
2. Riverine base security operations
3. Mine warfare (with particular emphasis on mine countermeasures)
4. Salvage operations
5. Cover and deception
6. Unconventional operations
7. Psychological operations
8. Civic action and civil affairs
9. Intelligence collection operations.

CHAPTER 5

Supporting Arms Planning

5.1 SUPPORTING ARMS REQUIREMENTS

Artillery, mortars, naval riverine assault craft gunfire, naval gunfire, and air support are required for riverine operations under various tactical conditions.

5.1.1 Naval Requirements. Navy operations, such as riverine Navy force movement, hydrographic survey, removal of underwater obstacles, minesweeping, sensor employment, and patrols could require support from all supporting arms. In addition, definite provisions should be made for aircraft and suitable water craft to maintain protective screens for the naval riverine base element.

5.1.2 Marine Corps Requirements. The Marine Corps force requires artillery, naval riverine assault craft fire, naval gunfire, and air support before, during, and after the initial landing to destroy or neutralize defenses and hostile forces capable of opposing the assault forces.

5.1.3 Interrelationship of Requirements. The availability and planned use of one supporting arm influences the planned use of other supporting arms. Therefore, the total requirement of all elements must be considered in determining the amount of support required by type.

5.2 RESPONSIBILITIES OF COMMANDERS

Commanders who require fire support must have a clear appreciation of the fire support characteristics, capabilities, and limitations of supporting ships, craft, aircraft, and artillery. The tasks involved in planning fire support and the associated responsibilities of commanders are included in the following paragraphs.

5.2.1 Selection of Targets. Target selection is the prerogative of the commanders being supported.

5.2.2 Target Classification and Priority. Coordination of supporting arms requires specific analysis of all targets and a determination of methods to be used for their destruction or neutralization. This analysis of targets allows determination of both classification and priority.

5.2.2.1 Classification. Classification is assigned to targets as they are added to the target list. A general policy for classification of targets to be attacked by supporting arms should be promulgated by the mobile riverine force commander. Usually, targets are grouped according to their classification.

5.2.2.2 Priority. Priority is assigned to each target, indicating the desired sequence of attack. The Marine Corps commander recommends target priorities for those targets which are of primary concern to the Marine Corps force.

5.2.3 Selection of Means. The selection and allocation of which supporting arm will deliver fire support is a function of the mobile riverine force commander or his designated representative. The proposed selections and allocations of fire support means are interdependent, and constant liaison and exchange of information on the subject are essential.

5.3 FIRE SUPPORT COORDINATION

Plans for the supporting fires of artillery, naval riverine craft, naval gunfire ships, and aircraft must be coordinated to ensure those arms are economically employed with maximum effectiveness and the requisite degree of safety. Coordination in planning is achieved by:

1. Avoiding unnecessary duplication of missions

2. Avoiding endangering friendly forces

3. Reducing to the minimum mutual interference between supporting units

4. Ensuring that each means of support is employed on missions best suited to its capabilities consistent with the situation, time available, relative amounts of ammunition on hand, and difficulty of ammunition supply

5. Assigning responsibility for control of fires to the lowest echelon having the necessary command and control of the supporting arms

6. Assigning responsibility for final coordination of fires to the lowest echelon able to effect complete coordination for the particular mission. Fires are coordinated at each echelon to the degree which that echelon is affected by the mission

7. A common system of target designation used by all supporting arms

8. A common understanding of the rules of engagement.

The defeat of hostile forces with minimum loss of noncombatant lives and property in densely populated areas necessitates a thorough understanding of the rules of engagement established by higher authority. Rules of engagement within a riverine area may vary from locale to locale because of social and/or political considerations.

5.4 FIRE SUPPORT PLANNING RESPONSIBILITY

5.4.1 Mobile Riverine Force Commander. The mobile riverine force commander is responsible for coordination of all fire support planning. He shall require appropriate fire support coordination agencies to be created at every echelon where such coordination is required. Such agencies shall provide the capability to transfer coordination/control from surface to shore and back.

5.4.2 Marine Corps Commander. The Marine Corps commander is responsible for preparation of the overall fire support plan (FSP) for the MRF excluding the fire support plan for waterway surveillance and interdiction operations. This plan includes:

1. Artillery fire plan

2. Assault craft gunfire plan

3. Naval gunfire plan

4. Air support plan.

The Marine Corps commander is responsible for the preparation of the artillery fire plan to support the waterway surveillance and interdiction operations.

5.4.3 Navy Commander. The Navy commander is responsible for the preparation of the overall fire support plan for the waterway surveillance and interdiction operations. He is also responsible to provide necessary liaison to assist the Marine Corps commander in preparation of the assault craft gunfire plan and naval gunfire plan to support the riverine assault operation.

5.5 SPECIAL CONSIDERATIONS

Commanders at all levels must consider certain factors special to the employment of supporting arms in a riverine area.

5.5.1 Artillery. Current service doctrine for the employment of artillery is applicable in the riverine area; however, planning must consider factors unique to the area which may include:

1. Ability of surface craft or barges to provide mobility and/or firing platforms.

2. Requirements to pre-position artillery in advance of assault operations in such a manner as to avoid premature disclosure of the planned operation.

3. Firing positions of limited size which may dictate the number and caliber of weapons employed.

4. Lack of firing positions in defilade.

5. Absence of survey control and concurrent use of observed fire gunnery procedures.

6. The requirement to request assignment of the 105 mm howitzer, M101A1, to the Marine Air Ground Task Force as opposed to the 155 mm howitzer, M198, which is now the standard direct support artillery piece for the Marine Corps.

7. Limited ground observations.

8. Requirement for helicopter-transportable artillery firing platforms for use in inundated areas, if barge-mounted or boat-mounted artillery is not available. Because of the hydrography, area fire weapons play a greater role in fire support than precision fire support means. In addition, special consideration for weapon fuzing must be made.

9. Difficulty in defining unit boundaries.

10. Requirement to provide mutual support in the event of split battery operations.

5.5.2 Assault Craft Gunfire. Fire support planning must include a system for control and coordination of riverine assault craft fire in supporting the scheme of maneuver.

5.5.3 Naval Gunfire. The demoralizing effect of naval gunfire, combined with the difficulty of providing artillery fires in the normal volume, justifies heavy usage of naval gunfire whenever range permits.

In delta areas, the distance to which naval gunfire can extend inland may be restricted by mud flats and sandbars extending several miles to sea. Under optimum conditions, destroyers or other shallow draft ships may be able to provide support from principal rivers.

5.5.4 Observation of Fire. Lack of vertical relief in most riverine areas severely limits surface observation and adjustment of supporting fire. Unusual dependence upon aerial observers may be essential.

5.6 AIR OPERATIONS

Present doctrine, tactics, techniques, and equipment for aviation are readily adaptable to riverine operations. Although present publications do not address the term "riverine," they provide most of the information and doctrinal guidance required to plan and execute the air portion of riverine operations. Therefore, this section will be limited to aspects of air operations which are unique, require emphasis, or result from recent developments and advancements in technology.

5.6.1 Requirements. There are requirements in a riverine area for mobility, firepower, visual and electronic reconnaissance, observation, and night operations which aviation units are uniquely capable of accomplishing. These resources may include helicopters, short takeoff and landing (STOL) craft, vertical takeoff and landing (VTOL) craft, and fixed-wing transports if suitable landing fields are close to the base.

5.6.2 Organization. The composition of aviation elements assigned to support riverine operations is determined by the mission, enemy threat, operational environment, available resources, and support requirements.

5.6.3 Helicopter Support. The helicopter plays a vital role in riverine operations. The mobile riverine force must have the capability to conduct air reconnaissance, air surveillance, air support, and helicopterborne operations. The number of helicopters required will depend on the composition of the force and its mission. If there is no riverine land base of operations, provisions must be made to include a helicopter support ship in the naval riverine base element. As a minimum, the mobile riverine force must be able to provide landing platforms, fuel, emergency repairs, and ammunition.

5.6.3.1 Characteristics. Helicopters have the following capabilities:

1. Can operate into and out of landing sites denied to other mobile systems

2. Have superior speed, mobility and flexibility, compared with motor transport and water craft

3. Can evacuate wounded and deliver rested troops to or near the objective area

4. Have fast reaction times

5. Can air transport assault and attack craft to and from otherwise inaccessible riverine operation areas

6. Can be used for emergency or for routine resupply of all elements in the MRF.

Helicopters have the following limitations:

1. Easily detected by sight and sound.

2. Visual navigation at night may be difficult because of reduced visibility.

3. Visual navigation at very low altitudes may be difficult because of the lack of prominent landmarks in large riverine areas.

4. Vulnerable to enemy fire at low altitudes and slow speeds.

5. Require imposition of operational restrictions in times of inclement weather and low visibility.

5.6.3.2 Support of Operational Units. Helicopters may be required to support widely dispersed operations. Appropriate tasks are:

1. Conduct visual reconnaissance and surveillance over known or suspected enemy positions on land and waterway areas

2. Provide command, liaison, and administrative lifts

3. Provide an airborne command post

4. Evacuate casualties and prisoners of war

5. Lift reaction forces

6. Provide escort service, suppressive fires, and visual armed reconnaissance from armed helicopters

7. Resupply critical items from the afloat base

8. Provide aerial observation and adjustment of supporting fires

9. Insertion and extraction of special ground operations such as SEAL patrols and sensor implants

10. Air-implant remote-monitored ground sensors

11. Fast-reaction, counterambush air support

12. Participate in search and rescue operations.

5.6.4 Close Air Support (CAS). CAS for waterborne units will be provided by using current doctrine, principles, and procedures. Effective CAS requires prominent marking of friendly elements as well as positive and reliable communications between the supported unit and the attacking aircraft. Aircraft must be under positive control when delivering ordnance to ensure the safety of friendly forces. Although both pre-planned and on-call CAS missions are envisioned, the nature of the threat to waterborne units emphasizes the need for immediately available air support.

CHAPTER 6

Intelligence Planning

6.1 SCOPE OF INTELLIGENCE PLANNING

The nature of the riverine area places an increased importance on intelligence. Intelligence planning must be designed to give the commander accurate and timely information concerning the enemy threat and the status of the area of operations at all times.

Intelligence planning for riverine operations is divided into three phases:

1. Determination of intelligence requirements and planning for the collection, processing, and dissemination of that intelligence required for other planning.

2. Preparation of the intelligence annex to operation plans or orders.

3. Preparation and dissemination of intelligence plans, estimates, and summaries during operations.

6.2 INTELLIGENCE PLANNING RESPONSIBILITIES

During planning, the mobile riverine force commander prepares his estimate of the situation. Early collection and dissemination of intelligence to meet force requirements is particularly important in developing the scheme of maneuver. The scheme of maneuver, in turn, is influenced by estimates of the enemy situation which directly affect requirements for size, mobility, and support of the riverine force.

The mobile riverine force commander is responsible for initiation of requests for collection of information by reconnaissance, observation, and operating agencies outside his force, and for assigning intelligence collection responsibilities to units of the MRF.

6.2.1 Responsibilities of Component Commanders. Mobile riverine component commanders are responsible for:

1. Determination of intelligence requirements for planning, and making these requirements known to the mobile riverine force commander

2. Collection and processing of information and dissemination of intelligence to major elements of the MRF

3. Establishing liaison with intelligence agencies to assist in the collection of information

4. Obtaining and distributing maps, charts, photographs, and special intelligence materials

5. Preparation of intelligence estimates

6. Security and counterintelligence measures, in addition to those specified by higher authority.

6.2.2 Intelligence Requirements. Certain information is necessary to enable the mobile riverine force commander to direct operations, detect and prevent enemy movement by waterways, and to reduce the threat of mines and ambushes to friendly forces. Intelligence requirements should include, but are not limited to, the following:

1. Hydrographic information including waterway depth, width, bottom composition, currents, tidal ranges/currents, and bank characteristics.

2. Navigational hazards including natural and man-made waterway obstacles such as vegetation, debris, fish traps, and barricades.

3. Location of bridges and underbridge clearances.

4. Location, strength, and activities of enemy units in the objective area at the beginning of and during operations.

5. Loading points and departure points for hostile watercraft.

6. Routes followed by the enemy on inland waterways, including staging areas.

7. Evasion tactics used by the enemy, including camouflage and deception.

8. Delivery points for material being carried on inland waterways.

9. The enemy logistics system, with emphasis on waterborne transport routes.

10. Location of arms and supply caches.

11. Identification of warning systems used by the enemy to protect against patrol craft.

12. Identification of points where the enemy usually crosses rivers and canals.

13. Identification of enemy watercraft. Emphasis should be placed on determining whether they are owned by the enemy or are impressed from the local populace.

14. Enemy swimmer capabilities, equipment, and methods of operation.

15. Enemy mining and ambush operations (with particular emphasis on early warning of ambush sites) and tactics.

16. Enemy tactics concerning anti-personnel devices such as traps, camouflage pits, stakes and spikes driven into the ground.

17. Location, capabilities, and tactics employed by enemy antiaircraft elements.

18. Identification of enemy intelligence and counterintelligence elements in the objective area.

19. Susceptibility of the populace the enemy pressures to provide information on friendly forces and operations.

20. Identification of guerrilla, paramilitary, or similar groups in the objective area.

21. Identification of individuals, groups, or organizations in the objective area which may be exploited by the enemy for espionage, sabotage, or subversive activities, or by friendly forces for intelligence.

22. Weather to include temperature, precipitation, humidity, visibility, winds, fog, cloud cover, ice incidence, and effect of weather at various seasons on river characteristics.

23. Astronomical conditions to include sunrise, sunset, moon set, and phase of moon.

24. Identification of civilian uses of waterways to include type craft, traffic pattern and density, and civil registration and licensing system.

25. Determination of medical characteristics of the area of operations to include plant and animal ecology, terrain, climatological and disease incidence data, and sanitary conditions ashore.

6.3 INTELLIGENCE SOURCES AND COLLECTION

All available sources and methods of collection should be used. However, inadequate terrain maps and hydrographic charts may often place heavy reliance on airborne, visual, photographic, and sensor reconnaissance. Dense foliage which is often found in a riverine area restricts the use of aerial photography. Extensive patrolling may be necessary to gain sufficient information. There is a definite necessity for indigenous agents. Sensor use in a riverine area will enhance current intelligence systems.

6.4 ENVIRONMENTAL CONSIDERATIONS

6.4.1 Requirements. Terrain intelligence and route reconnaissance have a direct effect on operational planning and are critically important. Detailed intelligence is necessary on width and depth of waterways, velocity and nature of currents, tidal effects, bottom characteristics, gradient of possible river landing sites, height, slope, condition of banks, location of debris, vegetation, obstacles, and topography. Accurate intelligence concerning terrain and hydrographic conditions is generally lacking. The physical characteristics of the environment are not stable; stream courses frequently change and sand bars constantly shift positions.

6.4.2 Characteristics of Waterways. Major rivers and inland waterways can be considered as one of the following categories:

6.4.2.1 Headwaters, or Upper Sector. In this sector, the river is variable, unpredictable, and usually not navigable by motorized craft.

6.4.2.2 Central Valley, or Middle Sector. The waters in this sector can usually be navigated by small motorized craft. The upper portions of this sector may have river bedrock formation and conditions similar to the headwater sector. In the lower portion of this sector, multiple channeling often occurs. Accurate information takes on more significance since deep channels are either scarce or nonexistent in multiple channeling areas. The channel with the strongest current is usually the deepest.

6.4.2.3 Delta, or Lower Sector. This sector is the widest part of the river. The current is usually slower than upstream and may change or even reverse with the tide. Channels which are navigable by ships are often found in the lower sector.

6.4.2.4 Canals. Canals may be encountered and used in an operation. Since these are man-made, their characteristics are usually predictable and they often are navigable by shallow draft craft. Entrances and exits are the critical points on canals, and special emphasis should be placed on obtaining information about these areas.

6.4.2.5 Biological/Medical Factors. Biological and medical factors must be included in the intelligence assessment. Information on diseases endemic to the area, such as malaria, cholera, typhus, and so forth, should be provided. Harmful insects and insect vectors, poisonous snakes, leeches and other parasites, and harmful plants native to the area must also be identified. Other anticipated medical problems, such as intestinal disorders, immersion foot, and conjunctivitis, that may be contracted by living and operating in the area, and general health and sanitation standards need to be identified.

6.5 SOCIOLOGICAL CONSIDERATIONS

In a riverine area, extensive river and canal systems form the principal lines of communications. The population tends to settle along these waterways which are often their only lines of communication. Civilian traffic and congested settlements provide cover for clandestine movements by hostile forces and help to conceal their mining and ambush efforts. Sociological and civil conditions are tied closely to the physical characteristics of the environment. Waterways may be used extensively by local government agencies to establish and maintain control in the riverine area.

6.6 SECURITY

Efforts to maintain the security of tactical operations may be hampered, since the forces involved will be under observation by the local population, a portion of which may support the enemy. In these circumstances, every individual and unit must understand and practice security measures.

Security of the riverine base to prevent sabotage is particularly important since absolute control of waterways is usually not possible. Only carefully screened, essential civilians should be permitted inside land or afloat base areas and they must be kept under constant control and supervision.

6.7 INTELLIGENCE AND COUNTER-INTELLIGENCE ESTIMATES

The mobile riverine force commander is responsible for maintaining continuing intelligence and counterintelligence estimates. These estimates should analyze enemy activity and counterintelligence threat to riverine forces and provide appropriate recommended plans to neutralize threats using both passive security measures and active aggressive counterintelligence operations.

6.8 THE INTELLIGENCE ANNEX

The intelligence annex to the operation order (plan) is a means by which information and intelligence may be disseminated, reconnaissance and observation missions assigned, remote sensor employment and other intelligence tasks and procedures stated. It summarizes the enemy situation. At the mobile riverine level, the intelligence annex includes the reconnaissance/surveillance plan and reference to current intelligence estimates and summaries, special reports, and studies on the enemy and area of operations (particularly those concerned with weather, terrain, hydrography, sociology, economics, and politics). If not previously distributed, such studies are included as appendixes to the intelligence annex.

6.9 RIVERINE FORCE INTELLIGENCE SUPPORT

In support of the intelligence mission, units of the MRF shall accomplish the following tasks:

1. Collect and report any intelligence which would support the current operations of the MRF

2. Within the assets available, develop the capability to meet collection requirements assigned by higher authority

3. Evaluate collected information in accordance with unit capability

4. Maintain a capability to report and disseminate collected intelligence rapidly

5. Conduct intelligence liaison with other U.S. and friendly forces when feasible, and as operations permit

6. Request from higher authority that intelligence which cannot be acquired by collection agencies with the force.

CHAPTER 7

Communications Planning

7.1 SCOPE AND REQUIREMENTS

Riverine operations require reliable, secure, rapid communications systems. In addition to those communication systems normal to all forces, there are additional requirements related to command of the MRF as a whole, for the several special forms of control which must be exercised, and for lateral communication between all elements of the force in the execution of common or coordinate functions.

7.1.1 Flexibility. Changes in command relationships, task organization, and disposition of forces require maximum flexibility in communication plans. Common facilities must be used where practicable to decrease frequency requirements. Use of alternate means other than electrical must be exploited to ensure the most rapid and secure delivery of information between widely dispersed forces.

7.2 CONSIDERATIONS

Inasmuch as the MRF contains both Navy and Marine Corps components and as information developed and orders issued must be provided to all elements of the MRF, a joint communications plan must be prepared. Accordingly, planning must always be a joint effort and carefully coordinated at each echelon of command in order to meet the requirements of the force.

All communication requirements tasked to units not a part of the mobile riverine force must be thoroughly coordinated, and absolute agreement and understanding obtained.

The communication requirements of an MRF vary with the size and composition of the force. Planning to meet these requirements commences with other planning and is conducted concurrently, but includes the added problem of ensuring that communications are adequate to support the planning process itself. The following factors must be carefully considered during the planning process.

Each major command of the MRF must have communications compatible with the tactics and techniques employed. The channels provided must assure effective exercise of command, coordination of supporting fires, administrative support, and logistic support. Because of the dissimilar nature of the forces involved, additional circuits may be required to permit the desired degree of command and control.

Elements of the mobile riverine force may operate in widely separated areas during some phases of the operation. Communication capabilities of major units must be adequate to support all operations. The communication plan must permit operation of the force as a whole without undue interference between elements when they are in close proximity.

7.2.1 Environmental Effects and Operating Conditions. Environmental effects may vary widely between areas of operation; however, some problem areas in planning remain constant. For example, vegetation absorbs radiated radio frequency energy, and terrain may mask receiving stations.

A study of the specific physical environment, with emphasis on the adverse effects of weather, geography, vegetation, and terrain may enable communications planning to overcome some of the limitations imposed.

7.2.1.1 Climatology. Climate will affect equipment and radio propagation characteristics. For example, high temperatures and humidity will reduce both shelf life and operating life of batteries and decrease the power output and sensitivity of radios.

7.2.1.2 Terrain and Vegetation. Flat terrain generally permits greater operating ranges to be obtained with line of sight, VHF, and UHF communications. However, in delta areas, dense vegetation frequently encountered along waterways in tropical zones will absorb transmitted energy and reduce the usual terrain advantages. To overcome the absorptive effects of vegetation, antennas should be raised above the tree tops, if possible. Additionally, antennas which provide horizontal polarization may be used to lessen the effects of vegetation absorption.

7.2.2 Equipment. The communication equipment of Marine Corps units has been developed specifically for the ground environment throughout the world, and may prove more suitable than standard shipboard equipment. Equipment of mobile Marine Corps units is usually portable, lightweight, easy to operate, equipped with several options of antennas and transmitting and receiving devices, is rugged, and resistant to environmental conditions.

Communication equipment employed by Navy and Marine Corps units must be compatible. If this equipment is standardized, the logistic support problem can be reduced through commonality of components, parts, and test euqipment. These requirements are more apparent if the riverine Marine Corps force commander remains afloat throughout an operation.

Planning for the choice of communications media will require consideration of the following:

7.2.2.1 Radio. In view of the wide dispersion of forces and the inherent mobility of the mobile riverine force, radio is the primary means of communications. Radio nets must be structured to support the tactical organization. Radio operating procedures, net discipline, and communication security must be strictly enforced.

7.2.2.2 Wire. The only foreseeable use of wire communications is for intrabase use. The area commander coordinates requirements and provides external integrated wire and radio communication.

7.2.2.3 Multichannel Radio Systems. Tactical ground-based multichannel radio systems are characterized by directional line-of-sight propagation which may serve to minimize the probability of enemy interception, jamming, and direction-finding. However, the fact that multichannel equipment transmitters must be continuously keyed and the fact that it may not always be possible to orient directional antennas away from enemy listening stations, increases the vulnerability of these systems to interception, jamming, and radio direction-finding. With these constraints in mind, multichannel systems can support both the Marine Corps and Navy elements of the mobile riverine force.

7.2.2.4 Flag Hoist. Flag hoist communications, judiciously employed by large ships in a riverine environment, may offer advantages to the naval commander, particularly in the uproar and confusion of an ambush. Some flag hoists should be made up on the yardarm ready to be broken as required; others may be prepared as necessary. For smaller craft, simple hand and arm signals will be used as set forth in NWP 22-3.

7.2.2.5 Messenger Service. Bulky materials such as maps, overlays, charts, and lengthy low-precedence message traffic can be economically delivered by aircraft or by watercraft couriers. A planned courier system should take advantage of the numerous liaison and logistic craft which support the riverine force away from its base. A well-planned system will relieve the radio communication networks of much superfluous traffic, and permit rapid transmission by radio of essential messages.

7.2.2.6 Air Drops. Message air drops and pickup techniques are satisfactory for use in river operations. There are simple procedures that involve marking the pickup site, indicating wind direction, and rigging the pickup device.

7.2.2.7 Automatic Airborne Radio Retransmission. Airborne radio relay techniques can be employed to extend radio

communication. This technique, for example, may support specific operations at the limits of radio range or when difficulties because of the effects of terrain are experienced, such as masking or absorption.

7.2.2.8 Sound Communications. Sound amplifiers are particularly effective in a riverine environment. Relative low-level audio signals are capable of traveling great distances over water and flat marshland. Extensive use of helicopter-mounted sound systems can be expected in support of psychological operations and civic action programs.

7.2.3 Organization. It is essential that the commander have positive communications with all elements of his force, and with higher, adjacent, and supporting commanders.

The riverine Navy force commander and the riverine Marine Corps force commander will normally be embarked together in a command ship/craft. To ensure continuance of command, an alternate command ship/craft may be required. If the operation ashore is of limited duration, the Marine Corps commander may elect to retain his command post afloat. Alternately, he may establish his command post ashore, using normal tactical communication equipment. Command and control helicopters must be available to Marine Corps force and Navy commanders for use as airborne command posts.

7.2.4 Radio Circuit Requirements

7.2.4.1 Command Craft. The command and control boat assigned to the mobile riverine force must have adequate communication facilities to meet the requirements of the force as a whole, without using Marine Corps tactical equipment.

7.2.4.2 River Assault Craft. River assault craft must have adequate communication facilities for control of waterborne movement and support of the overall scheme of maneuver. A minimum of two transceivers will be required for riverine operations. If the river division or task element commander is embarked aboard a tactical craft, additional radio equipment will be required.

7.3 RESPONSIBILITIES

Communication responsibilities of the mobile riverine force commander are:

1. Determination and consolidation of communication requirements for the MRF as a whole

2. Acquisition and assignment of necessary technical facilities to subordinate elements of the force

3. Determination, consolidation, and coordination of the electronic counter-countermeasures (ECCM) requirements of all participating forces

4. Preparation of instructions in support of cover and deception plans prescribed for the operation

5. Statement of requirements for establishing liaison between all commands of the participating forces for communication planning

6. Preparation and promulgation of a complete and coordinated plan for the employment of communications during the operation (see NWP 22-1).

Component commanders are responsible for:

1. Determination of requirements for use of communication facilities controlled by higher headquarters and submitting these requirements to the mobile riverine force commander

2. Development of electronic warfare plans, and informing the mobile riverine force commander of the requirements for electronic warfare support

3. Maintenance of liaison with the mobile riverine force commander and his subordinate riverine force units in all communication planning matters

4. Development and promulgation of a complete and coordinated communication plan to support the plan of the mobile riverine force commander.

7.4 COMMUNICATIONS SECURITY

The mobile riverine force commander is responsible for communications security. This is accomplished by the development of communication security plans and procedures which will consider the following:

1. Silence is particularly important, since the human voice can be heard over great distances. Therefore, the use of earphones and voice muffling devices on voice circuits may be dictated, and continuous wave transmission should be used when practicable.

2. Communications will be prepared and authenticated to prevent analysis and imitative deception by the enemy.

3. Recognition and identification signals may become known to the enemy, and should only be regarded as evidence, but never as proof of friendly character.

4. Visual communications may be used in preference to radio when practicable, and will depend on visibility and prevailing security conditions.

5. When communicating by light, care should be taken to use light of minimum practicable brilliance, and to employ proper directional procedures.

6. Locally generated substitution and authentication codes not approved by the National Security Agency will not be used.

7. Secure voice equipment will be used on all tactical radio nets and as practical on admin nets. At least one tactical radio net common to all units will be kept uncovered for emergency communications. Code changes will be made as directed by the mobile riverine force commander.

7.5 COMMUNICATION DECEPTION AND COUNTERMEASURES

The scope of employment of imitative communications deception (ICD) is usually specified in directives from higher authority. In the case of manipulative communications deception (MCD), the MRF commander may initiate it, if he has the available assets, and if he has thoroughly coordinated the effect beforehand.

7.6 THE COMMUNICATION PLAN

The MRF communication plan is based on the operation and administrative plans which it supports. The communication plan fulfills the requirements of the operation in terms of circuits, channels and facilities, and policies and procedures governing the operation and coordination of the overall system. The plan is prepared in detail to facilitate its use at all echelons and includes:

1. General coverage of the communication situation, guiding principles, and the concept of operational employment

2. The communications mission

3. Delegation of tasks and responsibilities

4. Detailed instructions relative to the organization, installation, operation, and coordination of the communication system

5. Assignment and use of call signs, frequencies, cryptographic aids, and authentication systems

6. Instructions on countermeasures, cover and deception, security, recognition and identification, and other special communication and electronic functions

7. Instructions concerning communications and electronics logistic support

8. Instructions pertaining to medical evacuation which are compatible to all deployed units and medical aid craft

9. If remote monitored sensors are to be employed, special planning considerations will be made to ensure joint coordination in the allocation, use, and monitoring responsibilities of sensor related frequencies. Of prime importance are frequencies assigned as sensor transmission and relay frequencies with channels and IDs clearly identified.

CHAPTER 8

Logistics Planning

8.1 SCOPE

The mission of the mobile riverine force will determine the logistic support required. Although accepted principles remain generally valid for riverine operations, some variation from normal logistic techniques will be necessary to cope with the riverine area. Consideration must be given to special items of equipment, prescribed loads, levels of supplies, distribution, services, engineer, maintenance, transportation, and medical support. This chapter deals with logistic planning matters peculiar to a riverine area or which require special emphasis.

8.2 LOGISTIC PLANNING CONSIDERATIONS

When the MRF is organized as a joint task force, the authority of the commander to exercise logistic coordination or control is limited to that necessary to meet those logistic needs of his subordinate commanders which are essential to the successful accomplishment of his missions (paragraph 30257, UNAAF).

Logistic planning at all levels must provide for coordinated and continuing support, including the combination of Marine Corps and Navy facilities and functions. This combination tends to eliminate duplication of effort and provides the most economical use of available resources.

Maximum use of cross-servicing and maximum commonality of equipment is essential to reduce maintenance overhead. To the extent feasible, storage of common high-volume items of supply (for example, rations, ammunition, POL) should be merged for maximum use of the limited storage space available.

Logistic planning to support riverine operations is divided into two related categories:

1. Logistic support provided to the mobile riverine force from sources external to the force

2. Logistic support provided by the mobile riverine force to support riverine operations emanating from riverine bases of operations.

A basic peculiarity of logistic support in riverine operations is the almost total reliance on ships and craft to provide not only transportation, but also mobile storage, maintenance, and billeting facilities.

8.2.1 Logistic Functions. Logistic planning for riverine operations must provide:

1. Embarkation of personnel and equipment in the riverine afloat base of operations to meet the tactical requirement of the mobile riverine force

2. Tactical loading of personnel and supplies from the riverine base of operations to assault craft to meet the requirements of the concept of operations

3. Establishment and maintenance of an interservice logistic support system to eliminate duplication and overlapping of logistic functions.

8.2.2 Logistic Planning Factors. Consideration must be given to the following factors, all of which exert a marked influence on logistic planning for a riverine operation:

1. Number of units to be supported

2. The availability of equipment and need for control

3. The size of the area over which the equipment is to be distributed

4. Equipment essential to the success of the mission

5. Length of time before equipment is readily available

6. Source of resupply

7. Base defense plan

8. Character and expected duration of the contemplated operation

9. Distance of the area of operation from the riverine base, and of the base from its sources of supply

10. Estimate freedom from enemy interference which the waterways, air, and land supply lines will enjoy

11. Availability of logistic means

12. Progressive increase in the level and form of logistic support that may be required, in the event of a buildup of forces in the area of operations

13. Local weather conditions in the area of operations

14. Terrain and hydrography in the area of operations

15. Availability of local resources

16. Support required for prisoners of war and the civilian populations

17. Medical support requirements

18. Helicopter landing site availability

19. Elements of the riverine base development and garrison plan

20. Support required for special warfare units and other unique elements which employ nonstandard equipment.

8.2.3 Riverine Base of Operations

8.2.3.1 Requirements. When a mobile riverine force is introduced into an area of operations by other means than amphibious shipping, or when riverine operations are conducted after termination of the amphibious operation, a riverine base of operations is established. This may be either afloat or on land and supports the MRF.

Forces assigned to the riverine base of operations should be capable of performing all essential logistic functions, so that the mobile riverine force is logistically self-sufficient except for periodic resupply and major maintenance.

Whether the base is afloat or on land, storage and maintenance space will normally be at a premium in the riverine area. Space in the shallow-draft ships and craft used to form riverine bases is always limited and must be used with maximum efficiency. Firm dry land suitable for base construction is virtually nonexistent in most riverine areas, and if present will normally already be used by the civil populace. Consequently, storage and maintenance space in riverine land bases can also be expected to be severely limited. For these reasons, supply and maintenance operations of the component services must be integrated to an unusual degree to permit maximum use of space available.

Because the riverine base of operations, whether afloat or on land, will usually be located within or in close proximity to a hostile area, the threat of enemy action against either the base or the lines of communication which lead to the base will influence many logistic considerations.

8.2.3.2 Responsibility. In an afloat riverine base of operations, the responsibility for facilities support rests primarily with the riverine Navy force commander. In a land base, the responsibility for facilities support normally rests with the riverine Marine Corps force commander.

8.2.4 Logistic Transportation. In a riverine area, an adequate road system capable of handling heavy logistic traffic normally does not exist. Railroads are either nonexistent or very limited and easily interdicted. Airfields are scarce and usually inadequate for handling heavy loads. Consequently, unusual dependence is placed on water transportation, using the existing network of rivers and canals. In general, bulk movements of supplies, personnel and equipment to support riverine operations will be accomplished principally by water.

Ships and craft for logistic transportation must be of shallow draft. For either afloat or land bases, shallow draft or craft will be required to transport resupply items from the designated source to the base. While it is feasible to move ships of an afloat base to the depots for resupply, such movements will normally lessen the capability of the base to provide continuous support of tactical operations. It is usually preferable to provide additional ships or craft to shuttle between the riverine base and its sources of supply (service force ships, shore-based depots, or other sources). In general, the degree of logistic support which can be provided by a riverine afloat base of operations will depend on the amount and type of resupply shipping available, as well as, the composition of the Navy riverine base element.

Helicopters are especially well-suited for resupply and evacuation missions because of their speed and high degree of flexibility. However, as previously set forth, helicopters play a variety of important roles in riverine operations, and therefore, an alternate means of transportation should be used for lifts not demanding the speed of the helicopter.

8.3 LOGISTIC PLANNING RESPONSIBILITIES

The mobile riverine force commander and the riverine Navy and Marine Corps force commanders each has specific and complementary logistic planning responsibilities.

8.3.1 Mobile Riverine Force Commander. The mobile riverine force commander is responsible for:

1. Determination of overall logistic requirements of the MRF including units, special equipment and shipping

2. Allocation of available means to meet logistic requirements of the force

3. Planning for coordination of logistic support required by all elements of the force

4. Base development planning.

8.3.2 Riverine Navy Force Commander. The riverine Navy force commander is responsible for:

1. Determination of the logistic requirements of the Navy forces, including special equipment and shipping requirements

2. Consolidation of those logistic requirements of all elements of the MRF which must be fulfilled by the Navy forces

3. Providing service-peculiar items for Navy forces

4. Allocation of means of the Navy forces to meet consolidated logistic requirements

5. Review and approval of embarkation and tactical loading plans for the MRF

6. Organization of assigned logistic shipping and craft to ensure continuing support of the mobile riverine force tactical plans

7. Logistic support of riverine Navy forces deployed in forward operating areas

8. Provision and control of waterborne logistic transportation

9. Boats of the riverine Navy force must be designated for the following functions:

(a) Resupply, as necessary

(b) Maintenance and repair

(c) Damage control and salvage

(d) Medical aid station

(e) Refuelers

(f) Escorts for movement of logistic craft.

8.3.3 Riverine Marine Corps Force Commander. The riverine Marine Corps force commander is responsible for:

1. Determination of overall logistic requirements of the riverine Marine Corps force

2. Determination of riverine Marine Corps force logistic requirements to be fulfilled by the riverine Navy force and other forces in support of the MRF, and submission of these requirements to the mobile riverine force commander

3. Development of plans, in coordination with the riverine Navy force commander, for the assembly, embarkation or tactical loading of personnel, supplies, and equipment aboard ships and craft of the riverine Navy force

4. Development of plans for the accomplishment of logistic functions within the riverine Marine Corps force by combat service support assets organic to that group

5. Providing service-peculiar items for Marine Corps forces

6. Resupply of riverine Marine Corps forces operating away from the waterlines of communications.

8.4 LOGISTIC PLANS

Certain logistic matters affect only one component of the force, and plans concerning these are prepared individually by the component. Details of such plans are not set forth in this chapter.

Plans for the logistic support of a riverine operation which, because of their scope and content, concern more than one component of the force are set forth in this chapter.

8.4.1 Embarkation and Loading Plans. The planning tasks enumerated for embarkation and loading refer only to that phase during which the Marine Corps and Navy forces, together with their supplies and equipment, initially embark on assigned shipping of the mobile riverine force. Plans for tactical loading are set forth in Chapter 12.

8.4.2 Supply

8.4.2.1 Requirements. The necessity to provide continuing and coordinated supply support to the MRF while its supply system is primarily ship-based requires that the Navy and Marine Corps forces develop a control and delivery system which will ensure that the force is provided with the adequate supply support. Supply planning is accomplished under two major categories:

1. Initial supply — comprises the level of supplies carried by the mobile riverine force in order to provide required support for riverine operations. Riverine craft normally should carry sufficient quantities of Classes I, III, and V to accommodate all embarked personnel for the length of the operation.

2. Resupply — replenishment of the mobile riverine force's level of supplies, or from the riverine base of operations to an objective area for support of tactical operations.

Resupply of those forces operating away from the riverine base will be accomplished by riverine assault craft, aircraft, or riverine Marine Corps force vehicles, as appropriate. The use of prescribed loads of Marine Corps component supplies, constantly maintained aboard every riverine assault craft, will substantially increase flexibility and responsiveness of resupply for high-use items.

8.4.2.2 Responsibility. Coordination of supply support for the MRF is the responsibility of the mobile riverine force commander.

The originator of the initiating directive may assign responsibility for providing common-item supply. If this responsibility is not assigned in the initiating directive, the commander should encourage component commanders to conclude appropriate cross-servicing agreements for supply as early as practicable.

Service-peculiar supply will be the responsibility of the component commander concerned.

If the riverine base of operations is afloat, the Navy component commander will develop plans for storage and distribution of supplies. If a riverine land base is employed, the Marine Corps component commander will be responsible for this function.

8.4.3 Maintenance. Component commanders retain responsibility for maintenance of assigned and organic equipment.

Space limitations dictate the merging of maintenance facilities to the extent feasible. Maximum commonality of equipment will facilitate this. If maintenance responsibilities are not assigned in the initiating directive, component commanders should be encouraged to conclude cross-servicing agreements at an early stage.

To conserve space, maximum use of mobile maintenance contact teams should be planned.

Maintenance and overhaul schedules for assigned ships, boats, and aircraft should be developed early in the planning phase and provided to operational planners to facilitate forecasting of operational availability. Such schedules must be maintained current and modified as necessary by combat experience and events; operational planners must be kept advised of the forecast availability.

8.5 MEDICAL PLANNING

Coordination of medical planning for riverine operations is the responsibility of the mobile riverine force commander. In addition to the general health of the force, plans must provide for early, adequate, and definitive treatment of casualties. This latter requirement comprises the principal goal of medical planning. Medical facilities in the afloat base of operations may be the only ones reasonably accessible. Minimizing the movement and handling of patients until their condition has stabilized must be incorporated in the evacuation policy.

8.5.1 Medical Planning Considerations. Medical planning must consider:

1. Overall mission of the MRF and the supporting medical mission.

2. Policies of higher commands.

3. Characteristics of the area of operations, including plant and animal ecology, terrain, climatological and disease incidence data, season, sanitary conditions ashore, and cover available.

4. Preventive medicine, hygiene, and sanitation measures which must be instituted prior to and during the operation. Recommendations as to the length of time and the preventative measures ground maneuver units must take to operate in a riverine environment should be included.

5. Physical and psychological factors affecting own personnel.

6. Lines of communication and evacuation routine.

7. Evacuation policies and treatment procedures.

8. Specific medical supplies required.

9. Size and types of the forces involved and their tactical employment.

10. Estimated numbers and types of casualties based upon the projected strength and type of enemy opposition and the character, probable duration, and objectives of the riverine operation.

11. Medical personnel available and status of training, to include adequacy of medical facilities.

12. Medical needs for the civilian population and prisoners of war.

13. Need for medical units, to include surgical teams.

14. Use of specifically designated and outfitted river assault craft and helicopters to provide ambulance facilities.

15. Use of specific ships designated as hospital ships to meet anticipated hospitalization requirements, such ships to be capable of providing surgical, morgue, and holding facilities.

16. The use of specially configured craft as a medical treatment and evacuation station.

8.5.2 Medical Planning Responsibilities

8.5.2.1 Riverine Navy Force Commander. The riverine Navy force commander is responsible to the mobile riverine force commander for the following, and prepares plans accordingly:

1. Provision of medical service to all personnel in the afloat base of operations

2. Evacuation, receipt, and treatment of patients afloat within the area of operations, to include casualty reporting

3. Evacuation by surface craft or helicopter from the area of operations to the nearest adequate medical facilities outside the area of operations, which will normally be the afloat base of operations

4. Air and/or surface transportation of medical supplies and equipment.

8.5.2.2 Riverine Marine Corps Force Commander. The riverine Marine Corps force commander is responsible to the mobile riverine force commander for the following:

1. Assistance to and augmentation of ships' medical departments by providing medical personnel to care for riverine ground force personnel while afloat

2. Provision of medical service to all personnel ashore in the area of operations who are not otherwise provided for

3. Determination of the medical support requirements of the riverine Marine Corps force which must be furnished by the riverine Navy force commander and submission of these requirements to the mobile riverine force commander

4. Submission of recommendations to the mobile riverine force commander concerning establishment of the evacuation policy for the operation.

8.6 ENGINEER PLANNING

Combat engineer support is vital in a riverine environment. The mission of engineer units with the landing force is normal, but their tasks will be more diversified. Engineer units normally operate under the centralized control of the mobile riverine force commander when stability permits; however, as units become more dispersed and support requirements more varied, decentralized employment of engineer teams will be required to a greater than normal extent. Commanders must plan for and be prepared to accomplish their mission with little, if any, of their heavy equipment due to the environment in riverine operations.

Maximum use of initiative, imagination, and field expedients must be stressed at all levels. All units should be proficient in simple engineer work such as erection of barbed wire fences, obstacle clearance, and field expedient bridging. To make maximum use of the civilian population, engineer personnel may be used to train and supervise laborers.

8.6.1 Engineer Tasks. Engineer planning for riverine operations may include the following special tasks:

1. Engineer reconnaissance

2. Obstacle breaching, including underwater obstacles

3. Removing and/or raising bridges which are a navigational hazard

4. Construction and preparation of river landing sites

5. Construction and preparation of artillery fire support bases

6. Obstacle/minefield installation

7. Survey control

8. Preparation of helicopter landing zones

9. Maintenance and repair of canals and waterway systems

10. Detection and neutralization of mines and booby traps

11. Clearing vegetation and destruction of field firing fortifications along potential ambush sites

12. Destruction of facilities and/or areas of value only to the enemy

13. Civic action program support.

8.7 BASE DEVELOPMENT PLANNING

Base development planning may include the necessity to create new dry ground by dredging and installation of drainage systems.

CHAPTER 9

Supporting Operations Planning

9.1 DEFINITION AND AUTHORITY

Operations in support of the MRF may be required. Although these supporting operations normally will be at the request of the riverine force commander, they will be directed by higher authority, and may be conducted in or outside the mobile riverine force area of operations. The commander of forces conducting supporting operations will coordinate with the riverine force commander.

The principles in Chapter 5 regarding air, helicopter, and close air support operations also apply to such operations when conducted as supporting operations.

9.2 NAVAL OPERATIONS

Supporting naval operations conducted under existing doctrines may include:

1. Amphibious operations
2. Air
3. Reconnaissance/surveillance and demolition
4. Naval gunfire support
5. Coastal surveillance
6. Harbor clearance
7. Search and rescue
8. Unconventional warfare
9. Those special operations listed in Chapter 4 when conducted by naval elements external to the MRF.

9.3 MARINE CORPS OPERATIONS

Supporting Marine Corps operations conducted under existing doctrines may include:

1. Artillery support
2. Intelligence support
3. Reconnaissance and surveillance
4. Coordinated offensive operations
5. Engineer support
6. Unconventional warfare
7. Close air support
8. Air defense support
9. NBC support
10. Electronic warfare support
11. Those special operations listed in Chapter 4 when conducted by Marine Corps elements external to the MRF.

9.4 LOGISTIC OPERATIONS

Principles set forth in Chapter 8 apply equally to supporting logistics operations.

CHAPTER 10

Contingency Planning

10.1 EFFECT OF ENVIRONMENT AND ORGANIZATION

Environmental conditions in riverine operations and the unique composition of the mobile riverine force require certain modifications to normal contingency procedures.

The following paragraphs concern aspects of emergencies, disaster control, and search and rescue as they apply to riverine operations.

10.2 EMERGENCIES

10.2.1 Man Overboard. All craft will be prepared for man overboard. Frequent drills to aid rapid identification of a man overboard are indicated. Rapid small craft action is mandatory in riverine currents in order to be effective.

10.2.2 Fire. Depending on the severity of the fire, it may or may not be necessary to debark troops. If it is necessary, rehearsed emergency debarking procedures will be followed and designated craft will assist with debarkation and fire fighting. The possible necessity for grounding the craft that is on fire should be considered.

10.2.3 Breakdown. All riverine craft and ships should be prepared to tow other craft and ships in the event of a breakdown.

In the event of a breakdown, which would require slowing the entire formation, a decision will be made whether to declare the disabled ship a straggler or slow the formation. The detachment of escorts for stragglers may be necessary.

Preselected temporary anchorages may be used in the event a slowed speed of advance detains the whole formation and prevents it from reaching its destination on schedule.

10.2.4 Emergency Sortie. An emergency sortie is an emergency relocation of the afloat base of operations forced by enemy action or inclement weather conditions. Planned withdrawal of shore perimeter defense troops and equipment and disposal of inoperable craft are executed, and withdrawal fires and emergency destruction plans are executed if the sortie is forced by enemy action.

If a riverine assault operation is in progress, subsequent rendezvous will be conducted in accordance with instructions given in the operation order.

10.3 DISASTER CONTROL AND EMERGENCY ASSISTANCE

Disaster control and emergency assistance procedures are executed in accordance with current directives and SOP.

The mobile riverine force commander is responsible for:

1. Conducting disaster control measures and operations in areas where the force is located

2. Rendering assistance in local emergencies to other United States agencies and activities

3. Rendering assistance to the friendly local government and population in emergencies.

The mobile riverine force commander will be prepared to provide disaster control forces to the extent possible, on the basis of noninterference with essential operations.

10.3.1 Coordinating Instructions. The mobile riverine force commander will:

1. Support other commanders as requested, by providing forces and material assistance

consistent with the requirements of his mission

2. Exercise economy of forces consistent with the mission assigned

3. Support disaster recovery operations of other U.S. and friendly government agencies, consistent with the requirements of own missions.

Component commanders will:

1. Coordinate plans, training, and operations for evacuation and disaster recovery with foreign military and civil defense authorities as directed by higher authority.

2. Provide for own disaster control operations, as appropriate.

10.3.2 Command and Control. Control of forces in actual emergencies and in training operations rests with the commander to whom the disaster control forces have been allocated.

During an emergency, temporary operational control of augmentation forces normally will be given the commander whose forces are being augmented.

10.3.3 Communications. Established communications will be used as required. Maximum coordination will be effected as necessary with all U.S. military and other communication agencies.

Commercial communications facilities may be used to augment government facilities as required and available.

10.4 SEARCH AND RESCUE

Search and rescue (SAR) is the use of aircraft, surface craft, submarines, and other special equipment employed in search and/or rescue of personnel.

10.4.1 Execution. SAR operations should be conducted in accordance with NWP 37, the National Search and Rescue Manual, and as set forth in this section.

10.4.2 Responsibility. The mobile riverine force commander assumes specific responsibility for direction of SAR operations. In addition, the parent command of ships and/or small craft and aircraft in distress retains the responsibility for the safety of its own personnel.

This does not alter the responsibility of any commander to engage in rescue operations on his own initiative, as the circumstances may require and operations permit. Independent action must be immediately reported to the mobile riverine force commander and coordinated with the appropriate SAR regional commander or his designated representative.

PART III

Execution

CHAPTER 11

Command and Control

11.1 GENERAL CONSIDERATIONS

During execution of riverine operations many related actions and considerations affecting those actions will be experienced by the MRF. Chapters 12 through 15 contain doctrine specifically directed toward riverine assault operations, waterway interdiction and surveillance and security operations, special operations, and logistics. This chapter contains information directed toward those actions and considerations which affect the entire mobile riverine force.

11.2 MOVEMENT OF THE MOBILE RIVERINE FORCE

Two types of movement made by the MRF are relocation of the force to a new base of operations and the movement of all or part of the assigned forces in a riverine operation. Any movement of the MRF or its subordinate elements must be controlled and coordinated. Standard tactical control measures, such as check points, phase lines, boundaries, and objectives, may be used. Task force commanders must ensure that the location and purpose of control measures are understood by all elements of the task force.

Security of the forces during movement is a primary consideration during planning. Threats include water mines, water obstacles, ambush, harassing fire, and direct and indirect fire. Armed helicopters may escort all water movements to provide reconnaissance, fire support, and communications relay. Close air support should be available when required. Whenever possible, waterborne movements should be preceded by reconnaissance and security operations conducted by all available means. Troops should be thoroughly briefed on security plans, with emphasis on counterambush and maximum use of security measures.

Plans are made for counterambush reaction during the water movement so that both Marine Corps and Navy forces are prepared for immediate, coordinated action. Plans should include:

1. Designation of counterambush maneuver elements
2. Command and control measures
3. Fire support
4. Security
5. Identification and recognition of committed elements
6. Recovery and reorganization of the committed force.

Provisions must be included for security of watercraft when the major Marine Corps force elements have been committed to counterambush missions. Actions may range from complete commitment of the waterborne force to evasive action and continuing movement. Responsibility for immediate action rests with the commander designated by the mobile riverine force commander.

During water movement, riverine assault craft should be organized to provide an advance guard including mine countermeasures craft, flank and rear guards, and a main body. This facilitates control and provides tactical integrity of the Marine Corps force. The objective of the organization for movement is to provide uninterrupted movement and security for the entire force.

11.3 RIVERINE AFLOAT BASE MOVEMENT

The riverine afloat base of operations normally will be relocated as necessary in support of riverine operations. Emergency relocations

may be made at the discretion of the Navy mobile riverine base element commander, keeping all concerned informed.

The limited hydrographic data available on most rivers and tributaries, as well as rapidly shifting depth, sand bars, and mud banks make river navigation difficult. Strong currents are not unusual. Navigational aids may be few and inaccurately charted; ships should ensure that navigation charts are corrected to include the latest available data. Commanding officers must exercise caution in navigation when underway. Navigation teams should be well trained and highly proficient in piloting.

During all movements, each ship of the riverine assault force will be escorted by designated river assault craft. Rivers will be swept along the movement route where threat of mining is believed to exist. Marine Corps units may be pre-positioned in high threat areas along the route of advance. Air and artillery support should be available. Ships of the force will take hostile targets ashore under fire only as permitted by the rules of engagement. Caution must be exercised at all times to ensure that any firing conducted does not endanger other friendly craft or troops ashore.

Riverine assault craft will be stationed in accordance with the movement order for each change in location of the riverine base. Escort craft may be used for:

1. Predeployment along the route in locations of greatest threat

2. Forward, rear, and flank escort

3. Establishment of base defense patrols and clearance of new anchorage areas

4. Minesweeping in areas of suspected mining threats.

River assault squadron units which are not engaged in escort of ships during movement of the riverine base will be directed to proceed ahead or astern of the formation to the new base site.

An advance force is normally employed during relocation of the riverine base. This force includes reconnaissance, minesweeping, engineer, and infantry elements to reconnoiter, clear, and establish initial defenses of the new base site.

11.4 MEASURES TO PREVENT MUTUAL INTERFERENCE

Measures to prevent mutual interference should be promulgated by the mobile riverine force commander. Mutual interference between friendly units, including aircraft, must be prevented by close coordination between units conducting riverine assault operations and waterway interdiction and surveillance and security operations. Information exchanged between the operations control centers should include:

1. Proposed transits of friendly units through areas assigned to other friendly units, and frequent (at least hourly) position reports of units making the transit

2. Proposed operation plans in areas where overlaps occur

3. Other information that will assist friendly units in identifying each other. This coordination may require the establishment of havens and transit lanes.

Commanders of forces in adjacent areas, those operating within a tactical area of responsibility (TAOR), or those operating in conjunction with a MRF should be provided copies of all operation orders. If this is precluded by security requirements, provisions for continuing liaison with these commanders should be made.

Commanders should ensure that all pre-operations briefings include:

1. All available information about friendly units which may be encountered

2. Applicable intelligence reports

3. Challenge and reply codes

4. Light array sequencing

5. Established havens and transit lanes

6. Chain of operational command

7. A review of rules of engagement

8. All known environmental information (tides, currents, moon, terrain, and so forth)

9. Replenishment information

10. Rally points

11. Communications instructions

12. Supporting arms coordination

13. Combat service support arrangements.

This information should be updated as additional data become available.

Particular caution must be taken near operation area boundaries. All available means should be used to determine the hostile character of any contact before commencing destructive fire. Strict compliance with local rules of engagement is mandatory.

Ambushes established by friendly forces must be coordinated with appropriate operations centers.

Small craft operating within the riverine base of operations during the hours of darkness may be easily mistaken for indigenous watercraft. This is especially true of small motorized craft. Since indigenous watercraft normally are prohibited by curfew from using most rivers at night, any unidentified craft in the vicinity of the riverine base is highly suspect. To prevent firing on friendly craft, regulations should be established within the riverine base from sunset to sunrise concerning movement of all craft. The following considerations apply:

1. No craft should be underway except those authorized by the operations center and all craft authorized to be underway will normally be accompanied by at least one other craft.

2. Craft authorized to be underway should be familiar with, and prepared to respond immediately to, the daily recognition and identification code when challenged.

3. The operations center should advise patrol units concerned of all authorized craft movements within the riverine base area.

11.5 COMMAND AND CONTROL FACILITIES

Corresponding Marine Corps and Navy component commanders should be located as near to each other as practicable for optimum coordination of their actions.

11.5.1 Operations Center. The ships comprising a riverine afloat base of operations are configured to provide command and control facilities for participating forces. The MRF flagship is configured to provide an operations center which is jointly staffed by Marine Corps and Navy components. This operations center provides facilities for coordination and control of base defense operations. Ships basing subordinate tactical elements of the force also provide operations centers as command and control facilities for embarked elements.

Similar command control facilities ashore must be provided if a riverine land base of operations is employed.

11.5.2 Other Command Facilities

11.5.2.1 Command and Control Boats. These boats are provided as tactical command facilities for subordinate commanders for employment in forward areas.

11.5.2.2 Helicopters. Command and control-configured helicopters are essential to provide a platform for command of tactical operations. The absence of relief in most riverine areas severely limits the capability of commanders to observe and direct the actions of their forces from the ground. Both the Marine Corps and Navy commanders require airborne command facilities with sufficient communications to control tactical evolutions and coordinate supporting fires. Transport craft with

helicopter platforms may be employed to facilitate transfer between command and control boats and helicopters.

11.5.2.3 Communication. Poor trafficability in the riverine area and the inability of the afloat base to debark wheeled vehicles establish a requirement for use of LVTC-7 assault amphibian command and control vehicles if Marine Corps command posts are to be established ashore. Unless LVTC-7s can be used jointly, manned shipboard operations centers and command and control boats must be utilized.

It may be necessary to establish communications relay facilities between deployed forces and the riverine base. Such relay points provide for automatic retransmission or for relay of voice communications. A command and control boat may be used, or airborne or ground relay stations may be established.

11.5.3 Location of Commander. Commanders may station themselves at any of these facilities, or may be airborne in command and control helicopters linked to these facilities by radio communications. Whenever feasible, secure voice communications should be available between operations centers, command and control boats, and command and control helicopters. For optimum coordination, corresponding Marine Corps and Navy commanders should be located as near each other as practicable.

CHAPTER 12

Riverine Assault Operations

12.1 SCOPE

A riverine assault operation commences when troops begin tactical assault loading to depart the riverine base for an operation and terminates when all forces involved have returned to the base.

In any assault landing against a hostile or potentially hostile point, several options rest with the assaulting force. In all options the assault must support and contribute to the attainment of the mission. The phases of the mobile riverine force assault operations are tactical loading, movement, landing attack, subsequent operations, and planned withdrawal.

12.2 TACTICAL LOADING

Tactical loading of troop units in riverine assault craft from a land or afloat base must be carefully planned and coordinated. Detailed tactical loading procedures must be established and promulgated with the operation order if they are not covered in the SOP. Factors that must be considered are:

1. Safety of personnel during loading
2. Timing
3. Logistic requirements
4. Security
5. Accountability of personnel
6. Availability of standby craft in the event of a material casualty.

12.2.1 Tactical Loading Plan. The tactical loading plan is prepared jointly by corresponding echelons of the Marine Corps and Navy component. The plan is prepared in the format of Figure 12-1 when boat availability and troop loading requirements are firmly established.

Tactical loading of troops into helicopters from either land or afloat bases will be in accordance with established service doctrine. The small size of helicopter platforms on ships of the mobile riverine force will normally require use of helicopter loading zones in adjacent level areas.

12.2.2 Loading From a Riverine Land Base of Operations. The tactical loading plan is based on the scheme of maneuver. Staging is organized to support the loading plan. Staging areas for loading will be assigned on pontoons or piers and troops should load only into craft moored alongside pontoons/piers. If a craft to be loaded is outboard of another craft, the latter should clear the pontoon/pier as rapidly as possible so the next craft can come alongside.

12.2.3 Loading From An Afloat Base. The procedures for loading from an afloat base into riverine assault craft are the same as those from a land base except:

1. The staging area is a designated area number on pontoons or a ship's compartment.

2. Units remain in assigned areas until directed to load into riverine assault craft. The boat team leader must familiarize himself in advance with the route to the loading station and lead his unit when it is called away.

12.2.4 Safety Precautions. Loading and unloading of troops is a hazardous operation, especially at night. There is always a danger of personnel falling into the water and being carried away by the current. Where possible, a safety boat equipped with a swimmer in harness, portable floodlights (night), and life rings attached to lines, shall be positioned close downstream during loading or unloading operations. Troops and boat crews must don

RAS UNIT		MARINE CORPS UNITS		STAGING AREA	LOADING AREA		REMARKS
TASK GROUP OR UNIT	TYPE, HULL NO.	DESIGNATION	COMPOSITION		TIME	SITE	
117.1.2	T-91-5	1st Plat (reinf) Co. B 1/7	1st Plat. (33) Corpsman (3) Det Engr. Plat (4) Total (40)	A-214-CL	0715	S-1	
117.1.2	T-91-6	2nd Plat (reinf) Co. B 1/7	2nd Plat (30) Corpsman (3) M.G. Tm (5) Total (38)	A-214-CL	0715	S-2	
117.1.2	T-91-1	Co. HqCo. B 1/7 Wpns Plat Co. B (-)	CoHq (7) Det Eng Plat(4) Corpsman (2) Wpns Plat (27) Total (40)	B-305-CL	0720	S-2	
117.1.3	T-92-2	3rd Plat Co. B 1/7	3rd Plat (36) Corpsman (3) Total (39)	B-305-CL	0720	S-1	
(NOTE 1)	(NOTE 1)	(NOTE 2)	(NOTE 3)	(NOTE 4)		(NOTE 5)	(NOTE 6)

Notes

1. Input for these columns is provided by the Navy task group/unit commander. It includes the task group/unit assignment and type and number of each boat assigned.
2. The Marine Corps unit designation describes the tactical elements to be embarked.
3. The composition column describes the components of the Marine Corps unit, lists the total number of personnel to be embarked plus any major item of equipment (i.e. radio, jeep, 155mm howitzer, etc.)
4. When embarking into river assault craft from the river base, the staging area column lists the compartment number of the ship in which staging is to be conducted. On a land base it may designate a specific location on the base. The staging area column need not be completed for a company-sized or smaller operation.
5. The loading area and site column prescribes the lettered loading area and specific numbered site within the area. In the case of an afloat base, the loading area and site column lists the loading station. Loading will normally be by accommodation ladder to an AMMI pontoon having one to three stations. The loading area is either port or starboard and the loading sites are numbered from forward to aft, 1, 2, and 3. At land bases pontoon/pier loading areas and sites will also be numbered to facilitate orderly loading.
6. The remarks column is used to list requirements for prepositioning heavy equipment supplies on the pontoon for expeditious loading, or for preloading of vehicles, artillery pieces, etc. If assault boats are to be towed, this should also be listed in this column.

Figure 12-1. Sample Loading Plan

lifejackets prior to loading and unloading. All harness gear will be unbuckled while loading and unloading, and all troops and boat crews will wear lifejackets during loading and unloading. To the maximum extent, all troops should have both hands free; they should pass heavy equipment between river assault craft and pontoon piers prior to loading and unloading. Personnel required at each loading or unloading area are:

1. One hospitalman or medical aid man

2. The ship/craft loading officer

3. One safety officer

4. Two swimmers with harnesses rigged

5. Two men for each loading/unloading station to handle troop equipment.

12.3 MOVEMENT OF THE ASSAULT FORCE

The movement phase of riverine assault operations begins with the start of tactical loading at the riverine base of operations and ends with the arrival of the main body of the assault force in the river landing area.

When transiting waterways to an area of operations, riverine assault forces must be prepared for unforeseen situations. As rivers and canals narrow or shoreline vegetation increases, so increases the danger from hostile fire, ambush, and mining. During movement to an area of operations, unit commanders will maintain a readiness posture consistent with the enemy capabilities and threat.

12.3.1 Tactical Organization for Movement. The tactical organization for movement should parallel the organization for landing to avoid reorganization upon arrival at the river landing area.

The Navy elements of the riverine assault force are task organized to provide an advance guard, a main body, and rear guard. Essential tasks such as reconnaissance, minesweeping, fire support, troop lift, and escort are assigned to movement groups and units as appropriate.

12.3.2 Preparation for Movement. Prior to departing the riverine base, the Navy commanders will thoroughly familiarize themselves with the waterways to be transited. All available navigational information including depths, river and canal widths, bridges and obstructions en route, tides, and currents will be studied. Latest intelligence including the enemy threat en route, possible mining and ambush locations, population concentrations, and shoreline characteristics should be obtained. Prior to each operation, task group/unit commanders will be provided with a detailed and current intelligence estimate of the area of operations and the movement route. In view of the fact that independent action is frequently required by individual boat crews, task group/unit commanders will ensure that boat crews are adequately briefed on the topics enumerated in this paragraph.

12.3.3 Command and Control. During the movement phase, the commander designated by the mobile riverine force commander exercises operational control of the forces assigned through the respective participating component commanders.

Control measures employed normally include the use of water checkpoints and a movement table to regulate the water movement.

12.3.4 Techniques. The following techniques may be applicable during movement to and from the area of operations:

12.3.4.1 Escort. Whenever possible during both daylight and night transport movement an escort should be provided. Escorts may be riverine assault craft, river patrol boats, or attack helicopters, depending upon the tactical situation. Provision of escorts is the responsibility of the naval commander of the unit controlling the movement.

12.3.4.2 Avoiding Patterns. When operations are being conducted over an extended period, times of transits and routes for troop rotation or resupply will be varied, consistent with operational requirements.

12.3.5 Reaction to Unforeseen Situations

12.3.5.1 Target of Opportunity. Targets of opportunity may occur during movements to and from the objective area. These may be waterborne or on land. Rules of engagement may require that authorization be obtained before engaging such targets. Consideration must be given to the assigned mission before taking action which may delay movement of the force.

12.3.5.2 Attack on the Force. If the force is attacked during movement, immediate action will be taken to neutralize the hostile fire. Command and control boats and armored troop carriers (with troops embarked) should clear the area of attack at best possible speed, unless the decision is made to assault the enemy. If required, naval gunfire, artillery and air support will be requested. When the tactical situation permits, a quick-reaction force may be landed to conduct follow-up operations. If the decision is made to counterattack, river assault craft will land previously designated counterambush forces.

It is always desirable, and often necessary, to control both banks of streams on which riverine forces operate. However, it is especially important to control the shore opposite the area in which landings take place. As a minimum the opposite shore must be controlled by fire and, in many instances, it will be necessary to have troops physically occupy the opposite shore to provide the necessary rear security for the landing force making the main attack.

12.3.5.3 Responsibility. The reaction to unforeseen situations is the responsibility of the element's assigned commander — the man responsible for accomplishing the assigned mission. However, once forces have been landed for ground operations the authority and responsibility for subsequent action ashore must rest with the landing force's commander. See paragraph 2.3.4.

12.4 LANDING ATTACK AND SUBSEQUENT OPERATIONS

The landing attack phase begins with the arrival of the main body of the riverine assault force in the landing area and ends with the seizure of initial objectives. It encompasses preparation of the landing area, landing, initial ground and waterborne maneuver, and special operations in support of the landing attack. Following seizure of initial objectives, subsequent operations are conducted by Marine Corps and Navy forces in accordance with the concept of operations.

12.4.1 Task Organization. The organization for landing is designed to maintain the tactical integrity of assault units, to provide flexibility in reacting to the situation encountered, and to facilitate control of subsequent maneuver. The basic unit is the boat team.

12.4.2 Landing Plan

12.4.2.1 Purpose. The landing plan supports the scheme of maneuver. It includes the sequence, time and place of arrival of combat unit(s), combat support and combat service support units in the landing area(s), plans for reorganization, and securing initial objectives.

12.4.2.1.1 Landing Areas. Landing areas which encompass one or more river sites are selected to avoid prepared hostile defensive positions. Plans for landing in unsecured areas must assume that the units may have to conduct an assault landing. The Marine Corps force commander, in coordination with the Navy force commander, recommends landing areas to the mobile riverine force commander on the basis of initial objectives, plans for subsequent tactical ground operations, and the capability of assault craft to support the landing attack. Alternate landing areas are selected whenever practicable. Figure 12-2 shows a schematic landing area diagram. The selection and location of landing area are influenced by:

1. Mission and size of the waterborne units

2. Enemy situation and capabilities

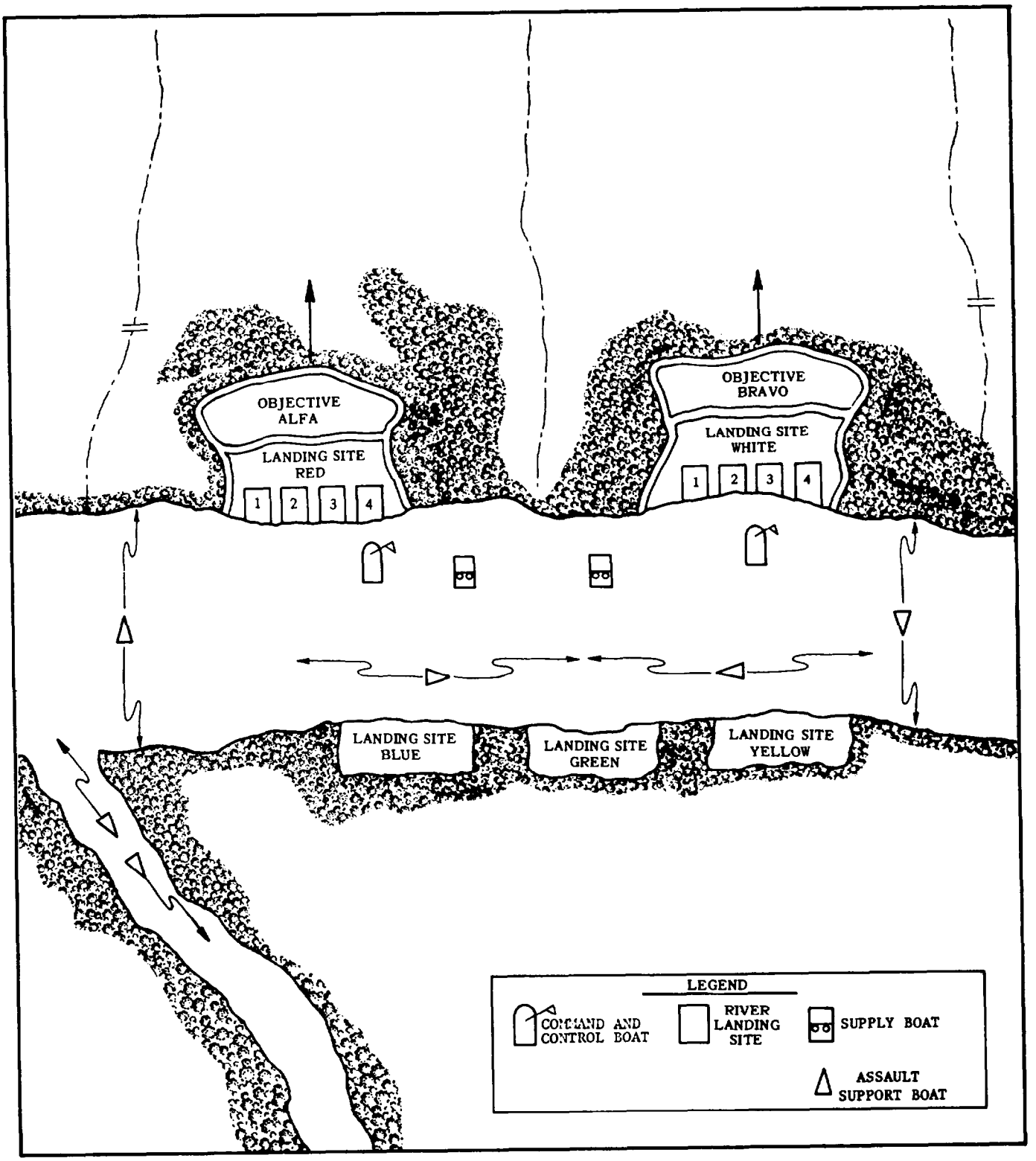

Figure 12-2. Diagram of Landing Area

3. Characteristics of the waterways, adjacent land areas, and airspace

4. Available river landing sites and assault river landing points within these sites

5. Capabilities and limitations of naval craft

6. Nature of subsequent ground tactical operation.

12.4.2.1.2 Riverine Landing Sites. When the riverine landing sites within the selected river landing area are insufficient or inadequate, several elements may have to use the same site in turn. When a single site is used, combat elements are generally delivered first, combat support elements next, and combat service support elements last.

12.4.2.2 Landing. The landing is an exacting operation, requiring combat and combat support elements to be landed as rapidly as possible. Every element must be prepared to contribute its combat power in a coordinated effort to seize and defend the landing area. Plans for landing, seizure of initial objectives, and reorganization are prepared concurrently. They include a scheme of maneuver and a fire support plan.

12.4.2.3 Time. The Marine Corps force commander, in coordination with the Navy force commander, recommends the time for the waterborne landing to the mobile riverine force commander. In selecting the time for landing, consideration must be given to capabilities of the enemy, weather, tides, visibility, characteristics of watercraft being used, availability of fire support and the plan for supporting fires, and the security of the force in transit. Units may land at first light to take advantage of darkness during the water movement while conducting the ground tactical operations in daylight. They may land at last light to facilitate landing and consolidation of forces, then conduct ground tactical operations during darkness. Waterborne landings during daylight present fewer command and control problems and can be better supported by available supporting arms. Waterborne landings may be made at night, or under other conditions of reduced visibility to gain tactical surprise and reduce the effectiveness of hostile fire. Limitations of night landings are

1. Accurate delivery of units to their landing area is more complicated.

2. Air, riverine assault craft, and artillery fire support may be less effective.

3. Seizure of initial objectives, and consolidation and reorganization of forces, if required, may be more difficult and time consuming.

12.4.2.4 Initial Objectives. Rapid assembly and reorganization ashore are essential following the landing attack. Assignment of initial objectives to subordinate units will facilitate assembly of the units and provide for initial defense of the landing area. Characteristics of initial objectives should include:

1. Protection from hostile observation and fire

2. Sufficient size for dispersion

3. Proximity to assault landing areas

4. Ease of movement in carrying out subsequent ground tactical operations

5. Ease of identification.

12.4.3 Landing Techniques. In the final approach to the river landing site, preparatory fires may be delivered by artillery, river assault craft gunfire, and air and naval gunfire. Predesignated fire support craft mark the limits on either flank of the river landing site. These craft may beach if conditions permit in order to deliver more effective fire as the troops land. A command and control boat should be stationed in the vicinity of the landing of the transport craft. Escort craft are stationed to protect the transport craft. Escort duties may include establishing patrol barriers up and down stream from the river bank site to seal river approaches and along the opposite bank to protect the rear of the force.

When the transport craft of the first wave reach positions opposite the river landing

points, they turn (independently or upon signal) and beach on the shore where troops are landed (*see* Figure 12-3). After debarkation, the transport craft retract, clear the river landing site, and move to act as a blocking force or transit to an assembly area by prescribed routes, avoiding interference with succeeding waves. During landing operations, riverine assault craft may also provide afloat command facilities, close fire support, evacuation, and selective resupply.

If available, assault amphibian vehicles (AAV) may be used to land troops. Depending on the situation, troops may be debarked or stay aboard AAVs to achieve the objective ashore.

When the landing is completed and the Marine Corps mission is to operate ashore for a specified period, river assault craft will assemble at a designated staging area; take up patrol, blocking or fire support stations; conduct minesweeping operations; and perform other assigned tasks. If the Marine Corps force is to remain ashore, all or part of the supporting riverine assault craft may be returned to the riverine base, depending upon the mission and the tactical situation.

12.4.4 Scheme of Maneuver. Riverine assault operations are strike operations. Riverine schemes of maneuver are normally designed to fix, entrap, and destroy a hostile force in a

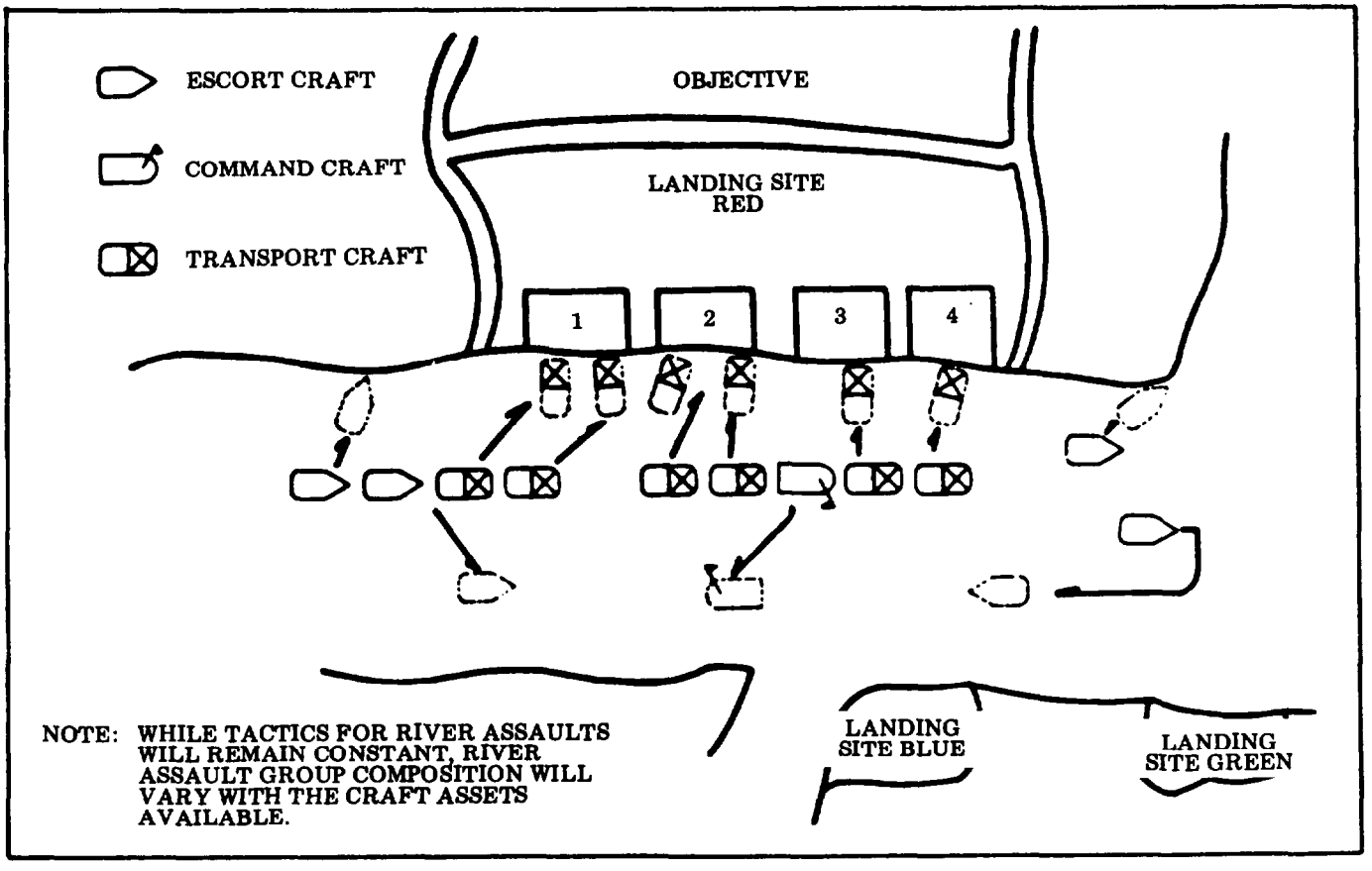

Figure 12-3. Typical River Assault Landing

given area of operations. The lack of definite intelligence may make it necessary to base the selection of objectives on terrain rather than a hostile force location. However, the primary objective is the hostile force, not the terrain itself.

Pressure must be maintained once contact is made, and forces must deploy rapidly to fix the hostile force in a killing zone where maximum fire support can be used. Marine Corps assault units close with and destroy or capture the hostile force.

Riverine assault operations capitalize on supporting watercraft capabilities and the tactical flexibility inherent in the continuous availability of assault support craft to support tactical maneuver. Naval craft may:

1. Transport and support Marine Corps units in the assault

2. Withdraw or redeploy troops

3. Act as, or in support of, a blocking force

4. Conduct waterborne reconnaissance, security, and combat patrols

5. Transport a raiding force

6. Displace crew-served weapons

7. Transport reserves

8. Perform resupply and evacuation

9. Serve as command or elements

10. Serve as mobile aid stations

11. Provide direct and indirect fire support

12. Evacuate prisoners of war (POW), defectors, and detainees

13. Perform damage control, salvage, and EOD operations (on a limited basis).

To take maximum advantage of available watercraft and exploit terrain characteristics, planners must consider all possible uses of watercraft and water routes when selecting objectives. They must also determine short-term requirements for watercraft by other units participating in the operation, and provide for pre-positioning, security, and control of such craft.

12.4.5 Reserve/Reaction Force

12.4.5.1 Planning. As in all military operations, the retention of a reserve force is highly desirable in all riverine operations. Riverine operations normally have destruction of the enemy forces as their primary mission and do not orient on terrain objectives to the extent that most other operations do. While the reserve force may be committed to assist other elements of the force, its primary employment should be to capitalize on opportunities to destroy enemy forces. In this regard, the reserve force can be more appropriately thought of as a reaction force. Reaction operations require flexibility, careful planning, coordination, and reliable communications between all elements. Reaction forces meet established reaction times through planning, rehearsals, and pre-positioning.

12.4.5.2 Evaluating Requirements. The commander must ensure that a valid requirement for commitment of the reaction forces exists before he requests or commits it. Helicopterborne reaction forces can deploy directly against located enemy positions and are usually the preferred type. Elements on airborne alert are expensive in terms of resource expenditure; therefore, their use is infrequent even though they are the most responsive type of reaction force. Waterborne reaction forces can be available for rapid and effective commitment in the riverine environment and will often be the only type available. Reaction forces, in the desired condition of readiness, are maintained in assembly areas either at land bases or at afloat bases. To facilitate immediate employment of the reaction forces, the commander ensures completion of all possible preparations in advance.

12.5 SUPPORTING ARMS

Supporting arms are used during the landing attack primarily for close support of the

riverine assault force, and require the coordinated employment of artillery, assault craft fire, naval gunfire, and close air support. The use of supporting arms will be in accordance with current service doctrine.

12.5.1 Artillery. Standard artillery procedures should be followed and each battery should be capable of conducting independent fire direction from craft, barges, or ashore.

The use of all means of mobility is a key factor when employing artillery in riverine operations, since artillery frequently must be repositioned prior to the assault landing. This usually requires that artillery displacements be supported by air and other artillery during movement. Additional security forces may be required as temporary augmentation to the displaced unit.

Lack of adequate position areas may deny use of the quantity and caliber of artillery normally dictated by hostile strength and area characteristics. Positions will usually be relatively small and established in insecure areas. The absence of firing positions in defilade, lack of cover and concealment, and positioning in insecure areas will frequently require use of direct fire techniques and heavy expenditures of anti-personnel ammunition for self-defense.

Because of lack of survey control and concurrent meteorological data, adjusted fires will be the primary method used to obtain maximum effect on the enemy.

Artillery batteries may be deployed by either surface craft, helicopters, or on barges which act as firing platforms.

Buoy markers should be placed on artillery weapons and prime movers to facilitate salvage operations.

Positions selected for either land or afloat fire support bases should permit providing fire support for the maneuver force while en route to or from the area of operation.

Normally, the lack of commanding terrain in the area of operations increases emphasis on aerial observation, particularly during waterborne movement. A combination of aerial observers with forward observers on the ground allows the best artillery coverage, coordination, and surveillance of the battle area.

Support of water movements and patrols requires special emphasis on replotting targets and establishment of control points from which firing data can be transferred.

12.5.2 Assault Craft Gunfire. Assault craft gunfire is supporting direct and indirect fire provided to the Marine Corps force by naval craft. These craft deliver direct fire with a wide variety of automatic weapons. Naval craft can also provide indirect fire support with naval mortars installed on selected craft. A high degree of coordination is required to provide support of troops ashore.

The Marine Corps force commander of the riverine assault operation is responsible for coordination of all fires, including assault fires, in support of operations ashore.

Once troops begin landing, all assault craft fire into the area of operations must be either delivered at the request of the supported unit, or cleared by the Marine Corps force commander.

12.5.2.1 Direct Fire Support. Assault craft providing direct fire in support of a specified Marine Corps unit for one phase of an operation will normally be in direct support of that unit. The boat unit commander advises the supported commander concerning the capabilities of assault craft weapons. These weapons may be given neutralization, interdiction, harassing, or destruction fire missions. They may augment infantry weapons with fires through gaps in friendly lines. Whatever the mission, their fires must be executed in coordination with the supported unit commander's fire support plan.

12.5.2.2 Indirect Fire Support. Craft equipped with indirect fire weapons may be employed as a fire unit. With all craft in close proximity, one can direct the fires of all to provide supporting indirect fires.

Normally, indirect fire will be observed by an aerial or ground observer who can communicate directly with supporting boats or through the ground unit fire support coordination center.

12.5.3 Naval Gunfire. Naval gunfire support can be used for riverine operations. Current doctrine and procedures apply.

Shore fire control parties are assigned to Marine Corps forces as required.

12.5.4 Close Air Support. Close air support will be provided by using current doctrinal principles and procedures.

12.6 PLANNED WITHDRAWALS

The planned withdrawal phase covers the period between completion of the mission ashore and the completion of unloading upon returning to the riverine base of operations. During the backloading phase of the withdrawal, special attention must be given to security measures to protect the forces as the strength ashore decreases. Fire support to cover the withdrawal must be planned and an adequate reaction force must be designated (see NWP 13-1 for additional information).

CHAPTER 13

Waterway Interdiction, Surveillance, Barrier, and Security Operations

13.1 PURPOSE

Waterway interdiction, surveillance, barrier, and security operations are conducted by specially configured craft and aircraft in the waters of the riverine area. These operations may be used to gain control of waterways preparatory to subsequent riverine assault operations or they may be conducted by Navy forces alone, with Marine Corps elements provided only as a reaction or security element.

Waterway interdiction and surveillance and security operations serve five basic purposes:

1. Protect friendly lines of communication
2. Deny hostile forces the use of waterways
3. Collect intelligence information
4. Perform security missions
5. Enforce population and resources control.

To be effective, waterway interdiction and surveillance and security forces must include both surface craft and aircraft. The type of craft selected will depend on the environment, the enemy threat, and the assigned mission. The air and surface operations are mutually supporting and may be conducted independently or concurrently. During waterway interdiction and surveillance and security operations, close coordination is required between airborne and waterborne patrols in the employment of mutually supporting fires.

Effectiveness of the combined surface and airborne operation can be aided by rigid enforcement of curfews and traffic/zone restrictions, as appropriate.

Remote sensors used in conjunction with supporting arms or remotely fired demolitions are an effective method of interdiction offering minimal risk to friendly personnel.

13.1.1 Scope of Operation. Pacification of a region requires accomplishment of three major tasks:

1. Clearing an area by regular military forces
2. Securing by indigenous paramilitary forces, thereby releasing the regular forces to repeat the clearing process in adjoining areas.
3. Developing the secured area through political, economic, and social programs.

A vital aspect of the clearing and securing phases of pacification is the control of all resources, including those introduced from outside the country, in order to deny the enemy the means to wage war. Isolating the enemy from his support takes away his operational initiative and makes his primary task that of supply. This greatly facilitates the clearing of an area by military forces and the identification and elimination of indigenous supporters.

For effective control of resources, all modes of transportation must be controlled, including waterways and rivers. Effective control of the smaller rivers and canals in the riverine area can best be maintained by controlling the banks and adjacent territory; however, connecting tributaries between major waterways may be controlled by patrol-blocking action. Waterway interdiction and surveillance and security forces will conduct patrols and inshore surveillance to enforce curfews and prevent enemy infiltration, movement, and resupply along and across the major waterways of the area.

Waterway interdiction and surveillance and security operations often will be conducted with the added hazards of operating continuously within weapon range of the enemy.

13.1.2 Command Relationships. The commander of the waterway interdiction and surveillance and security forces will be *designated by the mobile riverine force commander and will exercise operational control of assigned forces.*

The command relationship structure should be flexible, with necessary changes being implemented as required.

13.2 TACTICS AND PROCEDURES

An individual waterway interdiction and surveillance and security operation may be called a *patrol*, and consists of two or more craft in execution of a specific operation. This section outlines various tactical considerations and procedures; however, these are not all-inclusive, nor do they necessarily apply to all phases of waterway interdiction and surveillance and security operations.

13.2.1 Area Familiarization. Prior to initial patrols, commanders will arrange for area indoctrination and familiarization of crew personnel.

13.2.2 Secondary Missions. Patrols may be modified at times to accommodate requests for combat support of forces ashore, including blocking and similar operations.

13.2.3 Response to Hostile Fire. The response must be governed by the type and volume of fire received and the rules of engagement in effect. The presence of civilian populace and/or other friendly forces in the operational area must also be considered. Rules of engagement and measures to prevent mutual interference must be observed.

13.2.4 Mutual Support. Multiple boat patrols are frequently useful in providing mutual support.

13.2.5 Time and Pattern of Patrols. Boats will conduct a random patrol, and not establish a pattern such as passing through the same points on subsequent passes, or at regular intervals. This may invite mining or ambush.

13.2.6 Readiness. Readiness condition appropriate to the area being patrolled will be maintained at all times to include alertness to ambushes.

CHAPTER 14

Special Operations

14.1 SCOPE OF OPERATIONS

Riverine special operations are ancillary or supporting operations conducted by the MRF as adjuncts to a riverine assault operation or a waterway interdiction and surveillance and security operations. Special operations are normally characterized by employment of procedures and techniques which require special training and equipment. The capability to conduct these operations is generally limited to specific units which have been assigned primary mission responsibility within the service organization.

The special operations set forth in this chapter represent the minimum capability required by the mobile riverine force commander to conduct sustained operations in a riverine environment. The magnitude of a particular operation, the enemy threat, or terrain considerations may make it necessary to augment assigned units and provide specialized units in support.

14.2 RECONNAISSANCE AND WATERWAY CLEARANCE

14.2.1 Determination of Waterway Characteristics. Gathering information regarding waterway characteristics is a prerequisite to the proper use of waterways. Since waterway characteristics constantly change because of seasonal effects, this requirement is continuous throughout the operation. The methods of determining waterway characteristics should be included in training, since gathering reliable information involves techniques which may not be familiar to all personnel. Surface efforts should be coordinated with the aerial reconnaissance plan.

14.2.2 Waterway Clearance of Barricades and Obstacles. The mobile riverine force must have a capability for clearing navigable waterways of barricades and obstacles. An orderly and continuing barricade removal program is required throughout the riverine environment. Close coordination with local officials is necessary before any barricade or obstacle is removed.

14.3 RIVERINE BASE SECURITY

In providing for the security of the riverine base of operations, measures must be taken to defend the Navy mobile riverine base elements, troop installations, equipment, lines of communication, and nearby key friendly installations. Enemy characteristics, capabilities, and weaknesses must be constantly studied. Vigilance and sound security measures will reduce the enemy's threat to operations.

14.3.1 Command Responsibility. The mobile riverine force commander is responsible for the security of the riverine base and for integration of the local defense plan into the overall area plan. He may designate a base defense commander for all jointly occupied bases. The base defense commander will exercise operational control of all forces assigned for purposes of base defense. Plans must provide for unity of effort and ensure the most efficient use of available means of defense. Units will be tasked according to their respective capabilities.

14.3.2 Base Defense Planning. The riverine base of operations must be organized for defense against attack from any direction. Plans must provide flexibility and must position reserves for rapid reaction to any threat. Tasks for ground combat forces and supporting weapons are to detect, engage, and destroy or eject an attacking force. All elements within the base area must be appropriately tasked and/or assigned sectors of responsibility.

The size of the base area may limit defense in depth. Combat outposts and mutually supporting strongpoints forward of the riverine base main defense positions are employed to

add depth to the defense. Defensive fires are planned throughout the area. Patrols, listening posts, and obstacles are included in the plan.

Plans should be prepared, rehearsed, evaluated, and revised if necessary, to ensure immediate reaction to any threat.

The ability to disperse is limited in most riverine base areas. This deficiency must be compensated for by increasing the depth of the security area through aggressive patrolling and the use of airborne observers. Other passive measures such as camouflage, varying normal routines, and control of entrance of noncombatants into the base area should be employed. Remote monitored ground sensors can also increase the depth of the security area by providing an effective warning barrier against infiltration attempts. Routine must be altered frequently to prevent the disclosure of information about locations, compositions, and habits of the defenders.

14.3.3 Riverine Base Defense Areas. A riverine defense base area defense organized for all-around defense must provide a security area, a forward defense area, and a reserve area. Figure 14-1 shows an afloat base defense area. The elements within these areas vary in composition and strength, as determined by the specific mission, capabilities of the hostile force, terrain, location and size of the base area, and the strength and capabilities of forces available.

14.3.3.1 Security Area. This is a reconnaissance and surveillance area which extends forward from the forward defense area to the limit of employment of security elements. These elements are far enough forward to:

1. Provide timely warning of the enemy's approach

2. Deny the enemy direct fire into the base areas

3. If possible, deny the enemy observed mortar fire into the base area.

Security elements also prevent unrestricted observation of the base area and the undetected assembly of enemy forces within striking

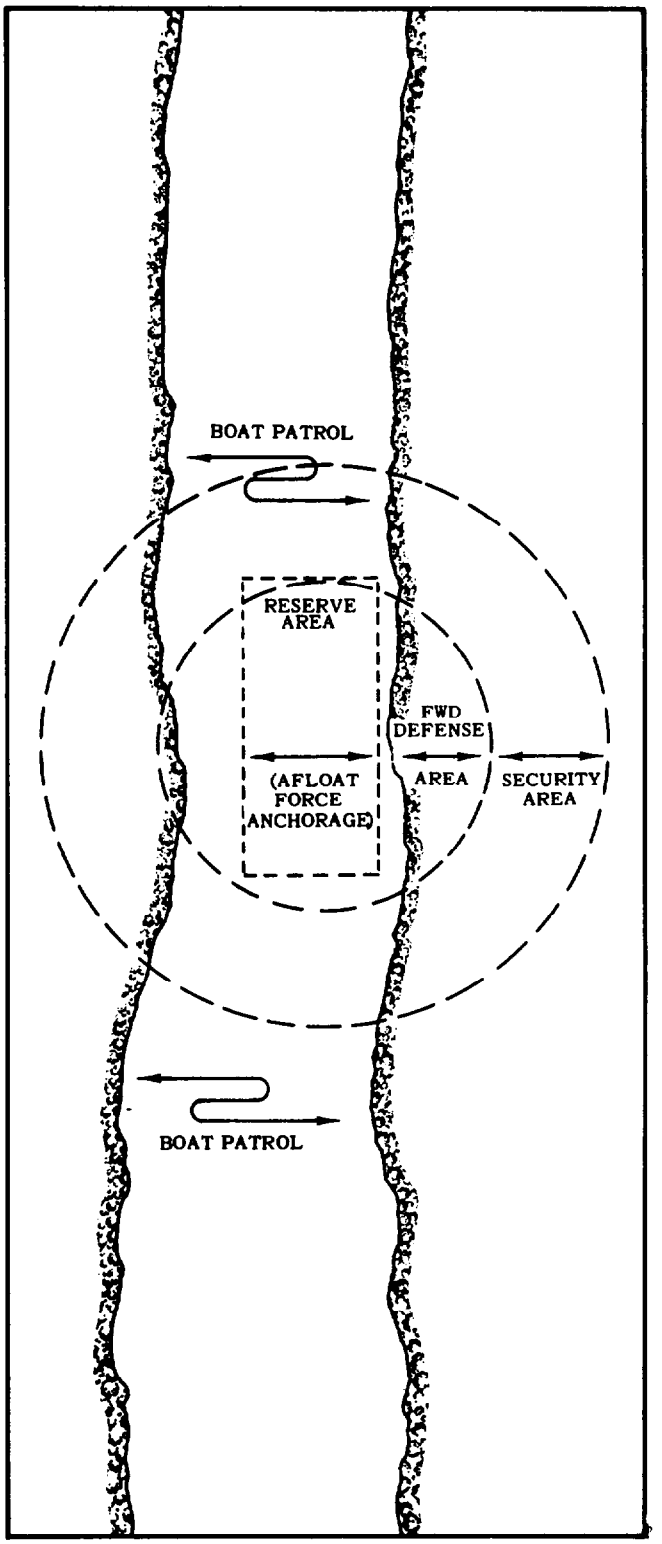

Figure 14-1. Base Defense Areas (Afloat Base Shown)

distance of the base. The organization of the security elements provides an appropriate balance of available combined and supporting arms. The base NOC controls fire and maneuvers and integrates all units into an effective defense.

14.3.3.2 Forward Defense Area. The forward defense area encompasses those positions and forces necessary to engage the enemy in decisive combat to preserve integrity of the riverine base. Within this area, forces are organized to repel and destroy the enemy force and prevent his entry for destruction of the riverine base. The forward defense force is provided defense capabilities according to the enemy's attack capabilities.

14.3.3.3 Reserve Area. The reserve area is the riverine base itself. For both land and afloat bases, personnel not employed in the security and forward defense areas are assigned sectors within the reserve area. In addition to forces regularly assigned missions as part of the reserve, all units and personnel not assigned a security or defense mission are incorporated into the defense plan to defend installations within assigned sectors.

14.3.4 Operations Center. The mobile riverine base operations center must be able to coordinate all forms of maneuver (e.g., patrols) and defensive positions with supporting arms and integrate them into an effective defense. Operations, intelligence, appropriate fire support, and other friendly force representatives should be present in the operations center.

14.3.5 Defensive Measures. The MRF is vulnerable to virtually all direct and indirect fire weapons, with mortars and recoilless weapons a particularly significant threat. An aggressive plan is required to detect infiltration of such weapons and locate their firing positions. When formulating the plan for defense against mortar and recoilless rifles, the mobile riverine force commander considers likely firing position, intelligence reports, reports by indigenous personnel, and resources available. He plans passive defensive tactics to minimize casualties and damage and aggressive action to locate and destroy hostile forces.

14.3.6 Defense of an Afloat Base. Although possibly located in hostile territory, the riverine base of operations must be relatively secure before barracks ships arrive. The base area selected should have enough room to moor the afloat force without impeding the normal flow of indigenous commercial and military traffic.

The afloat base ships are subject to a variety of waterborne threats. The enemy can be expected to employ swimmers, limpet-type mines, drifting contact mines, suicide attack boats, or drifting boats loaded with explosives. The enemy may also attack with mortars, recoilless weapons, and machineguns.

Additional considerations in preparing the defensive plan include:

1. Congestion of personnel and vulnerability of the afloat base as they affect the choice of forces to be used for defense.

2. Integration of all weapons into a coordinated fire support plan.

3. Use of surveillance equipment.

4. Coordination of swimmer defense requirements employing multisensor systems, including radar, sonar, optics, and waterborne sensors in conjunction with explosive weapons, electrical deterrents, and physical barriers.

5. Designation of a command ship to serve as the control center. Overall communications requirement must be considered when the tactical operations center is selected.

6. The use of regular boat patrols to control indigenous civilian and military traffic, and detect and destroy waterborne attacks by swimmers, drifting mines, or suicide boats.

7. Contingency plans to provide for situations where tide, current, or weather has an influence on the defense of the afloat base.

8. Lighting required to perform repair and maintenance tasks.

9. Establishment and enforcement of a river curfew and a traffic plan to divert or escort river traffic past the base area anchorage.

10. Use of boat patrols to protect routes of communication and resupply.

11. Use of aircraft to conduct aerial reconnaissance.

The latter mission may require forces to operate on a continuing or periodic basis to achieve and/or maintain dominance of designated water routes. For example, elements of a reconnaissance unit may be used with naval riverine assault craft to conduct continuing combat patrols on the waterways. The habitual association of a reconnaissance unit and assault craft will improve effectiveness of Marine Corps forces through increased familiarity with the craft.

Ship's crew may require augmentation from Marine Corps forces in unusual cases to act as sentries (watch standers) and boat patrols. Normally, administrative units of the Marine Corps forces will be tasked for this purpose and only as a last resort in an emergency situation will combat troops be used. Marine Corps personnel will be briefed concerning:

1. The overall defensive plan, including locations of friendly forces, ships, and craft.

2. Location of all embarked personnel during general quarters.

3. Navy plans for darkening ship and maintaining watertight integrity.

4. Specific tide and water conditions which require added security, such as slack tides, periods of reduced visibility, water conditions during bad weather, and so forth.

5. Detection and reaction plans against special threats. These plans should give specific instructions on the detection of swimmers, the approach of indigenous craft, and the use of defensive measures.

6. Fire discipline and control procedures for explosives and individual and crew-served weapons.

14.3.7 Security of Anchorages. An "anchorage" is the location of ships and craft not underway, whether anchored off a river bank, beached, secured to a pier, or otherwise made fast for a relatively long period of time. It is necessary to differentiate between temporary halts during movement and periods spent in ports and riverine bases. In the latter case, the enemy will have more time to prepare his attack, which may consist of swimmers, drifting mines, artillery/mortar fire, or raids. Systematic firing on all suspicious floating debris, use of patrol craft, and detonation of grenades at irregular intervals in the approaches to anchorages may be employed as defensive measures.

Protection against artillery is treated as a counterbattery problem. The Marine Corps force normally is tasked to deploy forces ashore to prevent observed fire from being placed on ships and craft of the mobile riverine force. Anchorages should be shifted at irregular intervals to avoid preplanned firings.

The adjacent waters should be patrolled by small craft. These craft should not operate out of sight of one another, so that individual craft are not attacked and destroyed before they can be supported or can support each other.

14.4 MINE WARFARE OPERATIONS

Riverine mine warfare operations include mining and mine countermeasures. Mine countermeasures assume primary importance because of the nature of the environment, enemy tactics, and the need to keep key waterways open. In certain areas it may be tactically advantageous to restrict use of designated waterways and disrupt enemy movement by mining; however, waterway control in the riverine area of operations is normally maintained by continuous patrol, surveillance, and interdiction.

Environment will impose a variety of restrictions and limitations on mine warfare operations in inland waterways.

14.4.1 Threat. To assess the mine threat and evaluate countermeasures which might be employed, it is necessary to consider the various environmental characteristics, enemy mining capabilities and tactics, ambush threat, and waterway hydrography. Mine attacks normally are conducted against river craft in locations where the banks of waterways afford protection to the enemy. Mining is frequently used in conjunction with ambushes. Conventional naval mines or land mines may be encountered. Mines can be constructed from dud ordnance such as recoilless rifle or mortar shells and bombs. These mines may be surface or subsurface and are usually bottom moored and electrically detonated. Time delay detonation techniques also may be used. Contact drift mines may be encountered as well as boats or rafts loaded with explosives, detonated by time delay or contact devices. Because of their simple construction and low cost, pressure activated mines may be implanted along shallow waterways. Limpet-type mines which might be attached to the ship or anchor chain by swimmers or drift techniques constitute a serious threat to an afloat base.

14.4.2 Mine Countermeasures. Mine countermeasures include all methods which may be used to counter the threat of an enemy mining effort. One of the most effective countermeasures is to interfere with or restrict enemy minelaying activities. Patrol and surveillance and interdiction activities must be emphasized as a preventive measure and included in mine countermeasure planning and operations.

Countermeasures employed against mines already laid require locating the mines. Classification of mines in the riverine environment is difficult because of waterway characteristics. Therefore, primary emphasis is placed on minesweeping and area clearance.

14.4.3 Passive Protection. When the threat of drifting mines or explosive charges or swimmer delivered limpet mines is great, the use of nets and/or booms will provide some protection for anchored ships/craft. However, in swift river currents, mooring tackle must be extraordinarily heavy because the build-up of floating debris will often carry away even the heaviest equipment. The most effective countermeasure against this type of threat is an alert watch and patrol around the anchorage or base area.

14.5 SALVAGE OPERATIONS

Salvage operation require highly skilled personnel with specialized equipment. The salvage effort must provide for highly mobile teams that can deploy to remote areas on short notice.

A salvage capability is most important because without this capability the number of lost craft is likely to be extraordinarily high. Small craft, especially RAC craft, are especially vulnerable to accidental flooding.

14.5.1 Mission of Salvage Units. The mission on salvage units is to provide salvage, repair, diving, and rescue services to the riverine commander. To effectively carry out its mission, the salvage unit must have a mobile lift capability to lift the heaviest craft assigned to the riverine commander.

14.5.2 Salvage Support. Salvage personnel are highly trained and skilled and require only area security and support from the AO commander. When requesting salvage support, the AO commander should provide the following information:

1. Type of craft and how sunk

2. Water depth, visibility, tide ranges, and sea state

3. Security and support available.

Prior to commencing a salvage operation, a salvage plan is prepared by the salvage unit taking into consideration the following factors:

1. Should the sunken craft be refloated, removed, or destroyed?

2. Can the salvage job be accomplished using locally available assets?

3. Can adequate security for the salvage forces be provided?

4. Is transportation available to bring the required equipment to the salvage site?

14.6 COVER AND DECEPTION

Riverine cover and deception operations are those special operations undertaken to deceive the enemy in order to enhance the mobile riverine force's ability to accomplish the mission.

14.6.1 Need for Cover and Deception Operations. The need for cover and deception operations in a riverine area is based on the following factors:

1. Surprise is essential to a well-planned military operation. Cover and deception is a means of achieving the tactical advantage of surprise.

2. In a riverine area, the MRF may be under constant surveillance by enemy agents who may also have the capability to analyze communication systems.

14.6.2 Planning Cover and Deception Operations. Cover and deception planning should be conducted concurrently and in coordination with river assault and waterway interdiction and surveillance plans. The same analysis required for a military plan is also required for a cover and deception plan.

The special operations unit with the mission to assist commands in cover and deception operations should be tasked to assist with the planning.

14.6.3 Security. Security is paramount in any cover and deception operation. Distribution of the cover and deception plan should be limited to those with a specific need to know.

14.7 UNCONVENTIONAL WARFARE OPERATIONS

Mobile riverine force unconventional warfare (UW) operations are normally conducted within enemy or enemy-controlled territory by specialized military and paramilitary forces. Naval UW resources assigned to the MRF normally operate clandestinely and are capable of performing the following missions:

1. Interdict enemy lines of communication

2. Destroy or sabotage enemy craft, base areas, and caches

3. Collect intelligence

4. Implant and recover sensors

5. Disrupt enemy political infrastructure

6. Assist with evasion and escape of friendly forces from the enemy.

The nature of UW requires that particular emphasis be given to the mutual planning process to ensure that operations are generated in support of the overall mission. UW operations must, therefore, be closely coordinated with conventional operations being conducted in the same or adjacent areas.

Security is of prime importance during the planning, execution, and in many instances, after a UW operation. Distribution of UW operations plans and annexes must be held to an absolute minimum and include only those commands which are required to support or coordinate the activities involved and, in these instances, only to the degree which they need to know.

Further information regarding the specific missions and capabilities of naval UW resources is contained in NWP 15-1.

14.8 PSYCHOLOGICAL OPERATIONS

Psychological operations are of major importance to both the total military as well as civil affairs effort. These psychological operations include all actions and forms of propaganda designed to influence the behavior of enemy, neutral foreign, and friendly foreign target groups. Military participation in psychological operations is relative to tactical operations as well as to civil affairs and population and resources control programs.

A well-planned psychological campaign is vital in countering an insurgency, and will contribute substantially to reducing the enemy's effectiveness and to gaining the support of

friendly and neutral segments of the local population.

Initial military operations disrupt commerce and inconvenience or even endanger large segments of the local population. The populace usually has been thoroughly propagandized by the insurgent force. Therefore, indigenous and foreign military forces will likely be greeted with hostility, suspicion, and at best, passive resistance.

To obtain the support of the civil population, the words, deeds, and actions of the military force must be carefully considered for their effect on the populace. The creation of a favorable image of the national government and its military forces fosters cooperation of the civil population, to the detriment of the insurgent's cause.

The responsibility for conduct of psychological operations rests with commanders at all echelons, from the headquarters through units in the field and ending with the individual serviceman. Policy direction, propaganda materials, and guidance as to themes, target groups, intelligence, and specific programs can be expected from higher headquarters. Local commanders must adapt the materials available to achieve the best effect in their own areas.

14.9 CIVIL AFFAIRS

Civil affairs operations are activities that obtain for a military commander essential civilian cooperation and support, or reduce civilian interference in attainment of the military objective. They affect the relationship between the commander's military forces and the indigenous civil authorities and people. These operations may require military forces to perform some or all of the functions normally performed by the indigenous government. Civil affairs are the responsibility of command, and the relationships with the local civil authorities and population may require the commander to establish both personal and organizational contacts.

Military civic action is one of the major activities of civil affairs in a riverine area. It consists primarily of encouraging the indigenous military forces to participate in projects useful to the local population. U.S. forces also at times advise or engage in direct civic action. Such action serves to improve the image of the friendly military forces in the eyes of the population as well as alleviate or eliminate some of their basic grievances upon which the insurgency has been fostered.

CHAPTER 15

Logistics

15.1 LOGISTIC SUPPORT PROVIDED TO THE MOBILE RIVERINE FORCE

Logistic support provided by external forces must be responsive to the needs of the mobile riverine force. A system must be established with the capability of performing the following functions:

1. The provision and transportation of supplies and equipment to locations designated by the MRF component commanders

2. Evacuation of casualties that are beyond the medical capability of the MRF

3. Operation of maintenance and salvage facilities over and above those authorized by the components of the MRF

4. The evacuation of prisoners and refugees beyond the capability organic to the MRF.

15.2 LOGISTIC SUPPORT PROVIDED BY THE MOBILE RIVERINE FORCE

15.2.1 Basic Consideration. The basic consideration with regard to logistic support provided by the mobile riverine forces is to make the assault elements of the force self-sufficient as long as possible in relation to the operation.

Boats of the riverine Navy force must be designated to accomplish the following logistic functions:

1. Resupply as necessary

2. Maintenance and repair

3. Damage control and salvage

4. Medical aid station

5. Refuelers.

Integration of the logistic requirements of the entire riverine force is required. Requirements for items common to Navy and Marine Corps forces should be jointly planned to avoid needless duplication.

The prescribed load for individual river assault craft assigned to a riverine assault element should include food, water, and ammunition for embarked troops. Resupply of the assault craft in the area of operations will be largely dependent upon the duration of planned operations, as well as the total lift capability of resupply craft.

Means of resupply normally are:

1. Waterborne craft

2. Helicopters

3. Aerial delivery

Consideration should be given to the requirements for escort craft when transiting especially dangerous portions of the resupply route. The withdrawal of surface craft from assault operations for this purpose will temporarily reduce the fire support capability of the force.

15.2.2 Supply and Maintenance Functions. These functions are unique in riverine operations since two services, Navy and Marine Corps forces, operate in conjunction with each other on a continuous basis. This close and constant association lends itself to the establishment and operation of joint facilities which include, but are not limited to, supply, maintenance, and services support.

APPENDIX A

Riverine Operations Terminology

assault craft gunfire. Supporting direct and indirect fire provided to the Marine Corps force by naval craft.

assault support patrol boat (ASPB). A 12- to 14-knot, armed and armored craft that conducted interdiction, surveillance, escort, minesweeping, and fire support for riverine operations in Vietnam era. No longer in inventory.

command and control boat (CCB). An armored craft to provide command and control facilities for riverine operations.

command and control element. A shallow draft craft equipped to provide command and control facilities for field units and river assault craft.

mini armored troop carrier (MATC). An assault support craft which provides troop transport, combat support, and combat service support to the assault elements of the MRF.

mobile riverine base. A group of Navy ships and craft operating in a riverine area as a base for a mobile riverine force, or elements thereof.

mobile riverine force. A force composed of Navy and Marine Corps forces trained and equipped to conduct riverine operations from a riverine base of operations.

naval riverine assault elements. The naval assault craft elements of the mobile riverine force which provide combat support and combat service support to the assault elements of the riverine Marine Corps force.

naval special warfare. Encompasses that set of naval operations generally accepted as being nonconventional in nature; in many cases covert or clandestine in character, including utilization of specially trained forces assigned to conduct unconventional warfare, psychological operations, beach and coastal reconnaissance, operational deception operations, counterinsurgency (CI) operations, coastal and river interdiction; and certain special tactical intelligence collection operations in addition to those intelligence functions normally retained for planning and conducting special operations in a hostile environment.

naval special warfare task group. A naval special warfare task group is tailored from resources of the naval special warfare group (NSWG) staff and its subordinate commands (that is: SEAL teams, SPECBOATRONs, SDV teams) to provide command, control, and communications and may operate unilaterally, jointly, or combined with other military or civilian elements from an ashore or an afloat base.

patrol boat, river (PBR). A high speed, armed and lightly armored patrol boat to conduct riverine waterway interdiction and surveillance operations.

riverine area. An inland or coastal area comprising both land and water, characterized by limited land lines of communication, with extensive water surface and/or inland waterways that provide natural routes for surface transportation and communications.

riverine assault operations. Those strike operations conducted in a riverine area, characterized by the employment of riverine Navy and Marine Corps forces.

riverine campaign. A series of related riverine and supporting operations conducted in a riverine environment and designed to accomplish a common objective, normally within a given time and space.

riverine landing area. A segment of a waterway which includes one or more river landing sites. Both banks of the waterway are normally included in the riverine landing area.

riverine landing point. A point within a river landing site where one river craft can land.

riverine landing site. A specified location along a waterway containing one or more river landing points.

riverine Marine Corps force. The Marine Corps component of the mobile riverine force.

riverine Navy force. Navy component of the mobile riverine force.

riverine operations. Operations conducted by forces organized to cope with and exploit the unique characteristics of a riverine area; to locate and destroy hostile forces; and/or to achieve or maintain control of the riverine area. Joint riverine operations combine land, naval, and air operations, as appropriate, and are suited to the nature of the specific riverine area in which operations are to be conducted.

sea-air-land (SEAL) team. A U.S. Navy command organized, specially trained in naval special warfare, and equipped for conducting unconventional and paramilitary operations; training personnel of Allied nations in reconnaissance in and from restricted waters, rivers, and coastal areas; making hydrographic reconnaissance of approaches to prospective landing beaches; effecting demolition of obstacles, clearing mines in certain areas; locating, improving, and marking of usable channels; channel and harbor clearance; acquisition of pertinent data during preassault operations, including military information; visual observation of the hinterland to gain information useful to the landing force; and for performing miscellaneous underwater and surface tasks within their capabilities. Commonly referred to as SEALs, they are operationally organized into platoons (2 officers/14 enlisted) or further divided into squads (1 officer/7 enlisted).

SEAL delivery vehicle team. A U.S. Navy command organized, trained, and equipped to operate and maintain combatant submersible systems for conduct of naval special warfare. These combatant systems include the MK-VIII SDV, MK-IX SDV, and submarine dry deck shelter (DDS) transport system among others. SDV teams are operationally organized into platoons (2 officers/12 enlisted).

special operations. Secondary or supporting operations which may be adjunct to various other operations and for which no one service is assigned responsibility. These operations are limited in scope and have specific missions not covered by the unconventional or conventional forces, indigenous paramilitary forces, or any mixture of these forces.

tactical area of responsibility (TAOR). A defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support.

unconventional warfare. A broad spectrum of military and paramilitary operations conducted in enemy held, enemy denied, or politically sensitive territory. Unconventional warfare includes, but is not limited to, the interrelated fields of guerrilla warfare, evasion and escape, subversion, sabotage, direct action missions, and other operations of a low visibility, covert or clandestine nature. These interrelated aspects of unconventional warfare may be prosecuted singly or collectively by predominantly indigenous personnel, usually supported and directed in varying degrees by an external source(s) during all conditions of war or peace.

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